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Annual 1924 Catalog

Diamond Quality

SEEDS

GRADUS PEAS



GOLDEN WEST CORN

OREGON GIANT GREEN POD BEANS

BURBANK TOMATOES



# SWEET PEAS

## NEW AND UP TO DATE VARIETIES

Your collection is not complete without the CRIMSON KING one of this season's new introductions.

**CRIMSON KING**—Greatest advance in this color since the introduction of King Edward Spencer, and far ahead of all recent introductions. CRIMSON KING is so distinct from other varieties in the Crimson class that even the passing visitor quickly and easily picks it out as the best and most attractive. CRIMSON KING is of extremely strong growth, and produces thruout the season an abundance of beautiful, very long-stemmed sprays which stand out well from the foliage, and invariably carry more fine four-bloom sprays than three. The color is a solid, rich, deep, clear Crimson thruout, becoming richer in the throat. Flowers are of precisely the same distinct color from bud to "passing off" stage. Entirely free from sunburn and wind scald at all times.

**Pkts. only 25c. each; 5 pkts. for \$1.00.**

**THE PRESIDENT**—Without question the most brilliant in the orange-scarlet class. The flowers are of immense size with good form, and usually borne in fours on strong stems. The color is a brilliant orange-scarlet.

**Pkts. 15c; oz. 75c.**

**ROYAL SCOTT**—The blooms are beautifully waved, of heavy texture and large size, color a deep cerise, closely approaching a true scarlet, and does not burn in the sun. The plant is strong-growing and produces four-flowered stems freely.

**Pkt. 15c; oz. 75c.**

### KING WHITE

One of the newest and most magnificent whites of perfect Spencer type. The immense petals are gracefully frilled, and remarkable for the glistening purity of the whiteness and the perfect finish of the flower. **Pkt. 10c; oz. 50c.**

### MARGARET ATLEE

One of the most perfect of duplex types yet produced. The color is a rich, glowing rose-pink on a cream ground with a subtle suffusion of salmon and amber overlying the entire flower. The blooms are of immense size and exquisite form, beautifully placed and almost invariably produced in fours. The plants are extremely vigorous in growth, and continue to bloom thruout the season.

**Pkt. 10c; oz. 50c.**

### DOBBIE'S CREAM

Probably considered the best cream or primrose so far. It is a vigorous grower, producing large, finely waved flowers, generally four on a stem, and often duplexed.

**Pkt. 10c; oz. 50c.**

**OUR SUPERB COLLECTION OF SPENCERS**—One packet each of the above varieties, including the novelty CRIMSON KING. **\$1.00.**

**STANDARD SPENCER SWEET PEAS**—Six ten-cent Packets for 50 cents, your selection of the color. Twelve 10-cent Packets for \$1.00, your selection. See page 57.

**COLLECTION OF EARLY-FLOWERING**—Eight 15-cent Packets for \$1.00, your selection of colors. See page 56.

## A NEW GIANT FLOWERED ZINNIA

**ORIOLE**—A novelty offered this year for the first time and considered the most beautiful of the Giant Dahlia Flowered class. It is an immense orange and gold bi-color, changing slightly as it ages, but at all times worthy of the beautiful bird for which it is named. The supply of seed this season is very limited and we can only offer it in packets at **35c. each; 3 for \$1.00.**

See page 55 full list of Giant Flowered Zinnias.



*Oriole Dahlia Flowered Zinnias*



*Crimson King*

# Portland Seed Company's Catalog and Seed Annual for 1924



PORTLAND, OREGON

**S**EEDS for 1924—We offer standard varieties that are most satisfactory and profitable to the growers in our territory. We do not speculate in novelties but encourage the selection and improvement of varieties of known commercial value.

**DIAMOND QUALITY SEEDS** are grown from selected strains by the most careful and trustworthy specialists, under our own direct supervision. They are carefully cleaned and graded, then finally tested for germination and purity.

**SEED GRAINS**—The U. S. Grain Standards now make it impossible to market mixed varieties of wheat or other grains at the best prices, and growers will find it necessary and profitable to plant clean, pure seeds of standard varieties. (See grain section of this catalog for those best adapted to the Northwest.)

**NORTHWESTERN GROWN SEEDS AND PLANTS**—Improved varieties of our introduction—have stood the test of time and competition and are established standards in the coast markets. Earliest of All and Pride of Multnomah Potatoes, Golden West Sugar Corn, Oregon Yellow Danvers Onions, St. Valentine Broccoli, Oregon, Yellow Dent Corn, New Oregon Strawberries, Riverside Giant Rhubarb—have won large returns for growers. They will win for you.

**HOME GARDENS**—Carefully planned and planted the Home Garden will produce through a long season a big supply of delicious fresh vegetables for the table and canning that will greatly reduce living expenses.

**POULTRY AND BEES**—If you have a yard raise chickens and keep bees. Eggs and poultry are the best of foods, and bees at no expense and with little care, will produce a plentiful supply of honey, the best substitute for and more wholesome than sugar.

**OUR SEEDS ARE ALL TESTED** in our seed laboratory for purity and germination and only those seeds that are above the standards are used. Our seeds are not sold on commission, therefore we do not have a quantity of unsold seeds returned to us or carried over. Packets are put up fresh each season and you can make no mistake in using **DIAMOND Quality Seed**.

**WE TAKE THIS OPPORTUNITY** of thanking our many customers for their generous patronage in the past, and to assure them that we will continue to do all in our power to merit a continuance of their confidence, and that we aim to give every order, no matter how small or how large, prompt and careful attention.

**USE OUR SERVICE DEPARTMENT**—Our suggestions and recommendations may help you to secure better results, save loss of time and protect you against unnecessary work and expense—a service that is free to you.

## HOW TO OBTAIN OUR CATALOGS

An order from you, either by mail or in person, will insure your getting our catalogs. If you do not receive our catalog or your name is not on our mailing list and you desire a catalog, kindly drop us a card and one will be mailed you, with no obligation on your part.

If you have changed your address since receiving the last issue, we would appreciate your advising us.

PORTLAND SEED COMPANY



## WHEN AND HOW TO ORDER

**S**END in your combined orders for seeds, plants, supplies, etc., at once. We are prepared to fill orders as soon as this Catalog reaches you, and if you do not want all sent now we will send part now and the balance later. The advantage of this is that your order is entered and filled or stock reserved so the complete order or any part can be sent upon notice without delay. If you want part or all of your order held, state it distinctly with date when shipment is to be made. All orders for potatoes, plants and other perishable goods are carefully booked on receipt, and filled in rotation as soon as weather permits. If shipped early, they are at buyer's risk.

**BE SURE TO SIGN YOUR NAME**, giving Postoffice and State. **Do not write letters on the same sheet as orders.**

**USE ORDER BLANK** in the front of your Catalog, **carefully filling out the blank spaces at the top for shipping directions.**

**KEEP A COPY OF YOUR ORDER.** Check goods when received. We use the greatest care in filling, checking and packing orders, but in spite of all, mistakes may occur. Should any happen in your order, advise us promptly, giving order number, and same will be promptly rectified. Do not return goods until you hear from us.

**PRICES.** The prices named in this catalog are those prevailing at the time the catalog goes to press and are subject to market changes in value. Your order will be figured at the price prevailing at the time same is received and where lower you will be protected and refund made according to price. As prices usually advance on many items, toward the planting season, it will be to your advantage to **order early.**

**OUR TERMS ARE STRICTLY CASH WITH ORDER** where arrangements for credit have not been previously made.

**SEEDS POSTPAID BY MAIL.** We send all vegetable and flower seeds in quantities of ten pounds or less by mail, postpaid, to any Postoffice in the United States, at the prices named in this Catalog **unless otherwise stated.**

**EXPRESS AND FREIGHT.** Seeds sent by freight or express means that we deliver the goods to the express or railway company. The purchaser pays all transportation charges on goods. On moderate sized orders we advise express shipment rather than freight. Upon delivery of goods to transportation company, a sale is completed. In event of loss or damage to goods in transit the purchaser must have notation of such loss placed upon his receipt, and may then file claim for loss at his station, or may send the necessary papers to us when we shall gladly enter claim for him, remitting to him as soon as the claim is paid. **Remember that our responsibility ceases on delivery in good order to the transportation company, and it is therefore imperative that every purchase be carefully examined for loss or damage before receiving it.**

**WE DO NOT GUARANTEE REPLACEMENT OF GOODS SENT BY MAIL.** An additional remittance of five cents will insure any mail package.

**PREPAY STATIONS.** When you send in orders to go by freight or express be sure that you add money enough to pay freight charges if your station is a prepay point, which is **always the case when there is no regular agent.**

**SPECIAL QUOTATIONS ON LARGE ORDERS.** Any dealer, market gardener, institution or individual wishing seed in large quantities, is requested to mail us a list of what is wanted, and we will promptly return it with the very lowest market prices. **A letter of inquiry may save you dollars** if you want to buy in quantity. If in need of something pertaining to agriculture not herein listed, write us before ordering elsewhere.

**COMPLAINTS OR PRAISES.** If you are well pleased with our goods and the manner of doing business, tell everyone. If you are not, tell us, so we can please you. Our best efforts will be put forth in filling all orders carefully and promptly in a way that will please you.

**SEND MONEY** by Postoffice or Express Money Order, Bank Draft or Registered Letter. Postage stamps will be accepted for small amounts. Money sent in any other way is entirely at sender's risk.

**NOTE CAREFULLY** that seeds in packets, pounds and ten pounds of one variety are **postpaid**; all other items are F. O. B. Portland, Ore., unless the price is stated otherwise, and money should be sent to cover transportation if sent to a station without an agent or if sent parcel post, balances will be promptly returned. A compliance with this will save expense and annoyance and insure quicker delivery. **Advise how you want your goods shipped.**

**BE SURE TO ORDER EARLY—BEFORE STOCKS ARE DEPLETED.**

**NOTE**—We use every precaution in procuring fresh, pure and reliable seeds, etc., but we, in common with other responsible seed houses, sell our goods subject to the following disclaimer, it being that adopted by the American Seed Trade Association, i. e.:—We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs, trees or plants we sell and will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are to be returned at once.—Portland Seed Company.

**What Our Diamond Trade Mark Stands For.** By reason of our business standing and the experience gained by a quarter century of success in serving the growers of the Northwest, we have established trade relations with the world's best producers and sources of supply. Only by such connections is it possible, in the seed trade, to obtain the select true stocks—the best of the season's production; and when you see our **DIAMOND Trade Mark** on your packet of seeds or item of merchandise you can feel that it is a mark of real quality—**THE BEST OBTAINABLE.**





# DIAMOND QUALITY SEEDS Are Tested Seeds

**T**O further guard the interests of our customers and maintain our standard of excellence, we have installed a modern seed laboratory equipped as recommended by the U. S. Department of Agriculture, placing in charge a certified seed analyst. It is here that final tests and inspections are made, and only those seeds that are above the standards are offered to the public, and bear our **Diamond Trade Mark**—the mark of quality that stamps them as the best obtainable.



We are the only Seed Company maintaining a seed laboratory in Oregon.

### YOU CAN PROTECT YOURSELF

by planting "Diamond Quality" Seeds—  
Tested for purity and germination—  
They are above the standards of the pure seed laws.

## REFERENCE TABLES

Quantity of Seed to produce a given number of plants and to sow an acre

Artichoke, 1 oz. to 500 plants..... 6 oz.	Cress, ¼ oz. to 100 ft. drill..... 1 lb.	Oats..... 2 to 3 bu
Artichokes—White French..... 8 bu.	Cucumber, 1 oz. to 100 hills..... 2 to 3 lbs.	Okra, 1 oz. to 100 ft. of drill..... 8 lbs.
Asparagus, 1 oz. to 800 plants..... 1 lb.	Egg Plant, 1 oz. to 2,000 plants..... 4 oz.	Onion Seed, for sets..... 60 to 85 lbs.
Asparagus Roots..... 7500	Emmer..... 100 lbs.	1 oz. to 150 ft. drill..... 3 to 4 lbs.
Barley..... 2 to 2½ bu.	Endive, ¼ oz. to 100 ft. drill..... 4 lbs.	Onion Sets, 1 qt. to 40 ft. drill..... 8 bu.
Beans, dwarf, 1 lb. to 100 ft. of drill..... 1 bu.	Flax broadcast..... ¾ bu.	Parsnips, 1 oz. to 150 ft. drill..... 3 lbs.
Pole, 1 lb. to 100 hills..... ½ bu.	Grass—	Parsley, 1 oz. to 150 ft. drill..... 3 lbs.
Beet, Garden, 1 oz. to 100 ft. drill 6 to 7 lbs.	Kentucky Blue, for pasture..... 1 to 2 bu.	Peas, Field..... 2 bu.
Mangel, 1 oz. to 100 ft. of drill..... 5 lbs.	Kentucky Blue for lawns..... 100 lbs.	Garden, 1 lb. to 100 ft. drill..... 1 to 2 bu.
Broccoli, 1 oz. to 2,000 plants..... 4 oz.	Meadow Fescue..... 1 bu.	Pepper, 1 oz. to 1,000 plants..... 2 lbs.
Brussel Sprouts, 1 oz. to 2,000 plants 4 oz.	Mixed Lawn..... 5 to 6 bu.	Potatoes..... 10 bu.
Broom Corn, in Drills..... 15 lbs.	Red Top, Chaff..... 1 to 2 bu.	Pumpkin, ½ lb. to 100 hills..... 3 to 5 lbs.
Buckwheat..... ½ to 1 bu.	Red Top, solid seed..... 10 to 15 lbs.	Radish, 1 oz. to 100 ft. drill..... 10 lbs.
Cabbage, 1 oz. to 2,000 plants..... 4 oz.	Timothy..... 10 to 15 lbs.	Rape..... 3 to 5 lbs.
Carrot, ½ oz. to 100 ft. drill..... 3 lbs.	Orchard, Perennial Rye..... 1 to 2 bu.	Rye..... 1½ to 2 bu.
Cauliflower, 1 oz. to 3,000 plants 3 to 4 oz.	Wood Meadow..... 1 bu.	Salsify, 1 oz. to 100 ft. drill..... 6 to 8 lbs.
Celery, 1 oz. to 5,000 plants..... 4 oz.	Horseradish Roots..... 15,000 to 25,000	Spinach, 1 oz. to 100 ft. drill..... 8 to 10 lbs.
Cheat..... 2 bu.	Kale, 1 oz. to 2,000 plants..... 4 oz.	Sugar Cane, in drills..... 10 lbs.
Chicory..... 4 lbs.	Kaffir Corn, in drills..... 6 to 10 lbs.	Sunflower..... 8 lbs.
Clover, Alsike and White..... 8 to 10 lbs.	Kohl Rabi, 1 oz. to 2,000 plants..... 4 oz.	Squash—Summer, 4 oz. to 100 hills 3 lbs.
Alfalfa..... 15 to 20 lbs.	Leek, 1 oz. to 100 ft. of drill..... 4 lbs.	Winter, 8 oz. to 100 hills..... 4 lbs.
Crimson Trefoil..... 10 to 15 lbs.	Lettuce, 1 oz. to 150 ft. of drill..... 3 lbs.	Tomato, 1 oz. to 2,000 plants..... 4 oz.
Red..... 10 to 15 lbs.	Mushroom Spawn..... 1 brick to 10 sq. ft.	Tobacco, 1 oz. to 4,000 plants..... 3 oz.
Collards, 1 oz. to 2,000 plants..... 4 oz.	Millet—For Seed..... 20 lbs.	Turnip, 1 oz. to 150 ft. drill..... 2 to 3 lbs.
Corn, Pop (shelled)..... 8 to 10 lbs.	For Hay..... 30 lbs.	Vetches..... 1½ to 2 bu.
Sweet or Field, hills..... 12 to 15 lbs.	Melon, Musk, 2 oz. to 100 hills. 2 to 3 lbs.	With Grain..... 1 bu.
For soiling drills..... 3 bu.	Water, 4 oz. to 100 hills..... 3 to 4 lbs.	Wheat..... 1½ to 2 bu.

### WEIGHTS OF VARIOUS ARTICLES—PER BUSHEL

Artichokes..... 60 lbs.	Canary Seed..... 60 lbs.	Grass Seeds (unless otherwise stated)..... 14 lbs.	Oats..... 32 lbs.	Rape..... 60 lbs.
Barley..... 48 lbs.	Cheat..... 34 lbs.	Hemp Seed..... 44 lbs.	Onion Sets..... 32 lbs.	Rye..... 56 lbs.
Beans..... 60 lbs.	Clover Seed..... 60 lbs.	Hungarian Millet..... 48 lbs.	Orchard Grass..... 14 lbs.	Red Top..... 14 lbs.
Buckwheat..... 48 lbs.	Corn, Shelled..... 56 lbs.	Lawn Grass..... 20 lbs.	Peach Pits..... 48 lbs.	Red Top, Solid Seed 42 lbs.
Blue Grass—	Charcoal..... 22 lbs.	Meadow Fescue..... 24 lbs.	Peas, Smooth..... 60 lbs.	Timothy..... 45 lbs.
Kentucky..... 14 lbs.	Emmer..... 40 lbs.	Millet..... 50 lbs.	Peas, Wrinkled..... 56 lbs.	Vetches..... 70 lbs.
English..... 24 lbs.	Flax Seed..... 56 lbs.		Perennial Rye..... 20 lbs.	Wheat..... 60 lbs.
			Potatoes..... 60 lbs.	

### NUMBER OF PLANTS PER ACRE AT VARIOUS DISTANCES

In planting trees the greater distance should be given in the richer soils

DISTANCE APART	Square Method	Triangu- lar	DISTANCE APART	Square Method	Triangu- lar	DISTANCE APART	Square Method	Triangu- lar
1 foot apart each way....	43,560	50,300	9 feet apart each way....	537	620	20 feet apart each way... 105	125	
2 feet apart each way....	10,890	12,575	10 feet apart each way....	435	502	25 feet apart each way... 70	81	
4 feet apart each way....	2,723	3,143	15 feet apart each way... 193	222	30 feet apart each way... 48	55		
6 feet apart each way....	1,210	1,397	16 feet apart each way... 170	196	40 feet apart each way... 27	31		

## VEGETABLE SEEDS

Diamond quality seeds are grown especially for us from selected strains, varieties that years of trial have proven to be most satisfactory for home and market gardens. Many of our seed crops are grown under our personal supervision—others come from the world's greatest centers of seed production of Europe and America where conditions are most favorable for their perfect development.

If you live in **Northwestern Oregon** or **Washington** you will have better success with your garden by planting early maturing varieties after the Spring weather is settled and the ground warm, than if you planted very early, as many seeds will not give the best results in the cold damp of the early Spring, and even if they live, the plants may be stunted and not grow. These suggestions are only general, as you will note that many special sorts can be planted very early.

**Diamond Fertilizers** will restore and sustain the productiveness of your soil. They are an investment, not an expense, and will return many times their cost.



# FLOWER SEED NOVELTIES AND SPECIALTIES FOR 1924

THE varieties offered on this and the succeeding page have been thoroughly tested before being offered to the trade, and were received by us from the most reliable growers. We are confident you will be delighted with these splendid stocks for the flower garden is always more keenly enjoyed when it contains items your neighbors do not have.

## ASTERS

**NEW CALIFORNIA GIANTS**—After several seasons' work in hybridizing and selection, our grower has finally succeeded in producing a type of aster characterized by the Beauty's vigorous growth and the Crego or Ostrich Feather type of flower. The California Giants are a true non-lateral type with flowers much larger and more substantial than the Improved Crego, measuring five to six inches in diameter and standing up well when shipped as cut flowers. Their immense size and beauty, as well as their long and sturdy stems make them very attractive when arranged in floral work, and they well deserve their name. We offer California Giants in four distinct shades of color this season.

<b>Peach Blossom.</b>	<b>Pkt. 15c.; 1/16 oz. 75c.</b>
<b>Light Blue.</b>	<b>Pkt. 15c.; 1/16 oz. 75c.</b>
<b>Deep Rose.</b>	<b>Pkt. 15c.; 1/16 oz. 75c.</b>
<b>Dark Purple.</b>	<b>Pkt. 15c.; 1/16 oz. 75c.</b>

One packet each of above for 50c.

## GIANT CALENDULAS

We desire to call especial attention to the great improvement made recently in this class. Two varieties in particular have received unusual attention, and through careful selection made to produce flowers of supreme quality and size, and should be in every garden inasmuch as they are equally desirable for garden decoration as for cutting.

**Orange King** is an extra fine strain of this splendid, double, rich orange-red variety, producing flowers 3 inches and over in diameter. Largely used by florists.

**Pkt. 10c.; oz. 50c.**

**Lemon Queen** is similar to the above except that the color is a sulphur-yellow.

**Pkt. 10c.; oz. 35c.**

## COSMOS

**EARLY MAMMOTH FLOWERING**—In this climate we would only recommend planting the Early Flowering type because the late varieties are generally caught by the early frost just after they begin to bloom. By careful selection over a period of years the Early Flowering varieties now produce flowers as large as the Late Flowering kinds, and we have, therefore, discontinued the latter. Seed sown in the open ground in April should produce plants covered with blooms in July furnishing an abundance of cut flowers for summer and fall decorations. We offer: **Crimson, Pink, White and Mixed.**

**Pkt. 10c.; oz. 65c.**

**EXTRA EARLY DOUBLE CRESTED**—A great deal of care and patience was taken to perfect this strain. The flowers vary considerably in their degree of doubleness. Some being absolutely double while others have a frill or collar surrounding the double disc. The plants have somewhat heavier, less cut foliage than the regular Single Flowering type, so that the fact that they will produce double flowers can be determined when the seedlings are quite young. We offer:

**Crimson King**—Rich, rosy crimson.  
**Pkt. 20c.; 1/8 oz. \$1.00.**

**Pink Beauty**—Very pretty rose-pink.  
**Pkt. 20c.; 1/8 oz. \$1.00.**

**White Queen**—Pure, glistening white.  
**Pkt. 20c.; 1/8 oz. \$1.00.**

Collection of 1 pkt. each of the above 3 varieties, 50c.  
**Finest Mixed.** **Pkt. 20c.; 1/8 oz. 90c.**

## CANDYTUFT

**GIANT HYACINTH-FLOWERED WHITE**—This is an extra select and wonderfully improved strain of the well-known Empress Candytuft. It makes a very effective bed or border, and is splendid for cutting. The plant grows about 18 inches, and is much branched, each branch terminating in an immense spike of very large, individual, pure white flowers. **Pkt. 10c.; 1/4 oz. 30c.**

## CARDINAL CLIMBER

A most attractive, strong and rapid grower, attaining a height of 25 feet, with beautiful fern-like lacinated foliage and literally covered with a blaze of cardinal red flowers from mid-Summer until frost. The flowers are about an inch in diameter, borne in clusters of five to seven blooms each. It delights in a warm, sunny situation and good rich soil. Seed should be soaked in water a few hours before sowing and not planted outside until about May 1st.

**Pkt. 15c.; 1/4 oz. 95c.**

## DIDISCUS

**BLUE LACE FLOWER**—A most interesting and pretty annual which blooms profusely from July till November. Its blossoms are an exquisite pale lavender and are splendid for cutting, making up nicely in bouquets. The plants grow about 18 inches in height, and have as many as fifty flowers open at a time. **Pkt. 15c.; 1/4 oz. 65c.**

## EVENING SCENTED PRIMROSE

(*Oenothera Lamarckiana*)

We have watched with awe the moving pictures of opening flowers—Hyacinths, Tulips, etc.—and appreciated that they required weeks to obtain. Yet we can enjoy such a thrill in our garden if we will sit for fifteen minutes at twilight and watch the Evening Primroses drop their calyx and unfold their petals, greeting us with a wealth of golden blooms. If this interesting feature were better known the Evening Primrose would be found in increasing numbers in our flower gardens.

**Pkt. 10c.; oz. 75c.**

## EVENING SCENTED STOCK

(*Mathiola Bicormis*)

An old-fashioned annual which has no beauty to recommend it, the flowers being a dull, purplish-lilac, but is well worth growing for the entrancing fragrance during the morning and evening or after a shower.

**Pkt. 10c.; oz. 60c.**

## NEMESIA

**BLUE GEM**—This splendid free-blooming annual is one of the best for bedding. It is very early and a continuous bloomer, standing a lot of hardship. Its Orchid-like flowers are a most beautiful for-get-me-not blue, and should have a place in every flower garden.

**Pkt. 25c. each, 3 for 50c.**



# FLOWER SEED NOVELTIES AND SPECIALTIES

—Continued

## ESCHSCHOLZIAS

(California Poppies)

These are among the most popular summer flowering annuals, and several of the newer varieties are deserving of special mention on account of their rich and brilliant colorings.

**GEISHA**—The fluted petals are a brilliant orange-crimson on the outside, and a rich, golden-orange on the inside.

Pkt. 15c; ¼ oz. 40c.

**MIKADO**—Flowers lustrous, orange-crimson, very brilliant. One of the best.

Pkt. 10c; ½ oz. 40c.

**HYBRIDA MIXTURE**—This mixture has been saved from the new large flowering type, and contains a large per cent of new colors, including soft pink, scarlet, chrome, copper-red, claret and royal purple. A superb mixture.

Pkt. 10c; ½ oz. 50c.

Collection of 1 pkt. each of the above 3 items for 25c.

## SHIRLEY POPPIES

These beautiful satiny flowers of various colors are exceptionally fine for cutting, and deserve a larger place in our flower gardens. See page 53 for full list of varieties we offer. We here desire to call your attention to some of the most recent introductions.

**AMERICAN LEGION**—A brilliant orange-scarlet Shirley Poppy of enormous size, borne on long, stout stems. Plants of very erect, robust growth, and the flowers wonderful keepers when cut in the bud.

Pkt. 10c; ¼ oz. 25c.

**PICOTEE**—Flowers have a shining, satiny, white cup with scarlet edging. Exceedingly attractive for bouquets.

Pkt. 10c; ¼ oz. 35c.

**ELDORADO DOUBLE PINK SHADES**—A magnificent selection of the most popular shades of this color without any dark markings whatever. The substance of the petals of some of the lighter shades is delicate as China silk, and sure to appeal to those admiring pastel shades in flowers.

Pkt. 15c; ¼ oz. 40c.

Collection of 1 pkt. each of the above 3 varieties 25c.

Our **DIAMOND LAWN GRASS** makes an Evergreen, Velvety Turf

## LARGE-FLOWERING SCABIOSAS

Because these easily grown annuals are not as well-known as they deserve to be, we desire to bring them especially to your notice. They grow about 2½ feet in height, come into bloom early in July, and continue without interruption until hard frost. Seed can be sown any time in the spring after danger of frost is past. They make beds or borders and no garden is complete without them, especially where flowers are wanted for cutting. The beautiful flowers in exquisite shades are borne on long stems, and when cut keep in perfect condition for the best part of a week. We offer four beautiful and distinct colors:

**AZURE FAIRY**—Clear, lavender-blue. Pkt. 10c; ¼ oz. 30c.

**BLACK PURPLE**—Velvety black-purple. Pkt. 10c; ¼ oz. 30c.

**FIERY SCARLET**—Very bright scarlet. Pkt. 10c; ¼ oz. 30c.

**ROSE**—Soft rose. Pkt. 10c; ¼ oz. 30c.

**WHITE**—A pure white. Pkt. 10c; ¼ oz. 30c.

## SNAPDRAGONS

Recently these have become very popular, and deservedly so for they are one of the most valuable flowers that can be readily grown from seed, whether used for cutting or for show in the garden. We offer two types, the tall-growing, large-flowering or giant, and the equally large-flowered half-dwarf variety. See page 53. Seed planted out of doors the first week in May should come into bloom early in July, remaining in flower until frost. For bedding purposes we consider the following Medium Tall Varieties best.

**BONFIRE**—Orange-buff shaded scarlet. Pkt. 10c; ¼ oz. 35c.

**QUEEN OF THE NORTH**—Pure white. Pkt. 10c; ¼ oz. 30c.

**ROSE DORE**—Rose suffused orange. Pkt. 10c; ¼ oz. 35c.

**GOLDEN QUEEN**—Rich, pure yellow. Pkt. 10c; ¼ oz. 35c.

**GRENADIER**—Orange-scarlet, white throat. Pkt. 15c; ¼ oz. 50c.

**SILVER PINK**—Pearly pink. Pkt. 15c; ¼ oz. 50c.

Collection of 1 pkt. each of above varieties, 60c.

## P. S. CO. WILD GARDEN MIXTURE

Under this designation we offer a splendid collection of hardy annuals consisting of experimental hybrids, and special selections from fifty-acre Trial Ground as well as a large collection of wild flowers and standard sorts, well calculated to make a striking display. Also to meet the constant demand for odd corner mixtures or something to beautify the vacant lot where cultivation is difficult, and weeds usually predominate. Furnishes an abundance of flowers for cutting.

Pkt. 10c.; oz. 25c.; ¼ lb. 75c.

## PERENNIAL BORDER AND BEDDING PLANTS

We offer here a few NEW PERENNIALS that we have just added to our list. The regular list will be found listed under "Plants," page 58.

**DIANTHUS**—(Latifolius Atrococcineus)—Beautiful summer bedding variety, producing masses of brilliant fiery crimson flowers all season.

**HELIOPSIS**—(Scabra Zinniaflora)—Very rich chrome yellow flowers, turning to a bright yellow as they mature; these are nearly double, freely produced from July to August.

**OENOTHERA**—(Evening Primrose)—Fraseri—Elegant for a sunny position in the border or on the rockery, blooming all summer. One foot high. Flowers large yellow. June to October.

**PAPAVER ORIENTALIS**—(Perry's White)—New and choice. The most distinct break in Oriental Poppies that has yet been made; the flowers are a fine satiny white with a crimson-maroon blotch at the base of each petal. (These are guaranteed to be true to name.)

**Plant Annuals in the bulb beds.** After the bulbs are through blooming they should be allowed to grow until late Summer, and the beds can be made very attractive with annual flowering plants without disturbing the bulbs. Forget-me-nots, Petunias, Pinks, Poppies, Verbenas and Candytuft are among the best.

PLANTS FOR IMMEDIATE EFFECTS SUPPLIED IN SEASON—SEE PLANT DEPT.



## VEGETABLE SEEDS—PORTLAND SEED CO.'S SPECIALTIES

### ASPARAGUS

#### GROW WASHINGTON PEDIGREED ASPARAGUS—THE BEST IN THE WORLD

This is the variety that the Bureau of Plant Industry at Washington, D. C., has developed after many years of experimental work beginning in 1908.

Asparagus fields have been affected in the past years with rust and other disease, and the United States Department of Agriculture has devoted painstaking work in combatting these diseases. The final outcome will, it is believed, to be the replacement of old varieties of asparagus by a new strain which is larger, more uniform, more productive, hardy and disease-resistant. The Washington asparagus owes its origin, in fact, to efforts to combat the rust and other diseases. It is our firm belief that the growers in this section, and other asparagus growing sections, will find it greatly to their advantage to plant the Washington Pedigreed Asparagus.

Pkt. 25c; oz. 45c;  $\frac{1}{4}$  lb. \$1.25; lb. \$3.75.

### BEANS

**IMPROVED KIDNEY WAX**—A great improvement over the Davis Kidney Wax. Plants of erect bushy habit, robust in growth and very prolific. Pods somewhat flattened but thick and fleshy, of rich creamy color, stringless and of excellent quality. A great bean for Market Gardeners.

Pkt. 15c;  $\frac{1}{2}$  lb. 20c; 1 lb. 30c; 10 lbs. \$2.75.

**SURE CROP WAX**—(Black Seeded)—A sure cropper of fine quality, far superior to Prolific Black Wax. The pods are longer, rather flat, stringless and a better yielder. A good market variety.

Pkt. 15c;  $\frac{1}{2}$  lb. 20c; 1 lb. 30c; 10 lbs. \$2.75.

### BEEF

**EARLY MODEL**—A splendid, handsome, extra early variety, well liked by the market gardeners. Globular in shape, of medium size, smooth, and of dark red color. The quality is exceptionally fine and the flavor unusually sweet. You will not be disappointed if you try this variety.

Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.50.

### LETTUCE

**CHICKEN LETTUCE**—A variety which suckers very extensively making a tremendous green growth. It is a fine cutting lettuce because it keeps coming on as fast as it is cut, thus making it splendid for green feed for chickens. Grows about 4 feet tall and forms no head.

Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 40c; lb. \$1.35.

### PEAS

**WORLD'S RECORD**—A splendid extra early half-dwarf variety, maturing rather large well-filled pods only a few days later than the small-podded, round-seeded extra early varieties. It is one of the best early wrinkled sorts, of fine quality and flavor. Suitable both for home and Market Gardener.

Pkt. 15c;  $\frac{1}{2}$  lb. 25c; 1 lb. 40c; 10 lbs. \$3.50.

### SQUASH

**BANANA**—This squash grows from one to two feet in length, and is of excellent quality. The flesh is firm and solid, of beautiful orange-yellow and when young can be cooked as a marrow. When fully matured will keep from one season to another. In some sections it is even now superseding the Hubbard because of its smooth rind, its resistance to the heat of the sun, and because of its excellent flavor.

Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 80c; lb. \$2.50.

### TOMATO

**"BURBANK"**—The originator describes it as the "earliest, smoothest, most productive and best early tomato," color bright crimson, thick, smooth and firm with few seeds. Unusually heavy and of the finest quality. Keeps well; is a good shipper; a prolific, continuous bearer, and has the unusual and remarkable feature of being easily peeled, the skin slipping readily from the rich, firm flesh. Resistant to wilt and other diseases. Pkt. 10c; oz. 65c;  $\frac{1}{4}$  lb. \$2.00.

**STRINGLESS REFUGEE**—A splendid improvement on the Refugee thousand to one, with which it compares in season and earliness, but is absolutely stringless. Pods are round, more even in length, possibly a little lighter green in color, exceedingly tender and of a delicious flavor. A splendid bean both for snap and canning purposes. Pkt. 15c;  $\frac{1}{2}$  lb. 20c; 1 lb. 30c; 10 lbs. \$2.75.

**BLACK VALENTINE**—Hardy and productive. Vines vigorous, pods nearly round or slightly flattened, handsome, making product very attractive on market. Large crop can generally be depended upon. Good shipper.

Pkt. 15c;  $\frac{1}{2}$  lb. 20c; 1 lb. 30c; 10 lbs. \$2.75.

### CABBAGE

**EARLY BABYHEAD**—A very recent novelty. Our seed imported direct from the Danish Originator. It is a splendid little cabbage, especially for forcing, and early open ground culture. Very productive and fine. Stem short, head small but firm, and exceedingly palatable.

Pkt. 15c; oz. 75c;  $\frac{1}{4}$  lb. \$2.25; lb. \$7.50.



### WATER MELON

**BLACK-SEEDED ICE CREAM**—Grown very extensively in the Wenatchee and Yakima sections of Washington. A splendid shipping melon which does exceptionally well in any soil which grows melons. Almost round in shape, pink meated, black seeded, and a fine keeper. It is drought-resistant, ripens early, and is a most luscious and handsome melon. If fond of watermelons, try this one.

Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.50.

### SPINACH

**KING OF DENMARK**—Undoubtedly the most valuable of new introductions of early sorts, remaining in good condition from one to two weeks after other varieties have gone to seed. Plants are of rapid growth, leaves thick and stand well after cutting, and of good quality. Sure to win favor with both home and market gardener.

Pkt. 10c;  $\frac{1}{4}$  lb. 35c; 1 lb. \$1.00.

### NEW HYBRIDIZED POTATO SEEDS

(From the True Seed-Balls)

Sealed Packets only, 15c each; 4 for 50c; 10 for \$1.00. Full directions on every packet.



# PORTLAND SEED COMPANY'S VEGETABLE SEED COLLECTIONS

Put up in advance of the season and, therefore, assortments cannot be changed

These collections contain the same size packages and the same fine quality of seed as those purchased separately, and are offered at a lower price because of the saving in time and expense, we are enabled to make by putting them up in advance of the busy season. It also helps make selection easy for purchasers; saves them the trouble of listing so many items on their orders, and us the task of filling dozens of different items on individual orders. It gives an opportunity to try out different varieties at no additional cost, for even if only a little over half the varieties are used the customer would still have his money's worth, and the balance given to a neighbor, interest him in a garden. New customers will find them an excellent trial offer as they will demonstrate the remarkable returns from a small outlay.

## P. S. CO.'S DOLLAR VEGETABLE SEED COLLECTION

Especially arranged for the busy person with only a small garden to plant. A well-balanced selection of vegetables which if purchased separately would cost \$1.85. Mailed to your address for \$1.00! It contains one packet each of the following:

- |                              |                          |                                    |
|------------------------------|--------------------------|------------------------------------|
| Davis Wax Beans              | Double Curled Parsley    | Yorkshire Hero Peas                |
| Danver Half Long Carrot      | Lucullus Swiss Chard     | Chartier and Early Snowball Radish |
| Early Cory Sweet Corn        | Earliana Tomato          | Thick Leaved Spinach               |
| Early Curled Simpson Lettuce | Early Blood Turnip Beet  | Purpletop White Globe Turnip       |
| Hanson Head Lettuce          | Early Flat Dutch Cabbage |                                    |
| Yellow Globe Danver Onion    | White Spine Cucumber     |                                    |

## P. S. CO.'S DIAMOND VEGETABLE SEED COLLECTION \$2.50.

There is seed enough in this collection to plant a complete home garden. If purchased separately it would cost \$3.60! All the varieties have been carefully selected so as to make an ideal assortment of choice vegetables for the family table throught the season. One packet each of the following:

- |                         |                              |                         |
|-------------------------|------------------------------|-------------------------|
| <b>BEANS—</b>           | <b>LETTUCE—</b>              | <b>SALSIFY—</b>         |
| Stringless Greenpod     | P. S. Co. Crispette          | Mammoth Sandwich Island |
| Asparagus Pole          | Early Curled Simpson         |                         |
| <b>BET—</b>             | <b>MUSKMELON—Burrell Gem</b> | <b>SPINACH—</b>         |
| Crosby's Egyptian       | <b>WATERMELON—</b>           | Improved Thick Leaved   |
| Half Long Blood         | Black-Seeded Ice Cream       | Prickly Winter          |
| <b>CABBAGE—</b>         | <b>ONION—</b>                | <b>SQUASH—</b>          |
| Copenhagen Early Market | Oregon Yellow Danver         | Early White Bush        |
| Danish Ballhead         | White Bunching               | Hubbard                 |
| <b>CARROT—</b>          | <b>PARSLEY—Double Curled</b> | <b>TOMATO—</b>          |
| Chantenay               | <b>PEAS—</b>                 | Chalk's Early Jewel     |
| Oxheart                 | Gradus                       | Yellow Pear             |
| <b>CORN—</b>            | Tall Telephone               | <b>TURNIP—</b>          |
| Golden West             | <b>RADISH—</b>               | Golden Ball             |
| Oregon Evergreen        | French Breakfast             | Purpletop White Globe   |
| <b>CUCUMBER—</b>        | Long Scarlet                 |                         |
| Davis Perfect           | China Rose Winter            |                         |
| Boston Pickling         |                              |                         |

## P. S. CO.'S SUBURBANITE VEGETABLE GARDEN COLLECTION \$5.00

For the dweller in the suburbs who has more ground than the person on an ordinary city lot, this is an ideal collection. It will give a continuous supply of the best and most productive fresh vegetables throught the season, and leave a goodly supply to store away in the cellar for winter use. Here is a splendid assortment for only \$5.00 that would cost at least \$7.00 if purchased separately. This collection contains:

- |                                            |                                             |                                             |
|--------------------------------------------|---------------------------------------------|---------------------------------------------|
| <b>BEANS—</b>                              | <b>SWEET CORN—</b>                          | <b>PUMPKIN—Large Yellow</b>                 |
| Stringless Greenpod . . . . . 1 1/2 lb.    | Golden West . . . . . 1 1/2 lb.             | 1 Oz.                                       |
| Davis Wax-podded . . . . . 1 1/2 lb.       | Country Gentleman . . . . . 1 Pkt.          | <b>RADISH—</b>                              |
| Kentucky Wonder Pole . . . . . 1 Pkt.      | Oregon Evergreen . . . . . 1 1/2 lb.        | Crimson Giant . . . . . 1 Oz.               |
| Oregon Pole Lima . . . . . 1 Pkt.          | <b>CUCUMBER—</b>                            | Chartier's . . . . . 1 Oz.                  |
| <b>BET—</b>                                | Diamond Long Green . . . . . 1 Pkt.         | China Rose Winter . . . . . 1 Oz.           |
| Crosby's Egyptian . . . . . 1 Oz.          | Boston Pickling . . . . . 1 Pkt.            | <b>SALSIFY—</b>                             |
| Half Long Blood . . . . . 1 Oz.            | <b>LETTUCE—</b>                             | Mammoth Sandwich Island 1 Pkt.              |
| Long Dark Blood . . . . . 1 Oz.            | Black-Seeded Simpson . . . . . 1 Oz.        | <b>SPINACH—</b>                             |
| <b>CARROT—</b>                             | May King . . . . . 1 Oz.                    | Improved Thick Leaved . . . . . 1 Oz.       |
| Early Scarlet Horn . . . . . 1 Pkt.        | P. S. Co. Crispette . . . . . 1 Oz.         | <b>SQUASH—</b>                              |
| Danver's Half Long . . . . . 1 Oz.         | <b>MUSKMELON—Burrell Gem</b> 1 Oz.          | White Bush—Summer . . . . . 1 Pkt.          |
| Oxheart . . . . . 1 Oz.                    | <b>WATERMELON—</b>                          | Hubbard—Winter . . . . . 1 Oz.              |
| <b>CABBAGE—</b>                            | King and Queen . . . . . 1 Oz.              | <b>SWISS CHARD—Lucullus</b> . . . . . 1 Oz. |
| Early Jersey Wakefield . . . . . 1 Pkt.    | <b>ONION—</b>                               | <b>TOMATO—</b>                              |
| Copenhagen Market . . . . . 1 Pkt.         | Australian Brown . . . . . 1 Pkt.           | Chalk's Early Jewel . . . . . 1 Pkt.        |
| Danish Ballhead . . . . . 1 Pkt.           | White Bunching . . . . . 1 Oz.              | Dwarf Champion . . . . . 1 Pkt.             |
| <b>CAULIFLOWER—</b>                        | <b>PARSLEY—Double Curled.</b> 1 Pkt.        | <b>TURNIP—</b>                              |
| Early Snowball . . . . . 1 Pkt.            | <b>PARSNIP—Hollow Crown</b> . . . . . 1 Oz. | Purpletop Strapleaved . . . . . 1 Oz.       |
| <b>CELERY—White Plume</b> . . . . . 1 Pkt. | <b>PEAS—</b>                                | Purpletop White Globe . . . . . 1 Oz.       |
|                                            | Gradus . . . . . 1 1/2 lb.                  | <b>RUTABAGA—</b>                            |
|                                            | Yorkshire Hero . . . . . 1 lb.              | American Purpletop . . . . . 1 Oz.          |
|                                            | <b>PEPPER—Large Bell</b> . . . . . 1 Pkt.   |                                             |



## Diamond Quality VEGETABLE SEEDS



**A SPARAGUS** is one of the earliest Spring vegetables, and would be in universal use were it not for the mistaken idea that it is difficult to grow. In reality it can be produced very easily and cheaply and is a profitable market crop. A bed 15x50 feet, requiring about 100 plants, should give an abundant supply for the average family.

**CULTURE**—Soak seeds 24 hours in warm water, sow early in drills one foot apart. An ounce of seed will sow about 300 feet of drill. Keep the soil mellow and free from weeds. After one year's growth transplant into permanent beds that have been carefully prepared by working to a depth of 24 inches, manuring deeply, using old manure and bone meal; 5 feet is a convenient width for a bed that will carry three rows, and can be reached without treading upon it. Set the plants about 18 inches apart in the rows and spread the roots out, firming the soil down on them. But at no period of its growth should the asparagus crop be allowed to lack for manuring. From one to two years' time can be saved by buying roots of us. See plant department. 7260 roots will plant an acre.

### ASPARAGUS

**WASHINGTON—THE NEW RUST-RESISTING ASPARAGUS.** The new pedigreed rust-resistant variety was bred up by the United States Bureau of Plant Industry co-operating with the Massachusetts Agricultural Experiment Station covering a period of fourteen years. The name Washington was applied because the original or first acceptable rust-proof male plant was given that name and all subsequent progenies are identified by that name. Washington and Palmetto Asparagus planted this spring, side by side, we find the Washington has made double the growth over the Palmetto. Seed planted April 15th has attained a growth of 4½ feet. **Pkt. 25c, oz. 45c, ¼ lb. \$1.25, lb. \$3.75.**

**ARGENTEUIL.** A popular French asparagus of great merit; larger and lighter in color and said to be superior to Palmetto; of vigorous, even growth; very early and free from disease. **Pkt. 10c, oz. 15c, ¼ lb. 35c, lb. \$1.00.**

**CONOVER'S COLOSSAL.** A rapid grower producing large uniform stalks of finest quality. This is the famous "Bouldin Island" Asparagus, a superior canning variety, color light green. **Pkt. 10c, oz. 15c, ¼ lb. 35c, lb. \$1.00.**

**PALMETTO.** The favorite green asparagus. Extra early and uniformly large stalks remain tender, being in prime condition for some days after coming above the ground. Palmetto is a heavy, sure cropper. **Pkt. 10c, oz. 15c, ¼ lb. 35c, lb. \$1.00.**



DIAMOND FRUIT FERTILIZER  
FOR ASPARAGUS

Ask for Our Free Booklet "Fertilizers"

# BEANS

**CULTURE**—The soil best adapted for growing beans is a light, rich, well-drained loam, which was well manured for the previous crop. If the ground is too freshly manured the plants are apt to run to vines and set few blossoms. Plant in drills about two inches deep and from eighteen inches to two feet apart, as soon as the ground is dry enough and warm—about May 1st, or later, and for succession up to July 15th. Beans are very sensitive to cold and wet before they have sprouted, but are not so liable to be damaged after they are above ground.

Plant about one pound of Dwarf or Bush Beans to 100 feet of drill, one bushel per acre. Pole Beans—one pound to 100 hills, requiring about one-half bushel per acre. When planted in hills, 2½ to 3 feet apart, small varieties such as "Navy" and "Lady Washington" will require from 16 to 25 pounds per acre; larger sorts running from 25 to 30 pounds. Owing to their short season of growth, from 60 to 80 days, beans generally make a profitable crop for trucking. After harvesting the beans always plow the vines under to fertilize the soil.

## DWARF OR BUSH WAX PODDED VARIETIES

Prices postpaid—Pkt. 15c, ½ lb. 20c, 1 lb. 30c, 10 lbs. \$2.75

**PENCIL POD WAX**—"Pencil Pod" is the most satisfactory of the early dwarf Wax Beans. Of dwarf, bushy growth, about fifteen inches high, large, luxuriant foliage, beneath which in great clusters will be found an enormous crop of beautiful straight yellow pods six to seven inches long, well rounded, deeply "saddle backed," meaty and solid clear through; they are brittle, of rich mild flavor, and entirely stringless. An early sure cropper; of the finest quality.

**GOLDEN WAX.** Very hardy and productive. A good second early variety of fine quality, but should be picked young to avoid strings.

**DAVIS WAX.** Rustless and immensely productive, very hardy and one of the best for market gardeners. The dried bean is kidney-shaped, clear white and a favorite for baking and canning.

**WARDELL'S KIDNEY WAX.** Vines are of medium size, with long, flat pods of a delicate, waxy yellow, very brittle and entirely stringless when young. A favorite main crop variety with market men.

**SURE CROP WAX—Black Seed.** A sure cropper of fine quality. Superior to Prolific Black Wax. The pods are longer, rather flat, stringless and a better yielder. A good market variety.

**IMPROVED KIDNEY WAX.** A great improvement over the Davis Kidney Wax. Plants of erect habit, robust in growth and very prolific. Pods somewhat flattened but thick and fleshy, of rich creamy color, stringless and of excellent quality. A great bean for the market gardener.



Pencil Pod  
Black Wax



Improved Kidney Wax

For BEANS use 350 pounds per acre of our **Diamond VEGETABLE FERTILIZER.** Ask for our Free Booklet "Fertilizers"



### Every Garden Needs "NITRAGIN"

Price 20c

Garden size is for Peas, Sweet Peas and Beans only, including Lima (3 in one).

**NITRAGIN** is an old reliable inoculator. It is well known and used by Agricultural Colleges. Sold in tins—not glass—packed in a rich soil-like medium. Contents always fresh and the bacteria active and vigorous, **NITRAGIN** is easy to use.

## BEANS—Continued

Owing to our mild Winters and cool Summers, locally grown acclimated seed from properly selected strains will be found to give best satisfaction, in the Pacific Northwest. We are constantly testing and selecting the most dependable and profitable sorts and increasing our facilities and connections for local production, and when we offer a variety as being suited to your requirements and location you can accept it without fear of disappointment.

### DWARF OR BUSH—GREEN PODDED KIND

Prices postpaid—Pkt. 15c, ½ lb. 20c, 1 lb. 30c, 10 lbs. \$2.75

**BLACK VALENTINE.** Hardy and productive. Vines vigorous, pods nearly round or slightly flattened. Handsome, making product very attractive on market. Large crop can generally be depended upon. Good shipper.

**EXTRA EARLY RED VALENTINE.** This improved strain has a healthy, vigorous growth. The beans are small, but the pods are thick, round and fleshy; very tender, rich and quite stringless. A popular bean for canning green. Bush grows to a height of 15 inches and is very prolific.

**TREE BEAN.** Of sturdy branching habit bearing heavily and ripening early and evenly. The foliage is scant and usually falls before the pods fully mature. The distinctive pure white, rounded form and small size distinguishes this bean from other small white varieties and we consider it the most desirable for Northwestern growers. The cooking and table qualities are unsurpassed.

**DWARF HORTICULTURAL or "Cranberry Bean."** Grows erect, strong and shrubby, and is very prolific. The bean is highly prized, green shelled. It is rather large, plump and beautifully mottled yellow and red; one of the most delicious and desirable beans and a great favorite with market gardeners. The dwarf type of the old favorite London Horticultural Pole Bean.

**LADY WASHINGTON.** Sturdy, bushy plant, erect habit, and is a great improvement over the old "Navy," being much earlier, a little larger, and a very heavy yielder; being especially adapted to our Western soils, and is entirely free from disease. Bush attains a height of about 14 inches, and beans mature in September.

**BROAD WINDSOR—"Horse Beans."** Stalk erect, strong and shrubby. The bean is large, broad and flat; should be planted early and is best green shelled. A European variety, very hardy and can be planted earlier than other sorts. Grown extensively for stock in some sections.



*Stringless  
Green  
Pod*

**STRINGLESS GREEN POD—Extra Early.** The finely shaped, long green pods are absolutely stringless, and are ready to market two weeks earlier than any other green-podded bean. It is of immense value, not only to the market gardener, but also for those who seek early beans of a rare quality for the home table. A splendid dried brown bean.

**CANADIAN WONDER.** This splendid bush bean is the largest, most prolific of the green-podded sorts, and is entirely stringless in its early development. Comes a little later than the New Stringless Green Pod, but continues in bearing throughout the season, and is excellent shelled green.

**REFUGEE, OR THOUSAND TO ONE.** Of great value on account of its hardiness, vigorous growth and wonderful productiveness. Is not excelled by any other variety as a snap bean, and is considered the best for pickling or canning. Beans small, dark purple, veined brown. Pods of perfect form, dark green, veined purple.

**STRINGLESS REFUGEE.** A splendid improvement on the Refugee Thousand to One, with which it compares in season and earliness, but is absolutely stringless. Pods are round, more even in length, possibly a little lighter green in color, exceedingly tender and of a delicious flavor. A splendid bean both for snap and canning purposes.

**CASTOR BEAN:** (For Ornamental Varieties see Flower Seed.) Used for medicinal purposes and by some claimed to keep moles away. Castor beans are very ornamental, the plants and foliage being large and tropical in appearance.



## SPRYWHEEL GARDEN TRACTOR

Make Your Garden Work a Pleasure with a

**Sprywheel** is a light, easily handled and economically operated garden tractor or power cultivator, designed and developed to do successfully by power that kind of work ordinarily performed by hand labor with hand tools, or wheel hoes, thus reducing the manual labor to a minimum, and greatly increasing the amount of work performed.

No matter how much may be paid, no garden tractor will do better work, give better service or better satisfaction than **Sprywheel**.

## BEANS—Continued CLIMBING OR POLE BEANS

Prices Postpaid—Pkt. 15c, ½ lb. 20c, 1 lb. 30c, 10 lbs. \$2.75

**CULTURE**—Do not plant until the soil has become warm and the weather settled—and always remember beans should have rich, well drained soil. It is best to set the poles before planting; these should be six to eight feet high, rows about four feet each way. Plant four to six beans to the hill and thin to two or three, depending on the variety. A pound should plant 75 to 100 hills. A top dressing of commercial fertilizer or old manure should be worked in when cultivating.

**ASPARAGUS BEAN**—The True Asparagus Bean is superior to Kentucky Wonder in quality and fully equal in productiveness. The long, slender pods are very fleshy, almost round, crisp, tender and delicious, of a beautiful pale green color, attractive form and absolutely stringless. They grow vigorously and bear heavily.

**SCARLET RUNNER.** A favorite as a shell bean and for its flowers, which are bright scarlet; seeds broad and kidney shaped.

**OREGON POLE LIMA**—The only Lima Bean that will thrive in our cool climate. Oregon Pole Lima grows a strong, thrifty vine and is very prolific, bearing continuously until frost, the blossoms bursting from the top shoots in long panicles, while the pods can be seen in every stage of development, to the matured beans at the bottom of the vine. Pods are well filled, having three to five large beans of the finest quality.

**OREGON POLE LIMA** can be planted in any garden soil as early as April or late as July. Give the same care and culture as other Beans, and they are ready to use when the pods are filled and first begin to ripen. They are at their best when the full green pods begin to turn yellow.

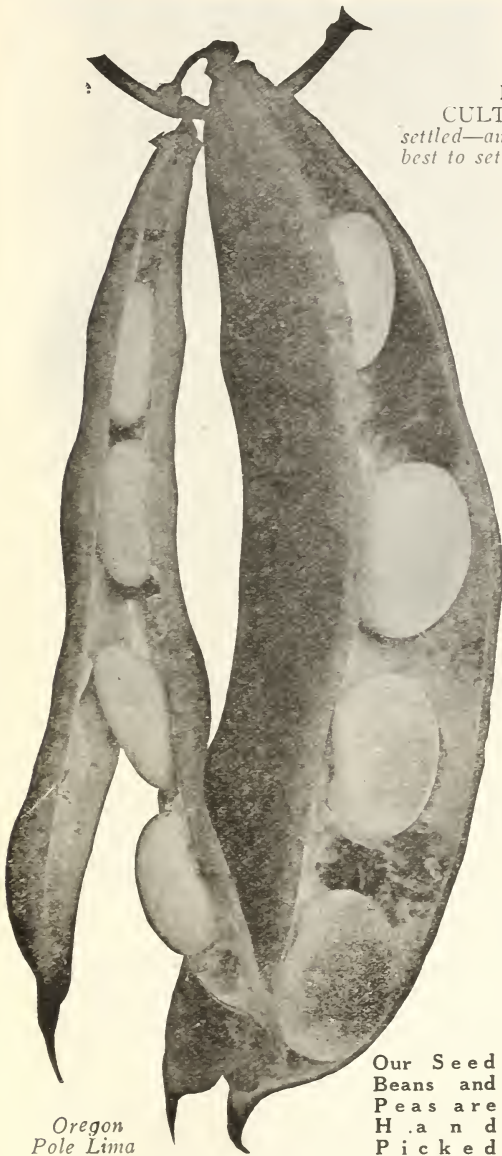
Try "Oregon Pole Lima." It is a wonder, sure to grow, and will produce more fine beans of delicious table quality than any variety we know of.

**KENTUCKY WONDER.** A vigorous climber; very prolific, bearing in clusters extremely long and very fleshy, succulent pods, flat, thick and remarkably tender. A first-class pole variety.

**LAZY WIFE.** Pods are from four to five inches in length, produced in large clusters in great abundance. Dark green, thick, fleshy and stringless of unusually rich flavor. Dry beans, pure white, excellent for winter use.

**OREGON GIANT GREENPOD.** The large fleshy pods 10 to 12 inches in length are free from all stringiness and are tender, crisp and delicious. The size, splendid quality and rich flavor make this one of the most desirable beans for home gardens and for canning. "Oregon Giant" is a strong grower and yields heavily, bearing its enormous pods in great clusters. The color is a light greenish yellow, splashed red. See front cover. Pkt. 15c, ½ lb. 25c, 1 lb. 45c, 10 lbs. \$3.75.

**KENTUCKY WONDER WAX.** The Pride of the Garden. It commences to bear when scarcely higher than the average bush variety, and keeps on producing until killed by frost. It is a rampant grower, one plant filling a pole with a mass of vines densely loaded with luscious beans. They are firm, entirely stringless, and when cooked, deliciously rich and buttery.



Oregon Pole Lima

Our Seed Beans and Peas are Hand Picked

## EGG PLANT

Should be started in a hotbed and transplanted when the weather is settled and the ground thoroughly warm. They will thrive with the same treatment as that given the tomato.

**BLACK BEAUTY.** An extra early, quick-growing, vigorous variety; handsome and very uniform. Color, deep blackish purple. Splendid market sort.

**NEW YORK IMPROVED, LARGE PURPLE.** Pkt. 10c, oz. 70c, ¼ lb. \$2.00. The leading market variety. Large, round, dark, excellent and the most productive. Pkt. 10c, oz. 70c, ¼ lb. \$2.00.

## USE DIAMOND VEGETABLES FERTILIZER

Our Book "FERTILIZERS" tells how to profitably use Fertilizer. Tells what you should get for your money when you buy Fertilizers—a book every grower should have and is FREE FOR THE ASKING.



Black Beauty

BEFORE ORDERING READ CAREFULLY INSTRUCTIONS AND CONDITIONS.



## BEETS

**CULTURE**—The beet is hardy and may be planted as soon as the ground can be well prepared, doing best in rich, sandy soil, sown in rows sixteen inches apart, covered one and one-half inches deep. The seed will sprout better if soaked twenty-four hours in warm water before planting. Thin out by using the largest ones when they are of sufficient size, continuing until they are six or eight inches apart in the rows. For field crop, the rows should be far enough apart to permit the use of a horse cultivator. Prices below, postpaid.

**EARLY MODEL.** A splendid, handsome, extra early variety, well liked by the market gardener. Globular in shape, of medium size, smooth and of dark red color. The quality is exceptional and the flavor unusually sweet. You will not be disappointed if you try this variety. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 50c, lb. 1.50.

**P. S. CO'S MARKET GARDENER.** This extra early Beet is remarkable for its fine quality and rapid growth; it is of deep red color and handsome shape; as an early market sort it is unrivaled. It is to a large extent superseding the Egyptian, being earlier in development, more attractive in appearance and of superior quality for the table, holding its color and cooking quickly. Market gardeners prefer it as it matures evenly, stands a long time and does not split. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 45c, lb. \$1.25.

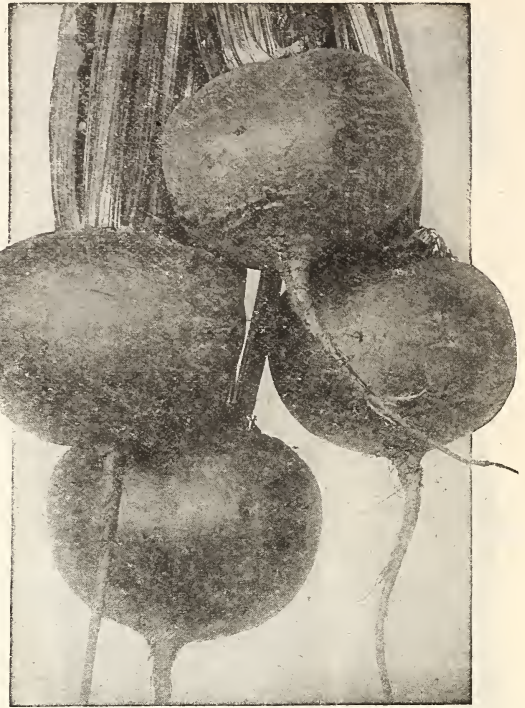
**EXTRA EARLY EGYPTIAN.** The best variety for forcing, and for market gardeners, being very early with small tops. Roots very dark red, rounded on top, but flat beneath, with very small tap roots. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. \$1.00.

**LONG SMOOTH DARK BLOOD.** The leading late variety, keeping well all Winter. Should be planted in rich, warm soil to secure rapid growth, which makes them tender. Top small, root long and smooth. Flesh deep purple, fine and sweet. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. \$1.00.

**HALF LONG BLOOD.** A variety of excellent quality. One of the very best for Winter use; does not become woody and keeps as well as the Long Dark Blood. The root is smooth and handsome, and the flesh is brilliant in color and as good in quality as the best Blood Turnip varieties. Give it a trial. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. \$1.00.

**EARLY BLOOD TURNIP—IMPROVED.** An extra selected stock of blood turnip having larger, coarser tops and roots than the Detroit Dark Red, and requiring a longer time to mature. Excellent for Summer and Autumn use. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. \$1.00.

**LANE'S IMPROVED IMPERIAL SUGAR.** Large, thick, tapering variety. Yields almost as much as mangels. Is sweet and rich and very desirable for stock. Pkt. 10c,  $\frac{1}{2}$  lb. 45c, 1 lb. 80c, 10 lbs. \$7.50.



*P. S. Co's Market Gardener*

**DETROIT DARK RED TURNIP.** A fine Beet for bunching for market; tops exceptionally small and uniformly upright. The roots are perfect turnip shape with small tap roots. One of the deepest red beets. Quality is of the finest; sweet and tender, one of the best for home gardens. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. \$1.00.

**EARLY ECLIPSE.** One of the best early sorts. It possesses all the qualities requisite in a first class beet, and is of a uniform, globular shape. The roots are a bright, glossy red, fine-grained and delicious. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. \$1.00.

### SUGAR BEET

**KLEIN WANZLEBEN.** This is the standard variety grown commercially for the production of sugar. Pkt. 10c,  $\frac{1}{2}$  lb. 45c, 1 lb. 80c, 10 lbs. \$7.50.

**WHITE FRENCH OR VILMORIN'S IMPROVED SUGAR.** The best variety for growing for sugar-making. Pkt. 10c,  $\frac{1}{2}$  lb. 45c, 1 lb. 80c, 10 lbs. \$7.50.

**Use Sulphur** in connection with your fertilizers and make your soil give you the highest possible returns. It is a first class fertilizer, fungicide and insecticide. See Index.

**CRESS**—Curled, or Pepper Grass. This salad is much used with lettuce, to which its warm, pungent taste makes an agreeable addition. The seed should be sown in drills about 16 inches apart, on very rich ground, and the plants well cultivated. It may be planted very early. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 50, lb. \$1.50.

**CHIVES.** Chives belong to the onion family and the tops are used green for flavoring and garnishing. They grow in little clumps and can be supplied as plants any time in the early spring. See Plant Department.

**CORN SALAD**—Fetticus, or Lamb's Lettuce. A refreshing salad, used extensively in Winter and Spring as a substitute for lettuce. It is often cooked like spinach. Sown in drills 1 foot apart, in the Spring or Fall. On the approach of cold weather cover over with straw or coarse litter. Pkt. 10c, oz. 30c,  $\frac{1}{4}$  lb. \$1.00.





**BEETS—Continued**

These are grown extensively for stock feeding, and afford large quantities of fresh, nutritious and wholesome food during the Winter months, in connection with grain and dried forage. Sugar Beets are richer and sweeter than Mangels, but do not produce as heavily.



Yellow Giant Sludstrup Golden Tankard Eckendorf

**P. S. CO'S HEAVIEST CROPPER.** This is a wonderful improvement on existing stocks of Yellow Mangels, being one of the heaviest croppers and easiest pulled, of very fine quality. The small foliage permits it to be left comparatively thick in the rows and weight per acre is therefore enormous. It is considered distinct over all other kinds and one of the largest and best Yellow Mangels. Pkt. 10 cts.; ½ lb. 40 cts.; 1 lb. 75 cts.; 10 lbs., postpaid \$6.50.

**YELLOW GIANT, INTERMEDIATE or GATE POST.** Roots very large, growing over one-half out of the ground; flesh white, sweet and tender; tops bright green, comparatively small; neck small short. Its fine flesh never becomes woody and the crop is easily harvested. Pkt. 10 cts.; ½ lb. 30 cts.; lb. 55 cts.; 10 lbs., postpaid \$5.00.

**GIANT RED ECKENDORF.** Is a straight, cylindrical form, very blunt, and grows mostly above the surface. Awarded a first-class certificate as a very heavy cropper. Pkt. 10 cts.; ½ lb. 30 cts.; lb. 55 cts.; 10 lbs., postpaid \$5.00.

**MAMMOTH LONG RED.** An improvement on the Long Red, with ordinary cultivation. If you want a large crop of large Mangels of good quality, don't fail to try this sort. Very uniform, smooth and of good shape. Should be grown in deep loose soil. Pkt. 10 cts.; ½ lb. 30 cts.; lb. 55 cts.; 10 lbs., postpaid \$5.00.

**CHICORY**

The roots, dug in the fall, dried, cut in thin slices, and ground, are used largely as a substitute for coffee. Seed should be sown quite thinly in shallow drills early in the spring. When well started, thin out to stand 2 or 3 inches apart in the row. Pkt. 10 cts.; oz. 40 cts.; ¼ lb. \$1.35; lb. \$4.00.

**CHERVIL**

Can be planted any time in the early spring. The leaves should be kept cut, and if not allowed to run to seed, will keep green for a long time. Makes an excellent plant for garnishing.

**CURLED.** Very finely curled, somewhat resembling parsley and used in same manner. Pkt. 10 cts.; oz. 25 cts.; ¼ lb. 80 cts.; lb. \$2.50.

**BRUSSELS SPROUTS**

The plants, which are very hardy, grow two or three feet high, and produce, from the sides of the stalks, numerous little sprouts, which resemble very small cabbages one or two inches in diameter. The leaves should be broken down in the Fall, to give the little heads more room to grow. They should be treated in all respects like Winter Cabbage or Kale.

**DWARF IMPROVED.** A carefully grown strain, very hardy and giving compact, round sprouts of large size and good quality. Pkt. 10 cts.; oz. 35 cts.; ¼ lb. \$1.15.

**MANGEL WURZEL**

**CULTURE OF MANGEL AND SUGAR BEETS**—Thoroughly fine soil as good roots cannot be grown in lumpy, poorly prepared ground. The largest crops come from a soil ranging from light to a friable clay loam that has received from eight to fifteen loads of manure to the acre. This can be plowed in or half broadcast and half used in the furrows; a deep plowing in of fresh manure in the Fall is best. It is also necessary to add some commercial fertilizer, but any good soil will grow a fair crop.

Use 6 to 10 pounds of seed to the acre, depending on whether machine or hand planting is used, planting liberally so that in thinning an even stand can be secured. The rows can be 18 to 30 inches apart, depending upon soil and method of culture. Level culture is best. If planted during dry weather, be sure the seed is in from one and one-half inches as it requires lots of moisture to burst the hard shell.

A poor stand and weak germination is often due to improper planting and lack of moisture. Transplanting can be successfully done to fill vacancies. Do this before a shower, and early, breaking off the tops of the larger leaves.

**NEW MANGEL HALF SUGAR.** A new variety, more valuable for feeding purposes than the old sorts, yields as much per acre as the best Mangels, and twice as much per acre (bulk of roots) as the rich sugar beets. Roots large, very smooth, with few rootlets; creamy white in color, with medium sized tops. Pkt. 10 cts.; ½ lb. 30 cts.; lb. 55 cts.; 10 lbs., postpaid \$5.00.

**GOLDEN TANKARD.** Dairy farmers state they are able to obtain a higher price for milk when feeding cows on "Golden Tankard." Sheep thrive on it. "Golden Tankard" is a rich, deep yellow throughout. Early, hardy and a heavy cropper. Pkt. 10 cts.; ½ lb. 30 cts.; lb. 55 cts.; 10 lbs., postpaid \$5.00.

**DANISH SLUDSTRUP.** Long, reddish-yellow, grows well above the ground, and is easy to pull. Has repeatedly been awarded a first class certificate by the Danish Government. Pkt. 10 cts.; ½ lb. 30 cts.; lb. 55 cts.; 10 lbs., postpaid \$5.00.

**COLLARDS**

**SOUTHERN GEORGIA.** This variety is the old-time favorite. Stands all sorts of adverse conditions without injury. Is very hardy. In many places where the soil is too poor to grow cabbage. Pkt. 10 cts.; oz. 20 cts.; ¼ lb. 65 cts.; lb. \$2.00.

## CAULIFLOWER

## CULTURE

The Cauliflower succeeds well in any soil where cabbage will grow but best results are obtained in rich loam with an abundance of water. By sowing early varieties in a hot bed in February or March, or later in a cold frame, fine heads can be obtained quite early. For a later supply, sow seed in a prepared bed in May, choosing a cool, moist place. When large enough transplant, making the rows about 2½ feet apart and 18 inches between the plants. In dry seasons the crop must be watered.

Don't Buy cheap strains of Cauliflower Seed. Only the best select strains can be depended upon to produce a big percentage of large, white, solid heads.



*Mt. Hood  
Early Snowball*

*Plants in  
Season All  
Varieties*

**P. S. CO.'S "MT. HOOD" SNOWBALL**—The seed that produces those handsome large white solid heads that bring big profits to the gardener. We offer our "Mt. Hood" Cauliflower seed under our own label, it having been carefully selected and grown for us by one of the expert Cauliflower growers, and is the best strain of "Early Snowball" obtainable. We recommend "Mt. Hood" Snowball for either early or late planting.

Pkt. 25c; ¼ oz. \$1.00; oz. \$3.50; ¼ lb. \$12.00.

**EARLY SNOWBALL**—This is the regular grade of "Early Snowball" that is generally offered, and while it will not give as good results as "Mt. Hood," it can be depended upon to produce a good crop.

Pkt. 15c; ¼ oz. 65c; oz. \$2.25; ¼ lb. \$6.50.

**AUTUMN GIANT**—Heads white, large, compact and protected by foliage.

Pkt. 10c; ¼ oz. 35c; oz. \$1.25; ¼ lb. \$4.00.

## BROCCOLI or Winter Cauliflower

Broccoli is so nearly related to late Cauliflower that the varieties are often listed under both heads—the principal difference being in the hardiness and time of maturity, Broccoli not heading until late Winter or early Spring. Culture is same as for late Cauliflower, and good, rich, well-drained bottom land is best, or well-tilled, well-fertilized upland.

## ST. VALENTINE—The Finest of All Broccoli

This grand new strain introduced by us is a sure header of immense size, finest quality, and is ready for market in February. The large, solid, handsome, white heads remain in good condition longer than other varieties.

Pkt. 15c; oz. \$1.50; ¼ lb. \$5.00; lb. \$15.00.

**EARLY LARGE WHITE FRENCH**—A valuable variety with large, white heads, firm and of good flavor.

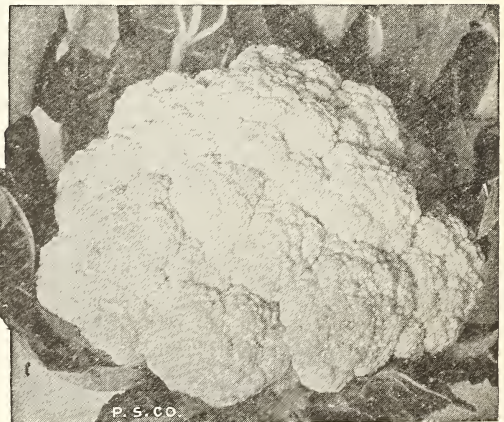
Pkt. 10c; oz. 90c; ¼ lb. \$3.00; 1 lb. \$9.00

**DANISH GIANT—DRY WEATHER CAULIFLOWER**—"Danish Giant" is early, large, solid white Cauliflower that can successfully withstand a drouth that would prove fatal to other varieties, but like all cauliflower must have rich soil and cultivation to give best results. Also does well under moist conditions.

Pkt. 25c; ¼ oz. \$1.00; oz. \$3.50; ¼ lb. \$12.00.

**LARGE ALGIERS**—A valuable late sort, sure to head, of the best quality and very popular with market gardeners everywhere. Plants large, upright growth, the leaves protecting the heads so that they will endure, uninjured, a frost that would ruin other sorts. One of the very best of the late varieties.

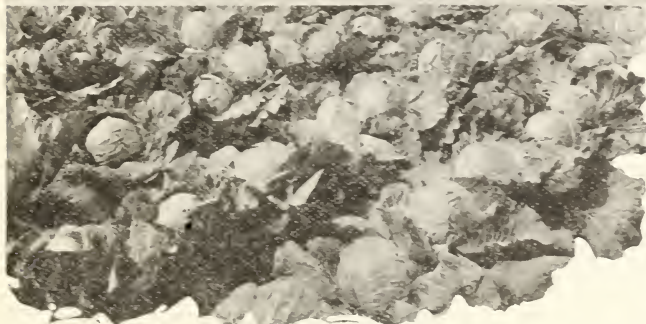
Pkt. 10c; ¼ oz. 35c; oz. \$1.25; ¼ lb. \$4.00.



*St. Valentine Broccoli*



# Diamond Quality CABBAGE



*P. S. Co.'s Select Short Stemmed*

**CULTURE**—The requisites for complete success are: First—Good seed. There is no other vegetable where the seed has so much influence on the quality of the product, and gardeners should always use the best procurable. Second—Rich, well prepared ground. Third—Frequent and thorough cultivation. A heavy, moist and rich loam is most suitable, which should be highly manured and worked deeply.

In general, the early sorts should be sown very early in hot beds, hardened off by gradually exposing to outside air, and as early as the ground is in good condition, transplanted, setting 18 to 36 inches apart, according to size of variety. The late Autumn and Winter varieties may be sown from the middle to the last of Spring and transplanted when 4 to 6 inches high. Shade and water the late sowings in dry weather to get them up.

**DANISH BALLHEAD.** Our strain of short-stem is imported direct from Denmark, originating on the famous island of Amager, the vegetable garden of Copenhagen. The fine ribbed leaves are so densely packed together that no space is left for water or air to start decay and the firm solid heads are famed for their superior excellence and keeping qualities. Matures late and when cut shows a fine, hard, snowy white, solid head. The best in its class. Pkt. 10c, oz. 35c,  $\frac{1}{4}$  lb. \$1.25, lb. \$3.75.

**DANISH ROUND HEAD (Select Short-Stem).** A round ball shaped cabbage of great solidity. Color, rich dark green, has few outer leaves, is very hardy and a profitable late market variety. Our stock of Round Head is Danish grown and of the same superior quality as the short-stem Ballhead, being one of the latest keepers and best varieties for early Spring market. Pkt. 10c, oz. 40c,  $\frac{1}{4}$  lb. \$1.35, lb. \$4.00.

**COPENHAGEN MARKET**—A Splendid Cabbage for Home Gardens. A splendid early globe-shaped Cabbage slightly flattened. The large solid heads are very uniform, with few outer leaves, keeps well and stands handling. Copenhagen Market is the favorite market variety, and we recommend it to our customers as the best early round head. Pkt. 10c, oz. 35c,  $\frac{1}{4}$  lb. \$1.25, lb. \$3.75.

**EARLY JERSEY WAKE-FIELD.** The favorite Early Cabbage with our market gardeners. A sure header. The thick, stout leaves and compact habit make it the best for Wintering over and very early setting. Grown more extensively for market than any other early cabbage. Is always of good size, very solid, and has but few outside leaves; a reliable header and



always gives good satisfaction. Pkt. 10c, oz. 30c,  $\frac{1}{4}$  lb. \$1.00, lb. \$3.00.

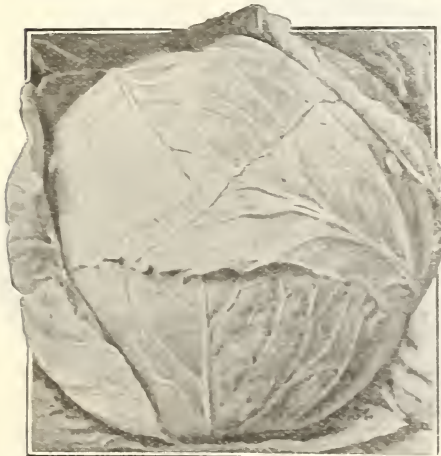
**RED CABBAGE—Odense Market.** Used for pickling. The heads are very fine and remarkably sure heading. We believe this to be the best red cabbage. Pkt. 10c, oz. 35c,  $\frac{1}{4}$  lb. \$1.00, lb. \$3.00.

**SAVOY CABBAGE—Vertus—Late Savoy.** Large, compact heads; crisp and tender with a rich flavor. Desirable for cooking or salads. Pkt. 10c, oz. 35c,  $\frac{1}{4}$  lb. \$1.25, lb. \$3.75.

**STEIN'S EARLY DWARF FLAT DUTCH.** Grows low on the stem; a sure header; firm fine grained, tender. Pkt. 10c, oz. 30c,  $\frac{1}{4}$  lb. \$1.00, lb. \$3.00.

**SUCCESION.** Heads large, slightly flattened; grows low on the stem. Pkt. 10c, oz. 30c,  $\frac{1}{4}$  lb. \$1.35, lb. \$3.00.

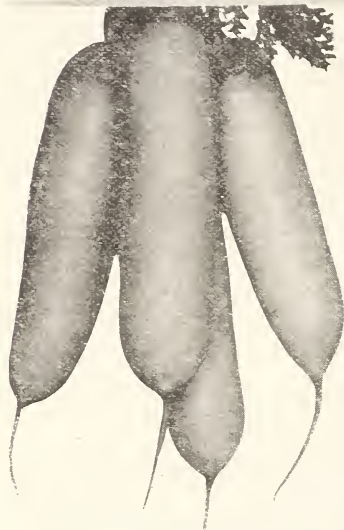
**CHINESE IMPROVED OR PE-TSAI.** The strain we offer resembles when well grown Cos Lettuce rather than Cabbage. It is often called Celery Cabbage on the market. The leaves when young are crimped, of light green color and appear like smooth leaved mustard but with much broader and heavier midribs. The plant as it matures becomes more upright and forms heads much like Cos Lettuce. The inner leaves blanch an attractive light yellow or creamy white with very white midribs. It is of distinctive flavor, very mild and pleasant. It is served as a salad like lettuce or cooked like asparagus. Sow in this latitude after July 1st at the same time as turnips. Pkt. 10c, oz. 40c,  $\frac{1}{4}$  lb. \$1.35, lb. \$4.00.



**PREMIUM LATE FLAT DUTCH.** This improved strain possesses the good qualities of the old favorite, "Late Flat Dutch," one of the largest of the late varieties; a sure header. Pkt. 10c, oz. 30c,  $\frac{1}{4}$  lb. \$1.00, lb. \$3.00.



# Diamond Quality CARROTS



*P. S. Co.'s New Coreless*

**OXHEART.** A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight of more than a pound. It is tender and of good flavor.

Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. 95c.

**DANVER'S HALF LONG.** Grown largely on account of its productiveness and adaptability to all classes of soil. Tops, medium sized, coarsely divided. The smooth, handsome roots are of medium length, tapering uniformly to a blunt point; flesh, sweet, crisp, tender; deep orange in color. Although the roots of this variety are short, they produce as large bulk as the longer field sorts, and are more easily harvested. Pkt. 10c, oz. 15c,  $\frac{1}{4}$  lb. 35c, lb. 95c.

**P. S. CO.'S YELLOW GIANT, Specially Adapted to Moist, Heavy Soils.** This new Carrot originated at the Sydney Australia, Experimental Station, and has proved itself to be the earliest and most productive stock carrot offered to date. It is a half long variety, with an immense broad shoulder. The Carrot penetrates less than one-half the depth into the ground, which saves about one-half the expense of harvesting the crop. The color is of bright yellow, and is perfection itself for giving

the proper color to butter. Every dairyman who wants a big crop of carrots of the right quality and easy of culture should plant our Yellow Giant. Pkt. 10 cts.; oz. 15 cts.;  $\frac{1}{4}$  lb. 30 cts.; lb. 85 cts.

**LARGE WHITE BELGIAN.** Extensively grown for stock feeding; very productive. Grows so much above the ground that the entire crop can be pulled by hand. Pkt. 10 cts.; oz. 15 cts.;  $\frac{1}{4}$  lb. 30 cts.; lb. 80 cts.

**C**ARROTS, aside from being one of our most useful and easily grown garden vegetables, are invaluable for stock feeding. They are greatly relished, promote health and put a sleek coat on cattle and horses, giving a well-kept appearance. Dairy and stockmen should grow them extensively. For their special use we recommend our "Yellow Giant."

**CULTURE**—A sandy loam is the best soil for the carrot, but any good land, if thoroughly and deeply worked, will produce satisfactory crops. Sow as early in the Spring as the ground is fit to work, though good crops may be grown from sowing as late as June 15. For table use, sow the smaller kinds in rows 16 to 18 inches apart, and for field culture prepare the ground thoroughly and sow in drills 18 to 24 inches apart. Cover one-half to one inch deep and see to it that the soil is well firmed above the seed.

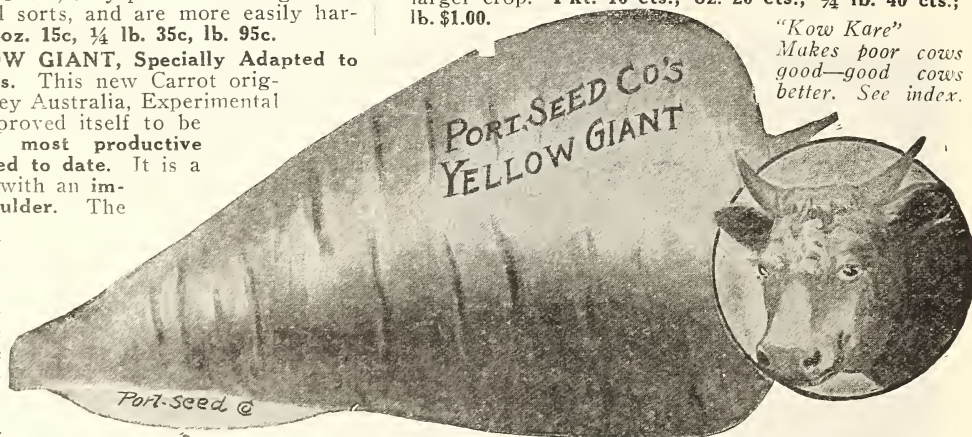
**P. S. CO.'S NEW CORELESS.** A splendid new carrot. Larger than other early varieties. Crisp, solid, of fine flavor and almost coreless, grows smooth and uniform, a true stump rooted type. The very best for canning or drying as it is nearly coreless and has no tap root to trim off and waste. Holds its color and cooks quickly. The ideal carrot for home gardens. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 45c, lb. \$1.25.

**CHANTENAY**—The Market Gardener's Favorite. Tops, medium sized; necks, small; roots, tapering slightly but uniformly stump-rooted and smooth; color, deep orange red; flesh, very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any; is a heavy cropper and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 40c, lb. \$1.00.

**P. S. CO.'S IMPROVED LONG ORANGE.** Popular for farm use on deep, mellow soil. Our stock is an improvement obtained by years of careful selections of the best formed and deepest colored roots, which grow to a large size, some specimens averaging twelve inches in length. Enormous crops can be grown under fair culture; one of the best varieties for feeding stock. Pkt. 10 cts.; oz. 15 cts.;  $\frac{1}{4}$  lb. 35 cts.; lb. 95 cts.

**EARLY SCARLET HORN.** The best early kind for general use. It is larger than the forcing variety, but fully as good in quality, and produces a much larger crop. Pkt. 10 cts.; oz. 20 cts.;  $\frac{1}{4}$  lb. 40 cts.; lb. \$1.00.

"Kow Kare"  
Makes poor cows  
good—good cows  
better. See index.



**IMPROVED SHORT WHITE—"MASTODON."**

Ranks as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Roots half long, smooth, very heavy at the shoulder, but tapering regularly at the point; color, light green at the crown, white below; flesh, rich, white, solid, crisp and of excellent flavor. Pkt. 10 cts.; oz. 15 cts.;  $\frac{1}{4}$  lb. 30 cts.; lb. 80 cts.

# CELERY

**CULTURE**—Sow the seeds early, about February, in a hot-bed or cold frame. When 3 inches high transplant, setting them 4 inches apart. When grown 6 inches, and fine, stocky plants, set in richly manured, deep soil, in rows 3½ feet apart and about 9 inches from plant to plant. Water if dry weather follows transplanting. During the next two months all the attention that is required is to keep down the weeds. Blanch by placing boards along the rows, or earth up a little, and continue doing so at intervals until only the tops of the leaves are visible late in Autumn. Never hoe up the earth when plants are wet. One ounce of seed produces about 6,000 plants. See footnote on growing.\*

**WHITE PLUME** The Leading White Celery. A handsome crisp sort, of very easy cultivation. Naturally its stalks and portions of its inner leaves and heart are white. It is the earliest celery known. **Pkt. 10 cts.; oz. 35 cts.; ¼ lb. \$1.00; lb. \$3.50.**

**GOLDEN YELLOW SELF-BLANCHING.** This is no doubt the best celery for early Spring market use. Plants are of a yellowish green color when young, but as they mature the inner stems and leaves turn a beautiful golden yellow, which adds much to their attractiveness and makes the work of blanching much easier **Pkt. 10 cts.; oz. 80 cts.; ¼ lb. \$2.25; lb. \$8.00.**

**EASY BLANCHING CELERY.** Is an early green top variety that has become very popular in eastern celery growing sections because it requires only a few days to blanch the celery for market. The advantage of this is apparent. **Pkt. 10 cts.; oz. 40 cts.; ¼ lb. \$1.35; lb. \$4.00.**

**WINTER QUEEN.** This is without doubt the most valuable variety of celery for Winter and Spring use ever introduced. Has double the amount of heart of any known celery. The plant has a fine appearance, of compact growth, and blanches to a beautiful cream-white. Ribs perfectly solid, crisp and a delicious nutty flavor. Stored for Winter or Spring use, it is an excellent keeper and when taken out the blanched stalks will be firm and crisp; entirely free from strings; brittle and of sweet flavor. **Pkt. 10 cts.; oz. 30 cts.; ¼ lb. \$1.00; lb. \$3.00.**

**GIANT PASCAL.** Largest variety grown; of fine, nutty flavor; very easily blanched. **Pkt. 10 cts.; oz. 30 cts.; ¼ lb. \$1.00; lb. \$3.00.**

**CELERY SEED.** For flavoring. **Oz. 10 cts.; ¼ lb. 20 cts.; lb. 65 cts.**

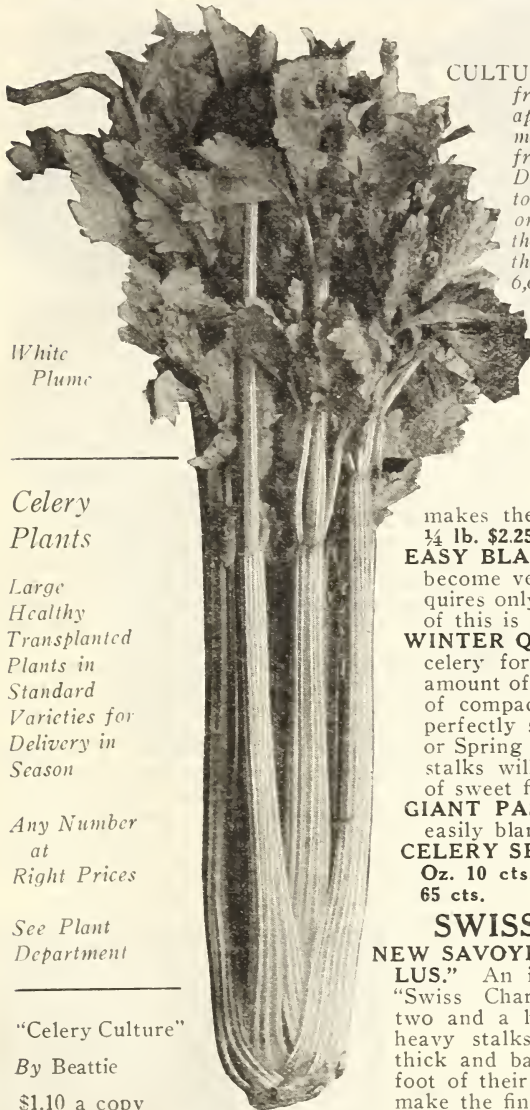
## SWISS CHARDS

**NEW SAVOYED LEAF "LUCULLUS."** An improved variety of "Swiss Chard," growing about two and a half feet high. The heavy stalks are over an inch thick and bare for more than a foot of their length. The leaves make the finest of "greens." By cutting back the leaves close to the ground tender shoots spring up quickly, these or the mid-rib are very delicious cooked as asparagus. Swiss Chard is hardy, easily grown and should be in every garden. It is one of the most delicious of all vegetables. **Pkt. 10 cts.; oz. 20 cts.; ¼ lb. 50 cts.; lb. \$1.50.**

## CELERICAC

**TURNIP ROOTED CELERY, Large Smooth Prague.** Improved form with very few side roots. The largest and best variety. **Pkt. 10 cts.; oz. 30 cts.; ¼ lb. \$1.00.**

\*To Succeed with Celery you must keep your plants growing constantly while young, if you allow them to "stand still" they will run up to seed later. Always cultivate as soon after watering as the ground is dry enough to work well. Fertilize heavily in the Spring—and use nitrate later if needed.



White Plume

Celery Plants

Large Healthy Transplanted Plants in Standard Varieties for Delivery in Season

Any Number at Right Prices

See Plant Department

"Celery Culture"

By Beattie \$1.10 a copy



Celericac Turnip Rooted Celery



Swiss Chard "Lucullus"

# Diamond Quality CUCUMBERS



*Diamond Long Green*

For Cucumbers  
**DIAMOND FERTILIZER**  
will repay its cost many  
times over. Let us send  
you our Free Book  
"FERTILIZERS"

**CULTURE**—Cucumbers need a warm, rich soil, and should not be planted in open ground until the weather is settled, as otherwise they will not thrive. Plant in hills 4 feet apart each way, thinning to three or four of the strongest plants, after danger from insects is passed. As fast as the cucumbers attain suitable size they should be taken from the vine, whether required for use or not, as their ripening soon destroys the vines' usefulness.

**"DIAMOND" LONG GREEN.** The leading large variety. Fruit from 10 to 12 inches long, dark green, crisp and tender. A good variety for slicing, and when matured they are the best for sweet pickles. We offer our "Diamond Strain"—they will grow long and uniform in shape. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 65c, lb. \$1.90.

**PEERLESS, OR EARLY WHITE SPINE.** One of the best sorts for table use, fruiting early and abundantly. Fruit uniformly straight and handsome; light green, with a few white spines. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 50c, lb. \$1.50.

**SHORT GREEN, OR EARLY FRAME.** An excellent sort for both table use and pickling. Fruit straight, small at each end, bright green, with crisp, tender flesh. Comes into use a little later than the Early Cluster and keeps green a long time. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 50c, lb. \$1.50.

**LEMON CUCUMBER.** This dainty little cucumber resembles a lemon both in form and color, having a distinctive flavor superior to and not found in any other cucumber. The Lemon Cucumber is so prolific that a single vine will be ample for the needs of the average family. It is also said that the Lemon Cucumber can be eaten without fear of the harmful results that some experience from eating cucumbers. Pkt. 10c, oz. 25c,  $\frac{1}{4}$  lb. 75c, lb. \$2.50.

**JAPANESE CLIMBING.** A useful variety for growing on a trellis or wire. The cucumbers are long, of a dark green color, white flesh, crisp, and of a good flavor. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 50c.

Our Booklet "FERTILIZERS" tells what you should know about Fertilizers—what they are for, and when to apply—and is mailed free on application.

**BOSTON PICKLING OR GREEN PROLIFIC.** Color, bright green, and a great producer. The fruits average 4 to 5 inches in length when large enough for slicing, and are of excellent quality, but it is for producing medium sized pickles that this variety is so highly esteemed. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 40c, lb. \$1.35.

**TELEGRAPH—FORCING.** A standard forcing variety, very popular with gardeners. Fruit 14 to 16 inches long, of very fine quality. A sure and heavy cropper. Pkt. 25c.

**"THE DAVIS PERFECT" CUCUMBER.** The "Davis Perfect" is of perfect form, large size and of the finest color; is crisp, delicious and almost seedless. This fine variety comes from the originator of the Davis Wax Bean and is one of the most valuable varieties for home or market. The "Davis Perfect" is as handsome, grown outside, as any hothouse cucumber. Pkt. 10c, oz. 20c,  $\frac{1}{4}$  lb. 50c, lb. \$1.75.



*Lemon Cucumber*

## HINTS ON FERTILIZING THE GARDEN

Where no manure is used the fertilizer should be spread over the surface of the finely prepared seed bed at the rate of five pounds for a plot ten feet square, just before planting. The surface soil should then be thoroughly raked so as to mix the fertilizer evenly to a depth of two inches. Never place seed or transplanted plants in direct contact with fertilizer.

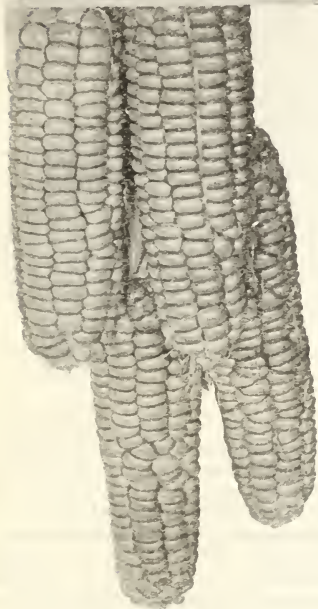
Thoroughly mixing of the fertilizer with the soil is essential to prevent injury of seed or roots.

**Tomatoes, Potatoes, Spinach** and some other crops requiring rather long growing seasons, are materially benefited by a second application of fertilizer when half grown. Side dressings of this kind should be scattered between the rows at the rate of four ounces (one-half pint) to ten feet of row, when rows are spaced two feet apart; and pro rata for rows spaced a greater or lesser distance. To insure even distribution mix the fertilizer with fine, dry earth just before spreading.

**Forcing Growth**—Sodium Nitrate is a very strong stimulant for young growing plants. Vegetables grown for their leaves and stems, like lettuce, cabbage, celery, etc., can be improved by a light application or two of Sodium Nitrate in the early growing period. Nitrate of Soda is readily soluble. Use **one pound to a ten-quart pail of water**. Apply this in small amounts some little distance from the plant. Repeat in from twenty to thirty days.

Diamond Quality

# SWEET CORN



**CULTURE**—Corn should not be planted until the ground is warm, as the seed will rot in cold, damp soil, or if planted too deep. Late April is early enough for first plantings and for succession plant every two weeks through May and June. Cover the first planting very lightly, increasing the depth a little for the later plantings. For the Dwarf Early varieties, rows should be three feet apart; for later large varieties, four feet and the hills two or three feet in the rows.

Sweet or Sugar varieties are used both for table and stock feeding, some of the large later sorts being preferred for silos and fodder.

Prices Sweet Corn, Postpaid, Pkt. 15c; ½ lb. 20c; 1 lb. 30c; 10 lbs. \$2.75.

**GOLDEN WEST.** The richest, sweetest corn ever grown—To be sure of the right strain, look for our Diamond trade mark on every package.

Our "Golden West" Corn, a selection from the original strain of Golden Bantam, produces a larger ear, has a more vigorous growth, and by continued careful selection, improves yearly. We believe it to be the richest, sweetest, best yielding early sweet corn. "Golden West" is extremely hardy, can be planted earlier than other varieties, and, being of dwarf habit, can be planted closer than other sorts. It is the very best corn for market or home gardens, where earliness and quality are considered. The color is a rich, creamy yellow, deepening to golden as it matures, and the quality is so fine that you must try it to appreciate how good corn can be.

**EARLY WHITE CORY—Mammoth.** The stalks are no larger than those of the "White Cob Cory," but each stalk furnishes two or more large, fine-shaped ears, which are fit for use before those of most other sorts. The ears are 12-rowed, very symmetrical and handsome. The grain is large, broad, very white and of remarkably good quality.

**EARLY MINNESOTA.** This old and deservedly popular variety is one of the best early sorts for the market and the private garden.

**COUNTRY GENTLEMAN.** The sugary sweetness and delicious flavor make this old-time favorite one of the most desirable varieties. The slender white irregular kernels are very long, the cob small, making much more to the ear than other varieties.

**STOWELL'S EVERGREEN.** Remarkable for remaining a long time in a fresh condition suitable for the table. Hardy and productive and the best late variety for general use.

**GOLDEN BANTAM.** The original yellow sweet corn. Does not grow quite as large an ear as our "Golden West," but has most of its good qualities; early, productive, sweet and rich.

**BLACK MEXICAN.** An old favorite still in good demand on account of its quality and sweetness. A good variety for home gardens.

**PORTLAND MARKET.** One of the earliest large eared varieties. Large, sweet, plump grains of purest white on well filled ears; a good market variety. Ears large but stalk not considered a rank grower.

**OREGON EVERGREEN.** We offer "Oregon Evergreen" as the finest main crop Sweet Corn. The flavor and sweetness have not been excelled and the extreme whiteness of the large ears makes it very beautiful and valuable for canning. It is large and the stalks produce more ears than any other variety and have a very heavy husk over the grains, protecting them from insects and keeping the ear fresh a long time after cutting.

"Oregon Evergreen" is a hardy, vigorous grower and is the ideal Corn for market gardeners.

## GARLIC

**CULTURE**—Garlic is a profitable crop if your soil is right and proper methods of culture are employed. The sets are planted in the same manner as "Multiplier Onions," dividing the little clump, planting each bulblet thick end down, being careful not to bruise them as they will rot if injured. October is the planting month in Western Oregon. A medium loam soil containing a little sand and well drained is best and commercial fertilizer should be used. Deep and thorough preparation of the soil is necessary.

Plant in rows 14 inches apart—sets 4 inches apart in the row. It requires 175 to 200 pounds to plant an acre. When approaching maturity, the tops die down and are not removed but used to braid the Garlic together for hanging up and convenience in handling. An acre should produce from two to four tons.

Write for Prices

## ENDIVE

This is a hardy vegetable, cultivated principally for a Winter salad. Sow from May until August for a succession of crops: tie the leaves closely together to blanch them.

**BROAD LEAVED BATAVIAN (Escarolle).** Has broad, thick leaves, which form a large loose head. Pkt. 10c; oz. 15c; ¼ lb. 50c.

**WHITE CURLED.** A beautiful variety, with curled, mossy leaves for early use. Pkt. 10c; oz. 15c; ¼ lb. 50c.

**GREEN CURLED.** Standard sort for Fall and Winter. Pkt. 10c; oz. 15c; ¼ lb. 50c.

**HORSERADISH ROOTS.** For prices and descriptions, see Plant Department.



## KOHL RABI

Hardy and of easy culture. Grown from plants the same as cabbage. The Kohl Rabi is a vegetable intermediate between the cabbage and turnip and combines the flavor of both. The edible part is a turnip-shaped bulb formed by the swelling of the stem. Kohl Rabi is far superior to cabbage or turnips in the delicacy of its flavor and is a splendid addition to every garden. It should be eaten before growth ceases.

**EARLY WHITE VIENNA**—Very early; bulb white; best table variety. Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 85c.

**EARLY PURPLE VIENNA**—Same as above except in color, which is purple. Pkt. 10c; oz. 39c;  $\frac{1}{4}$  lb. 85c.



## MUSHROOM SPAWN

With intelligent care and good spawn, Mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar, under the benches of a greenhouse, or in sheds, where the temperature can be kept from 50 degrees to 60 degrees through the Winter. Our free pamphlet gives general instruction.

**NEW AMERICAN SPORE CULTURES**—This Spawn is produced from the original spores by the new French process—exclusively controlled by the American Spawn Co., and is the only method by which select varieties can be perpetuated and improved. Bricks weigh about 20 ounces and will plant 10 square feet. Price per brick, postpaid 40c; prepaid 5 bricks \$1.75

**MUSHROOMS: Growing. By Duggar. 244 p.**

**MUSHROOM CULTURE: Pure Culture Spawn. 32 p.**

\$2.10

.35



## KALE

**EMERALD ISLE—Finest in the World**—This is really the handsomest Kale that has ever come under our notice; and is entirely distinct from other strains, very hardy, of medium height, and very vigorous, throwing out new shoots as fast as the leaves are used, and will furnish excellent greens all winter. The closely curled, handsome leaves are most attractive and of fine flavor. Fine exhibition plant. Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 65c.

**TALL GREEN CURLED SCOTCH**—Grows about two feet high; leaves dark green, curled and wrinkled; very hardy and is improved by a slight frost. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 65c.

**DWARF GREEN CURLED**—Leaves beautifully curled and bright green. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 65c.

For KOW-KALE See Page 35

## LEEK

The Leek belongs to the Onion family. Prized for soups. Cultivate same as Onions, but should be hilled up about the neck to blanch it.

**LARGE ROUEN or American Flag.** A large favorite American sort. Pkt. 10c; oz. 30c;  $\frac{1}{4}$  lb. \$1.00.

## MUSTARD

The varieties we offer make the finest of greens when used alone or if combined with cress furnishes a delicious salad. Sow any time in the Spring, in rows, and thin out as necessary.

**SOUTHERN GIANT CURLED**—We offer a fine strain of the true curled leaf. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. 95c.

**CHINESE MUSTARD**—Less pungent than other varieties. Chinese Mustard is most delicious, thriving at the same season and under conditions that are favorable to spinach. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. 95c.

**FORDHOOK CURLED**—Beautiful dark green, finely curled plume-like leaves that are of distinctive flavor; superior to spinach as greens and is fine for salads. "Fordhook Curled" is vigorous and productive. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 40c; lb. \$1.00.

### A Real ROOT MAGGOT Remedy



Easily applied, inexpensive, not harmful to plant life; but a very valuable fertilizer and stimulant in powder form.

Protects CABBAGE, RADISHES, TURNIPS, ONIONS, ETC.

FOR PRICES SEE SPRAYS

### Diamond ONION FERTILIZER

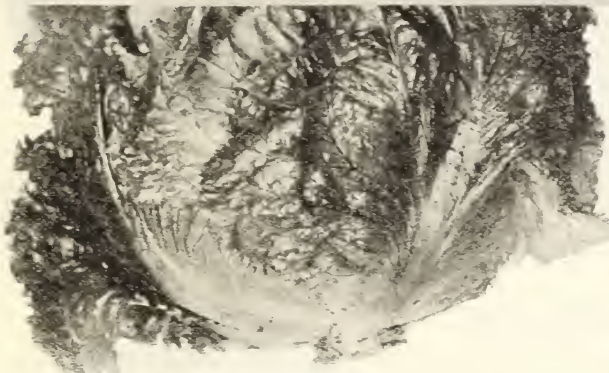
1000 Pounds to the Acre

Our Free Book "FERTILIZER" tells things you should know about fertilizers—gives analyses, values and crop requirements—tells what fertilizers are and how to use them.



Diamond Quality

# LETTUCE



**CULTURE**—Lettuce is so extensively grown that cultural directions seem unnecessary, but we offer a few simple suggestions that may save a later disappointment, as any failure is generally blamed to the seed. This should not be, as Lettuce, like many other vegetables, requires very rich soil, plenty of water, a cool growing season and intense culture to produce the best results. If the earliest varieties are planted out in the Spring, and the weather turns dry and hot, they will run up to seed without heading. The same seed sown in the Fall or with cooler growing weather would develop perfectly. At a temperature of 40 degrees or lower Lettuce will not thrive. At 65 degrees and upward it has a tendency to run up and not head properly. For outside planting sow the seed in shallow drills from one to two ounces to the 100 yards. An ounce will produce 3,000 plants. Four pounds should plant an acre. Lettuce matures in forty to sixty days from time of planting.

P. S. Co.'s "Crispette" a splendid lettuce at all seasons for Home Gardens

**P. S. CO.'S CRISPETTE**—Our "New Crispette" is a beautiful lettuce, the quality of which is simply perfect. The large, curly leaves, which cover the outside of the solid heads, are of a bright, light green. The unusual solidity of the heads is insured by the large, white main ribs of the leaves, each of which curving strongly toward the center, makes it impossible for the leaves to open outward and expose the center, which will always be found crisp, tender, sweet and melting. It matters not whether grown to head in the early Spring or the hottest days of Summer, the leaves are always **crisp and tender.** Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 75c; lb. \$2.50.

**NEW YORK OR WONDERFUL—The Best Head Lettuce for Market Growers**—This is the mammoth head lettuce so largely grown for shipment to distant markets, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. "New York" is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head. Plants should be thinned to 12 to 14 inches. Pkt. 10c; oz. 40c;  $\frac{1}{4}$  lb. \$1.25; lb. \$3.75.

**SIMPSON'S EARLY CURLED**—A leading market variety used for very early planting and forcing. Forms a dense mass of finely curled and wrinkled leaves that are excellent and tender, and do not wilt readily. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.50.

**HANSON—Improved Hard Heading Stock**—One of the very best. Heads green outside and white inside; grow to a remarkable size, very solid, deliciously sweet, crisp and tender. It withstands the hot sun well. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.35.

**BROWN DUTCH**—Forms a large, solid head; sweet, tender and of good flavor. Outer leaves are tinged with brown. It is very hardy. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.50.

**BIG BOSTON**—Very large, smooth-leaved, solid-heading variety, grown more extensively throughout the east and south than any other. It is congenial to all climates, a good shipper. In flavor it probably excels other smooth-leaved varieties. An excellent all-year lettuce. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.75.

**GRAND RAPIDS—For Early Forcing**—As a Lettuce, for green-house forcing, this variety undoubtedly stands at the head of the list. Of quick growth, and stands for some days after being fit to cut. The plant is upright, and forms a loose head or cluster of large, light yellowish green leaves, slightly crimped and blistered, rather thin, good flavor, crisp and tender. It will stand shipping better than most curled sorts. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 65c; lb. \$2.00.

**WHITE PARIS CO.'S**—Oval heads of upright growth; tender and crisp. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 60c; lb. \$1.75.

**MAY KING**—Large growing, smooth leaved, richly flavored. Plant, light green, with round leaves, which form into a very solid, compact, round head; stands a long time without running to seed. Inner leaves blanch to a rich golden yellow. Exceedingly rich, tender and buttery. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 60c; lb. \$1.75.

**BLACK SEEDED SIMPSON**—Forms a close, compact mass curly leaves of a yellowish green. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.50.

**CHICKEN**—A rough, tall lettuce grown only to supply lots of chicken feed. Forms no heads. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 40c; lb. \$1.35.



Grand Rapids



## Diamond Quality MELONS

Rocky Ford—  
Pollock

Black Seeded Ice Cream

Tom Watson

### WATERMELONS

**CULTURE**—Watermelons thrive best on light, well-drained soils, but give good results on any good rich garden soil that is properly drained and cultivated. Plant after the weather is settled and ground warm. Hills should be 8 feet apart each way and with well rotted manure thoroughly worked into each hill. One ounce of seed will plant thirty hills two to three pounds per acre. Thin to two or three plants per hill.

**“KING AND QUEEN”**—Winter Watermelon—Average weight, 25 pounds. Spherical in shape, ivory shell, pink center, seeds black. The most luscious, handsome and valuable winter melon in the world. It is very hardy, a good drought-resister, and does well in any soil which grows melons; ripens every melon in less than 120 days, and does not change its condition for ninety days if not bruised. The shell is very hard and the melon ripens to within one-eighth of an inch of it. **Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.50.**

**SWEET HEART**—Good shipper. Vine vigorous and productive, ripening its fruit early. Fruit large, oval, very heavy, uniformly mottled dark and very light green; rind thin but firm; flesh bright red, firm, solid, but very tender, melting and sweet. Fruit retains its good quality for a long time after ripening. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. \$1.00.**

**BLACK SEEDED ICE CREAM**—See Specialties and Novelties in front of book.

**TOM WATSON**—This excellent new melon is of elongated form, averaging 18 to 24 inches in length, 10 to 12 inches in diameter, has a thin, dark green rind and deep red flesh; crisp and sugary, with a lusciousness and distinctive flavor that makes it one of the finest melons ever produced; is hardy, early and stands handling and long shipment. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

**PEERLESS**—White Seeded—A grand favorite and standard variety. Superior in every respect. Has beautiful crimson core, which is always fine grained; cannot be surpassed in flavor; very prolific. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. \$1.00.**

**KLECKLEY'S SWEET, or MONTE CRISTO**—A splendid sort for home use or near markets. Vine vigorous and productive; fruit of medium size; oblong shape, color dark green in two shades, forming indistinct stripes. Flesh a beautiful bright rich red; exceedingly sweet and tender. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

### MUSKMELONS

**CULTURE**—Plant in hills 4 to 6 feet apart each way, after danger of frost is past and ground is warm; enrich well with well-rotted manure and plant the seeds just under the surface, not too deep. One ounce to fifty hills, two or three pounds per acre.

Melons thrive best on warm, light soils, but good crops are obtained on heavy ground if it is rich and well drained; in cultivating, hill up by drawing the soil toward the plant. Use Bug Death, lime, slug shot or land plaster for destroying insects.

**BURRELL GEM**—The Perfect Melon for Market or Home Gardens—“Burrell's Gem” has a tough, thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about 4½ inches in diameter by 6 inches long, flesh of a reddish orange, very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay. **Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.50.**

**OSAGE OR MILLER'S CREAM**—One of the finest flavored melons in cultivation, and highly recommended. The flesh is of a rich, salmon color, very sweet and melting in quality. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

**LARGE YELLOW CANTALOUPE**—Early and productive; flesh salmon color, rich, sweet. **Pkt. 10c; oz. 20c; ¼ lb., 50c; lb., \$1.50.**

**ROCKY FORD—POLLOCK 10-25**—This is the latest improved popular Rocky Ford. It eliminates every defect of all other strains. Perfect in size, shape, netting, flavor, and long keeping and good shipping qualities. **Pkt. 10c; oz. 25c; ¼ lb. 65c; lb. \$1.95, postpaid.**

**HOODOO**—Grows to a convenient size. Flesh thick and firm; deep salmon or orange color. **Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.75.**

**ROCKY FORD**—The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh thick, green, very sweet and highly flavored. The fruit is wonderfully uniform in shape and quality. A favorite with market gardeners everywhere. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

**SMALL GREEN NUTMEG**—A variety ripening early. Flesh, green, fine and sweet. Superior for the early market, or family garden, and a favorite for hotels and restaurants. **Pkt. 10c; oz. 20c; ¼ lb. 40c; lb. \$1.25.**

## PARSNIPS



*Hollow Crown or Long White*

**CULTURE**—As the seed germinates very slowly, sow early in Spring as possible, in drills 15 inches apart on deeply cultivated rich, loamy soil. Keep clear of weeds and thin to 3 or 4 inches apart. The roots of the parsnip are improved by freezing.

**T**HE Parsnip is nutritious and wholesome, with a sugary sweetness peculiar to itself, and is desirable both for the table and stock feeding. It yields a large crop, and is said to be more valuable for dairy cows than either the carrot or turnip.

**HOLLOW CROWN OR LONG WHITE**—Root very long, white, smooth, tender, sugary, and of most excellent flavor. Very hardy; will keep through the winter without protection. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

**EARLY HALF LONG**—Ready in ninety days. Medium sized, easily dug, has a fine, rich flavor—good for home gardens. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

## PARSLEY

### PLAIN

Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring or they may be dried crisp, rubbed to a powder and kept in bottles until needed. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

**EXTRA DOUBLE CURLED**—A fine, free growing, but not large variety.

The plants bear a great number of leaves, which are so abundant and so finely curled that they resemble a bunch of moss. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

**TURNIP-ROOTED OR HAMBURG**—The root, which resembles a small turnip, is the edible portion of this variety. Extensively grown and used for flavoring soups, etc. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

## PEPPER

Sow the seeds early in hotbeds; or later, when the weather becomes warm, in open beds. When two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart and a foot apart in the rows. Guano and hen manure are excellent fertilizers and will greatly increase the yield.

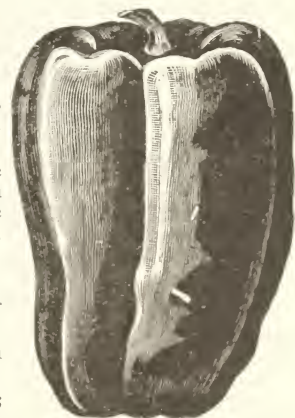
**NEW PERFECTION PEPPER**—Perfection is well named, as these perfect peppers are unequalled for quality and sweetness, are large, smooth, with flesh 3 times as thick as in other varieties, and the skin can be slipped off by heating or boiling a little, or you can pare them like you would an apple. Growth is vigorous. Yield is heavy and continuous, bearing until frost. **Pkt. 10c; oz. 65c.**

**RUBY KING**—Very large, sweet and mild; bright scarlet. **Pkt. 10c; oz. 65c.**

**LARGE BELL, or BULL NOSE**—Large, mild, thick fleshed variety. One of the best for stuffed pickles. **Pkt. 10c; oz. 65c.**

**CAYENNE**—Pods long; bright red; very pungent and used very largely with pickles when green. **Pkt. 10c; oz. 65c.**

**CHILI**—Pods small and pointed; brilliant scarlet; very pungent when ripe. **Pkt. 10c; oz. 65c.**



**The New Planet Jr.** Combined Seeder and Wheel Hoe, will sow onions in a straight line and cover them at the proper depth, insuring a good stand without waste of seed. Saves time, saves work both in seeding and cultivating.

To grow Onions with the least work and most profit use a Planet Jr.

## BOTTOM ONION SETS

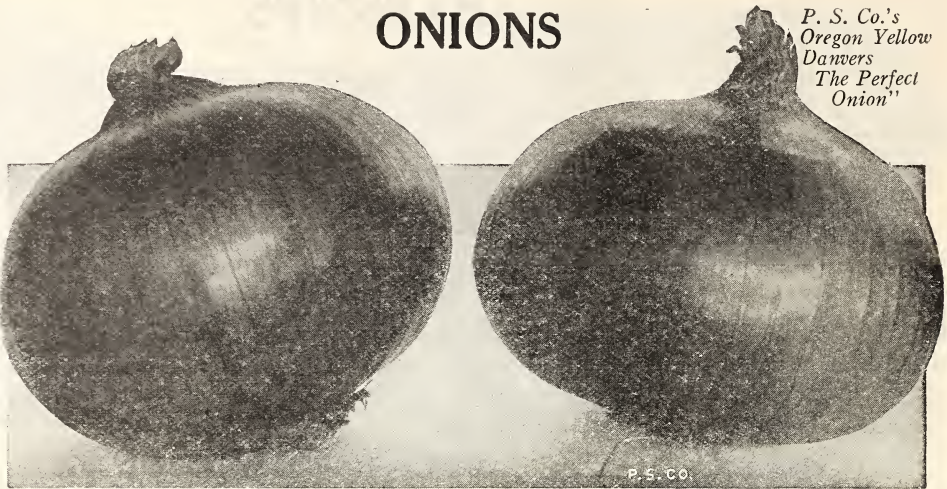
Small onions grown from seed that has been sown too thickly to attain a large size. The small onions (about ½ inch in diameter) thus obtained are planted out and are ready in a short time to pull as green onions for the table or bunched for the market. If left to stand they make ripe onions of the best quality, and come to maturity some six weeks earlier than a crop grown directly from the seed. **Per lb. 20c.**



## DIAMOND ONION FERTILIZER

1000 Pounds to the  
Acre

Our Free Book  
"FERTILIZER"  
tells things you  
should know about  
fertilizers—gives  
analyses, values and  
crop requirements—  
tells what fertilizers  
are and how to use  
them.



**W**E are growers of Onion Seeds and Sets, and for years have been specializing on varieties that attain their greatest perfection in the Northwest and believe in our "OREGON YELLOW DANVERS" we have the finest type of Danver Onion ever offered, and recommend it to all commercial growers.

**CULTURE**—For the best results in Onion growing, the soil should be deep and rich, bottom land of rather loose texture being preferred—(beaverdam soil is best).

Sow  $2\frac{1}{2}$  or 3 pounds of seed per acre, as early in the season as the ground can be put into proper condition, using some good fertilizer such as our special Onion Fertilizer, or manure supplemented with Bone Meal, Muriate of Potash, and in some cases Nitrate of Soda, the latter often being used after the plants are up, while the other fertilizers are worked into the soil before the seed is sown. Hardwood ashes may take the place of the Muriate of Potash.

Thorough clean cultivation and thinning during the growing season is necessary.

## PORTLAND SEED CO.'s OREGON YELLOW DANVERS

This type was developed in Oregon and is the standard market variety in this section.

The bulbs are uniformly large, of a half globe form with small neck and have the thin, brownish-yellow skin of the Danver types and the firm, fine grained flesh is very white and mild.

**Oregon Yellow Danvers** produce the largest crops, ripen up hard and early, are the best keepers and bring the highest prices in the Coast markets; as a table or market onion has no rival.

The seed we offer is produced under the most approved methods of culture and no grower can afford to plant inferior seed when we can supply **Oregon Grown Yellow Danvers**. **Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 75c; lb. \$2.50.**

**YELLOW GLOBE DANVERS**—This is the type most widely known and used as a main crop variety. A handsome, round or globe-shaped variety of large size, with thin, yellowish skin, white flesh, fine grained, mild, firm, and the best of keepers. Ripens early. **Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 75c; lb. \$2.50.**

**YELLOW FLAT DANVERS**—The Yellow Flat Danvers has all the good points of the Globe but is a true flat type, a good cropper, matures quickly and is a good keeper. Is fine grained, mild and white. **Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 65c; lb. \$1.95.**

**LARGE RED WETHERFIELD**—A standard variety; one of the most productive kinds, even in poor soil. Its good keeping qualities render it one of the best for shipping. **Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 75c; lb. \$2.25.**

**AUSTRALIAN BROWN**—This onion resembles the Oregon "Yellow Danvers" in general appearance, but has a clear amber-brown skin that attracts buyers. Early, ripens uniformly, will keep in good condition longer than any other onion. For late sowing, Australian Brown heads the list. **Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 50c; lb. \$1.75.**

**PRIZETAKER**—The Genuine, The Handsomest Yellow Globe Onion—Fine flavor, handsome shape and enormous size. A perfect globe shape, a bright straw-colored skin; the necks are very small and the onions always ripen up hard. **Pkt. 10c; oz. 25c;  $\frac{1}{4}$  lb. 75c; lb. \$2.50.**

**QUEEN**—If sown thickly, produces small, very firm bulbs, the best of all for pickling; if given more room, matures an excellent onion, that will keep all winter. **Pkt. 10c; oz. 40c;  $\frac{1}{4}$  lb. \$1.25; lb. \$4.00.**

**WHITE PORTUGAL SILVER SKIN**—Skin and flesh pure white; mild flavor, flat shape; grown largely for sets. **Pkt. 10c; oz. 30c;  $\frac{1}{4}$  lb. \$1.00; lb. \$3.00.**

**WHITE BARLETTA**—A small pure white, mild onion; fine for pickles. **Pkt. 10c; oz. 35c;  $\frac{1}{4}$  lb. \$1.20; lb. \$3.50.**

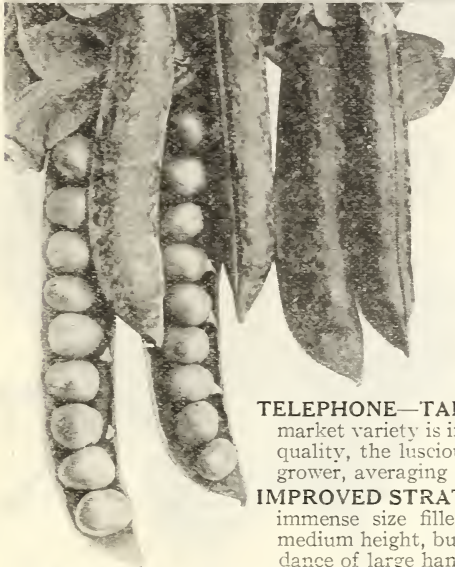
**WHITE "BUNCHING" ONION**—This variety is especially useful to market gardeners for producing an attractive "green onion." The young stalks are crisp and mild, attaining a good size before the bulb forms. **Pkt. 10c; oz. 30c;  $\frac{1}{4}$  lb. \$1.00; lb. \$3.00.**

**BOTTOM ONION SETS**—See page 23.



Bunching Onion

# Diamond Quality GARDEN PEAS



**G**ARDEN PEAS are one of the most important crops, and we have spared no effort to select and improve the best strains of the most profitable and satisfactory varieties. These selected strains, grown under our direct supervision for many years, will give you the biggest yield and the handsomest, sweetest, best flavored Peas for early market home garden. The varieties offered have proved by growing tests to be the best of their kind and class. **Selected Hand Picked.**

## MAIN CROP VARIETIES

Great Favorites with our Market Gardeners.

Prices on Peas, postpaid: Pkt. 15c; ½ lb. 20c; 1 lb. 30c; 10 lbs. \$2.75.

**GRADUS**—This early, wrinkled pea bears pods of large size and combines quality with earliness. It is very hardy; can be planted fully as early as the smooth peas; growth vigorous and healthy; vines 2½ feet in height; very prolific. The quality and flavor are delicious and the peas remain tender and sweet for a long time.

**TELEPHONE—TALL**—Our Western grown selection of this popular favorite and standard market variety is immensely productive, the extra large pods being filled with peas of the finest quality, the luscious sugary flavor not being excelled by any other variety. A strong, rapid grower, averaging 4 to 5 feet.

**IMPROVED STRATAGEM**—One of the best of the large podded peas; the pods are of immense size filled with large, dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky, with very broad, light green leaves, and bearing an abundance of large handsome pods.

**YORKSHIRE HERO**—One of the largest, sweet, wrinkled kinds; vines strong and spreading; pods of good size and well filled; much in use, and has enjoyed a long popularity; medium late; bears a long time; height 2½ feet.

## EARLY AND DWARF VARIETIES

**LITTLE MARVEL**—Splendid New Dwarf Pea for Home or Market—The dwarf, bushy vines, averaging 15 inches are loaded with firm square-ended pods 2½ to 3 inches long, tightly filled with plump, luscious, deep green peas. "Little Marvel" is as early as "American Wonder," fully equals the superb quality of "Nott's Excelsior," and far outyields these two popular sorts.

**LAXTONIAN**—A new, early, dwarf, robust, large podded pea of superior excellence; growth averaging 16 inches. The large pods are well filled, holding eight to ten peas. "Laxtonian" is so highly recommended that you should give it a trial.

**ALASKA, OR EARLIEST OF ALL**—A smooth, blue pea, of even, vigorous, growth and extra early maturity. Vines 2 to 3 feet high, unbranched, bearing four to seven long pods, which are filled with medium-sized, bright green peas of excellent flavor. A great favorite with our market gardeners for Fall or early Spring planting.

**PREMIUM GEM**—Our select strain of this splendid variety is one of the earliest and best of the dwarf garden Peas. The vigorous, luxuriant vines average about 15 inches in height and are heavily loaded with well filled pods of rich, fine flavored sugary peas. Continues in bearing for a longer period than most varieties in this class. A splendid home garden pea for successive planting and for canning.

**EARLY DWARF GRADUS**—Slightly earlier and more dwarf than the regular GRADUS. Vines moderately stout, pods medium green, rather large and well filled with dark green peas of exceptional quality.

**AMERICAN WONDER**—One of the most popular and best of the early wrinkled sorts. A great favorite for family use. Has stout, branching vines, covered with well-filled pods containing seven or eight large, exceedingly sweet, tender and well-flavored peas. Height 10 to 12 inches.

**Use Sulphur** in connection with your fertilizers and make your soil give you the highest possible returns. It is a first class fertilizer, fungicide and insecticide. See Index.

## HERB SEEDS FOR FLAVORING

FOR PEAS  
USE



A Cheap Insurance

**ANISE**—Anise seed for flavoring. ¼ lb. 15c; 1 lb. 40c.

**POPPY**—Seed used for flavoring. ¼ lb. 10c; 1 lb. 35c.

**MUSTARD**—For flavoring and pickling. 1 lb. 10c; postpaid 20c; 100 lbs. market price.

**CELERY**—For flavoring. Oz. 10c; ¼ lb. 15c; 1 lb. 50c.

**CARAWAY**—We keep constantly on hand a large stock of well preserved seed for the use of Druggists, Bakers and Confectioners. Oz. 10c; ¼ lb. 20c; 1 lb. 55c.

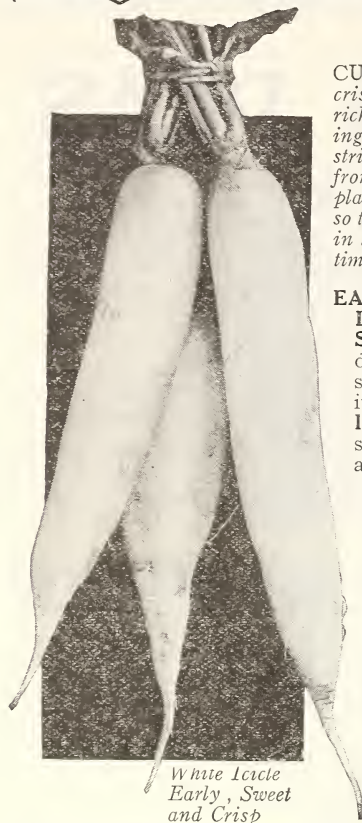
**DILL**—Used to flavor soups, stews and pickles. Leaves possess similar qualities, and can be used in the same manner as seeds. **Market Price.**

## RADISHES

**CULTURE**—To secure Radishes with crisp, tender flesh, grow them quickly in rich, loose soil, and gather before reaching full size. Our Radish Seed is strictly of the finest grade, being grown from carefully selected roots. Frequent plantings should be made for succession, so that a supply of fresh, tender Radishes in the finest condition may be had at all times.

**EARLY CRIMSON GIANT**—The Largest Early Scarlet Turnip-Shape Radish—An early Radish, double the size of any of the turnip-shaped type, but, notwithstanding its immense size, **does not get hollow and pithy**. The flesh is a sparkling white, solid, crisp, juicy and of the mildest flavor. The shape of bulb varies from round to almost oval, but the bright, deep crimson color of skin remains quite constant. Excellent for both forcing and open ground. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**

**EARLY SCARLET GLOBE**—A small, scarlet globe-shaped Radish, with small top and of very quick growth, very early; rich color and crisp, tender flesh. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**



*White Icicle  
Early, Sweet  
and Crisp*

**WHITE ICICLE**—This superb Radish is the finest and longest of the very early, pure white varieties. Planted in the Spring, is ready for use in twenty to twenty-five days; their long, slender form and pure, paper-white skin are most attractive when bunched for market. This Radish is not only crisp and tender when young but also **retains these qualities until the roots attain large size**; is excellently adapted for forcing purposes or successive sowing in open ground and gives a continuous supply of tender, crisp Radishes for the table or market throughout the season. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

**EARLY SNOWBALL**—Grand improvement on the White Box or White Turnip Radish, so popular for several years. Handsome in shape, very early, and has but few leaves, is of a clear white color, solid, juicy, crisp, tender and unsurpassed in flavor. A good sort for forcing. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**

**IMPROVED CHARTIER**—Roots, long, tapering and attaining a very large size. Of rapid growth; remains crisp and tender until fully grown. Color, scarlet above shading into white at the tip. Flesh white and mild flavored. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**



*Crimson Giant—Best Scarlet Turnip Radish*

**EARLY SCARLET TURNIP—White Tipped**—A beautiful variety; deep scarlet with white tip. Very early. Has a small top, and may be planted closely. Flesh crisp, tender and sweet. Cannot fail to give satisfaction as a forcing Radish. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

**EARLY LONG SCARLET, SHORT TOP**—This bright scarlet, small topped sort is uniformly straight, smooth, brittle and crisp, and is an excellent sort for private gardens or market use. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**

**LONG BRIGHTEST SCARLET, WHITE TIPPED**—This is the brightest and handsomest colored Scarlet Radish known. The lower third of the root is snow white; very attractive. Extra early and flesh very tender. Valuable for forcing or open ground. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**

**FRENCH BREAKFAST OR HALF LONG**—Medium size, quick growth, crisp and tender; lower end and tap-root white. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

**LADY FINGER OR WHITE VIENNA**—Of rapid growth and beautiful shape. Skin and flesh snow-white; very juicy, firm, crisp and tender; the finest of Long White Radishes. **Pkt. 10c; oz. 15c; ¼ lb. 40c; lb. \$1.25.**

## WINTER RADISHES

**CHINA ROSE WINTER**—One of the best Fall and Winter varieties; a favorite with market gardeners, bright rose color; flesh white, firm and of superior quality. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**

**BLACK SPANISH LONG**—Standard Winter sort; has good flavor and keeps well. **Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.**

## USE DIAMOND VEGETABLE FERTILIZER FOR RADISH

Our Book "FERTILIZERS" tells how to profitably use Fertilizer. Tells what you should get for your money when you buy Fertilizers—a book every grower should have and is FREE FOR THE ASKING.



Diamond Quality

# TOMATOES



**T**HE NEWER types of hardy, prolific Tomatoes are better adapted to the cool Coast climate than the older sorts; splendid crops are now being grown where heretofore it was thought Tomatoes would not thrive. A good plan, try several varieties and find which is best suited to your special conditions.

**CULTURE**—Sow early in hotbeds, and as soon as they have four leaves transplant into shallow boxes. Harden off, and set out as soon as danger of frost is past. An ounce of seed will produce 3,000 to 4,000 plants. If blight appears use "Bordeaux" but it is better to use as a preventative before blight strikes the plant, and as a control measure for flea beetles, spraying the under side of foliage.

**"BURBANK" TOMATO**—The originator describes it as the earliest, smoothest, most productive and best early tomato. Color bright crimson, thick, smooth and firm with few seeds. Unusually heavy and of the finest quality. Keeps well; a good shipper; a prolific, continuous bearer, has the unusual and remarkable feature of being easily peeled, the skin slipping readily from the rich, firm flesh. Resistant to wilt and other diseases. Pkt. 10c; oz. 65c; ¼ lb. \$2.00.

**CHALK'S EARLY JEWEL**—Large, bright red, smooth, round fruits, colored evenly up to the stem; solid, almost seedless, fine flavor. Vines are vigorous, not subject to blight, and yield fully equal to or better than Earliana. We recommend as an early Tomato for either market or home gardens; it has given us satisfaction under the varying conditions of soil and climate in the Northwest. Pkt. 10c; oz. 45c; ¼ lb. \$1.25.

**STONE**—Popular with canners, growers and market gardeners. Solidity and carrying qualities are remarkable. Color a desirable red. Shape perfectly smooth and thicker from stem to blossom end than most varieties. Very handsome and salable. Pkt. 10c; oz. 35c; ¼ lb. \$1.00.

**COMET—FORCING**—The very best forcing variety and a general favorite with greenhouse growers. Color is a beautiful scarlet; fruits are of good size, very smooth and uniform. Pkt. 10c; oz. 50c.

**LIVINGSTON GLOBE**—One of the best Early Tomatoes Hardy and Blight Resistant—Fruits large, even size; very early; ripen through; always smooth, firm, round, solid meat, few seeds. Color beautiful glossy, rose-tinted purple; very productive. Is also an excellent forcing variety. Pkt. 10c; oz. 45c; ¼ lb. \$1.50.

**DWARF CHAMPION**—Dwarf, upright growth; smooth, purple fruit. Pkt. 10c; oz. 45c; ¼ lb. \$1.50.

**NEW—CARTER'S SUNRISE**—Early English variety, fine flavor and healthy, vigorous growth, solid flesh, few seeds; very even, smooth and shapely. Color bright, rich scarlet. Is also one of the best forcing varieties. Pkt. 10c; oz. 50c; ¼ lb. \$1.65.

**GOLDEN QUEEN**—A first-class, large, smooth, pure yellow tomato. Pkt. 10c; oz. 50c; ¼ lb. \$1.65.

**YELLOW PEAR**—A small, pear-shaped tomato, borne in great profusion, vine literally covered with clusters of fine, solid fruit; excellent for preserving. Very hardy. To this class belongs Yellow Plum and Yellow Cherry. All same price. Pkt. 10c; oz. 65c; ¼ lb. \$2.00.

**JOHN BAER**—Is the result of fifteen generations of breeding; it produces perfect, solid, high crown, brilliant red tomatoes. They ripen ten days before Earliana, bearing 50 to 100 fruits per plant. The flavor is deliciously sweet. The plant will stand plenty of fertilizer without going to vine. Keeps well; a good shipper; a prolific, continuous bearer, and has the remarkable feature of being easily peeled, the skin slipping readily from the rich, firm flesh. Resistant to wilt and other diseases. Pkt. 10c; oz. 50c; ¼ lb. \$1.50.

**BONNY BEST**—Has given splendid results wherever tried and being early, hardy, very productive, recommended for outside planting wherever tomatoes can be grown. A good forcing variety. Fruit smooth, round, slightly flattened, solid, a bright scarlet. Quality excellent. Pkt. 10c; oz. 45c; ¼ lb. \$1.25.

**SPARK'S EARLIANA**—One of the Earliest Tomatoes—Large, uniform size and beautiful red color. Ripens thoroughly all over, the stem end coloring up perfectly. Almost seedless and solid. A vigorous grower, heavy bearer, continuing until frost. Succeeds everywhere, and especially recommended for this Coast. Pkt. 10c; oz. 45c; ¼ lb. \$1.25.

**GROUND CHERRY OR HUSK TOMATO**—Grows to great perfection under ordinary culture, yielding abundantly; very much prized for preserving; should be in every garden. Pkt. 10c; oz. 65c; ¼ lb. \$2.00.



Ground Cherry or Husk Tomato

**Tomato Plants** STANDARD VARIETIES FOR SEASONABLE DELIVERY — FINE HEALTHY TRANSPLANTED AND POT GROWN PLANTS — Safely packed and shipped to any point in the Northwest. (See Plant Dept.)

## SPINACH

This is an important gardener's crop, of easy culture. For Spring and Summer use, sow either broadcast or in drills one foot apart and one inch deep, as early as the ground can be worked, and every two weeks for a succession.

**KING OF DENMARK**—Undoubtedly the most valuable of new introductions of early sorts, remaining in good condition from one to two weeks after other varieties have gone to seed. Plants are of rapid growth, leaves thick and stand well after cutting. Of good quality. Sure to win favor with both home and market gardener. **Pkt. 10c; ¼ lb. 35c; lb. \$1.00.**

**SAVOY LEAVED—BLOOMSDALE**—Very early; of upright growth; leaves pointed. Plant in the Autumn for Spring use; grows quickly. **Pkt. 10c; ¼ lb. 25c; lb. 75c.**

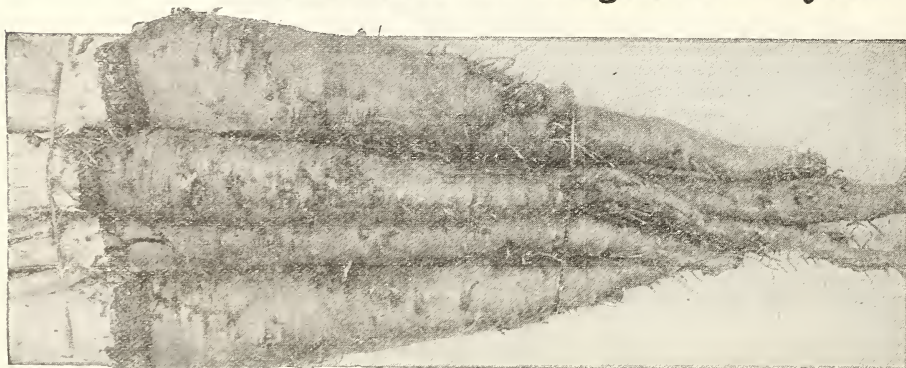
**IMPROVED THICK LEAVED**—Variety which grows very rapidly, forming a cluster of large, very thick, slightly savoyed leaves of fine color, and quality when cooked. Best for market gardeners. **Pkt. 10c; ¼ lb. 25c; lb. 75c.**

**PRICKLY WINTER**—Hardest variety; must be sown in the Fall; seed prickly; leaves long, pointed, thick and succulent. **Pkt. 10c; ¼ lb. 25c; lb. 75c.**

**LONG STANDING**—An improved variety for general use; large, fleshy savoyed leaves remain in an edible condition over a long period, being very slow to go to seed. **Pkt. 10c; ¼ lb. 25c; lb. 75c.**



## SALSIFY or Vegetable Oyster



Salsify is a nutritious and wholesome vegetable, having the appearance of a small parsnip; flavor closely resembling oysters, for which it is, in that respect, a good substitute. It is rapidly coming into more general use.

**CULTURE**—Sow early in Spring, in drills a foot apart, and when 2 or 3 inches high thin to 3 or 4 inches. Its general culture is the same as that recommended for carrots. The roots are perfectly hardy and may remain in the ground during Winter, or may be stored in dry earth or sand.

**MAMMOTH SANDWICH ISLAND**—The leading variety; produces a large crop of straight, smooth roots. **Pkt. 10c; oz. 30c; ¼ lb. \$1.00; lb. \$3.00.**

## OKRA or Gumbo

**IMPROVED DWARF GREEN**—Very early, with long, green slender pods. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

**WHITE VELVET**—The large pods are smooth or very slightly ribbed, remain tender a long time. **Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. 95c.**

Use Diamond Vegetable Fertilizer

## TOBACCO

**CULTURE**—Sow the seed thinly in beds, as early as they can be well prepared. Cultivate thoroughly, transplanting when 6 inches high to rows 4 feet apart each way.

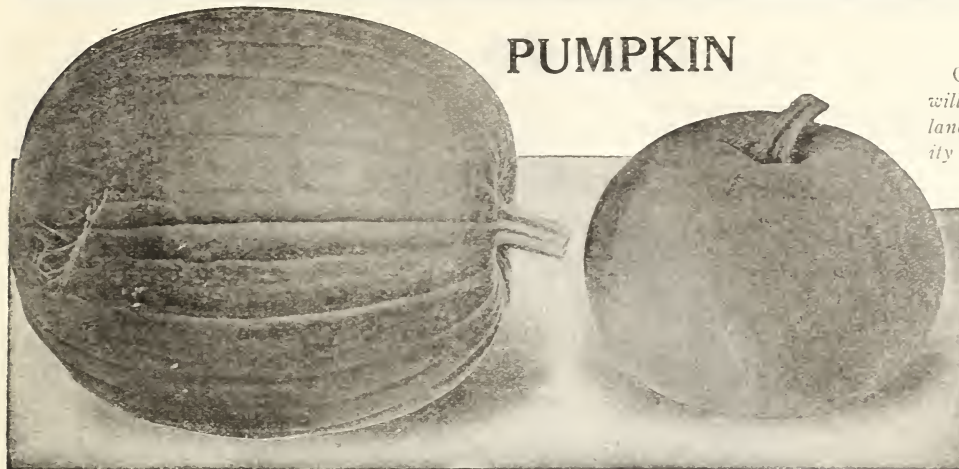
**CONNECTICUT SEED LEAF**—Hardy, and the best adapted to cool localities. **Pkt. 10c; oz. 75c.**

**HAVANA**—Of fine texture and delicate flavor. **Pkt. 10c; oz. 75c.**





## PUMPKIN



*Sweet or Sugar and Winter Luxury are good Pie Pumpkins.*

**CULTURE**—Pumpkins will grow on any good farm land, but their size and quality will depend on the culture and fertility of the soil. Plant early in May, in hills 6 to 8 feet apart. One pound of seed will plant about 300 hills. Care should be taken to keep the different varieties well apart, also away from other vining plants as they mix and deteriorate very rapidly.

**SWEET OR SUGAR**—A handsome and productive small pumpkin; skin, orange; flesh, deep yellow, fine grained, very sweet. This is the famous "New England Pie Pumpkin." Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.

**WINTER LUXURY**—The best flavored pie pumpkin grown; enormously productive; excellent keeper; medium size; color, golden-russet, finely netted; flesh, deep golden, sweet, tender and very thick; none better. Pkt. 10c; oz. 20c; ¼ lb. 35c; lb. \$1.00.

**LARGE YELLOW OR CONN. FIELD**—Large, round; deep, glossy yellow. Vines vigorous and very productive; good keeper. Grown extensively for stock feeding. Pkt. 10c; oz. 15c; ¼ lb. 30c; lb. \$1.00.

**GIANT OF ALL—"King of Mammoths"**—This colossal Pumpkin is almost a globe in shape. The skin a beautiful, rich golden yellow, flesh firm, fine grained and deep yellow, sweet flavored, very thick and of excellent quality for so mammoth a variety. These Pumpkins attain an enormous size. Large Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.50.

### OUR MONTHLY PLANTING CALENDAR FOR VEGETABLES

	Under Glass	Open Ground	Setting
ASPARAGUS—All varieties...		Mar. to May...	Fall or Spring
ARTICHOKE—Globe		Mar. and Apr.	Fall or Spring
BEANS—Bush		May to July	
Pole		May and June	
BEET—Early		Mar. and Apr.	
Late		Apr. to July	
Mangles Sugar		Apr. to June	
BRUSSELS SPROUTS		Apr. to June	July to Sept.
BROCCOLI		Apr. to June	July to Sept.
CAULIFLOWER—Early	Feb.	May and June	Mar. and Apr.
Late	Mar.	May to July	May to July
CABBAGE—Early	Feb.	Mar. and Apr.	Mar. and Apr.
Late	Mar.	Apr. to June	May to July
CARROT—Early		Mar. and Apr.	Apr. to June
Late		Apr. to June	Apr. and May
CELERY—Early	Feb.	Apr. and May	May and June
Late		Apr. and May	May and June
CHERVIL		Apr. and May	
CHICORY		Apr. and May	
CHIVES		Mar. and Apr.	Apr. and May
COLLARDS		Apr. and May	
CORN—Sweet Early		May and June	Apr. and May
Sweet Late		May to July	
CORN SALAD		Apr. to June	
CRESS		Mar. to June	
CUCUMBER	Mar.	May and June	May to July
EGG PLANT	Mar.	May to June	May to July
ENDIVE		April to July	
HORSERADISH		Mar. to May	Mar. to May
KALE		May and June	June and July

	Under Glass	Open Ground	Setting
KOHLRABI		Apr. to June...	May to July
LEEK	Feb.	Mar. to May...	Apr. to June
LETTUCE—Early	Feb.	Mar. and Apr.	Apr. and May
Late		Apr. to Aug.	May to Aug.
MELON	Feb.	May and June	May and June
MUSTARD		Mar. to Oct.	
OKRA		May and June	
ONION—For Dry Onions	Feb.	Mar. to May...	Apr. to June
ONION SETS—For Bunching		Mar. to Oct.	
PARSLEY		Mar. to June	
PARSNIP		Mar. to June	
PEAS—First Early		Oct. and Nov.	
Second Early		Mar. to July	
Late		Apr. to July	
PEPPER	Feb. and Mar.	May and June	May and June
PUMPKIN		May and June	
RADISH—Early	Feb.	Apr. to Sept.	
Winter		May to Sept.	
RHUBARB		Apr. and May	Nov. to Apr.
SALSIFY		Apr. to June	
SPINACH		Apr. to Oct.	
SQUASH—Summer	Feb.	May and June	May and June
Fall and Winter		May and June	
TOBACCO	Feb. and Mar.		May and June
TOMATO	Feb. to Apr.		May and June
TURNIP—Early		Mar. to May	
Late		Apr. to Sept.	
Ruta Baga		Apr. and May	
HERB SEEDS		Apr. and May	
POTATOES		Apr. to July	

### ARTICHOKEs

**ARTICHOKEs**—Planted and cultivated same as potatoes. Of great value for feeding stock. They are the best hog feed known; are remarkable for fattening properties, great productiveness (over one thousand bushels having been raised on one acre) and ease with which they can be grown. They need not be dug. Turn the hogs into the field, and they will help themselves by rooting. One acre will keep from twenty to thirty hogs in condition from October until April; highly recommended for milch cows, increasing yield of milk and at the same time improving their condition. Plant ten bushels per acre.

**Note**—Tubers on hand from February. Postpaid, 10 lbs., \$1.00; 100 lbs., \$2.50; F. O. B. Portland.





## TURNIPS

**CULTURE**—For early use sow the small sorts as soon as the ground can be worked in the Spring, in drills 14 inches apart. As the seed is very fine, it should be covered but slightly, except in very dry weather. For Fall and Winter use, sow the early kinds during July, August and September.

### EARLY GARDEN TURNIPS

**EARLY PURPLE TOP MILAN**—This variety is ready for the table sooner after planting than any other yet introduced. Top small, erect, strap-leaved; bulb a deep purple above, white underneath; flesh white, firm and delicate. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 60c; lb. \$1.75.

**EARLY WHITE MILAN**—Same as Purple Top Milan, but pure white, sweet and tender; best early market variety. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 60c; lb. \$1.75.

**PURPLE TOP STRAP LEAF**—A leading white-fleshed variety, and one of the best, either for the family, market garden or field crop. It is medium size, and produces a large crop. The flesh is firm but tender, and of a superior rich buttery flavor. A good keeper. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**EARLY WHITE FLAT DUTCH**—One of the very best and most universally grown. Small, erect top, round, flat; flesh white, firm, but very tender and sweet. Of quick growth, it is soon ready for the table and keeps well. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**EARLY SNOWBALL**—Early round turnip, maturing in seven weeks, is of perfect form, snowy whiteness, crisp, solid, fine flavor. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 40c; lb. \$1.25.

**GOLDEN BALL**—Undoubtedly one of the most delicate and sweetest yellow-fleshed turnips yet introduced. Not of large size, but firm, hard and most excellent flavor. Keeps well and is superior as a table variety. It is extensively used by market gardeners. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

### MAIN CROP TURNIPS

**COWHORN**—Sometimes called Long White. Slightly crooked. Pure white except a little shade of green at the top. Grows half out of the ground and is of very rapid growth. Is delicate and well flavored. Has proved itself one of the best stock turnips ever introduced in Oregon; an immense yielder. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**POMERANIAN WHITE GLOBE**—One of the most productive kinds, and in good, rich soil, roots will frequently grow to 12 pounds in weight. It is of perfect globe shape; skin white and smooth; leaves dark green and of strong growth. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**PURPLE TOP WHITE GLOBE**—A large, globe-shaped variety; purple above the ground. It is handsome and of excellent quality; recommended both for family garden and field crop. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**LARGE WHITE NORFOLK**—A white variety, usually attaining a very large size. Extensively grown for stock feeding. The leaves are also used for greens. It is hardy and may remain in the ground all Winter. Yields very large crop. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**WHITE EGG**—Is perfectly smooth, of a pure, clear white, growing half out of the ground, and at times to the size of a Ruta Baga, being a very choice kind for table use; of excellent flavor; sweet and mild. Pulls clean from the ground, thin, snow-white skin. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**YELLOW ABERDEEN**—Round, medium size; light yellow. Produces a large crop; is hardy and keeps well; flesh very firm but tender and sweet. A great favorite with the dairymen. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 40c; lb. \$1.00.

### TURNIPS—Ruta Baga or Swede

For feeding stock in Fall and Winter there is nothing superior to Turnips or Ruta Bagas, as they are much liked by all kinds of stock and serve to keep them in good condition. A profitable crop.

**IMPROVED AMERICAN PURPLE TOP**—The leading variety; large, immense yielder. Superior in every way. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

**MONARCH OR TANKARD**—Very solid, fine grained, of fine flavor; grows well out of the ground and yields large crops. Pkt. 10c; oz. 15c;  $\frac{1}{4}$  lb. 35c; lb. \$1.00.

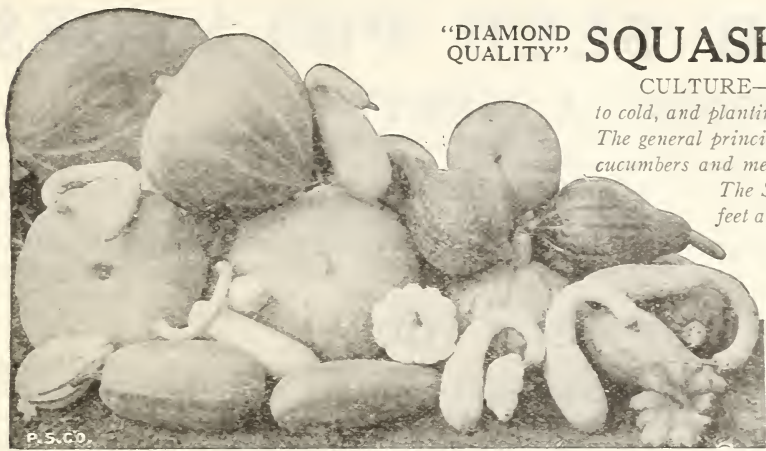
**WHITE SWEET RUSSIAN**—Excellent for table or stock. Very large size; white, solid, sweet and rich; keeps well. Pkt. 10c; oz. 20c;  $\frac{1}{4}$  lb. 45c; lb. \$1.25.

### Magotite Prevents Root Maggots

**Cut Worm Food** Protects Tomatoes, Cabbage, Melons, Cucumbers and Other Plants—easily applied—inexpensive. Price, 1-lb. pkg. 50c.

## RAPE

**DWARF ESSEX**—One of the best forage plants, producing immense quantities of green feed when grass and other crops are dried up. Highly recommended by Professor Shaw and other eminent authorities. Has yielded ten tons of green forage per acre with a food value double that of green clover. Excellent pasture for all stock, and fine green feed for chickens. Thrives on all soils and is ready for use in six to eight weeks from time of sowing. Also valuable for plowing under. Sow same as turnips from May until September, or sow with grain. Use four pounds per acre in drills, eight pounds broadcast. Lb. 25c; postpaid. 10 lbs. \$1.55. Write for prices in quantities.



**"DIAMOND QUALITY" SQUASH**

**CULTURE**—The plants are very tender and sensitive to cold, and planting must be delayed until settled warm weather. The general principles of culture are the same as those given for cucumbers and melons, but squash is less particular as to soil. The Summer varieties should be planted four to six feet apart each way and the winter sorts eight to ten feet. Three plants are sufficient to a hill.

To protect from beetles, young plants should be screened, and growth hastened by the application of our Diamond Fertilizer. Dusting the young plants thoroughly with "Corona" Dusting Powder, including the stem where it enters the soil, will often save them.

**SUMMER VARIETIES**

**WHITE BUSH**—The best Summer sort for the home garden or market; very productive and of good size. Pkt. 10c; oz. 20c; ¼ lb. 45c; lb. \$1.25.

**EARLY SUMMER CROOKNECK**—Early, prolific, solid curved neck; skin yellow, thin, hard and warty; flesh tender and of good quality. Earlier and larger than the ordinary Crookneck. Pkt. 10c; oz. 20c; ¼ lb. 45c; lb. \$1.25.

**WINTER VARIETIES**

**IMPROVED HUBBARD**—The best seller and most popular variety on our list. Rind dark green, warty and very hard. Flesh light orange, very dry, sweet and rich flavored. Has no superior. Long keeper. Pkt. 10c; oz. 20c; ¼ lb. 45c; lb. \$1.25.

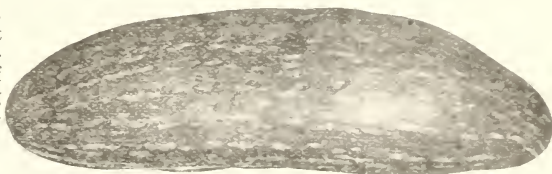
**GOLDEN HUBBARD**—The same in size, shape and quality as the well known Hubbard Squash, except that it is bright red or golden color, and somewhat earlier. Good keeper. Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.50.

**BOSTON MARROW**—Skin yellowish, very thin; flesh dry and fine grained; of unsurpassed flavor. Pkt. 10c; oz. 15c; ¼ lb. 35c; lb. \$1.00.

**SIBLEY OR PIKE'S PEAK**—Shell smooth, thin and of a pale green color; the flesh is thick, solid, deep orange color; very dry, fine grained with a delicate flavor. Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.50.

**MAMMOTH CHILI**—The largest of all Squashes, growing to an enormous size, often weighing over 200 pounds, while its rich, fine flavored flesh insures its value for all purposes. Its size makes it valuable for stock feeding. Pkt. 10c; oz. 20c; ¼ lb. 50c; lb. \$1.50.

**BANANA SQUASH**—Grows from one to two feet in length. Flesh firm and solid, of beautiful orange-yellow, and excellent quality. Rind or shell smooth and grayish-green color. Resists heat of the sun better than the Hubbard and because of its excellent flavor and splendid keeping qualities, remaining in good condition from one season to another, is already superseding that variety in many localities. Pkt. 10c; oz. 25c; ¼ lb. 80c; lb. \$2.50.



DIAMOND FRUIT FERTILIZER FOR YOUR VEGETABLES. Ask for Our Free Book, "Fertilizer."

**Tomato Plants**

Standard varieties for seasonable delivery—Fine, healthy transplanted and pot grown plants—Safely packed and shipped to any point in the Northwest. See Plant Dept.

**ARTICHOKE**

**LARGE GREEN GLOBE**—The variety used as a table vegetable. The edible portion is the thick end of leaf of the flower head. Sow early in drills and when about ten inches high transplant into rows four feet apart each way. It will produce only a small crop the first year, but will continue in good bearing five years. Cut before the bud opens. The seedlings are variable and for market gardening they are generally propagated from cuttings.

The buds when in blossom resemble huge thistles and the foliage being highly ornamental, this variety is much used for hedges and display in parkings. Pkt. 10c; oz. \$1.00.

**JERUSALEM—White**—Distinct from the Globe, belongs to the Sunflower family. Produces tubers like potato; grown in the same way. A fine vegetable for table and also valuable as hog feed. Price and description, page 29.



Globe Artichoke



# PEDIGREED SEED POTATOES

## CHOOSING A VARIETY

**W**E OFFER to the growers, and our seed potato development work is done, only on those varieties which have proved standard with buyers within as well as those out of the state who purchase Oregon stock. Not only do we catalog standard varieties but we offer some of the finest seed potato stock available in the Northwest. Few farm crops are more profitable than potatoes. Potatoes are of such great importance as food, giving quick sure cash returns and are so valuable in crop rotations, that we maintain a separate potato department under the personal supervision of a trained seed potato expert.

## LET US ASSIST YOU

We are glad to offer you the profit of our experience as growers which should be of a special value to you at this time when there is a general awakening to the necessity for systematic scientific selection of seed which shall produce a crop giving few culls and a profitable percentage of U. S. No. 1 grade; the new shipping grade required by law in Oregon and the standard with buyers in other states. Like begets like and no matter how good the soil or how well the care, there is but one outstanding requirement for the commercial grower who seeks a profitable investment or for the gardener who grows for family use and that is the securing of the best seed stock available. Plant **pedigreed seed potatoes** true to type, containing the minimum of disease and maximum of productive capacity. Start right if you hope to finish right.

## OUR STOCK IS PEDIGREED

Good seed potatoes do not **just happen** nor are they a matter of promiscuous pick-up; they are the result of being carefully selected and grown especially for seed purposes. As many "**cull-making**" and "**yield cutting**" diseases are difficult to recognize, even by trained observers, good strains often require several years growing under different conditions, removing many plants each season before they can be called free enough from disease to sell as clean seed capable of high yields. Unless the seed is good comparative failure is inevitable, but with well-bred stock and reasonable care success is assured. **Profit lies in Yield.** Profitable yields come only in two ways, **Good Seed—Good Seed Bed.**

## POTATO PROFITS

This table shows how slight increases in yield per hill go to make up total yields which change losses into gains:

No. Hills—Per Acre	Yield weight—Per Hill	Yield Bushels—Per Acre
10722	8 oz.	90.0
10722	10 oz.	121.4
10722	1 lb.	178.7
10722	2 lb.	357.4
10722	3 lb.	536.1
10722	5 lb.	893.5
10722	10 lb.	1787.0

Planted 15 by 36 inches. In the face of the above data is there any argument that can induce the grower striving for a profitable yield to plant potatoes which have no consistent performance record behind them?

## WE ARE SPECIALISTS

Our equipment for growing, storing and handling, in addition to our own expert personnel, gives the best opportunity to apply continuously the closest attention to our seed potato production in an effort toward

- |                                            |                                        |
|--------------------------------------------|----------------------------------------|
| 1—Increased yield and uniformity of yield. | 5—General Vitality.                    |
| 2—Freedom from and resistance to disease.  | 6—True conformity to type.             |
| 3—Hill averages of marketable size.        | 7—Fixed color and eye characteristics. |
| 4—Cooking qualities.                       | 8—Trueness to name.                    |

On a **comparative basis** we defy **competition.**

## TREATING POTATOES

Due to certain skin diseases—such as Rhyzoctonia and Scab, which are apt to be present on even the most carefully grown seed stock; treating potatoes before planting with Corrosive Sublimite (Mercuric Chloride), which can be purchased at any drug store, is very essential. We shall be glad to mail you full information regarding this treatment upon request. Rolling in Gypsum (Land Plaster), for cut seed is a valuable practice; and cut seed should be planted soon after cutting.

## AMOUNT TO PLANT PER ACRE

Planting 3 feet by 15 inches with

- 8 oz. potato to the hill takes 54-100 lb. sacks per acre
- 4 oz. potato to the hill takes 27-100 lb. sacks per acre
- 2 oz. potato to the hill takes 12-100 lb. sacks per acre
- 1 oz. potato to the hill takes 6-100 lb. sacks per acre

Our experience and that of Agricultural Colleges proves that under average conditions the larger the seed piece the larger total yield, and net value of crop, i. e., value of marketable tubers less value of seed. Under conditions of ample soil, fertility and moisture, whole seed should be planted. When cutting is done large, blocky seed pieces give better results than longer shaped pieces, the latter having too much exposed cut surface. We find the blossoms or bud end, the more vigorous than the stem end, and showing an average increase in yield. Exposing whole tubers to the light for 2 or 3 weeks before planting gives more rapid germination, a valuable step with early varieties in hastening maturity to catch the early market.

## OUR PRICES

Considering, as we do, our potato seed stock equal, if not superior to any potato seed stock on the market, our price is the lowest—consistent with the time and effort spent in “building up” this seed. Even if you increase your yield by a small percentage you will more than cover the cost of your seed, and good seed is capable of doubling the yield over inferior seed. Let us be instrumental in aiding you toward profitable potato growing through our Diamond Quality seed potato supply and service.

## EARLY VARIETIES

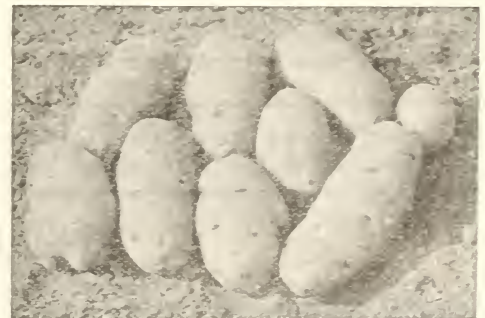


“Earliest of All”

**PORTLAND SEED COMPANY’S “EARLIEST OF ALL” Can Be Had Ready for Cooking 9 Weeks From Planting**—Originally a selection from Early Eureka introduced by Portland Seed Co., 1908, showing a marked difference in habit and greatly increased yield which years of careful re-selection have firmly fixed and improved. The attractive “Earliest of All” tubers are of a flattened, round shape with few and shallow eyes, and white skin; and are exceptionally smooth, seldom making a second growth, which always insures a high percentage of marketable tubers. The tubers form close together in the hills, making digging easy. The large white blossoms easily distinguish this variety from some of the later varieties, the tubers of which are somewhat similar in shape. A remarkably good keeper for an early variety. An ideal forcing potato for market gardeners who grow for the high-priced early markets. We consider the “Earliest of All” the earliest of all potatoes. Its great superiority will readily manifest itself at harvest. For years we have made “Earliest of All” our specialty and recognize no competition in this variety.

BE SURE of getting better and genuine “Earliest of All”. Beware of substitutions and varieties that are “just the same.” Such varieties of somewhat similar appearance and often sold as “Earliest of All” are Irish Cobbler, British Queen, Idaho Rurals, Early Victor, and other round varieties. **Our Diamond Quality Stock was certified in the field by the Oregon Agricultural College, and specimens won 1st premiums at the State Fair and the Pacific International. Prices, 10 lbs., postpaid, \$1.00. Write for quantity prices.**

**EARLY ROSE**—Vines medium height with stout, rather erect, dark green stems, medium size leaves. Flowers white, and rather abundant. Tubers elongated or oblong, slightly flattened, having solid, brittle flesh, rarely hollow with seed and stem ends not as blunt as some other varieties; and the eyes shallow but sharply defined. The flesh creamy white, usually streaked with red. For baking, no other variety excels the Early Rose for flavor and mealy texture. Our strain of this grand “old timer” we consider the best in the west. **Specimens won 1st premium at the Pacific International. Prices, 10 lbs., postpaid, 65c. Write for quantity prices.**



American Wonder

**AMERICAN WONDER**—One of the best, earliest, main-crop varieties. Strong grower of branching habit, blooms white and very abundant. A great producer. Tubers creamy colored, velvety skin, large and uniform in size, elongated and slightly compressed, a popular market shape. Our stock is of exceptional quality selected to our standards of quality seed stock. **Prices, 10 lbs., postpaid, 65c. Write for quantity prices.**



## MAIN CROP OR LATE VARIETIES

*PRIDE OF MULTNOMAH*  
*Excels in Yield and Table Quality*



**PRIDE OF MULTNOMAH**—Potato was introduced by us in 1909. Tubers are uniform in size, of the ideal elongated type with smooth, thin white skin; eyes shallow; flesh snow white, of finest table quality; flowers white; vines large of bushy growth; withstands drought. Pride of Multnomah is the leader in its class, being superior in yield, uniformity and table quality, holding the record yield for the State of California from our Oregon grown seed; 790 bushels of clean, uniform stock, the prize acre at P. P. E., San Francisco, 1915. **Prices, 10 lbs., postpaid, 75c. Write for quantity prices.**

**BURBANK**—The standard commercial variety. Late and productive. Tubers long cylindrical and slightly flattened in shape with numerous eyes, rather shallow with skin white to dull white, smooth to glistening. A very profitable potato to grow. We offer a select, true, heavy-yielding strain, rogued to our standard of type and freedom from disease. When in doubt as to the variety to plant Burbanks will prove your safest choice. Our Burbank seed cannot be surpassed in the West. **First premium at the Pacific International and Pacific Northwest Potato Shows. Prices, 10 lbs., postpaid, 65c. Write for quantity prices.**



*Burbank*



*Netted Gem*

**NETTED GEM**—(Yakima Gems—Idaho Russets)—A splendid main crop late potato that gives good results in dry sections under irrigation. Tubers are elongated, medium sized with russet netted skin; flesh white; eyes are flush with surface; good keeper and produces a fine yield. This is the variety grown extensively by irrigation in Washington and Idaho for baking. Our seed stock of this variety is selected and rogued to our high standards of Seed Potato Requirements. **Prices, 10 lbs., postpaid, 65c. Write for quantity prices.**

**BRITISH QUEEN**—A standard market potato in southern California, the shape being a flattened oval rather elongated, having few eyes and a beautiful creamy white skin. Abundant foliage and lavender flower, fading to light. The strain we have is the best. A strong grower and heavy yielder and excellent keeper. **Price, 10 lbs., postpaid, 65c. Write for quantity prices.**



*British Queen*

### Fertilizers Increase Yield and Profits

Use 500 pounds per acre of P. S. Co.'s Vegetable Fertilizer.

### HYBRIDIZED POTATO SEEDS OUR UNRIVALED POTATO SEEDS

From the seed-ball are the wonder of the vegetable world. There is nothing like them. No product of the garden so interesting, none may prove of more value. All new potatoes are produced from seed. **Pkt., 15c; 2 for 25c; 10 for \$1.00. Sealed Pkts. only.**



## FIELD AND FARM SEEDS

**T**HERE are many varieties of grasses and forage plants offered by Eastern seedsmen (often under new names) that will not give profitable crops in our climate, and to avoid disappointment, we refer you to the following list, which has been carefully selected and contains the most desirable varieties for general and special purposes.

A careful reading of the following pages will give you much valuable information that has required years of observation and experimenting to obtain.

### IMPORTANT—Read Carefully

Clover, Grass and Field Seeds are subject to market changes, therefore we cannot print prices good for any length of time. When ready to buy, write us for special prices, stating quantity wanted; or send in your order. **We guarantee that we will give you full value for the money sent.** Pound prices quoted are postpaid. Owing to fluctuations in prices, prices given months ahead are oftentimes misleading **Write for prices.**

### COW OR THOUSAND HEAD KALE

#### Plants in Season

The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government Stations. Cow Kale should be grown in the same manner as cabbage. Make the rows 4 feet, plants 3 feet apart in the row. Can be set as late as July. Write for full information on Planting and Feeding.

**A quarter of a pound of seed will produce enough Kale plants for one acre.**

Postpaid, oz. 10c;  $\frac{1}{4}$  lb. 30c; lb. 90c.

### FIELD PEAS

**FIELD PEAS**—Are a very profitable crop and are grown here very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for enriching the soil if plowed under.

Write for prices.

### FLAX SEED

We have a splendid lot of selected re-cleaned, Western-grown Flax, new crop, large plump seed. **Per lb. postpaid, 25c. Write for prices.**

### BUCKWHEAT

**BUCKWHEAT** is a valuable crop that can be easily grown wherever wheat will grow, producing a good yield even on light or poor soil and under favorable conditions is very profitable, being in big demand for milling—and is also the best “Bee pasture.”

Sow 36 lbs. per acre in drills, 48 lbs. broadcast.

**COMMON**—Postpaid, 10 lbs. \$1.25. Write for quantity price.

**SILVER HULL**—Of a light gray color, rounder than the common; has a thin husk; matures earlier and yields heavily. An excellent milling variety.

Postpaid, 10 lbs. \$1.25. Write for quantity prices.

**JAPANESE**—Ripens early—is hardy and yields the largest crops. The grains are extra large, dark brown, very thin hulled and makes the highest grade of flour.

Postpaid, 10 lbs. \$1.25. Write for quantity prices.

### SUNFLOWER

**SUNFLOWER, MAMMOTH RUSSIAN**—The largest and most productive variety. Grown extensively for silage for cattle and is proving of immense value. The seed is a valuable poultry food, a great egg producer. It is usually drilled in 36-inch rows with the hills 4 inches apart in the row. In sections where the season is short it should be planted as soon as the soil is in good condition in the Spring. For silage it should be cut when 25 to 30 per cent of the plants are in bloom. In food value it is equal to corn silage and the yield 3 to 4 times as great. It has been demonstrated in many parts of the country that no other known forage plant will produce as great a tonnage of high grade food for livestock. **Lb. 25c; 10 lbs. \$1.75. Write for quantity prices.**

### EVERGREEN CHEAT SEED—(Bromus Secalinus)

There are several varieties of Cheats. The Evergreen makes hay with a green color, and its feeding value is greater than the ordinary. Especially adapted for low or moist soil, and will stand considerable overflow without harm. It makes excellent hay for cows or horses, but should be cut before it gets too ripe. Sow in the Fall or early Spring same as oats, and about 100 pounds per acre. **Price, 10 lbs. 75c, postpaid; 100 lbs. F. O. B. Portland, \$2.35.**

### LENTILS—French

The French Lentil excels as a food, is large, smooth, of a light even color and very attractive. It is also the heaviest yielding and most profitable variety to grow.

Lentils can be grown wherever peas or beans can be grown and are in big demand for export. **Lb. 30c.; 10 lbs. \$2.25. Postpaid.**

### WHICH IS YOUR CHOICE?

The difference in the cost of planting and harvesting an acre of common oats yielding 20 to 50 bushels, and of growing our record-breaking varieties that give from 80 to 135 bushels per acre is only the difference in cost of the seed (from 50c to \$1.00 per acre); in other words, **it costs about as much to plant, care for and harvest oats that yield only half a crop as it does to reap a real harvest.**

**THINK THIS OVER.**

### REMEMBER

**ALL FIELD SEED PRICES ARE SUBJECT TO MARKET CHANGES. You will always get your money's worth or we will quote on request.**



Evergreen Cheat



# Diamond Quality FIELD CORN



**S**IXTY-THREE PER CENT of the feeding value of a matured corn plant is in the ear. Corn to mature properly must be adapted to the section where grown, requiring several seasons of intelligent care and selection.

**Our Western Grown Corn** being thoroughly acclimated will give splendid satisfaction under the conditions and for the purposes recommended—we have large stocks and can supply any amount at very reasonable prices.

**CULTURE**—*Thorough preparation of the soil is necessary for best results, methods of culture being determined by the different conditions of soil, climate, moisture and previous crops. The ideal*

*soil is a deep warm one with a little sand, well drained and with sufficient humus to hold the moisture. Deep plowing is always necessary for best results, and the heavy soils on the West side of the Cascades will give best results from Fall plowing, repeating in the Spring before Seeding time. A liberal amount of stable manure and thorough tillage will help offset the cold nights. For best results when planted for grain, plant in hills 43 inches apart, allowing two stalks to the hill. For fodder or silo, three stalks, if the ground is rich.*

**OREGON GROWN YELLOW DENT**—Makes a quick growth with abundant foliage, maturing early and gives a good grain yield and will make silage of the highest food content. Especially adapted to the Willamette Valley and irrigated valleys of the Pacific Northwest. **Price per lb. 20c; 10 lbs. \$1.25, postpaid.**

**Always remember** that corn increases in food value and digestibility as it reaches the ripe stage—while other forage crops become more difficult of digestion and lose much of their food value as they ripen.

**Prices Field Corn, Postpaid, Pkt. 10c; 1 lb. 30c; 10 lbs. \$1.25; prices per 100 pounds on request.**

**NORTHWESTERN DENT**—This is a red corn with yellow dent or cap, and in high altitudes and the Northern sections where seasons are short will often mature a crop when other varieties fail. Owing to its frost and drought resistance, its extreme earliness and rapid growth make it valuable for late planting and for replanting. Ears are 7 to 10 inches, closely filled; grows 7 to 8 feet high. Splendid for silage.

**HARTMAN YELLOW DENT CORN**—"Hartman" is now considered a standard Dent Corn for grain west of the Cascade Mountains, and is also good for silo. Cob is small, ears medium to large, stalks light, allowing close planting.

**MINNESOTA KING (DENT)**—Smallest cob and largest grain. The ears are uniformly well filled out. Golden yellow, white capped and a good yielder, being a safe corn to plant west of the Cascades.

**PRIDE OF THE NORTH YELLOW DENT**—**Pride of the North** has long been the standard Corn recommended by the Agricultural Stations as the best Yellow Dent for Eastern Oregon, Washington and Idaho, and our seed has given splendid results whenever conditions have been at all favorable, maturing early and yielding heavily, the foliage being luxuriant and of medium height. "Pride of the North" is specially recommended for silo.

As an economic feed crop, Corn is without a peer. Twenty to thirty tons of silage per acre are within the reach of every corn grower who will plant good seed, fertilize wisely and cultivate diligently. Land that is producing three to four tons of hay will produce double this amount of feed planted to corn. Progressive farmers are realizing these facts and the corn acreage is increasing rapidly from year to year.

**MINNESOTA No. 13 YELLOW DENT**—The earliest of the early Yellow Dent corns and reported to be the heaviest yielding, producing splendid large ears, closely filled from end to end with bright yellow kernels. Has rather a thick cob and the shelled grains have a tendency to irregularity. "Minnesota No. 13" will average 7 feet high and being a rapid, vigorous grower, with heavy foliage, makes a fine fodder corn, and is especially recommended for ensilage west of the Mountains. Will mature in ninety days under favorable conditions.

**EARLY CANADA (FLINT)**—An eight-rowed Yellow Flint Corn; early and very productive.

**CHAMPION WHITE PEARL**—A large, White Dent variety; very popular with our dairymen on account of the great amount of green feed it makes.

**WHITE FLINT**—This valuable variety is specially adapted to Northwestern conditions. It is earlier than the well-known "Eight-Row Canada," and is to be preferred on account of its color, productiveness and very early ripening.

**KING PHILIP**—An early Red Flint Corn; well acclimated and well known.

**WHITE RICE**—Pop Corn. Best variety for popping corn. **For Seed, per lb. 25c; for Popping, per lb. 15c.**

**The Acme Automatic One-Hand Corn Planter** *Puts the right number of kernels just where you want them and at the proper depth. Works equally well with right or left hand. (See index.)*



## BARLEY

**BARLEY** is a shallow feeder, the roots growing near the surface, and requires a rich, mellow soil. Barley responds readily to good tillage and any extra work with the disc and fine tooth harrow will be amply repaid. Do not try to grow upon poor, sandy or wornout soils, or where the ground is not in good condition or well drained. In rotation, Barley follows Corn, Peas, Potatoes, or any cultivated crop, and is the best nurse crop for starting clovers or mixed grasses. Should be planted late after ground is warm and Spring weather settled. Plant two bushels per acre. Crimson Clover planted in the Fall and plowed under after blooming in the Spring, leaves the soil in fine condition for barley.

**NEW TREBI BARLEY**—We consider ourselves fortunate in being able to offer our customers this wonderful new Barley. Many crops of Barley are ruined by early frost. The new Trebi ripens very early and there is much less danger of frost damage than with other varieties.

Our growers write us that the new Trebi Barley is the heaviest yielding variety that has ever come under their observation. It has a very thin hull, a large plumb berry, is extra early, and we do not know of any better Barley to sow for feed purpose. Its very thin hull accounts for beards coming off easily when threshed, giving the grain a very fine appearance. The seed stock we are offering is of the highest quality, well cleaned free from smut, etc. **Price: 10 lbs. postpaid, \$1.00. Write for quantity prices.**



*Success Beardless Barley*

**HANNCHEN BARLEY**—Hannchen is the earliest and best of the 2-rowed barleys, is drought resistant and a sure heavy cropper. The seed stock we offer was grown from seed secured from the Oregon Agricultural College. We call special attention to the plumpness of the seed, thinness of the hull and the ease with which the beards break off. It frequently happens that these beards drop in the field before harvest. Although a Spring Barley the U. S. Dept. of Agr. has successfully grown Hannchen Barley from fall seeding where winters are mild. **Price: 10 lbs. postpaid, \$1.00. Write for quantity prices.**

**SUCCESS BEARDLESS BARLEY**—This variety brought out and featured by the Pullman Agricultural College. Straw about the height of common barley, and we found it this year to stand up better than other varieties. Our crop this season contains no beard. We believe this variety will remain true to type, although we do not guarantee it to do so. Entire field showed up like cut. **Price: 10 lbs. \$1.00. Write for quantity prices.**

**BLACK HULLESS BARLEY—Bearded—Best of grains for feeding or fattening stock. Greater food value than corn**—Black Hulless Barley will grow on the dry Alkali soil where other grains fail. Sow in Fall or Spring as late as June 15, 75 to 100 lbs. per acre. Will yield as high as 75 bushels to the acre, weighing about 70 lbs. to the measured bushel; does not shatter or shell out easily.

When planted in the Fall its abnormal stooling habit and wide succulent leaves make it ideal for late Fall pasture yielding a full crop the next season. Stock prefer and thrive on it. **10 lbs. postpaid, \$1.00. Write for quantity prices.**

**COMMON BARLEY**—We always aim to have a nice, clean stock of good Seed Barley on hand at all times. This is the common 6-row bearded type. **10 lbs. postpaid, 80c. Write for quantity prices.**

**WHITE HULLESS OR BALD BARLEY—Beardless**—An early Spring variety—beardless, of high feeding value, said to exceed corn as a pork producer. Can be fed to all live stock—especially valuable used in a mixed ration. Grain plump heavy and when threshed is hullless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Culture same as Common Barley. **10 lbs. postpaid, \$1.00. Write for quantity prices.**

**A Clipper Grain Cleaner Will Improve Your Seed**

## SPELT or Emmer

**EMMER**—(Triticum Dicoccum)—Often Mistakingly Listed as Speltz—Similar to barley in growth, but produces two grains in a spikelet. A comparatively new and profitable crop yielding 50 to 100 bushels of grain, or four to six tons good hay per acre. Thrives well on poor soil, and dry weather seems not to affect it. After threshing, the straw makes good feed. Sow in Spring at rate of 75 to 100 pounds per acre. We offer choice, re-cleaned seed. **10 lbs. 75c, postpaid. Write for quantity prices.**

Portland Seed Co., Portland, Ore.  
Gentlemen:—

Sandy Farm, Springdale, Ore.  
August 2nd, 1923.

The Trebi BARLEY will be ready to harvest next week.

I think you have a very fine variety of six rowed barley, the heads are well filled with large kernels. It stood up good, the heavy rain that we had some time ago did not knock it down but very little.

I seeded the barley the first of May, about 90 days in maturing, or nearly twenty days longer than some of the other varieties, but for all that I think that it is a better barley than the Oderbrucker.

(Signed) Yours truly, R. G. Rasmussen.



## Diamond Quality SEED OATS

THE production of fine seed oats has always been one of our leading specialties and we consider them to be the most profitable and satisfactory grain crop, being indispensable to stock and dairymen, and their use as a food is constantly increasing.

Planted in season, oats rarely fail, are easily and cheaply grown, and the valuable new varieties which we offer will double the number of bushels per acre that you would get from common seed oats, which means half the cost of production, or twice the profit.

They will mature in July from Spring sowing, giving quick returns and leaving the soil in good condition for Fall planting.

We offer select, re-cleaned, well-matured seed oats of standard varieties, suitable for this section and our own introductions, "ECLIPSE," "CLIMAX" and "TRIUMPH," the earliest and most vigorous, heaviest yielding oats ever grown anywhere.

*Shadeland  
Eclipse*

### DIAMOND HULLESS OATS

Many varieties of Hulless Oats have been tried by the Department of Agriculture, few yield well enough to pay.

**HULLESS OATS** grow like ordinary oats with a branching head but thresh out clean, the kernel larger than common oats and ready for milling just as they come from the cleaner, retaining all their richness and flavor. You can make your own oatmeal and it will cook quicker and you will find it of superior excellence.

**DIAMOND HULLESS OATS** stool freely, stand up well, will thrive wherever oats can be grown. Drouth resistant, ripen in about 100 days from seeding, weigh about 54 lbs. measured bushel. Sow 40 to 50 lbs. per acre. **10 lbs. postpaid, \$1.50. Write for prices in quantities.**

### ECLIPSE—White Side Oat

"ECLIPSE"—**Side Oat**—Is a reselection from our famous "Shadeland Challenge," and is living up to its name by "eclipsing" all competitors, including the parent stock, being equally as vigorous and early and the massive heads are uniformly larger and filled with plump, heavy thin-hulled oats of finest milling quality.

The yield on light dry soil where our seed crops are grown runs from 75 to 85 bushels per acre and moist bottom land 125 bushels per acre is not uncommon.

"ECLIPSE" can be planted Fall or Spring, west of the mountains (Fall plantings should be made on well-drained soil), but in severe climates early Spring planting is best. Matures in 90 to 100 days, and can always be harvested before the Fall rains. Their beautiful bright color and plumpness command the top price in the market. Try this grand new side oat. **10 lbs. postpaid, \$1.00. Write for prices in quantities.**

### CLIMAX—Tree Oat

"CLIMAX"—**Tree Oat**—For early Spring planting where seasons are short, in high, dry altitudes, and where quick growth and early maturity are demanded, "CLIMAX" will give you a bountiful harvest of the finest oats you ever saw. The white grains are uniformly large, plump and full with a very thin hull and are often borne 3 in a spikelet, which partly accounts for its wonderful yield.

In our trials "CLIMAX" has not been injured by severe early freezing and later drought, but has stood up, green and vigorous, yielding one hundred bushels per acre on hill land when oat crops throughout the same section were stunted and dried up.

West of the Cascade Mountains you can plant "CLIMAX" Fall or Spring, any time the ground is fit, but where the climate is severe, Spring plantings are best. **10 lbs. postpaid, \$1.00. Write for quantity prices.**

### TRIUMPH OATS

A new Side Oat with great merit. For the years that we have been handling Seed Oats we have always been most careful to handle only the highest grades and it is a great pleasure to be able to offer our patrons this wonderful new variety SHADELAND TRIUMPH. **10 lbs. postpaid, \$1.50. Write for quantity prices.**

"SENATOR"—(A New Garton Side Oat)—Senator is highly recommended by the originators for its extreme earliness and great fertility—and is **especially adapted to heavy land.** Seeded on good land this oat will do well, and where oats are liable to lodge SENATOR will stand up—has stiff straw—large grains and fine color. **10 lbs. postpaid, \$1.00.**

### STANDARD SEED OATS

**WHITE SEED OATS**—We always try to have a selected re-cleaned stock of No. 1 White Seed Oats which we can supply at market prices. Write for samples and prices on the quantity you require, or send in your order. You will always get full value for money sent.

**SWEDISH RED**—A comparatively new tree Oat from Sweden, having a soft hull and fine straw which is ideal for hay. This is the oat grown so extensively in Northern California and along the Southern Oregon Coast. Sow in Fall or Winter.

**GRAY WINTER.**—This oat is planted extensively throughout the Northwest as a Fall or Winter oat. Is well and favorably known, being a good yielder, and the Oats are large and plump. **Write for prices.**

# Diamond Quality SEED WHEAT

**P**RIOR to the adoption of the U. S. Grain Standards the Pacific Northwest did not use the grades established by the big eastern wheat centers, but since the U. S. Standards have become effective it is impossible to market mixed varieties of wheat or other grains at the best prices, and growers will find it necessary and profitable to plant only clean, pure seeds of standard commercial varieties.

We have provided splendid stocks of the best sorts for this section and when ready to buy any variety of Seed Wheat, write us for quotations on quantity wanted or send in your order and we will give full value at lowest seed prices. The following are standard market varieties that are known as the most profitable and best yielding. **Price, 10 lbs. postpaid, \$1.00. Write for quantity prices.**

*Little Club*

**FEDERATION—Spring**—This wheat has been tried out by the experimental station at Moro, Oregon. It is a hard flint wheat. The government test proves it to be high in gluten, and high in yield of flour, making it one of the best milling wheat. Beardless, and a heavy producer, and should be an excellent variety for the Northwest. We highly recommend it.

**EARLY BAART—Bearded—Spring**—This splendid new Spring wheat is fully as early as Marquis, a better yielder and has a large white grain of finest milling quality. In the big wheat sections of Eastern Washington, Early Baart has matured three weeks ahead of Blue Stem, giving a bigger crop and its earliness insures protection against loss from the extreme heat and drouth occurring later.

**BLUE STEM—Spring**—The best known and one of the most profitable Spring varieties for the Northwest. Heads are large and well-filled, stools freely. Grain very hard. Although a Spring variety, can be planted as a Fall Wheat in sections where Winters are mild. The Blue Stem of the Pacific Coast has a white grain and smooth chaff, quite unlike the Velvet Chaff and Red grains of the states East of the Rockies. Better results are had with this Wheat East of the Cascade Mountains, as it has a tendency to lodge in the moist sections on the Coast.

**WHITE WINTER WHEAT**—Soft, white Winter Wheat. Beardless with white chaff. Kernels short and plump. A good milling wheat suited to well drained lands West of the Cascade Mountains.

**RINK—Winter**—Similar to White Winter and often mistaken for it, but having a little shorter kernel and head. Yields well and has proven profitable on the well-drained rolling lands of the Willamette Valley.

**LITTLE CLUB—Spring**—This well-known variety has stiff straw, typical club head and does not shatter easily. A good grower, yields well. Our stock is exceptionally good, being selected from a heavy yielding strain.

**FOISE—Winter**—Medium hard kernels. Beardless, chaff red. Heads slightly club shaped at tip. Specially adapted to the richer soils and prairie lands of the valleys, and foothills West of the Cascades and under favorable conditions yields heavily. Mills well.

**TURKEY RED—Winter**—A medium hard red bearded variety; a heavy yielder and does not shatter out easily. Is very hardy, doing well in cold climates. The grain is hard and of good quality. A good Wheat for the dry sections East of the Cascades.

**MARQUIS—Spring**—Marquis Wheat was produced by a cross of Red Fife and Hard Calcutta. It differs from the parent stock, Red Fife, inasmuch as it has a heavier head, shorter straw, and more flinty, very heavy, weighing about 65 pounds to the measured bushel. Heads are beardless, chaff smooth.

**FORTY FOLD—Winter**—Forty Fold is referred to as "Gold Coin" in some sections. Is quite early, seed resembling Blue Stem. A favorite Winter variety in many localities, and in good demand for milling.

**RED RUSSIAN—Winter**—Extensively grown in the Palouse country of Eastern Washington, where conditions are favorable. It grows vigorously, maturing late, and gives a heavy yield of both grain and foliage. A superior variety for choking out weeds.

## CORONA COPPERCARB

**I**MPORTANT changes have been made in the treatment of seed grains for the control of bunt, stinking smut, etc. The new way consists of dusting the grain with copper carbonate. It will supplant the commonly known and very distasteful formaldehyde method because the copper dust gives successful results in the control of the diseases, but does not in the slightest degree hurt germination, and at the same time relieves the farmer of a most irksome task.

Treating the grain with Corona Coppercarb can be carried out by a shoveling over process. The operation is very simple and does not require much time. A common bbl. churn will dust a large quantity of seed.

This simple dusting method with a Corona Coppercarb, or even with a concentrate, means a lot to the farmer who is riding the drill from day light to dark and has been obliged in the past to treat the grain sometime during the late evening or perhaps at night. It will eliminate forever the tedious (almost man-killing) effort of the sloppy formaldehyde process.

Use 2 ounces per bushel of Seed. Price, 25 lb. cans only \$5.50.



## THE NON-SACCHARINE SORGHUMS

Wonderfully productive and of great value as a forage, ensilage or grain crop in dry sections.

THE varieties here offered represent the best selections and are highly recommended. They are best drilled in—using 3 to 8 lbs. per acre, depending on variety and condition. Plant in the late Spring after the ground is warm. Cultivate often, throwing earth toward the plants.

**SUDAN GRASS**—The great drouth resisting forage crop—All stock relish it, and no harmful effects have followed where it has been fed. Under favorable conditions, it grows from 7 to 9 feet, having luxuriant foliage and small stems. While thriving under dry conditions, excessive moisture will not harm it but is easily damaged by frost. Where growing conditions are favorable the stubble makes excellent green pasturage. In the South three or four cuttings are not uncommon. **Price: postpaid, 10 lbs. \$2.50. Write for quantity prices.**

**BROON CORN**—Dwarf Evergreen—Grows from 4 to 5 feet high and makes straw of finest quality, being almost if not entirely, free from crooked brush. **Per lb., postpaid, 25c. Write for quantity prices.**

**MILO MAIZE**—This is one of the sorghums similar to Kaffir Corn. Grows erect, with thick, close-jointed stalk. Height 4 to 7 feet. Heads are very large, giving a heavy grain yield, is drought resistant, and succeeds on alkali soil. Plant late when ground is warm, three to six pounds per acre. **Per lb., postpaid, 20c. Write for quantity prices.**

**FETERITA**—This is drouth resistant and twenty to forty days earlier than Kaffir corn, and has given immense crops in the driest seasons without having received a drop of rain. Makes splendid fodder as well as giving a good grain yield. **Try Feterita. Per lb., postpaid, 25c. Write for quantity prices.**

## MILLETS

*Sow in April, May or June, 12 to 15 pounds for seed, or 20 to 30 pounds for hay per acre.*

**Prices 10 lbs. \$1.25, postpaid. Write for quantity prices.**

**GERMAN OR GOLDEN**—An improved variety, yielding a larger crop of seed than the Common Millet. It is also taller than the Common and yields a heavier crop of hay.

**EARLY FORTUNE MILLET**—Has given astonishing yields of both seed and fodder. It is very early and is claimed to be rust-proof. The fodder can be fed to horses and other stock without injury, even after the seed has formed which cannot be done with safety with most of the millets. The seed is large and of a beautiful red color.

**NEW SIBERIAN**—New and wonderfully productive. Extremely hardy, and about two weeks earlier than the German Millet, growing four feet in height.

**COMMON**—A well-known variety growing from three to four feet high: has broad blades and strong stalks.

**BROOM CORN MILLET**—Is somewhat variable in character and is divided into several varieties, one of which is sometimes called Hog Millet, as the seed is often used to feed hogs. All of this class are better adapted to produce seed than for pasture.

**WHITE WONDER MILLET**—Grows four feet tall, bearing large heads covered profusely with bristles which repel attacks by birds. It does not stool freely but branches to some extent. The stems are strong enough to support the heavy heads. We recommend sowing this variety to be grown for grain for small chicks.

**PEARL MILLET**—Grows 8 to 10 feet tall, having heads 8 to 10 inches long prolific of seed that is hard and not eaten greedily by any kind of stock. When young the enormous growth of foliage is succulent but becomes coarse and objectionable and should be silaged before feeding. We recommend this variety for green feed to cut when 2 or 3 feet tall. It is eaten greedily by all stock.



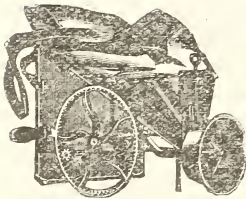
*Millet*

## BROADCAST SEED SOWERS

**CAHOON STYLE**—The standard broad cast seed sower of the world, made of steel, iron and brass and with ordinary care will last a lifetime. This is the most popular and best built seed sower; has a force feed and does excellent work. Instructions with each machine. Weight 9 lbs. **Price \$5.00.**

**TIN HORN SEEDER**—Adjustable. A good serviceable seeder at a very low price. Weight 1 pound. **Each \$1.00.**

**CYCLONE—Save Valuable Seed**—It is like throwing money away to sow more seed than is necessary. Uneven seeding is just as wasteful. With the Cyclone Broadcast Seeder you can sow any kind of seed perfectly even over the ground at the rate of fifty acres per day and any desired amount per acre. It will pay for itself in the saving of seed in a few hours' work. **Each \$2.50.**



*Cafoon Style*

## THE CLIPPER GRAIN AND SEED CLEANER

☞ We have supplied "Clipper Cleaners" to the mills, dealers and prominent growers of the Northwest. If you grow grain or seed and do not own a "Clipper," you are losing many times its cost every year. Let us send you "The Clipper" Catalog of hand and power cleaners. All sizes and prices. A "Clipper" will improve the quality and increase the yield of grain.



## VETCHES OR TARES

Prices Subject to Change Without Notice. Ten Pounds Postpaid. Write for quantity prices.

**HUNGARIAN VETCH**—Hungarian Vetch, after having been grown at the Oregon Experiment Station for the past fifteen years and by cooperating farmers for the past four years, is undoubtedly destined to become a very important annual leguminous farm crop for this state, especially the western part.

**Aphis Resistance**—Its aphis resistance is probably the largest single factor toward making it a generally grown crop in Western Oregon. During years when aphids practically destroyed many other farm crops this vetch was injured comparatively little and produced practically normal crops of forage and seed.

Hungarian Vetch is seldom attacked by diseases or insect pests. At no time since the crop has been grown here has any loss occurred due to disease or insects.

Experience has shown that Hungarian is a heavier yielder in both hay and seed than any other vetches grown here, under similar conditions. **\$6.75 per 100 lbs., F. O. B. Portland.**



*Vetches—Oregon's Greatest Forage Plant*

**COMMON VETCH**—(*Vicia Sativa*)—One of the best forage plants that can be grown on the Pacific Coast. Often called Fall Vetches. It furnishes an abundance of excellent feed, either green or cut and cured for hay. The seed should be mixed with an equal weight of some variety of wheat, oats or rye having a stiff straw, and the mixture sown at the rate of two bushels per acre. Vetches weigh seventy pounds per bushel. Sow in the Fall or early Spring. **10 lbs., postpaid, \$1.00.**

**WHITE SPRING OR PEARL VETCH**—White Pearl Vetch is coming into great favor and is being extensively used for Spring planting as splendid results can be had from sowings made as late as April. The yield being fully equal in every way to that obtainable from common vetch (*vicia sativa*) and of fully as great feeding value.

The advantage of later Spring planting makes White Pearl Vetch specially desirable and more sure to give returns than common Vetch under many planting conditions, and it has given better results on the light sandy cut-over lands of Washington and Idaho. **10 lbs., postpaid, \$1.85.**

**SAND, or Winter Vetches**—(*Vicia Villosa*)—This variety thrives on poor, arid, sandy soils. It is sown either in the Fall or early Spring, and is generally mixed with rye, which serves to support the plants. It grows to a height of 3 or 4 feet, and can be cut twice; first, as soon as the bloom appears, and afterward for seed. The plant is perfectly hardy and makes a very nutritious food. **10 lbs. postpaid, \$2.35.**

**WOOLLY-PODDED VETCH**—(*Vicia Dasycarpa*)—Closely related to hairy vetch, equally hardy, two to three weeks earlier. It differs from Hairy Vetch, having nearly smooth leaves, purple flowers and hairy pods. It has succeeded splendidly wherever tested, and on account of its earliness has advantages over hairy vetch. Excellent crops are produced in Western Oregon. Recommended in this section for fall planting. It is worthy of a trial. **10 lbs. postpaid, \$1.75.**

**PURPLE VETCH**—(*Vicia Atropurpurea*)—May be considered as a new vetch, it having been grown only to a limited extent, mainly in Oregon and California. It is a distinctly new variety and takes its name largely from the color of the blossom, which is a deep purple. It is being used by a great many orchardists for plowing under. It can be grown as cheaply as Common Vetch and should be planted in the Fall on well drained fertile soil, sixty pounds to the acre. It may be used as a hay or silage crop. The plant has been found to be free from attacks of the aphid. **10 lbs. postpaid, \$1.85.**

## SEED RYE

**SPRING RYE** is a very important and profitable crop useful for replacing winter grain that has failed, or planted as a soiling or grain crop is always dependable. Should be sown at the same time as other Spring grains using 90 to 120 lbs. per acre.

**SPRING RYE—Bearded**—We offer a fine stock of true Spring Rye that can be planted in this section any time after the ground can be worked.

**BEARDLESS SPRING RYE**—This splendid variety is extremely hardy, yields heavily and is preferred for stock feeding, as the small fine beards (about an inch long) mostly drop off in handling. **Plant Fall or Spring.**

**Price 10 pounds, postpaid, 90c. For larger quantities, write for prices.**

**ROSEN RYE**—A fall or winter rye brought from Russia in 1909. Each head fills four complete rows of grain. The grains are much larger than of common rye and the yield double and some make it stronger and say three for one. You cannot make a mistake in trying it.

**COMMON WINTER RYE**—Choice cleaned seed. **\$2.35 per hundred. F. O. B. Portland.**



## CLOVER AND ALFALFA SEEDS

Write for prices on 100 lbs. or ton lots. They are always subject to market changes. Single pound prices postpaid.

### ALFALFA OR LUCERNE CLOVER

**ALFALFA** should be cut for hay when the shoots of the next crop appear at the base of the plant's. The hay is especially valuable for dairy cows. As soon as cut it immediately commences to grow and during the hottest and driest weather when other grasses are parched and withered, it remains fresh and green and grows as rapidly as ever. On the low lands it is not an unusual thing to harvest five or six crops of hay from the same field in one season without irrigation, and the same result is obtained on high, dry lands where irrigation is resorted to. It will not succeed on hard, clayey soils. Its roots, in seeking moisture, penetrate to incredible depths. The seed should be sown in the Spring, after danger from freezing the young plants is over, or in the Fall, early enough to give it a good stand before frost. The domestic acclimated seed we offer can be depended upon to give splendid satisfaction.

**GRIMM ALFALFA**—Grimm Alfalfa is the hardiest Alfalfa known. In trials, at practically every Experiment Station in the West and Northwest, it has headed the list for vigor and hardness.

Being scarce and in big demand the price is high but the value of Grimm has been demonstrated beyond question and we recommend its trial. **Price per lb. 60c, postpaid. Write for quantity prices.**

**DRY LAND ALFALFA**—Dry land Alfalfa will produce large, profitable crops of hay and excellent pasture on the high dry lands, and is especially recommended for the hills and plateaus where irrigation is impossible. **Per lb. postpaid, 45c. Write for quantity prices.**

**ALFALFA**—Our domestic Alfalfa is acclimated, and will thrive splendidly where growing conditions are normal, including irrigated land. Where dry farming is practical special Dry Land Alfalfa is recommended. **Price: 1 lb. postpaid, 40c. Write for quantity prices.**

## BETTER CROPS IN FIELD AND GARDEN

IF YOU INOCULATE WITH

The Improved Soil Inoculator, Nobbe-Hiltner Process



Restores and Maintains Soil Fertility

Registered in the United States Dec. 6th, 1898.  
26 YEARS AGO.

Awarded Gold Medal  
Worlds Fair—St. Louis 1904.  
20 YEARS AGO.

### THE ORIGINAL SOIL INOCULATOR

Alfalfa, clovers, soybeans, vetches, peas, beans, cowpeas, peanuts and other legumes should always be inoculated with Nitragin. The lack of necessary bacteria in the soil is often the cause of a poor legume crop—a weak start—or a total failure.

### BENEFITS OF INOCULATION

The principal reasons for inoculation can be stated in five short paragraphs, viz.:  
First—Inoculated legumes take nitrogen from the air to supply the plant, resulting in faster growth, earlier maturity and larger crops.

Second—Inoculated legumes take up more nitrogen than the plant itself requires, the surplus remaining to the benefit of future crops.

Third—Inoculated legumes develop larger root systems than when not inoculated and therefore reach the immense stores of potash and phosphorus in the sub-soil, bringing them up to supply the plant. When the roots and stubble decay these elements are also returned to the soil in a form available for future crops.

Fourth—Inoculated legumes, by taking their nitrogen from the air, save the soil. When not inoculated they drain the soil of its nitrogen just the same as wheat or timothy or other leguminous plants.

Inoculated legumes contain more protein matter than when not inoculated, greatly increasing their feeding value.

Summary—Inoculation hastens maturity, increases the crop, improves its quality, enriches the soil and saves fertilizer bills.

### Prices For Field Nitragin

¼-bu size inoculates 15 lbs seed	\$ .40
½-bu size inoculates 30 lbs seed	.60
1-bu size inoculates 60 lbs seed	1.00
5-bu size inoculates 5 bu seed	4.75

**EVERY GARDEN NEEDS "NITRAGIN"**  
Garden size is for Peas, Sweet Peas and Beans, only including Lima (3 in one). Price 20c.

Sold on the BUSHEL basis—not acre sizes. The one bushel size will inoculate one bushel of any legume seed, price \$1.00, other sizes in proportion. If you sow 15 pounds seed per acre, you pay \$.25 per acre inoculating with NITRAGIN—not \$1.00 or more. Sold in tins—not glass—packed in a rich soil-like medium.



SOYBEAN Root  
with the nodules produced  
by NITRAGIN  
making the plant a  
wonderful soil builder  
and nitrogen source

Inoculated Soybeans  
Be sure and name  
crop to be inoculated.

**CRIMSON OR SCARLET CLOVER**—(*Trifolium incarnatum*)—Highly recommended for pasture and fertilizing purposes. A thrifty annual, growing 20 to 30 inches high. Germinates quickly, grows rapidly, stools abundantly. Cut for hay when in full bloom. Planted in the Fall can be plowed under after blooming in the Spring, followed with barley or potatoes. **Per lb. postpaid, 35c. Write for quantity prices.**

**RED CLOVER**—(*Trifolium pratense*)—The standard Clover for all purposes. Hardy, succeeds well on any good soil. Makes superior hay—especially mixed with Timothy—either for dairy cows or for general use. **Per lb. postpaid, 45c. Write for quantity prices.**

**MAMMOTH RED CLOVER**—Grows very large and is used almost exclusively for plowing under for manure. **Per lb. postpaid, 45c. Write for quantity prices.**



## CLOVERS—Continued

**WHITE DUTCH CLOVER**—(*Trifolium repens*)—Superior for pasture and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. Per lb. postpaid, fancy 80c; Diamond fancy 90c.

**ESPARSETTE OR SAINFOIN**—(*Onobrychis gativa*)—A deep rooting, perennial legume, extensively cultivated in dry, calcareous soils too barren for Clover or Alfalfa. Sow 30-40 pounds per acre. Prices on request.

**HUBAM CLOVER**—(Annual Sweet Clover)—An annual white blossom sweet clover, very similar to *Melilotus Alba*.

A rapid growing clover, ready for cutting four months after seeding. Makes an ideal crop for turning under or soiling in orchards. Bee men are finding it ideal for bee pasture, it being available the first season. Good stock pasture. Seed 20 lbs. per acre. Per lb. postpaid, 50c; 10 lbs. \$3.75. Write for prices on larger lots.

Prices Subject to Change Without Notice.

**ALSIKE OR SWEDISH CLOVER**—(*Trifolium Hybridum*)—A perfectly hardy perennial. Excellent for hay and pasture. Valuable for bees. Resists both drought and excessive moisture. The hay is preferred to that of Red Clover, being finer, brighter and not so dusty. Per lb. postpaid, 40c; Write for quantity prices.

**SWEET OR BOKHARA CLOVER**—(*Melilotus Alba*)—(White Blossom)—In recent years has attracted quite a little attention as a hay crop and soil improver and support as a pasture crop. It does not produce seed the first year, but usually an abundant crop of seed and hay the second year. It is harder than Alfalfa and more drought-resistant and better for renovating the soil. Sweet Clover will thrive on most soils, either poor clay or sandy, but prefers a limestone soil. Where lime is deficient it should be added and good results will be obtained. Quite extensively grown on alkali soil. Sweet Clover is also recommended for bees. Per lb. postpaid, 40c. Write for quantity prices.

## DIAMOND GRASS SEED



**DIAMOND QUALITY GRASS SEEDS** are the choicest new crop seeds, recleaned and tested for purity and germination, and only those stocks that grade above the established standards are offered to our customers.

Our **Special Mixtures** have been carefully worked out by the tests and observations of our practical experts familiar with the requirements and conditions to be met, and will give the best results possible to obtain for the uses to which they are recommended.

### "DIAMOND" FANCY LAWN MIXTURE

To have a good lawn the soil must be fine and rich, and well leveled. Then the best seed obtainable should be used. Plant any time from September until late Spring, depending upon the weather and soil conditions. Raking in the seed is advisable, and rolling greatly improves the turf. In watering your lawn soak it deeply and not too often, as light watering every day brings the roots close to the surface, where they quickly burn or dry out. You must not expect to make a fine lawn with cheap seed. The best lawn grass mixture costs more at first than the poorer substitute, but will be found much cheaper and more satisfactory in the end. Our "Diamond Quality" Fancy Mixed Grass Seed is prepared from the choicest recleaned Grass Seeds that have been carefully selected for their fineness and deep rooting, close growing habits and seasonal qualities, producing an ideal dense, velvety turf of lasting quality that remains green throughout the year. Sow one pound to 200 square feet, 25 pounds to 50-foot lot. Single pound postpaid, 55c. Write for prices in quantities.

**FINE MIXED LAWN GRASS**—For use where a temporary lawn must be quickly prepared, and if kept closely cut will be lasting and have a handsome appearance. A good, clean mixture. 1 lb. postpaid, 45c; 10 lbs. \$3.75.

**MIXTURES FOR GOLF LINKS, PUTTING GREENS, FAIRWAYS**—Write for prices stating amount wanted. We make these a specialty.

**HARD OR CHEWING FESCUE**—(*Festuca Duriuscula*)—This is a small, low growing grass, fine leaved, and forms a close turf which prevents the ingress of weeds. It is an absolutely permanent grass on all kinds of soils, even the lightest and driest, and on dry, shingly soil it reigns alone. It is claimed that for lawns, golf links and such like it cannot be excelled if grown properly. Large quantities of this seed are imported annually, principally for golf links and lawns. Per lb. 70c; 10 lbs. \$6.75, postpaid. Write for prices on larger lots.

**KENTUCKY BLUE GRASS**—(*Poa Pratensis*)—One of the best grasses for permanent pasture furnishing a constant supply of the most nutritious feed during the greater part of the year. Sow twenty-eight pounds per acre. Per lb. 55c; 10 lbs. \$4.25 postpaid.

**For Lawns**—Blue Grass is used very extensively for lawns and is found in all lawn grass mixtures. Sow one pound to 200 square feet if used alone. 1 lb. 55c, postpaid.

**ORCHARD GRASS**—(*Dactylis Glomerata*)—One of the most valuable of all the cultivated grasses, blooming with Red Clover, and making with it admirable hay. As a pasture grass it is more productive than any other, and does best under close feeding. Sow twenty-eight pounds per acre. Fancy Eastern, per lb. 45c; 10 lbs. \$3.00, postpaid.

**DIAMOND TENNIS COURT MIXTURE**—For those who prefer a grass court, our Tennis Court Mixture will give the best results possible, as it is made up of fine, close-growing, heavily rooted grasses that make a dense and lasting turf. Single lb. postpaid, 70c. Write for prices in quantities.

**RED TOP**—(*Agrostis Palustris*)—A good perennial grass. Generally sown for permanent pastures. Does best on moist or even marshy land. If not overflow land it is advisable to mix it with Meadow Fescue, Orchard Grass or Alsike Clover. Sow twenty-eight pounds per acre unhulled seed; fourteen pounds hulled. Choice Unhulled, 10 lbs. \$3.25, postpaid.

**Diamond Fancy Hulled**—A very superior grade of Red Top that is free from chaff and light seed. 10 lbs. \$4.00, postpaid.

**CANADIAN BLUE GRASS**—(*Poa compressa*)—Recommended in all pasture mixtures on dry soil; thrives well on clay or hard trodden and poor soil. Sow twenty-eight pounds per acre. 10 lbs. postpaid, \$3.75.

**A CLIPPER GRAIN CLEANER WILL MAKE YOU MONEY.** Clean your seed before delivering it to market.



"DIAMOND  
QUALITY"

## GRASS SEED—Continued

Grass Seed Prices subject to change without notice.

**TIMOTHY—(Phleum pratense)**—This is the most valuable of all grasses for hay. Thrives best on moist, loamy soil. Sow early in the Spring or Fall. Sow 15 to 20 pounds per acre. **Fancy, lb. 25c, 10 lbs. \$1.75, postpaid.**

**ITALIAN RYE GRASS—(Lolium italicum)**—A quick-growing grass, attaining a height of 2½ to 4 feet; very desirable for temporary meadows or pastures. Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. Sow 40 pounds per acre. **10 lbs. \$2.25, postpaid.**

**SWEET VERNAL—(Anthoxanthum odoratum)**—Valuable to put in pasture mixtures and lawn grass on account of its delightful fragrance when in bloom. Only recommended for use in mixtures. **Annual, per lb. 45c, postpaid.**

**TALL FESCUE—(Festuca elatior)**—Succeeds best in moist alluvial and strong clayey soils; is very productive and lasting; valuable for permanent pasture, is relished by stock and on rich land makes fine hay—height 3 to 4 feet; weight 22 pounds per bushel. **Per lb. 60c, postpaid.**

**BROMUS INERMIS—Russian Forage Grass—Awnless Brome Grass**—This Bromus, on account of its strong perennial character, and its unusual drought-resisting powers, is the best grass we have for the semi-arid regions of the Northwest. Grows luxuriantly, is freely eaten dry or green by cattle and yields from two to six tons to the acre. Sow 25 to 30 pounds per acre. Spring or Fall. **10 lbs., postpaid, \$2.75.**

**CRESTED DOG'S TAIL—(Cynosurus cristatus)**—A perennial grass with short, narrow leaves; valuable for lawns or pastures on dry, light land; makes excellent sheep pasturage. Use 20 lbs. per acre if sown alone. **Per lb. 70c, postpaid; 10 lbs. \$6.00.**

### SPECIAL PASTURE MIXTURES

**No. 1. FOR GOOD LOAMY SOIL**—A mixture of Grasses and Clovers, prepared especially for good, loamy soils, that will give satisfaction as a permanent pasture, or for mowing for mixed hay. For pasture, sow 20 pounds per acre. **Price, postpaid, 10 lbs. \$2.75.**

**No. 2. FOR IRRIGATED LANDS**—Use grass pastures and avoid bloat from green Alfalfa—Sow 28 pounds per acre, preferably in early Spring. As soon as well established give water as needed. With proper attention a permanent pasture can be maintained. **10 lbs., postpaid, \$3.25.**

**No. 3. FOR LIGHT SANDY SOIL**—An extra fine mixture for sandy or light soils. This will make a good, strong turf, that under ordinary circumstances should last for many years. Sow 20 pounds per acre. **Price, 10 lbs. postpaid, \$3.75.**

**No. 4. FOR DRY LAND**—Mixed especially for the regions between the Cascades and Rocky Mountains, and on good, common wheat land. Try this mixture, as we believe that it will give you best possible results. Sow 20 pounds per acre. **Price, 10 lbs., postpaid, \$4.00.**

**MIXTURES FOR BURNED-OVER LAND**—In grading and cleaning grasses and clovers, we frequently find combinations that are difficult of separation and while the seeds are often of excellent germination and quality, they cannot profitably be separated and cleaned, so we blend them to produce pasture mixtures suitable for sowing on burns and logged-off land, which at the price are splendid values and very economical for such purposes. **Price, 100 lbs. \$15.00.**

**MESQUITE—(Holcus lanatus)**—It is usually sown on virgin soil without cultivation, after the ground has been burned over. Sow about 35 pounds to the acre chaff seed, hulled, 15 pounds per acre. **Fancy Hulled Seed, 10 lbs. postpaid, \$2.25.**

**ENGLISH RYE GRASS—(Lolium perenne)**—A strong-growing, hardy perennial grass, noted for its nutritive qualities. It is equally valuable for both grazing and hay. 40 pounds per acre. **Prepaid, 10 lbs., \$2.25. Write for quantity price.**

**ENGLISH RYE GRASS—Short Seeded—For Lawns**—this is used and recommended by many gardeners. If sown thickly, it makes a fine lawn, and for large grounds and parks it is very successful. **Prepaid, 10 lbs., \$2.50.**

**TALL MEADOW OAT GRASS—(Avena elatior)**—Often attains a height of 3 to 4 feet by the middle of June. Makes splendid hay and thrives on sandy loam, but makes its best growth where there is some clay. **10 lbs., postpaid, \$4.50. Write for quantity prices.**

**MEADOW FESCUE—(Festuca pratensis)**—Perennial; grows 3 to 4 feet high. Roots deep, thus resisting drought. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pastures, being valuable to mix with other kinds. Sown alone, use 40 pounds per acre. **Per lb. 40c, postpaid. Write for quantity price.**

**RED OR CREEPING FESCUE—(Festuca rubra)**—Forms a close turf and is valuable for lawn and golf mixtures; thrives in sandy soils and along the Coast. (Fourteen pounds to the bushel.) **Price, per lb., 85c; 10 lbs., \$8.25, postpaid.**

**BERMUDA GRASS—(Cynodon dactylon)**—Suitable only for climates where the Winters are not below the freezing point. It stands the hottest and driest season. Sow 6 lbs. per acre. **Per lb. 75c, postpaid; 10 lbs. \$7.25, postpaid.**

**No. 8.—FOR ARID OR ALKALI LAND**—Particularly for arid alkali land. This mixture is composed of varieties that have proven to be the best for the soils mentioned. Sow 20 pounds per acre. **Price, 10 lbs., postpaid, \$3.25.**

**No. 10. HAY AND PASTURE MIXTURE FOR DRY HILL LAND**—Especially suited to the dry sections, such as parts of Southern Oregon, Eastern Oregon, Eastern Washington and Idaho. This mixture is made up of varieties that can endure a great change of temperature from heat to cold, and at the same time will make a splendid mixed hay. **Price, 10 lbs., postpaid, \$3.15.**

**No. 11. FOR GRAZING PURPOSES**—This is a mixture of grasses only, being made up for the benefit of those who wish a mixture without Clover, and will make a fine permanent pasture, but is not intended for hay. **Price, 10 lbs., postpaid, \$3.00.**

**No. 12. FOR BURNED-OVER BOTTOM LAND, OR LAND INCLINED TO BE RATHER DAMP**—This is a mixture that will do well either for hay or for permanent pasture on land that is too wet for many of the grasses and clovers. **Price, 10 lbs., postpaid, \$2.75.**

WRITE FOR QUANTITY PRICES ON ALL THE ABOVE



*Diamond Quality*

# FLOWER SEEDS



**F**LOWERING plants are enjoyed by everyone, and cut flowers for home use or flowering plants for garden display can easily be grown; their care is a pleasant and healthful diversion and for the small expense of time and money nothing will return so much pleasure and profit. If you have any planting problems, if you wish to produce special effects or work out color schemes, write us; we will be glad to assist you in every way possible, and our experience is at your service.

*manure, which should be made fine and thoroughly mixed with the soil. A soil thus prepared will remain moist and loose, so that flower seeds, which are generally small and delicate, will germinate and grow with vigor.*

*After the plants are up they require plenty of air and moisture, but they must not be too wet or they will "damp off." When large enough to transplant, put them in boxes or pots, giving them plenty of room, then when the ground is warm enough to put them outside, each plant will have a nice clump of roots. But if they are left inside and are close together, they will be weak and will not thrive.*

*A common mistake with flower, as well as other seeds, is planting too deep. A good rule is to plant the same depth as the thickness of the seed, and always press the soil down firmly, as this helps the seed to secure a firm hold and also retains the moisture.*

*A hotbed or cold frame is very convenient to start seeds in, as the temperature and moisture can be so regulated as to make their germination and rapid growth more certain. Most seeds do well if sown in boxes in a sunny window in the house.*

*Plants are usually ready to be transplanted when they have made a growth of two inches.*

## INFORMATION THAT WILL AID IN SELECTION OF FLOWERS

**Annuals** bloom and ripen the first year and then they perish. Many annuals in warm climates, or when taken in, or protected during Winter, become perennial, with short lives.

**Hardy Annuals, Biennials and Perennials** can be sown in open ground early in the Spring if desired, and Hardy Biennials and Perennials do not require any protection in Winter.

**Perennials** flower several years in succession.

**Biennials** do not generally flower the first year, and are in their perfection the second year.

**Half-Hardy Annuals, Biennials and Perennials** should not be sown in open ground until settled warm weather, though they can be sown in the house if desired, early, and afterwards transplanted. The two latter need to be protected in Winter, or carried over until Spring in cold frames or greenhouses.

**NOTE.**—In our catalog we have listed our flower seeds alphabetically, and to assist in your selection all those marked by (B) are Biennials, and those marked with (P) are Hardy Perennials. Those not marked are Annuals.

*Flower Seeds that are easy to grow under the proper conditions of heat and moisture will often fail when these conditions cannot be controlled.*

The following seeds require special attention and equipment for best results:

Asparagus Plumosus	Calceolaria	Cyclamen
Asparagus Sprengerii	Canna	Heliotrope
Begonia	Cineraria	Gentiana

Smilax and Primroses except Evening Primrose, Oenothera

**PLANTS IN SEASON**—In season we have a great many of the perennials that will bloom the first season and annuals for transplanting. See plant department.



**ACROCLINIUM—Everlasting**—Grows about 15 inches high, bearing white or rosy pink flowers, when cut in bud state, can be dried and used for winter bouquets. Sow seeds early in sheltered location and transplant to permanent bed. **Mixed. Pkt. 10c; oz. 75c.**

**AGERATUM—(Mexicanum Nanum)**—Adapted for borders and bedding; covered with feathery blossoms all Summer; sow seed in early Spring in boxes to transplant or sow out of doors and thin to 4 to 6 inches. Shading from dark blue to white. 1 to 1½ feet tall. **Dark Blue, White or Mixed. Pkt. 10c; ¼ oz. 25c.**

**AGROSTEMMA (P)—(Coronaria)**—Foliage silvery white, blossoms crimson, resembling single pinks. Strikingly beautiful for beds, ribbons and borders. Seeds should be sown where plants are to remain and thinned to prevent crowding. Height 2 feet. **Perennial. Pkt. 10c; oz. 65c.**

**ALYSSUM (P)—(Saxatile)**—Showy, bright yellow flowers, blooms the first season if sown early indoors. Fine for borders. Height 6 to 12 inches. **Pkt. 10c; ¼ oz. 35c.**

**ALYSSUM**—A dainty little white flower. Fine for borders, edging and rockwork. In borders, sow thickly so as to form masses. Varies in height from 4 to 10 inches. Sow in Spring or late August. **Maritimum**—Sweet. **Pkt. 10c; oz. 40c.**  
**Little Gem. Pkt. 10c; oz. 75c.**

**Procumbens**—Of trailing habit; profuse bloomer. **Pkt. 10c; oz. 75c.**

**AMARANTHUS**—Handsome foliage and interesting flowers, making a striking effect in borders and beds. Thrives in hot, sunny situation with rather poor soil. 2 to 5 feet. Sow early and transplant. **Salicifolius**—Willow leaved. **Pkt. 10c; oz. \$1.50.**  
**Caudatus**—Graceful drooping flowers. **Pkt. 10c; oz. 25c.**

**Tri-color, or Joseph's Coat**—Foliage scarlet, yellow and green. **Pkt. 10c; oz. 75c.**

**ANCHUSA (P)—(Italica—Dropmore)**—A splendid, free blooming plant for hardy borders, growing to a height of about 5 feet. Flowers are of a beautiful gentian blue color. Seeds should be sown in sheltered place outdoors and transplanted when large enough to handle. Should be 2 to 3 feet apart. **Pkt. 15c; ½ oz. 95c**

## BEAUTY ASTERS

A recently developed late flowering strain, which begins to flower in early September, lasting until destroyed by frost. Large flowers borne on long, stout stems from 18 to 24 inches. Plants grow nearly three feet in height.

**American Beauty.** A bright crimson rose. **Purple Beauty.** A deep, rich purple. **White Beauty.** A good white.

**Lavender Beauty.** A soft lavender. **September Beauty.** A delicate shell-pink. **Packet 15c; ½ oz. 65c.**

## NEW CALIFORNIA GIANTS

Combining the "BEAUTY'S" rigorous growth and the Crego or Ostrich Feather type of flower. A true, non-lateral type with flowers much larger and more substantial than the improved Crego. Their immense size and beauty as well as their long and sturdy stems make them very attractive in floral work. We offer this year **Peach Blossom, Light Blue, Deep Rose and Dark Purple. Pkt. 15c, 1/16 oz. 75c.**

## "CREGO GIANT"

The "Giant Crego" is distinct in every way, and its magnificent flowers, often 6 inches in diameter, have rare beauty of form and brilliant coloring, are very vigorous and free flowering.

**White, Shell-Pink, Rose, Purple, Lavender and Mixed. Pkt. 10c; ¼ oz. 65c.**

**ASTERS** grow to perfection in our mild, cool climate and splendid strains of the best-known sorts have been developed by careful selection. As Fall bloomers for garden or cut flowers, asters are most satisfactory, and the varieties we offer can be depended on for best results, rivaling the chrysanthemum in size and beauty. Asters require a rich moist soil.

**"MIKADO OR ROCHESTER"**—A favorite with florists.

Has very long, narrow petals, toward the center they cross and recross in splendid confusion, strong branching habit. **White, Rose, Pink, Lavender and Mixed. Pkt. 10c; ¼ oz. 65c.**

**LATE BRANCHING**—Flowers large, beautiful, double and borne on long stems. **White, Rose, Shell-Pink, Lavender, Purple, Mixed. Pkt. 10c; ¼ oz. 50c.**

**PERENNIAL ASTERS—(Michaelmas Daisy)**—Hardy, handsome flowers of easy culture, appearing at a time when flowers are scarce; make attractive garden display as well as cut flowers. If seed is sown indoors very early and seedlings set in open as soon as large enough to handle, they will bloom the first season. Do best in sunny location. Height 2 to 3 feet. **Large Flowering Mixed. Pkt. 10c; ½ oz. 50c.**

**PACIFIC BEAUTY**—A rich true lavender, with big fluffy blooms on strong stems; free bloomer and great keeping qualities. **Pkt. 10c.**

**QUEEN OF THE MARKET**—Best early Aster, of graceful spreading habit. **Light Pink, White, Dark Blue, Light Blue, Mixed. Pkt. 10c; ¼ oz. 50c.**

**ASTER-MUM**—A selection from "Giant Comet." Of immense size resembling chrysanthemums in form, hence the name "Aster-mum." Plants are about two feet high with good stems. A little earlier than "Crego." Four colors. **White, Rose-pink, Lavender, Purple and mixed. Pkt. 10c; ¼ oz. 65c.**

**GIANT COMET**—Flowers large and beautiful; petals long and twisted. **Rose, Crimson, Dark Blue, Light Blue, White, Mixed. Pkt. 10c; ¼ oz. 65c.**



*Crego Asters*

## ASTER PLANTS

In season we offer fine large plants of all Standard Varieties. These are well rooted and sure to give good results. See Plant Department.

**BACHELOR'S BUTTON**—(*Centaurea Cyanus*—or **Corn Flower**)—A hardy, annual, easily cultivated. Produces handsome flowers of a great variety of rich colors borne on tall, branching stems, with but little foliage. Striking and handsome. Sow seed in open ground early and transplant. 1 to 2 feet tall.

<b>Fine Single Mixed.</b>	<b>Pkt. 10c; oz. 40c.</b>
<b>Fine Double Mixed.</b>	<b>Pkt. 10c; oz. 75c.</b>
<b>Single Blue.</b>	<b>Pkt. 10c; oz. 50c.</b>
<b>Double Blue Florist Strain.</b>	<b>Pkt. 10c; oz. 75c.</b>
<b>Double Pink Florist Strain.</b>	<b>Pkt. 10c; oz. 75c.</b>

**BALLOON VINE**—A rapid growing climber. Blossoms very small and white. Light, graceful foliage. Bears curiously inflated seed pods. Sow seed where it is to remain. Succeeds best in light warm soil. 10 to 12 feet tall. **Pkt. 10c; oz. 35c.**

**BALSAM**—(“*Lady Slipper*”)—Handsome plants, producing masses of various colored flowers, half hardy. Curious seed pods which, when ripe, will explode when touched. If sown in May should bloom from July until frost. 1 to 1½ feet tall.

**DbI. Camellia Flowered**—Mixed. **Pkt. 10c; ¼ oz. 30c.**

**BLUE LACE FLOWER**—(*Didiscus*)—A money maker for florists, and a most satisfactory annual in the home garden for cutting. Plants grow about 18 inches in height, and are covered with clusters of tiny petaled flowers, giving the effect of dainty lace. The color is an exquisite light blue. **Pkt. 15c; ¼ oz. 65c.**

**CANTERBURY BELLS (B)**—(*Campanula*)—Very ornamental garden plants growing 2½ feet high, producing large, nodding and charming bell-shaped flowers of many exquisite shades; hardy biennial. Sow seeds in May. Keep seedlings well watered and transplant to permanent location in July or August. Give rich soil and plenty of room.

**Medium Single**—Blue, rose, white or mixed. **Pkt. 10c; ¼ oz. 25c.**

**Calycanthema**—(*Cup and Saucer*)—White, pink, light blue or mixed. **Pkt. 15c; ⅛ oz. 60c.**

**Persicifolia (P)**—Very fine, blooms in June. Blue or White. **Pkt. 15c; ⅛ oz. 90c.**

**Pyramidalis (P)**—Stately, hardy plant for pot culture or garden. Blue. **Pkt. 10c; ⅛ oz. 50c.**

**CANDYTUFT**—(*Iberis*)—One of the most highly prized annuals for beds or masses, very useful for cutting. For early blooms sow indoors, transplanting to garden when 2 to 3 inches high. Sowings every two weeks in the open will flower from July until frost. Grows 1 to 1½ feet.

**Umbellata Type**—**Carmine, Flesh Pink, Rose Cardinal, Crimson, Lavender, White and Mixed.** **Pkt. 10c; oz. 65c.**

**Coronaria**—**Giant White Hyacinth Flowered.** **Pkt. 10c; ¼ oz. 30c.**

**CALENDULA**—(*Pot Marigold*)—The well-known Pot Marigold, valued by Europeans for flavoring soups and stews. Flowers are dried in Fall and kept in paper bags for use. In mild climates this plant will bloom nearly all the year around. Colors range through yellow, orange and gold. 1 to 2 feet tall. Plant in early Spring in open ground.

**Orange King**—Double. **Pkt. 10c; oz. 50c.**

**Meteor**—Double. **Pkt. 10c; oz. 25c.**

**Lemon Queen Double.** **Pkt. 10c; oz. 35c.**

**Double Mixed.** **Pkt. 10c; oz. 20c.**

**CALLIOPSIS**—Very showy and attractive, always covered with a mass of bright flowers ranging in color through yellow, crimson and maroon. Sow where plants are to remain. In sunny situation plants will bloom all Summer. Fine cut flowers. 1 to 3 feet tall.

**Crimson King.** **Pkt. 10c; oz. 50c.**

**Golden Wave (Drummond).** **Pkt. 10c; oz. 50c.**

**Coronata Maxima.** **Pkt. 10c; oz. 75c.**

**Tall Single Mixed.** **Pkt. 10c; oz. 35c.**

**Tall Double Mixed.** **Pkt. 10c; oz. 40c.**

**Dwarf Mixed.** **Pkt. 10c; oz. 50c.**

**CARNATION (P)**—(*Dianthus Caryophyllus*)—Carnations are Tender Perennials, being easily winter killed. Splendid for cut flowers, deliciously fragrant. Colors pink white and red. Sow seeds indoors in March. Transplant seedlings to other boxes when 1 inch high. Keep them growing well until soil is warm, then transfer to open garden. Height 1 to 1½ feet. **Fine Plants in Season. See Plant Dept.**

**Chabaud Everblooming**—**Extra Choice Double Mixed**—Flowers in five to six months from sowing. **Pkt. 15c.**

**Double Grenadin**—Comes into bloom very early and the charming, double, scarlet flowers are very valuable for forming bouquets. **Red, White, Yellow. Pkt. 15c.**

**Margaret**—**Finest Double Mixed**—Bloom in four months from seed. **Pkt. 10c; ⅛ oz. 50c.**

**Giant or Malmaison**—Mixed. **Pkt. 15c.**

**Double Dwarf Vienna**—Mixed—Large flowered and comes into bloom early, producing flowers of many colors and beautiful markings; a large proportion double. **Pkt. 10c.**

**CASTOR BEAN**—(*Ricinus*)—Tropical appearing foliage plant. Highly ornamental, of stately growth, large leaves of bronze or glossy green. Should not be planted until soil is warm. Grows 3 to 5 feet tall.

**Sanguineus**—Brilliant scarlet stems and fruit. **Pkt. 10c; oz. 25c.**

**Zanzibariensis**—Surpasses all in size and beauty of colors. Mixed. **Pkt. 10c; oz. 25c.**

**Mixed**—Best varieties. **Pkt. 10c; oz. 25c.**

**CELOSIA CRISTATA**—(*Cockscomb*)—Very attractive and showy, producing massive heads of deeply colored flowers. Colors, red, purple and yellow. Sow very thinly in boxes indoors, transplanting to other boxes or thumbpots until little combs appear. Grows 9 to 12 inches tall.

**Cockscomb Tall Mixed.** **Pkt. 10c; oz. \$1.00.**

**Dwarf Empress.** **Pkt. 10c; ¼ oz. 75c.**

**Dwarf Fine Mixed.** **Pkt. 10c; ¼ oz. 65c.**

**CELOSIA PLUMOSA**—(*Feathered*)—Large plumy heads. For pots or open ground. Keeps well when cut. Grows 1 to 2 feet tall. **Finest Mixed. Pkt. 10c; oz. \$1.00.**

**Childsii**—(*Chinese Wool Flower*)—A unique form of the feathered cockscomb, growing 2 to 3 feet high, each branch terminated with a large head of rich crimson flowers that look as if made out of silky wool. Effective in beds and borders. Also valuable for cutting, as they can be dried, retaining their bright colors for weeks. **Pkt. 15c; ¼ oz. 75c.**

**CENTAUREA**—Sweet scented flowers on long, strong stems. Will last several days when cut. Sow where plants are to remain, thinning to 12 inches apart. Grows 1 to 3 feet tall.

**Cyanus Double**—Blue, pink shades, **Pkt. 10c; ¼ oz. 25c.**

**White, mixed.** **Pkt. 10c; oz. 35c.**

**Single Mixed.** **Pkt. 10c; oz. 35c.**

**Imperialis**—(*Giant*)—White, purple, rose, deep lavender, and mixed. **Pkt. 10c; ¼ oz. 35c.**

**Suaveolens**—**Yellow Sweet Sultan.** **Pkt. 10c; ¼ oz. 30c.**

**Moschata Mixed.** **Pkt. 10c; ¼ oz. 30c.**

**Candidissima**—(*Dusty Miller*). **Pkt. 15c; ⅛ oz. 75c.**

**CHRYSANTHEMUM**—Very showy, effective and desirable as Summer flowering plants. Hardy annuals. Sow seeds in flats very early in Spring and transplant to garden when soil is warm. Grows 1 to 2 feet.

**Carinatum**—(*Northern Star*)—Giant white, black center. **Pkt. 10c; oz. 50c.**

**Carinatum**—Single finest mixed. **Pkt. 10c; oz. 40c.**

**Corinarium**—Double finest mixed. **Pkt. 10c; oz. 40c.**



**CINERARIA (B)**—Magnificent and indispensable flowering plants for the window garden. The flowers of white, blue, violet, and crimson shades, covering the plant with a sheet of bloom. Should be sown under glass in very fine soil.

**Hybrida**—Gd'fl. Choicest. Mixed. Pot Plant. Pkt. 50c.

**Hybrida**—Fine Mixed. Pkt. 25c.

**Dusty Miller**—(*Maritima Candidissima*)—Beautiful silvery-leaved border plant; half hardy perennial. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**CLARKIA**—Hardy annual of easy growth, produces a fine effect massed in beds, bright and attractive. Fine for cutting. Does well in shade. Sow early in open ground. Grows 1 to 2 feet tall.

**Elegans**—(*Salmon Queen*)—Dbl. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**Elegans**—(*Scarlet Queen*)—Dbl. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**Elegans**—White—Double. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**Elegans**—Double mixed. Pkt. 10c;  $\frac{1}{4}$  oz. 30c.

**CLEOME**—A splendid plant for large beds or shrubbery border. Of branching habit, each branch producing a large head of attractive flowers. Sow seed in open ground as soon as weather is warm and settled. Height 3 $\frac{1}{2}$  feet. Fine for bees. Mixed. Pkt. 10c; oz. 65c.

**COBAEA SCANDENS**—(*Plants in Season*)—A handsome, rapid-growing, climbing plant, having large, bell-shaped flowers, beautiful foliage and peculiarly delicate and curious tendrils. Seeds should be planted on edge in shallow boxes of soft soil, covering with glass until seedlings appear. Transplant about May.

**Purple.** Pkt. 10c;  $\frac{1}{4}$  oz. 25c.

**White.** Pkt. 10c;  $\frac{1}{4}$  oz. 50c.

**COIX LACHRYMAE**—(*Job's Tears*)—A broad-leaved, ornamental grass, having large, tear-shaped, hard, shining, pearl-gray seeds. Plant in prepared seed bed in open, transplant. Oz. 10c.

**COLUMBINE (P)**—(*Aquilegia*)—Universal favorite for hardy borders and beds, for no other plant has so airy a grace nor is more generous of its blooms or more effectively adapted for cut flowers.

**Single Mixed.** Pkt. 15c;  $\frac{1}{4}$  oz. 50c.

**Double Mixed.** Pkt. 15c;  $\frac{1}{4}$  oz. 50c.

**Long Spurred Varieties.** Pkt. 25c; 1/16 oz. 50c.

**Skinneri**—Scarlet tipped with white. Pkt. 25c; 1/16 oz. 85c.

**COREOPSIS (P)**—(*Lanceolata*)—Large, showy, bright yellow flowers produced in great abundance from June until frost; fine for cut flowers. Sow seeds indoors very early, transplanting to open when soil is warm. Height 1 to 2 feet. Pkt. 10c; oz. 65c.

**CYPRESS VINE**—(*Ipomoea Quamoclit*)—Climber with rapid growth. Has delicate fern-like foliage and great numbers of star-shaped blossoms with long tubes. Soak seeds over night in warm water, then sow where vine is to grow. Does best in warm, sunny location. Grows 10 to 15 feet. **White Scarlet or Mixed,** Pkt. 10c; oz. 75c.

**DAHLIA (P)**—A magnificent, Fall-blooming tuberous-rooted plant. Sow seeds in boxes indoors very early, transplanting to open when danger from frost is past. Will bloom first season. Tubers of the best ones may be saved for following season.

**Double Mixed.** Pkt. 15c;  $\frac{1}{8}$  oz. 50c.

**Single Mixed.** Pkt. 10c;  $\frac{1}{8}$  oz. 40c.

**Cactus**—Flowers odd and fantastic in shape; all colors. **Finest Mixed.** Pkt. 15c; 1/16 oz. 50c.

**COSMOS**—Beautiful autumn blooming plants producing thousands of artistic flowers in pure white, pink and crimson shades, furnishing an abundance of cut blooms for summer and fall decorations. In this climate the late flowering types do not, as a rule, bloom much before the early frosts, hence we list only the early flowering types, which by careful selection now have flowers as large as the late flowering kinds. Seed sown in the open ground in April should produce plants covered with blooms in July, or six weeks to two months earlier than the late flowering. Plant not less than eighteen inches apart in rows or in masses in beds. Pinching out tops when plants are a foot high makes them bushy and sturdy.

**Cosmos**—Extra Early Mammoth Flowering—**Crimson, Pink, White.** Pkt. 10c; oz. 65c.

**Finest Mixed.** Pkt. 10c; oz. 60c.

**EXTRA EARLY DOUBLE CRESTED.**

**Crimson King.** Pkt. 20c;  $\frac{1}{8}$  oz. \$1.00.

**Pink Beauty.** Pkt. 20c;  $\frac{1}{8}$  oz. \$1.00.

**White Queen.** Pkt. 20c;  $\frac{1}{8}$  oz. \$1.00.

**Finest Mixed.** Pkt. 20c;  $\frac{1}{8}$  oz. 90c.

**Klondyke**—Blooms very early and continuously; 3 to 4 feet high; flowers large, orange, borne on long stems. Pkt. 10c;  $\frac{1}{4}$  oz. 75c.

**Late Fl. Dbl. Mxd.** Pkt. 25c.

**DAISY (P)**—(*Bellis Perennis*)—Popular low-growing plant bearing beautiful flowers. Hardy perennial. Sow seeds in boxes about August and transplant to cold frame or some location where they may be protected the first Winter. Plant in permanent location early in Spring. Height 6 inches.

**Longfellow**—Double pink. Pkt. 15c; 1/16 oz. 35c.

**Giant Double Monstrosa**—Red, white, pink or mixed. Pkt. 25c; 1/16 oz. 60c.

**Double Quilled**—Dark red. Pkt. 25c; 1/16 oz. \$1.00.

**Shasta Alaska**—Very hardy; profuse bloomers; flowers very large and borne on long stems, single; petals pure glistening white, dark center. Pkt. 15c;  $\frac{1}{8}$  oz. 95c.

**DATURA**—Large, strong-growing plants, trumpet-shaped flowers, white, sometimes tinted with blue. Roots can be preserved like Dahlias. Sow seeds in sheltered bed in open and transplant when 2 to 3 inches high. Give plenty of room and rich soil. Height 2 to 3 feet.

**Fastuosa**—Double mixed. Pkt. 10c; oz. 65c.

**Cornucopia**—Very fragrant. Pkt. 15c; oz. \$1.25.

**DELPHINIUM (P)**—(*Larkspur*)—Profuse blooming plants, their tall spikes of many colored flowers produce a striking effect when planted in groups. Sow seeds in boxes indoors in early Spring, transplanting to other flats when second leaf appears. When soil is warm, set in open ground 6 to 8 inches apart, resetting the next Spring, giving rich soil and plenty of room. As a cut flower this is one of the best. Height 3 to 6 feet. **See Plant Department.**

**Chinese Azure Fairy**—Blue; fine for cutting. Pkt. 10c;  $\frac{1}{4}$  oz. 50c.

**Chinese Blue Butterfly.** Pkt. 10c;  $\frac{1}{4}$  oz. 60c.

**Chinese Album White.** Pkt. 10c;  $\frac{1}{4}$  oz. 50c.

**Belladonna**—Light Blue. Pkt. 25c;  $\frac{1}{8}$  oz. \$1.35.

**Formosum**—Dark blue. Pkt. 10c;  $\frac{1}{8}$  oz. 90c.

**Cardinale**—Brilliant scarlet. Pkt. 15c;  $\frac{1}{8}$  oz. \$1.00.

**Bellamosum**—Same color as Formosum, larger, not subject to blight. Pkt. 15c;  $\frac{1}{8}$  oz. \$1.25.

**DIGITALIS (B)**—(*Fox Glove*)—A tall growing biennial with large leaves and spikes of vari-colored and spotted flowers. Fine for borders or background. Sow seeds in prepared seed bed in May. Keep seedlings well watered and transplant to permanent location in July or August. Give rich soil and plenty of room. Height 3 to 6 feet.

**Gloxiniflora**—Mixed. Pkt. 10c;  $\frac{1}{4}$  oz. 25c.

**Grandiflora**—Yellow. Pkt. 10c;  $\frac{1}{4}$  oz. 50c.

**ESCHSCHOLTZIA**—(*California Poppy*)—See Poppy.

**EUPHORBIA**—Branching, bushy plants with smooth, glossy leaves of various colors. Suitable for beds or borders. Sow seeds in open ground, transplanting when few inches high. Give plenty of room. Good foliage plant. Height 2 to 3 feet.

**Variegata, Snow on Mountain.** Pkt. 10c;  $\frac{1}{4}$  oz. 25c.

**Heterophyllia**—Painted leaf. Annual poinsettia. 3 feet. Pkt. 15c;  $\frac{1}{4}$  oz. 35c.

**FORGET-ME-NOT (P)**—(*Myosotis*)—Beautiful Spring favorites of easy growth, bearing clusters of lovely, small blue flowers. They can be left in the open ground except in very cold latitudes. Fine for borders and shady situations. Sow seeds in box or prepared bed in the open. Height, one foot.

**Alpestris**—Of trailing habit, with pretty flowers. Blue or mixed. Pkt. 10c;  $\frac{1}{4}$  oz. 65c.

**Victoria**—Flowers large, bright azure blue; fine for borders. Pkt. 10c;  $\frac{1}{8}$  oz. 70c.

**Semperflorens**—Dwarf; continuous bloomer; blue. Pkt. 15c;  $\frac{1}{8}$  oz. 70c.

**FOUR O'CLOCK**—(*Mirabilis Jalapa*)—Marvel of Peru—Easy culture, bearing a profusion of bright flowers of various shades. Flowers open at four o'clock, close in morning. Sow seeds early in the open and transplant. Grows 2 to 3 feet high.

**Choice Mixed.** Pkt. 10c; oz. 25c.

**GAILLARDIA**—(*Blanket Flower*)—Very showy garden plant, with brilliant flowers; free blooming from early Summer until Autumn; especially effective in masses. Sow seeds early where plants are to bloom. Colors crimson, brown and orange. Splendid cut flower. Height 1 to 2 feet.

**Picta Lorenziana**—Double; finest mixed; annual. Pkt. 10c;  $\frac{1}{4}$  oz. 25c.

(P) **Grandiflora Maxima.** Pkt. 10c;  $\frac{1}{4}$  oz. 40c.

**GERANIUM (P)**—A half-hardy perennial, easily and quickly grown from seed. Sow seeds thinly in boxes indoors, covering with glass until seedlings appear. When about one inch high transplant to small pots in rather poor soil firmly pressed down. Can later be re-potted in larger sizes or transferred to open garden.

**Zonale**—Extra choice, single mixed, the well-known bedding Geranium. Pkt. 15c;  $\frac{1}{8}$  oz. 95c.

**Lady Washington**—(*Pelargonium*)—Foliage green; flowers large. Finest mixed. Pkt. 25c; 100 Seed \$2.25.

**GEUM (P)**—(*Chiloense*)—Hardy, free-blooming plants. Fine for bouquets. Flowers crimson, double. Blooms all Summer. Height 8 to 12 inches.

**Mrs. Bradshaw**—Scarlet. Pkt. 25c;  $\frac{1}{8}$  oz. 75c.

**GODETIA**—Profuse and constant bloomers, compact and bushy in growth. Colors rose, crimson, white and pink. Sow seeds indoors in boxes and transplant. Succeeds in poor soil. Height 1 foot.

**Dwarf**—Fine Mixed. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**Gloriosa**—Dark Red. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**Duchess of Albany**—White. Pkt. 10c;  $\frac{1}{4}$  oz. 35c.

**GOURDS**—Good climber. For covering verandas and trellis work; rapid growth, bearing fruits of curious shapes. Plant after soil is warm. Height 10 to 20 feet.

**Calabash.** Pkt. 10c; oz. 35c.

**Mixed Varieties.** Pkt. 10c; oz. 35c.

**GYPSOPHILA**—Easily raised from seed. Grows from 18 to 24 inches, bearing beautiful, large, star-shaped flowers in great profusion. First sowings in flats very early and transplanted. Make later sowings in open ground.

**Grandiflora Elegans**—White. Pkt. 10c; oz. 30c.

**GYPSOPHILA (P)**—(*Baby's Breath*)—A pretty, free-flowering plant. Fine for bouquets. Seeds very small. Sow in boxes indoors, covering lightly with sifted soil firmly pressed down. Transplant soon as large enough to handle. Height 2 to 3 feet.

**Paniculata**—Foliage fine; covered with tiny, pure white flowers. Hardy. Pkt. 10c;  $\frac{1}{4}$  oz. 25c.

**Paniculata Fl. Pl. New.**—About 30% double. Pkt. 15c;  $\frac{1}{8}$  oz. \$1.50.

**HELICHRYSUM**—(*Straw Flower*)—**Monstrosum**—Everlasting. One of the best for Winter bouquets. Hardy annual. Colors, red, yellow and white. Effective for bedding. Sow seeds in open and transplant or thin to 12 inches.

**Double Mixed.** Pkt. 10c;  $\frac{1}{4}$  oz. 25c.

**HYACINTH BEAN**—(*Dolichos Lablab*)—Rapid growing, ornamental, climbing annual, bearing clusters of beautiful purple and white flowers, followed by highly ornamental seed pods. Sow seeds early where vine is to remain. **Mixed.** Pkt. 10c; oz. 15c.

**HOLLYHOCKS**—(*New Annual*)—**Hybrida Semperflorens**—This splendid variety will bloom in August, from Spring planting, continuing until frost. This is a great advantage, as other varieties do not bloom until the second year. Try them.

**Finest Single Mixed.** Pkt. 10c;  $\frac{1}{4}$  oz. 30c.

**HOLLYHOCK (B), or Althaea**—The modern Hollyhock is a great improvement over the old type, the flowers being larger and richer colored. For backgrounds there can be nothing better. Hardy. Seeds should be sown in open from Spring to mid-Summer, transplanting in late Fall. Give rich soil for best results. Five feet high.

**Chaters**—Superb strains. Double varieties; of greatest perfection.

**Scarlet, Rose, Newport, Pink, Maroon, Yellow, White.** **Mixed.** Pkt. 10c;  $\frac{1}{4}$  oz. 85c.

**HUNNEMANNIA**—(*Giant Yellow Tulip Poppy* or *Bush Eschscholtzia*)—Best of the Poppy family for cutting. Seed sown early in May will, by the middle of July, produce plants covered with their large, buttercup yellow, poppy-like blossoms, and never out of flower until a hard frost. Height 2 to 3 feet.

**Fumariaefolia.** Pkt. 10c; oz. 75c.

**ICE PLANT**—(*Mesembrianthemum Crystallinum*)—Pretty Summer trailing annual for vases and rock work; leaves covered with ice-like drops. Sow seeds early in boxes. Height  $\frac{1}{2}$  to 1 foot. Pkt. 10c; oz. 75c.

**KOCHIA CHILDSII**—(*Summer Cypress*)—Forms symmetrical highly decorative bushes, foliage green, turning to fiery red in Autumn. Sow seeds in open and thin to 15 inches. Valuable for Summer hedges. Height 1 to 2 feet. Pkt. 10c; oz. 35c.

**KUDZU VINE (P)**—(*Pueraria Thunbergiana*)—Beautiful Japan climber, hardy perennial with fragrant purplish-violet, wisteria-like flowers. Height 10 to 12 feet. Pkt. 10c; oz. 75c.

**LEMON VERBENA (P)**—Every garden should have a few plants of this fragrant favorite. Its pale green foliage goes well with any flower. Height 1 to 2 feet. (Usually propagated from cuttings.) Pkt. 15c;  $\frac{1}{8}$  oz. 60c.

**LINUM**—(*Grandiflorum Rubrum*)—**Scarlet Flax**—One of the most showy bedding plants, fine foliage, with brilliant scarlet-crimson flowers. Pkt. 10c; oz. 45c.

**Perenne (P)**—Pearl blue flowers; graceful and hardy. Pkt. 10c;  $\frac{1}{2}$  oz. 35c.

**Perenne Album (P)**—Milk white flowers, very decorative. Pkt. 10c; oz. 50c.

**Flavum (P)**—Very firm, Yellow. Pkt. 15c;  $\frac{1}{4}$  oz. 50c.



**LARKSPUR**—The annual Larkspurs are quite hardy and bloom in the later Summer months, furnishing flowers of striking beauty in form and color. Tall varieties are suitable for shrubberies and borders, while the dwarf sorts produce charming effects in beds. Height 1 to 2 feet.

**Dwarf Rocket**—Finest colors. Double Mixed. Pkt. 10c; oz. 75c.

**Tall Double Stock Flowered**—Lustrous Carmine, Dark Blue, Rose, White or Finest Mixed. Pkt. 10c, oz. 65c.

**LOBELIA (P)**—(Cardinalis)—Flowers rich red, dark green foliage. Especially valuable for border decoration. Sow seeds in boxes indoors. Cover very lightly with sifted soil and press down firmly. Cover box with glass until seedlings appear. If sown in January or February, will usually bloom in May. Height 6 to 12 inches. Pkt. 15c, ¼ oz. 60c.

**LOBELIA**—Delicate, low-growing, annual plants of the greatest value for borders, ribbons, edgings, rock work and hanging baskets. Sow seeds very thinly in boxes, covering with glass until seedlings are through surface. Height 6 to 8 inches.

**Saphir**—Deep blue with white eye, long, drooping flower stalks; grows rapidly. Pkt. 15c; ¼ oz. \$1.50.

**Speciosa**—Dark blue and dark leaved, trailing. Pkt. 10c; ¼ oz. 65c.

**Gracilis**—Blue, trailing; beautiful for baskets. Pkt. 10c; ¼ oz. 40c.

**Crystal Palace Compacta**—Dwarf flowers, very fine and rich, bright blue; finest for bedding and edging. Pkt. 10c; ¼ oz. 90c.

**LUPINUS**—Hartwegi. Dark Blue, Light Blue, Rose White, Mixed. Pkt. 10c; oz. 35c.

**LUPINUS (P)**—Shrubby plants, bearing long spikes of flowers. Colors white and pink, occasionally blue. Sow seeds in open early in Spring. Transplant. Give plenty of room.

Perennial—Mixed. Pkt. 10c; oz. 50c.

**LYCHNIS (P)**—(Rose Champion)—Jerusalem Cross—Few plants produce more brilliantly colored blossoms. Flowers are borne in clusters and continue fresh and brilliant for a long time. Hardy, 1 to 2 feet high. Orange, scarlet and crimson. Seeds should be sown where plants are to remain, thinning to prevent crowding.

**Haageana Hybrida**—Mixed. Pkt. 15c; ½ oz. 50c.

**MARIGOLD**—(Tagetes)—A hardy plant in dwarf and tall varieties; foliage bright green and deeply cut. Flowers are various shades of yellow and brown. Sow seeds early in flats and transplant to garden when 3 to 4 inches tall. For specimen plants soil should be light, rich and deeply spaded. Height 1 to 2½ feet.

**African**—Tall or Dwarf, Double, Fistulosa Type Mixed. Pkt. 10c; ¼ oz. 35c.

**French**—Dwarf or Tall Double Mixed. Pkt. 10c, oz. 65c.

**French**—Tall Striped Double. Extra select. Pkt. 10c; oz. 75c.

**Golden Ball**—New Dwarf. Very compact. Pkt. 10c; oz. 65c.

**Legion d'Honneur**—Dwarf Single. Pkt. 10c; oz. 65c.

**Little Brownies**—(Legion d'Honneur)—Dwarf Double Brownies. Pkt. 10c; oz. 65c.

**MOON FLOWER**—(Ipomoea Mexicana Grandiflora)—Rapid growing climber belonging to the "Morning Glory" family. At night and on cloudy days vine is covered with fragrant white flowers 4 to 5 inches in diameter. Seeds must be soaked then planted where vine is to remain. Pkt. 10c; ¼ oz. 25c.

**MIGNONETTE**—(Reseda)—A quick-growing fragrant annual. Produces the largest and finest spikes of blossoms during cool, moist weather of early Spring and late Fall months, but will flower freely throughout the Summer from seed sown early in Spring. A second planting should be made about the first of August. Sow seeds where plants are to remain. Difficult to transplant. Height 1 foot.

**Odorata Grandiflora**—Large, well-formed, fragrant flowers. Pkt. 10c; oz. 25c.

**Machet**—White. White with reddish tinge. Best white dwarf variety. Pkt. 10c; oz. 75c.

**Golden Queen**—Dense, dwarf growth; flower golden yellow; very fragrant. Pkt. 10c; oz. 75c.

**Dobbies Giant Red**—Mammoth reds pikes. Very fine. Pkt. 10c; ¼ oz. 35c.

**MIMULUS (P)**—(Moschatus or Musk Plant)—Cultivated for its rich musky odor. Flowers yellow, white or spotted. Height 1 foot. Should have a rich soil and ample moisture. Will bloom first year if seed is sown early. Does best in shady situation. Pkt. 15c.

**Tigrinus Fl. Pl., or (Monkey Flower)**—Beautifully spotted. Mixed. Pkt. 15c; ½ oz. 65c.

**MORNING GLORY**—The tall varieties are popular, well known, rapid growing climbers of the easiest cultivation, attaining a height of 10 to 12 feet. Very fine for covering arbors, trellises, etc. The Minor, or Dwarf varieties flower very freely and do not require support. Plant seeds early where plant is to remain.

**Convolvulus Major**—Tall, choice single, mixed, all colors. Pkt. 10c; oz. 15c.

**Double Mixed**—Tall. Pkt. 10c; ¼ oz. 35c.

**Convolvulus Minor**—Dwarf mixed. Pkt. 10c; oz. 20c.

**Imperial Japanese Fringed**—These have very large fringed flowers in a great variety of the exquisite colorings; variegated foliage.

Mixed. Pkt. 10c; ½ oz. 40c.

**MIMOSA**—(Sensitive Plant)—Pudica—A good foliage plant. Very curious and interesting, leaves close if touched or shaken. Height 1 to 1½ feet. Pkt. 10c; oz. 75c.

**NEMESIA**—A splendid border plant with the widest range in color. Is very early, a continuous bloomer, and stands a lot of hardship. If topped, and watered when beginning to seed it will start blooming all over again. The Orchid-like flowers are varied in color, blue, orange, rose, yellow, etc.

**Blue Gem**—Flowers almost like Forget-Me-Not. Pkt. 20c each.

**Triumph Mixed**. Pkt. 20c each.

**NIGELLA**—(Love-in-a-Mist, or Devil-in-the-Bush)—Compact growing, free flowering plants with curious looking, showy flowers and finely cut foliage. Colors blue and white. Sow about April and thin to 8 to 10 inches.

Mixed Colors. Pkt. 10c; oz. 35c.

**Miss Jekyll**—Cornflower Blue. Pkt. 10c; oz. 75c.

**NICOTIANA**—A very showy plant, producing star-shaped flowers of delicious perfume. Taken up in the Fall, cut back and potted, will bloom freely all Winter. Half hardy annual; 3 feet high. Sow seeds in boxes indoors or in a sheltered situation in the open. For best results give plenty of room, rich soil and sunlight.

**Affinis**—White. Sweet scented. Pkt. 10c; oz. 75c.

**Sylvestris**—Pure white, fragrant, drooping flowers; deep green foliage. Pkt. 10c; oz. 75c.

**Sanderae**—Resembles the "Affinis," but does not close up in the daytime. The plants are covered with carmine-red, fragrant flowers. Pkt. 10c; oz. \$1.25.

# NASTURTIUMS



**N**ASTURTIUMS are hardy annuals, of easy culture and flower best where the soil is not too rich. The new hybrids include various shades of rose, salmon, bright red, pale yellow, etc., either self-colored or spotted, mottled, striped and margined.

For covering trellises, fences, arbors, piazzas, trailing from vases, over rockwork, for bedding, etc., nothing can equal the gorgeous effect produced by their marvelous wealth of bloom, borne in uninterrupted splendor from early Summer until cut down by frost. The seeds, picked green and pickled in vinegar have a piquant, appetizing flavor that is a valuable addition to relishes or pickles.

## TALL VARIETIES

**CHAMELEON**—Variable flowers marked and blotched in many brilliant colors.

**CRIMSON**—Large, velvety crimson flowers, very attractive.

**CLOTH OF GOLD**—Fiery red, golden leaved.

**DUNNETT'S ORANGE**—(Sunlight)—Clear, rich golden yellow.

**MOONLIGHT-PEARL**—Soft primrose.

**PRINCE HENRY**—Fine lemon yellow, clear carmine blotches.

**REGELIANUM**—Purplish crimson.

**SALMON QUEEN**—Extra large light salmon, suffused rosy salmon.

**VON MOLTKE**—Bluish rose.

**NAMED VARIETIES.** Pkt. 10c.; oz. 15c.; ¼ lb. 50c.

**MIXTURE**—Standard tall varieties.

Pkt. 10c.; oz. 15c.; ¼ lb. 40c.

**OENOTHERA**—(Evening Primrose)—Elegant for growing in an exposed position, in border or on rockery; constant bloomer all Summer. Shades of yellow. Sow seeds early in boxes, covering very lightly with fine soil firmly pressed down. Transplant seedlings.

Fine Mixed. Pkt. 10c.; oz. 60c.

**PAMPAS GRASS (P)**—(Cortaderia Argenteum)—A noble ornamental grass, easily grown from seed; producing majestic plumes that are invaluable for winter decorations. Height 6 to 10 feet. Sow seeds thinly in a sheltered place, transplanting to another prepared bed when a few inches high. Set out in permanent location when about 1 year old. See Plant Dept. Pkt. 15c.

**PEAS**—Perennial (P)—(Lathyrus Latifolius)—Similar to Sweet Peas but not so fragrant; they bloom through a long season, are perfectly hardy, and will live for years. Should be sown near a fence or other support, thinning to 2 to 3 feet apart. Height 4 to 6 feet.

Mixed. Pkt. 15c.; ½ oz. 95c.

**PASSIFLORA (P)**—(Passion Flower)—Most interesting and well known climber, bearing singularly beautiful flowers. Height 10 to 12 feet.

Blue. Pkt. 10c.; ¼ oz. 65c.

## DWARF VARIETIES

**CHAMELEON**—Variable colorings in bronze, crimson and yellow, rich markings.

**CLOTH OF GOLD**—Brilliant scarlet, golden yellow leaves.

**EMPRESS OF INDIA**—Intense scarlet, purplish green leaves.

**PRINCE HENRY**—Lemon yellow, with carmine blotches.

**REGELIANUM**—Purple-garnet.

**RUBY KING**—Bluish rose.

**VESUVIUS**—A rich salmon orange, dark foliage.

**NAMED VARIETIES.**

Pkt. 10c.; oz. 20c.; ¼ lb. 60c.

**MIXTURE**—Standard varieties.

Pkt. 10c.; oz. 20c.; ¼ lb. 50c.

**PHLOX DECUSSATA (P)**—(Perennial)—Large compact heads of bloom from mid-Summer until Fall. Height 2 to 4 feet. Wide range of colors. Sow seeds early in boxes and transplant seedlings once before placing in permanent location. Usually blooms the first season. Requires 5 to 6 months for seed to germinate. See Plant Department for finest named varieties.

Mixed. Pkt. 10c.; ½ oz. 60c.

**PHLOX DRUMMONDI**—Unrivaled for richness and beauty of color, ranging from white to the deepest scarlet and purple. For cutting, for bouquets or for bedding in masses they are unsurpassed. Hardy annual, one foot high. Sow as soon as soil is warm. Transplant about one foot apart.

**Large Flowering**—Crimson, white or mixed.

Pkt. 15c.; ⅓ oz. 50c.

**Chamois Rose.**

Pkt. 10c.; ¼ oz. 75c.

**Isabellina**—Pale yellow.

Pkt. 10c.; ¼ oz. 75c.

**Kermesina Splendens**—Crimson with white edge.

Pkt. 10c.; ¼ oz. 75c.

**Diamond Mixture.**

Pkt. 10c.; ¼ oz. 75c.

**Dwarf Mixed.**

Pkt. 10c.; ¼ oz. 75c.

**Star Phlox**—(Cuspidata)—Flowers have a distinctive star-like appearance, with white margins, excellent for bouquets.

Pkt. 10c.; ¼ oz. 75c.

## Diamond Plant Food

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated. A complete powerful fertilizer, wonderfully invigorating to all plants, producing luxuriant foliage and larger and more brilliant flowers. A 40c package will feed a dozen large plants a whole year. Special instructions on each package—Postpaid 50c.



## GIANT FLOWERING PANSIES

**F**OR years local experts have grown our Giant Pansies and co-operated in securing the finest strains from the world's most celebrated growers. These have been carefully re-selected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered.

**ADONIS**—A distinct and beautiful shade of light blue with white center and dark blotch, most pleasing and attractive. **Pkt. 15c.**

**GOLDEN QUEEN**—A rich, pure yellow of the grandest form and size. A valuable addition to the yellows. **Pkt. 15c.**

**GIANT DARK BLUE**—A splendid blue black, very elegant, and of good substance. **Pkt. 15c.**

**GIANT STRIPED**—A superior strain of truly giant pansies, with the most beautiful striped markings in richest dark shades. **Pkt. 15c.**

**VIOLET BLUE**—A new giant variety of a brilliant, dark indigo blue, with violet luster, each petal having a large, dark brown, veined blotch. Edges slightly ruffled. **Pkt. 15c.**

**KING OF THE BLACKS**—(Giant)—Immense velvety back flowers of the finest quality, the largest and best black pansy. **Pkt. 15c.**

**MADAME PERRET**—A beautiful and distinct type with edges of petals frilled—bordered white, colors are dark wine—pink and red, beautifully veined. The earliest of the Giants, and has the sweetest perfume. **Pkt. 15c.**

**SNOW FLAKE**—A grand, pure white, of extra fine quality. **Pkt. 15c.**

**CORNFLOWER BLUE**—A dainty cornflower blue, large, good substance. **Pkt. 15c.**

**MASTERPIECE**—**Giant Ruffled**—The mammoth size, richness and beauty of colorings and frilled or ruffled character of the petals make "Masterpiece" one of the most distinct and interesting Pansies. **Pkt. 25c.**

One packet each of ten varieties named above for \$1.25.

## FANCY STRAINS OF MIXED PANSIES

**FINE MIXED**—A fine assortment of colors.

**Pkt. 10c.; ¼ oz. 50c.**

**OREGON GIANT PANSIES—MIXED**—Our Oregon Giants are a selection of the finest strains and named varieties from the foremost American and foreign growers. This seed has been gathered by hand for several seasons from selected plants grown here in Oregon and will produce plants and flowers of unsurpassed quality in the most pleasing colors and shades.

**Pkt. 25c.; ¼ oz. \$1.25; oz. \$4.50.**

**PENTSTEMON (P)—(Beard Tongue)**—Brilliant bell-shaped flowers borne on long spikes, and produced abundantly all Summer. Colors range through red, rose, cherry, carmine, pink and purple. Should be sown indoors. Cover lightly and press down firmly. Transplant to open. **Mixed. Pkt. 10c.; ⅛ oz. 50c.**

**"Sensation"**—As a bedding plant this takes rank with the Petunia. About 2 ft. every branch a spike of flowers in a wide range of bright colors. Treated as Petunias.

**Pkt. 15c.; ⅛ oz. 90c.**

**PORTULACA—(Rose Moss)**—Brilliant dwarf annuals, only 6 inches high, luxuriating in warm situations, and blooming profusely in early Summer to Autumn. For low beds and masses of color from Spring until frost they are indispensable; colors range through innumerable shades of red, yellow, pink, white, striped, etc. Sow seeds indoors. Thrive best in hot and dry situation.

**Single Mixed.**

**Pkt. 10c.; ¼ oz. 45c.**

**Double Mixed, Extra.**

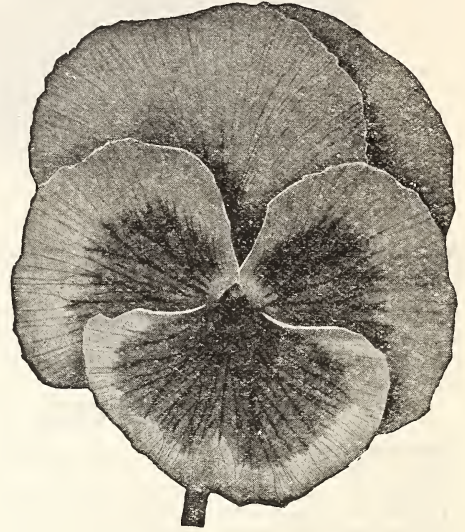
**Pkt. 10c.; ⅛ oz. 75c.**

**TRIMARDEAU GIANTS**—Of remarkably large size and robust growth; very fine.

**Pkt. 10c.; ¼ oz. 85c.; oz. \$3.00.**

**OREGON GIANT PANSIES IN BLOOM**—From March until June we offer our famous "Oregon Giant" Pansy plants in full bloom. Put up one dozen in a basket. Mailing weight four pounds.

**Price: 60c. to \$1.00 per basket, not prepaid.**



**PETUNIA—(Hybrida)**—During the whole season it is covered with large, showy blossoms, which are always bright and fresh, in spite of heat and drought. The flowers are of an almost infinite variety of colors and markings, and quite as varied in form: large and small, fringed and plain, double and single. Hardy Annual. Sow seeds very thinly indoors under glass. Care should be taken to save the weaker seedlings as they produce the finest flowers. Transplant to garden when soil is warm. Height 1 to 1½ feet.

**Single Choicest Mixed.**

**Pkt. 15c.**

**Double Choicest Mixed.**

**Pkt. 35c.**

**Single Fringed—Finest Mixed.**

**Pkt. 25c.**

**Double Fringed Mixed.**

**Pkt. 50c.**

**Giants of California—Choicest Mixed.**

**Pkt. 25c.**

**Elks Pride**—Deep (Elks) Purple. Large flowers, fine for window boxes, borders and bedding.

**Pkt. 35c.**

**City of Portland**—One of the finest shades of pink. Flowers large and ruffled. Fine for borders or bedding.

**Pkt. 35c.**

To produce a luxuriant dark green velvety lawn, sow **DIAMOND FANCY MIXED LAWN GRASS** and fertilize with **DIAMOND LAWN AND ROSE FERTILIZER**





**POPPY—(Papaver)**—Magnificent, showy flowers borne separately on tall stalks in many bright and charming colors. Some are hardy annuals, others are perennials. Sow seeds very early where they are to remain. Barely cover seed with fine soil and press down firmly. Thin to one foot. If cut before fully open blossoms will last several days.

For perennial varieties seeds should be planted in small pots and thinned to one plant, as they are difficult to transplant. When pot is full of roots, plant in permanent location in good soil. Height 1 to 3 feet.

**Bracteatum (P)**—Very showy, red. Pkt. 10c.; ¼ oz. 40c.  
**Iceland, or Nudicaule (P)**—Bright green, fernlike foliage, formed in tufts from which issue slender stalks about 12 inches high, bearing yellow, white or orange-scarlet flowers in endless profusion and most useful for cutting. Single, Mixed colors. Pkt. 10c.; ¼ oz. 65c.

**Oriental**—Hybrida mixed. Pkt. 10c.; ¼ oz. 65c.

**Carnation Flowered Tall Double.**

**American Flag**—White margined scarlet.

**Blood Red**—Violet Blotch.

**Bright Rose.**

**Finest Mixed.** Pkts. 10c.; oz. 40c.

**King Edward—Single**—Large flowers produced with great freedom. Deep scarlet, shaded crimson, with large black blotch. Height 2½ feet. Pkt. 10c.; ¼ oz. 25c.

**Glaucum—(Tulip Poppy)**—Brilliant scarlet flowers 3 inches across. Pkt. 10c.; oz. 75c.

**Shirley Poppies**—Very beautiful satiny flowers of various colors from white through delicate shades of rose, pink and carmine, to the deepest crimson. Fine for cutting and will keep fresh in water for several days if cut before the blooms are fully expanded.

**American Legion**—Brilliant orange scarlet, yellow anthers. Pkt. 10c.; ¼ oz. 25c.

**Eldorado**—Double pink shades, exquisite. Pkt. 15c.; ¼ oz. 40c.

**Eldorado Double Mixed.** Pkt. 10c.; ¼ oz. 25c.

**Flesh Pink.** Pkt. 10c.; ¼ oz. 35c.

**Picotee**—White cup, scarlet edging. Pkt. 10c.; ¼ oz. 35c.

**Rose Pink**—Wild rose pink. Pkt. 10c.; ¼ oz. 35c.

**Salmon Pink.** Pkt. 10c.; ¼ oz. 35c.

**Finest Mixed.** Pkt. 10c.; oz. 40c.

**California Poppy—(Eschscholtzia)**—They commence to bloom within a few weeks' time from Spring-sown seed and continue to flower profusely until late in the Autumn, forming nice, bushy plants 1 to 1½ feet high. Colors yellow, red, orange and white. Fine delicate foliage. Sow seeds either in Fall or Spring where plants are to remain. Seedlings are difficult to transplant. Thin to 12 inches.

**Aurantiaca**—Rich orange, true California Poppy. Pkt. 10c.; oz. 35c.

**Carmine King**—Deep carmine. Pkt. 10c.; ½ oz. 45c.

**Golden West**—Yellow with orange center. Pkt. 10c.; oz. 30c.

**Mikado**—Orange crimson. Pkt. 10c.; ½ oz. 40c.

**The Geisha**—Inside petals brilliant gold, outside orange-crimson petals fluted. Pkt. 15c.; ¼ oz. 40c.

**Hybrida Mixture**—New large flowering type containing large percentage of new colors, including soft pink, scarlet, chrome, copper-red, claret and royal purple. Pkt. 10c.; ½ oz. 50c.

**PYRETHRUM**—Very ornamental plants, for both foliage and flowers. Seeds should be sown very early in boxes. Cover very lightly with sifted soil and press down firmly. Transplant to permanent location as soon as large enough to handle. If flowers are allowed to form, foliage will change from yellow to green. Height 1 to 2 feet.

**Parthenifolium Aureum, or Golden Feather**—Gold leaved, flower white. Pkt. 10c.; ¼ oz. 25c.

**SALPIGLOSSIS—(Painted Tongue)**—Showy, funnel-shaped flowers of large size. Fine for beds. Half-hardy annuals. Sow seeds in boxes indoors or in a hotbed.

**Superbissima**—Finest mixed. Pkt. 10c.; ¼ oz. 50c.

**PINKS**—The Dianthus family embraces some of the finest of all flowering plants. The blooms are of the richest and most pleasing colors, and nothing can surpass the exquisite fragrance of some varieties. They are hardy, and become perennial in warm climates. Sow seeds in boxes indoors and plant out in good soil when 1 to 2 inches high.

**Chinensis Type—Single Mixed.** Pkt. 10c.; ¼ oz. 25c.  
**Double Mixed.** Pkt. 10c.; ¼ oz. 35c.

**Heddewigh Type.**

**Crimson Belle**—Single deep crimson. Pkt. 10c.; ¼ oz. 25c.  
**Eastern Queen**—Single rose. Pkt. 10c.; ¼ oz. 25c.  
**Vesuvius**—Single orange-scarlet. Pkt. 10c.; ¼ oz. 35c.  
**Finest Single Mixed.** Pkt. 10c.; oz. 75c.  
**Fireball**—Double deep scarlet. Pkt. 15c.; ¼ oz. 60c.  
**Salmon King**—Double salmon. Pkt. 15c.; ¼ oz. 65c.  
**Snowball**—Double white. Pkt. 15c.; ¼ oz. 65c.  
**Finest Double Mixed.** Pkt. 10c.; ¼ oz. 30c.

**RUDBECKIA (P)—(Golden Glow)—Newmani**—Brilliant orange yellow petals around a large dark center. Useful for borders or as a single group. Sow seeds in a sheltered location and transplant when a few inches high. Height 4 to 6 feet. Pkt. 15c.; ¼ oz. 85c.

**Fulgida**—Orange Yellow. Pkt. 15c.; ¼ oz. 65c.

**SAPONARIA OCYMOIDES (P)**—Very showy hardy perennial rock plant, producing masses of small bright rose flowers during the summer months. Pkt. 10c.; ½ oz. 45c.

**SCABIOSA—(Sweet Scabious, or Mourning Bride)**—Free flowering annuals; white, carmine, lilac, maroon, etc.; effective for garden decoration and valuable for cutting. Sow seeds in open as soon as soil is warm, thinning to 8 to 10 inches. Blooms from early July until frost. Height 2 to 2½ feet.

**Double—Mixed.** Pkt. 10c.; oz. 75c.

**Black Purple.** Pkt. 10c.; oz. 75c.

**Fiery Scarlet.** Pkt. 10c.; oz. 75c.

**Rose.** Pkt. 10c.; oz. 75c.

**Pure White.** Pkt. 10c.; oz. 75c.

**SCHIZANTHUS—(Butterfly Flower)**—Beautifully fringed and delicately colored flowers so numerous as to hide the foliage. Splendid bedding plant. Seeds sown in open come into bloom in a few weeks. Fine pot plant for house in Winter. Height 1 to 2 feet.

**Rose and Amber Shades.** Pkt. 15c.; ¼ oz. 95c.

**Grandiflora Hybrids Mixed.** Pkt. 10c.; oz. 65c.

**SNAPDRAGON—(Antirrhinum)**—One of the most useful and showy of border plants of almost every color. Also makes splendid cut flowers. They have recently been much improved and are now really magnificent. For best results plant seeds indoors very early, planting out when about 3 inches high. Height 2 to 3 feet.

**Tall Giant Flowered.**

**Defiance—Scarlet.** Pkt. 10c.; ¼ oz. 25c.

**Golden King**—Giant yellow. Pkt. 10c.; ¼ oz. 25c.

**Queen Victoria**—Pure white. Pkt. 10c.; ¼ oz. 25c.

**Rose Queen**—Soft pink. Pkt. 10c.; ¼ oz. 30c.

**All Varieties Mixed.** Pkt. 10c.; ½ oz. 40c.

**Medium Tall Varieties.**

**Bonfire**—Orange buff shaded scarlet. Pkt. 10c.; ¼ oz. 35c.

**Queen of the North**—White. Pkt. 10c.; ¼ oz. 30c.

**Rose Dore**—Rose suffused orange. Pkt. 10c.; ¼ oz. 35c.

**Golden Queen**—Giant yellow. Pkt. 10c.; ¼ oz. 35c.

**Grenadier**—Large orange scarlet, white throat. Pkt. 15c.; ¼ oz. 50c.

**Silver Pink**—Large pearly pink. Pkt. 15c.; ¼ oz. 50c.

**All Varieties Mixed.** Pkt. 10c.; ¼ oz. 25c.

**STATICE (P)—(Sea Lavender)**—Splendid for border or rockery, producing panicles of minute flowers, can be dried and used for Winter bouquets.

**Latifolia**—Sow like other perennials in flats or cold frames and transplant when large enough into permanent position, 12 to 18 inches apart.

**Blue.** Pkt. 10c.; ¼ oz. 35c.



**SWEET ROCKET (P)**—(*Hesperis*)—An old, hardy garden favorite. Fragrant white flowers, 2 to 3 feet high, resembling Perennial Phlox. Sow seeds early and transplant once before placing in permanent location.

**Pkt. 10c.; ¼ oz. 20c.**

**Sweet Sultan**—(See Centaurea).

**SWEET WILLIAM (B)**—(*Dianthus Barbatus*)—Remarkably free-flowering plant of brilliant colors, ranging from snow-white to darkest crimson and purple, and emitting a very delicate and refreshing fragrance. May be sown in open and thinned to 6 to 8 inches. Height 1 to 1½ feet.

**Single Mixed**—Very beautiful. **Pkt. 10c.; ½ oz. 60c.**

**Dunnetti**—Dark crimson, single. **Pkt. 10c.; ¼ oz. 75c.**

**Pink Beauty**—Pink. **Pkt. 10c.; ¼ oz. 75c.**

**Coppery Red.** **Pkt. 10c.; ¼ oz. 75c.**

**Pure White**—Single. **Pkt. 10c.; ¼ oz. 75c.**

**Double Mixed.** **Pkt. 10c.; ¼ oz. 75c.**

**STOCKS**—These popular flowers are easily grown, and are so highly fragrant and of such beauty that they deserve a place in every garden. Seeds should be sown under glass in a warm place, giving plenty of air after seedlings are up. Transplant when about 2 inches high. We offer a splendid collection of selected American grown varieties of highest quality.

### Large Flowering Ten Weeks.

**Aurora**—Cream shaded pink. **Pkt. 10c.; ⅛ oz. 65c.**

**Azure Blue.** **Pkt. 10c.; ⅛ oz. 65c.**

**Blood Red.** **Pkt. 10c.; ⅛ oz. 65c.**

**Carmine Pink.** **Pkt. 10c.; ⅛ oz. 65c.**

**Deep Purple.** **Pkt. 10c.; ⅛ oz. 65c.**

**Flesh or Light Pink.** **Pkt. 10c.; ⅛ oz. 65c.**

**Lavender.** **Pkt. 10c.; ⅛ oz. 65c.**

**Old Rose.** **Pkt. 10c.; ⅛ oz. 65c.**

**White.** **Pkt. 10c.; ⅛ oz. 65c.**

**Choicest Mixed.** **Pkt. 10c.; ⅛ oz. 50c.**

**Evening Scented Stock**—(*Matthiola Bicornis*)—Old-fashioned annual which has no beauty to recommend it, but well worth growing for the entrancing fragrance it emits during the evening. **Pkt. 10c.; oz. 60c.**

**Dresden Perpetual or Branching**—These ever-blooming stocks are popularly called "Cut and Come Again." Sown in March they flower profusely from July until frost; their best period being late Autumn. Very fragrant.

**Princess Alice**—White. **Pkt. 15c.; ¼ oz. 75c.**

**La France**—Blush pink. **Pkt. 15c.; ¼ oz. 75c.**

**Brilliant**—Blood red. **Pkt. 15c.; ¼ oz. 75c.**

**Sapphire**—Violet. **Pkt. 15c.; ¼ oz. 75c.**

**Creole**—Canary yellow. **Pkt. 15c.; ¼ oz. 75c.**

**May Queen**—Pale blue. **Pkt. 15c.; ¼ oz. 75c.**

**Rose Pink.** **Pkt. 15c.; ¼ oz. 75c.**

**Virginian Stock**—A fine, early flowering plant. Hardy annual. Mixed. **Pkt. 10c.; ¼ oz. 15c.**

**SALVIA**—(*Flowering Sage*)—Very ornamental, flowers borne in spikes of fiery red or crimson; and continue in bloom in open ground until after severe frosts. Start in heat and transplant into light soil, one to two feet apart. Excellent for bedding in masses or single planting. Hardy annuals.

**Zurich**—(*New Dwarf Early*)—The finest of all Dwarf Salvias. Very floriferous.

**Pkt. 15c.; ⅛ oz. \$1.00.**

**Splendens**—Brilliant scarlet.

**Pkt. 15c.; ¼ oz. \$1.00.**

**Bonfire**—(*Clara Bedman*)—One of the finest Salvias ever introduced; compact bush about two feet in height and diameter.

**Pkt. 15c.; ¼ oz. \$1.25.**

**SUNFLOWER**—(*Helianthus*)—Stately growing annuals with immense golden yellow flowers; effective for garden decoration. Height 6 to 8 feet.

**Dwarf Double**—Bright golden yellow flowers three inches across. **Pkt. 10c.; oz. 65c.**

**Globosus Fistulosus**—Saffron, very large, double and handsome. **Pkt. 10c.; oz. 45c.**

**Multiflora**—Beautiful, double yellow flowers. **Pkt. 10c.; oz. 60c.**

**THUNBERGIA**—(*Black Eyed Susan*)—Rapid-growing annual climbers; splendid for trailing over trellises, fences, etc.; buff, white, orange, etc., four to six feet high. Grows readily from seed sown in the open.

**Mixed Colors.** **Pkt. 10c.; ¼ oz. 45c.**

**TRITOMA (P)**—(*Red Hot Poker*)—Bright, showy flowers produced in large spikes of brilliant rich colors. Although hardy, requires some protection through the Winter. Will bloom first season from seeds sown indoors very early and planted out as soon as soil is warm. Cut flowers keep a long time. Height 2 to 3 feet.

**Uvaria**—Dazzling orange red. **Pkt. 15c.; ¼ oz. 75c.**

**VALERIANA (P)**—(*Garden Heliotrope*)—Sweet scented flowers having red or white blooms produced in large heads. Fine border plants, 2 to 3 feet high. Sow seeds early in boxes and transplant to permanent location as soon as large enough to handle. Should have rich soil.

**Red.** **Pkt. 10c.; ¼ oz. 35c.**

**VERBENA**—Start seed in the house or under glass early in the Spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until frost. Height 8 to 12 inches.

**Mammoth Mixed**—Selected; extra large, fine.

**Fine Mixed.** **Pkt. 10c.; ¼ oz. 50c.**

**Candidissima**—White. **Pkt. 10c.; ¼ oz. 40c.**

**Scarlet Defiance.** **Pkt. 10c.; ¼ oz. 50c.**

**Pink Shades.** **Pkt. 10c.; ¼ oz. 50c.**

**Blue Shades.** **Pkt. 10c.; ¼ oz. 50c.**

**LEMN VERBENA**—Every garden should have a few plants of this fragrant favorite. (Usually propagated from cuttings, seldom from seed.) **Pkt. 15c**

**VINCA (P)**—(*Old Maid*)—Tender perennial. Fine for pot culture. Flowers white and pink.

**Mixed.** **Pkt. 10c.; ¼ oz. 50c.**

**WALL FLOWER (B)**—(*Cheiranthus Cheri*)—Produces spikes of beautiful, exceedingly fragrant flowers. Colors yellow, red, orange and brown. Half hardy perennials. Sow seeds in open and transplant to permanent location late in Summer. Should bloom second season. Height 1 to 1½ feet.

**Mixed, Single**—Large flowering. **Pkt. 10c.; ¼ oz. 25c.**

**Finest Tall Dbl. Mxd.**—Branching. **Pkt. 15c.; ⅛ oz. 75c.**

**CARDINAL CLIMBER**—Considered the most beautiful and brilliant annual climber. A strong and rapid grower, with fern-like foliage literally covered with a blaze of circular cardinal red flowers from midsummer until frost. Annual. **Pkt. 15c.; ¼ oz. 95c.**

**CATCHFLY**—(*Silene*)—A hardy annual, yielding for a long time a profusion of umbels of bright colored flowers in various shades of pink. Fine for border or rockery. The plant is covered with glutinous moisture, to which flies adhere; hence its name. Sow in boxes and transplant as soon as large enough to handle.

**Fine Mixed**—All Colors. **Pkt. 10c.; oz. 45c.**

## DIAMOND PLANT FOOD

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated.

Produces Luxuriant Foliage—Brilliant and Lasting Flowers. A 40-cent package will feed a dozen large house plants a whole year. **Price, ½ lb. pkg. 25c; postpaid, 35c; 1 lb. pkg. 40c; postpaid, 50c.**



## ZINNIAS



**GRANDIFLORA ROBUSTA**—Double giants. A special strain, producing mostly double flowers of immense size. Plants are of extremely robust growth, attaining a height of about 3 feet. Offered in, **Apricot Yellow, Deep Flesh, Golden Yellow, Rose King, Salmon, Shrimp Pink, White and mixed.**

**Dwarf Double Mixed.** Pkt. 10c; oz. \$2.00  
**Picotee Type.** All colors mixed. Pkt. 15c  
**Victory Quilled.** All colors mixed. Pkt. 15c

**NEW DAHLIA FLOWERED**—This is a new and distinct race of Zinnia, which will greatly increase the popularity of this flower. The plants of this new race are very sturdy and produce many flowers with stout stems. The flowers in full bloom often measure four inches in depth and six to eight inches in diameter. In general appearance they compare favorably with the Show Dahlias. Easily grown from seed sown in the open and thinned to one foot apart.

**Exquisite**—Light rose with center a deep rose.  
**Golden State**—Rich orange yellow. Yellow in bud, turning to an attractive orange when in full bloom.

**Crimson Monarch**—By far the largest and best of red shades. Flowers often eight inches in diameter.

**Dream**—A fine, deep lavender, turning to purple (mallow purple). A new, desirable shade in Zinnias.  
**Old Rose**—Adequately described by its name, as it is of the real old rose shade; it is large, and for charm and beauty ranks next to **Exquisite.**

**Separate Colors of above named varieties**

**Mixed**—All colors. Dahlia Flowered. Pkt. 35c; 1/8 oz. \$1.00

**Oriole**—Considered the most beautiful of its class. It is an immense orange and gold bicolor, changing slightly as it ages, but at all times worthy of the beautiful bird for which it is named. Pkt. only 35c. Pkt. 25c.

**P. S. CO. WILD GARDEN MIXTURE**—For description see page 5 Pkt. 10c; oz. 25c; 1/4 lb. 75c.

## CLASSIFICATION OF FLOWERS

This will enable you to tell at a glance what flowers are suitable for any position.

### Annual Bedding Plants or Tall Border Plants 1 to 2 feet

Ageratum, Tall..... blue, white or mixed  
 Asters..... various colors  
 Balsam..... various colors  
 Brachycome..... blue, white, rose  
 Browallia..... blue and white  
 Calendula..... mixed  
 Candytuft..... various colors  
 Celosia..... crimson  
 Centaurea..... yellow, rose  
 Chrysanthemum..... yellow, white, gold  
 Clarkia..... pink, scarlet  
 Eschscholtzia (Calif. poppy)..... crimson, white, yellow  
 Four O'Clock..... various colors  
 Gaillardia..... orange, scarlet  
 Gilia..... white, lilac, rose  
 Godetia..... variegated rose and white  
 Gypsophila (for bouquets)..... white  
 Linum (scarlet flax)..... scarlet  
 Marigold..... yellow, red, brown and variegated  
 Mignonette..... white, yellow, red  
 Nasturtium, dwarf..... various colors  
 Nigella (Love in a mist).....  
 Petunia..... various colors  
 Poppy..... various colors  
 Phlox..... various colors  
 Scabiosa..... white, lilac, carmine and maroon  
 Schizanthus..... various colors  
 Salvia..... scarlet  
 Stocks (10 weeks)..... all colors  
 Viscaria..... various colors  
 Zinnia..... various colors

### Everlasting Flowers

Acroclinium..... all colors  
 Globe Amaranth, Gompherena..... various colors  
 Helichrysum..... various shades  
 Rhodanthe..... pink, white  
 Statice..... white, blue and yellow

### Tall Growing Plants for Grouping—Annual, From 2 1/2 feet up

Amaranthus..... scarlet  
 Calliopsis..... yellow, brown, maroon  
 Castor Bean.....  
 Cosmos..... white, red, pink  
 Euphorbia..... various colors  
 Kochia.....  
 Larkspur..... various colors  
 Nicotiana..... white  
 Rudbeckia..... yellow  
 Salpiglossis..... various colors  
 Scabiosa Grandiflora..... all colors  
 Sunflower..... yellow

### Low Edging Plants—Annual

Ageratum Dwarf..... blue, white or mixed  
 Alyssum..... white  
 Bulbs..... all colors  
 Calliopsis, Tiger Star..... reddish brown  
 Candytuft..... various colors  
 Centaurea, Dusty Miller.....  
 Dianthus..... various colors  
 Lobelia Compacta..... blue  
 Mignonette..... white, yellow, red  
 Nemophila..... blue  
 Pansy..... all colors  
 Portulaca..... yellow, pink, white, scarlet  
 Verbena..... various colors

### Climbing Vines—Annual

Balloon Vine..... white  
 Scarlet Runner Bean..... scarlet  
 Canary Bird Vine..... yellow  
 Cypress Vine.....  
 Gourds.....  
 Moonflower..... white  
 Morning Glory.....  
 Nasturtium, Tall..... various colors  
 Sweet Peas..... all colors  
 Wild Cucumber.....

### Bedding Plants—Perennial—1 to 2 feet high

Agrostema..... pink  
 Aster..... various colors  
 Begonia..... various colors  
 Calceolaria..... various shades and colors  
 Calla.....  
 Candytuft..... all colors  
 Carnation..... yellow, white, red, pink, variegated  
 Geranium..... various colors  
 Coleus..... yellow, violet, rose  
 Columbine..... white  
 Daisy (Shasta)..... yellow, orange, scarlet  
 Gaillardia..... yellow, orange, scarlet  
 Geum..... scarlet  
 Linum..... various colors  
 Lychnis..... scarlet  
 Pentstemon..... various colors  
 Salvia..... scarlet  
 Statice..... white, blue, yellow  
 Stocks (perpetual)..... all colors  
 Sweet William..... various colors  
 Tritoma..... orange, red  
 Vinca..... white, rose  
 Wallflower..... various colors

### Low Edging Plants—Perennial, 6 to 12 inches high

Alyssum Saxatile..... yellow  
 Anemone..... various colors

Pinks..... various colors  
 Daisy, English..... various colors  
 Edelweiss.....  
 Forget-me-not..... blue  
 Oxalis..... yellow, pink, lavender, white  
 Poppy, Iceland..... white, orange, yellow  
 Primula..... various colors  
 Pyrethrum..... various colors  
 Viola..... yellow, white and blue

### Tall Growing Shrub Plants—Perennial For Grouping from 2 1/2 feet up

Abutilon.....  
 Anchusia.....  
 Aster..... various colors  
 Canna..... various colors  
 Canterbury Bells..... various colors  
 Chrysanthemum..... various colors  
 Columbine..... yellow, violet, rose  
 Dahlia..... all colors  
 Delphinium..... various colors  
 Digitalis.....  
 Fuchsia.....  
 Geranium..... scarlet, white, pink  
 Gladiolus..... various colors  
 Goldenrod..... yellow  
 Hollyhock..... various colors  
 Lantana..... red, white, yellow  
 Lavender.....  
 Lobelia Cardinalis..... scarlet  
 Lupin..... shades of blue  
 Poppy, Oriental..... various colors  
 Phlox, Perennial..... various colors  
 Scabiosa.....  
 Snapdragon, Tall..... various colors  
 Wallflower..... various colors

### Climbing Vines—Perennial

Ampelopsis, Boston Ivy and Virginia Creeper.....  
 Clematis..... white, lavender, red  
 Cobia Scandens.....  
 Kudzu Vine..... violet

### For Rockeries, Hanging Baskets or Window Boxes

Asparagus Fern.....  
 Edelweiss.....  
 Forget-me-not..... blue  
 Ice Plant.....  
 Lobelia Trailing..... blue  
 Mimulus..... yellow  
 Nasturtium..... various colors  
 Oxalis..... yellow, white, pink, lavender  
 Portulaca.....  
 Thunbergia..... buff, orange and white  
 Verbena..... various colors  
 Petunia..... various colors



## "DIAMOND QUALITY" SWEET PEAS

Sweet Peas head the list as our most beautiful and popular annual

**O**UR Famous "Diamond Quality" Sweet Peas are selected with critical care and we offer the best productions of the foremost growers. Although we list only those we consider best, we can supply any variety in commerce, and special orders will receive careful attention.

**CULTURE**—First and most important, plant as early in the Spring as the conditions will permit. Seeds should be sown at the rate of one ounce to 15 feet. Make a trench about 3 to 4 inches deep, planting the seeds in the bottom about 3 inches deep, pressing the soil down firmly. After the plants are well up, thin to 4 or 5 inches apart, and draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and water if needed, an occasional thorough soaking being better than a daily sprinkling. Keep the flowers cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insuring better flowers.

### EARLY FLOWERING SPENCER SWEET PEAS

Six weeks earlier than the Spencers, these new early-flowering varieties begin to bloom 106 days from planting in the open ground and flower through a long season—about four months.

See Inside Front Cover

- AVIATOR**—Dazzling crimson scarlet. Pkt. 15c; oz. \$1.00.
- BLUE BIRD**—Magnificent violet blue. Profuse and continuous bloomer. Pkt. 15c; oz. \$1.00.
- CANARY BIRD**—Splendid cream or primrose colored self. Flowers of great size and beautifully waved. Pkt. 15c; oz. \$1.00.
- COLUMBIA**—Without doubt the best and most productive pink and white. (Early Blanch Ferry.) Pkt. 15c; oz. \$1.00.
- GLITTERS**—A strong and vigorous grower. Profuse and continuous bloomer. Standard bright fiery orange, wings deep orange. Pkt. 15c; oz. \$1.00.
- HARMONY**—A splendid variety, rich true deep lavender throughout. Flowers of large size, beautifully waved. Pkt. 15c; oz. \$1.00.



*Nitrigin  
Cultures  
for Sweet  
Peas*

*Makes larger  
Flowers and  
prolongs the  
blooming period*

- HELEN LEWIS**—Orange salmon. Pkt. 15c; oz. \$1.00.
- HERCULES**—Giant pink. Pkt. 15c; oz. \$1.00.
- IMPROVED SNOWSTORM**—A vigorous grower, the immense flowers are invariably borne in fours on very long stems. Pkt. 15c; oz. \$1.00.
- MAROON PRINCE**—Deep rich, glowing reddish maroon, really a unique color. Flowers beautifully waved and of large size. A strong grower and profuse bloomer. Pkt. 15c; oz. \$1.00.
- ROSE QUEEN**—Pleasing shade of fine rose pink. Flowers borne on long strong stems, of great size and much waved. Pkt. 15c; oz. \$1.00.
- YARRAWA**—The flowers average two and one-half inches in diameter; many are duplex or double. The color is a bright rose-pink with a clear, creamy base. Pkt. 15c; oz. \$1.00.

### SWEET PEAS IN MIXTURE Superb Spencers

**SUPERB MIXTURE**—(True Spencers Only)—A splendid mixture, carefully proportioned and blended to produce pleasing and harmonious combinations of color. These are not seedlings, but carefully selected named varieties that retain all their purity and brilliance of color. Pkt. 10c; oz. 30c; ¼ lb. 95c; lb. \$2.75.

### CHRISTMAS FLOWERING

**GRANDIFLORA TYPE**—Pink Lavender and White. Pkt. 10c; oz. 25c.

### DIAMOND

**DIAMOND MIXTURE**—The most perfect blend of the finest named varieties it is possible to produce. This mixture contains many famous novelties the best of Grandifloras, also standard Spencer types, and will delight the most critical.

Sold in 1 oz. sealed pkts. only at 15c each.

### GRANDIFLORA

These old-time favorites. Our mixture is made up of select named varieties. Pkt. 10c; oz. 20c; ¼ lb. 50c.

## STANDARD SPENCER VARIETIES

A splendid collection, including the best of the recent novelties

THE NEW "SPENCER" type has lovely waved fluted flowers of gigantic size, and in exquisite colorings, length of stem, and lasting qualities are much superior to the older types.

### ORANGE AND SALMON

- BARBARA**—A beautiful shade of orange salmon, the brilliancy and delicacy of the coloring being enhanced by planting in partial shade. A true Spencer of lovely form, very valuable as a cut flower. **Pkt. 10c; oz. 50c.**
- ILLUMINATOR**—A brilliant orange-salmon ground illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. First class certificate. **Pkt. 10c; oz. 50c.**
- THOMAS STEVENSON**—Brilliant orange scarlet, standard of deeper color than the wings. The flowers are of the finest Spencer form. **Pkt. 10c; oz. 50c.**
- ROBERT SYDENHAM**—A glowing orange salmon; a strong grower, producing four flowers to a stem. It is undoubtedly the best and largest of this shade of color. **Pkt. 10c; oz. 50c.**

### RED AND MAROON

- FIERY CROSS**—The standard is a scorching fire-red or rich orange-scarlet, which scintillates and glitters in the bright sunlight with a glowing, fire-like sheen that radiates over the entire flower, including the rich, cherry-orange wings. **Pkt. 10c; oz. 50c.**
- KING EDWARD**—Bright crimson scarlet, largest size, wavy standard; drooping wings, long stems; one of the finest reds. **Pkt. 10c; oz. 50c.**
- KING MANOEL**—Large full, wavy blossoms of dark brilliant maroon. A bold and attractive flower of great beauty. **Pkt. 10c; oz. 50c.**
- ROYAL SCOTT**—A magnificent new red that does not burn. The color is glowing orange-scarlet. Flowers large and handsome. **Pkt. 15c; oz. 75c.**
- THE PRESIDENT**—Brilliant orange-scarlet. Flowers of large size. Usually blooms in fours on strong stiff stems. **Pkt. 15c; oz. 75c.**
- VERMILLION BRILLIANT**—An intense pure scarlet self-color of rare beauty and substance. Absolutely sun-proof. A stocky, vigorous grower, profuse bloomer, the long, strong stems carry four perfect flowers. **Pkt. 10c; oz. 50c.**

### VARIEGATED

- SENATOR**—A combination of deep claret and chocolate, striped and flaked on a light heliotrope ground. The coloring, though dark, is brilliant and attractive. **Pkt. 10c; oz. 50c.**

### LAVENDER AND BLUE

- ASTA OHN**—Lavender, suffused with mauve; of perfect form, largest size, 4 blossoms on long, strong stems; very vigorous. **Pkt. 10c; oz. 50c.**
- BLUE MONARCH**—Splendid new dark blue, self-colored, of large size and good substance. **Pkt. 15c; oz. 75c.**
- FLORENCE NIGHTINGALE**—Immense, bold erect flowers of soft, rich lavender with very delicate suffusion of rose; a beautiful, self-colored flower, frilled and waved. Bears four blooms on extra long stems. **Pkt. 10c; oz. 50c.**
- HAWLMARK LAVENDER**—There is nothing quite so fine in lavenders as this splendid novelty. The flowers are of the largest size. Easily the best of its class. **Pkt. 15c; oz. 75c.**
- MRS. TOM JONES**—Best described as a bright delphinium blue. Easily the finest and most perfect blue sweet pea to date. **Pkt. 15c; oz. 75c.**
- ORCHID**—Of extra large size. One of the best lavender selfs. **Pkt. 10c; oz. 50c.**
- ROYAL PURPLE**—A rare new shade in Sweet Peas, rich purple, almost true royal, a color that does not exist in Grandiflora type. **Pkt. 10c; oz. 50c.**
- WEDGEWOOD**—A true self—being a beautiful Wedgewood blue; is larger, more vigorous, blooms more freely and is entirely free from purple shading. **Pkt. 10c; oz. 50c.**

### WHITE

- CONSTANCE HINTON**—Decidedly the best black-seeded, white-flowered variety. Flowers are of largest size, and come at times with a decided bluish tinge. **Pkt. 10c; oz. 50c.**
- ETTA DYKE**—One of the finest white waved variety. **Pkt. 10c; oz. 50c.**
- KING WHITE**—The newest and most magnificent white; of perfect Spencer type; the immense petals gracefully frilled—are a pure white of wonderful substance. **Pkt. 10c; oz. 50c.**
- WHITE SPENCER**—A pure white flower of enormous size beautifully crinkled and fluted, of splendid substance. **Pkt. 10c; oz. 50c.**

### PINK AND CREAM

- COUNTESS SPENCER**—(Pink)—The first Sweet Pea of the Spencer type. Flowers extremely large, beautifully expanded, crumpled and waved. Color silvery white, suffused and tinted with soft shell pink, deeper at the outer edges. **Pkt. 10c; oz. 50c.**
- DOBBIES CREAM**—A good primrose, a strong grower and generally four flowers on a stem. **Pkt. 10c; oz. 50c.**
- MRS. HUGH DICKSON**—One of the most attractive and pleasing varieties. Flowers very large and elegantly carried, usually four together on a long, strong stem. The coloring is apricot on a cream ground, shading off rather lighter toward the center. **Pkt. 10c; oz. 50c.**
- "MARGARET ATLEE"**—The most perfect of the Duplex type yet produced. Color is a warm salmon pink suffused over a cream ground. The cream deepens into a bright buff at base of standard and wings. Flowers are of very large size, almost uniformly four on a stem. **Pkt. 10c; oz. 50c.**
- PRIMROSE SPENCER**—Color, a true primrose. Very vigorous, free flowering, excels in beauty of form, length of stem and keeping qualities. **Pkt. 10c; oz. 50c.**
- LA FRANCE**—Delicate light shrimp pink color. Flowers large and well formed. A most pleasing variety. **Pkt. 15c; oz. 75c.**



## FLOWER SEEDS—GREENHOUSE CULTURE

**ASPARAGUS SPRENGERI**—(Emerald Feather)—One of the best of the new so-called ferns. Feathered foliage; useful for bouquets, wreaths or sprays, remaining perfect for weeks after cutting. Seeds should be sown under glass with night temperature of about 65 degrees. Will germinate in 4 to 6 weeks. Height 2 to 4 feet. (For Plants see plant department.)

Pkt. 10c; ¼ oz. 75c.

**ASPARAGUS PLUMOSUS**—(Asparagus Fern)—One of the prettiest house plants. The leaves are bright green, gracefully arched, surpassing Maidenhair Ferns in grace, delicacy of texture and richness of color. Culture same as Sprengeri. Height 6 to 12 feet. (For plants see plant department.)

Pkt. 25c; ½ oz. 95c.

**BEGONIA**—Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. They are difficult to grow from seeds even in a greenhouse. Generally propagated by cuttings. (See plant department.)

**Gracilis, Fine Mixed.**

Pkt. 25c.

**CALCEOLARIA**—Beautiful flowers of unique form and colors, ranging from red, yellow, brown and orange. Fine for pot culture. Seeds should be sown in flats very thinly, covering lightly with sifted soil firmly pressed down. As soon as large enough to handle, seedlings should be transplanted to thumb pots, shifting from size to size as they become potbound. Of little value outdoors, as the hot sun ruins the blooms.

**Hybrida**—Finest mixed.

Pkt. 50c.

**CANNA**—(Indian Shot)—Large, ornamental, tropical-looking plants of easy culture. Soak seeds in warm water for several hours, or until they commence to swell, then plant under glass. When second leaf appears transplant into pots and keep under glass until soil outside is warm. Colors red and yellow. Height 2 to 6 feet. (For Canna Bulbs see plant department.)

**Crozy's Best Mixed.**

Pkt. 10c; oz. 50c.

**DRACAENA**—Ornamental greenhouse plant. Very desirable.

**Indivisa Lineata**—Narrow, dark foliage.

Pkt. 10c; ¼ oz. 30c.

**CYCLAMEN**—Florists' pot plant. Beautiful Winter and Spring flowering plants for the window and greenhouse. Special cultural instructions on request.

**Giantum Hybridum**—White with carmine eye, dark red, salmon-pink, light rose.

Pkt. 25c.

**SMILAX**—(Medeola Asparagoides)—Charming, tender, perennial climber for greenhouse or window gardens. The foliage and stems are of pleasing light green: excellent for decoration. If grown from seeds, should be treated same as Asparagus Sprengeri. (See Plants.)

Pkt. 10c; ¼ oz. 20c.

**GREVILLEA ROBUSTA**—(Silk Oak)—Very beautiful and graceful foliage plant with fern-like foliage—a splendid pot plant. Sow seeds in boxes in late Winter or early Spring, potting the seedlings when 2 to 3 inches tall. Repot frequently to maintain rapid growth. Height 2 to 4 feet.

Pkt. 15c; ½ oz. 95c.

**HELIOTROPE**—Flowers in large clusters of lovely shades of blue. Delightfully fragrant and free-blooming. Splendid for bedding, pot culture or bouquets. Start under glass very early in Spring, transplanting to pots or open garden. Will bloom in 2 to 3 months.

**Fine Mixed**—All colors.

Pkt. 10c; ½ oz. 50c.

**Choicest Mixed, from new varieties.**

Pkt. 15c; ½ oz. 75c.

**LANTANA**—A free-flowering shrubby plant, suitable for out-door or pot culture. The flowers emit an agreeable odor and are of many shades of purple, orange and white. Half-hardy perennial. Sow seeds thinly in boxes indoors, covering very lightly. Transplant to garden when 2 to 3 inches high. Height 1 to 2 feet.

**Hybrida Fine Mixed.**

Pkt. 10c; ¼ oz. 20c.

**PRIMULA**—(Primrose)—Of the varieties named below some are hardy, early blooming garden plants, others beautiful winter-blooming house plants. Soak seeds in warm water for 24 hours, then sow thinly in shallow boxes of soft sandy soil, covering lightly with sand. Press down firmly and cover with glass until through the surface. When large enough to handle transfer into other boxes of fine soil. Remove to permanent location when about 2 inches high.

**Polyanthus**—Early blooming, dwarf growing plants. Valuable for outdoor bedding. Mixed colors.

Pkt. 25c; ½ oz. 75c.

**Vulgaris**—Yellow, common, English Primrose.

Pkt. 25c; ½ oz. 75c.

**PRIMULA (Obconica Grandiflora)**—Beautiful single flowers. This is really an ever-blooming plant, producing elegant clusters of flowers continuously throughout the year. Fine mixed.

Pkt. 25c; ¼ oz. \$2.25.

**COLEUS**—Probably the best known and most popular of ornamental foliage plants. Leaves of all shades and colors. Tender perennial. Sow seeds in flats indoors. Transplant seedlings to other flats until settled warm weather, when they may be transplanted to open garden. Should be potted for house culture before frost. Height 1 to 2 feet.

**Extra Choice Mixed.**

Pkt. 25c.

USE DIAMOND FERTILIZER

## POPULAR ANNUAL BEDDING PLANTS

Our stock of Perennials is very complete and for immediate results they will be found very satisfactory.

Annual bedding plants are so inexpensive and satisfactory that they should be planted extensively for cut flowers in the home as well as for garden effects. They also make splendid displays in tubs and porch boxes.

We have for early delivery fine large plants that can be set as soon as weather permits and with little care will bloom freely throughout the season. Prices are per dozen, f. o. b. Portland.

Alyssum.....	\$0.50	Centaurea.....	\$0.50	Geraniums..	\$1 to \$3	Mignonette.....	\$0.50	Salvia.....	\$0.70
Asters.....	.50	Clarkia.....	.50	Heliotrope.....	\$0.75	Petunia.....	.75	Stocks.....	.50
Carnations.....	1.00	Cosmos.....	.50	Larkspur.....	.50	Phlox.....	.50	Verbenas.....	.50
Calliopsis.....	.50	English Daisies...	.50	Lobelia.....	.50	Pinks.....	.50	Zinnias.....	.60
Candytuft.....	.50	Forget-Me-Not..	1.00	Marigold.....	.50	Salpiglossis.....	.50		

**Plant Annuals in the bulb beds.** After the bulbs are through blooming they should be allowed to grow until late Summer, and the beds can be made very attractive with annual flowering plants without disturbing the bulbs. Forget-me-nots, Petunias, Pinks, Poppies, Verbenas and Candytuft are among the best.



# PERENNIAL BORDER AND BEDDING PLANTS

WE offer well-rooted specimens that can be safely packed and promptly delivered in perfect condition. If you contemplate large plantings or special effects, let us know your plans and requirements. We can supply in any quantity for every requirement at lowest prices.

By proper arrangement cut flowers and a grand garden display can be obtained throughout the season. The great advantage in planting perennials is their permanency and the fact that they require so little care.

**PLANTS, Each 20c; doz. \$2.00. Plants marked by star (\*) are for Rockeries and Borders.**

- ACHILLEA**—(Milfoil or Yarrow)—Suitable for dry, sunny places. Flowers fine for cutting.
- Parmica "Boute de Neige"**—(Ball of Snow)—An improvement on "The Pearl" flowers, while not so large are of more perfect form with fuller centers, making it appear purer in color.
- ★ **Tomentosa**—(Woolly Yarrow)—Finely cut dark green foliage and numerous flat heads of bright yellow flowers; July to September.
- ACONITUM**—(Monkshood)—Form bushy clumps and are invaluable for planting under trees, or in shady positions.
- Wilsoni**—Large dark blue flowers. 4 to 6 feet. September to October.
- Fischeri**—Large pale blue flowers. 18 to 20 inches. September and October.
- ★ **ALLYSSUM SAXALITE COMPACTUM**—(Gold Dust)—An indispensable plant for the rockery and border, producing masses of bright yellow flowers in April and May. 1 foot.
- ANCHUSA ITALICA**—(Alkanet)—Justly take a front rank among early summer flowering perennials. Dropmore variety.
- ANEMONE JAPONICA**—(Japanese Windflower)—Among the most important hardy plants blooming in August, continuing until cut down by frost.
- Alba**—Pure White.
- Rubrum**—Single rosy red.
- Queen Charlotte**—Very large semi-double of La France pink.
- ANTHEMIS**—(Marguerite)—**Tichtora Kelwayi**—Handsome finely cut foliage and large golden yellow flowers. All summer. Does well in the poorest soil.
- ★ **ARABIS**—(Rock Cress)—**Alpina**—One of the most desirable of very early spring flowering plants. Fine for edging and rockwork, pure white.
- Alpina Fl. Pl.**—Double.
- ★ **ARMERIA**—(Sea Pink or Thrift)—Attractive dwarf plants that will succeed in any soil, forming dense evergreen tuft of bright green foliage. Flowers appear in dense heads on stiff stems.
- Formosa**—Light pink; stems 12 to 15 inches.
- Vulgaris**—Dwf. Rose Pink; stems 6 to 10 inches.
- ARTEMISIA LACTIFLORA**—(Hawthorn Scented Mugwort)—This comparatively new introduction from China is a most effective flowering plant with erect stems from 3 to 4 feet high, clothed with elegantly cut dark green foliage and terminated by panicles of Hawthorn-scented, creamy white Spirea-like flowers. August and September.
- ASCLEPIAS**—(Butterfly Weed)—**Tuberosa**—Very showy native plants about 2 feet high. Flowers of brilliant orange-scarlet. July and August.
- ASTERS**—(Fall Flowering Hardy Michaelmas Daisies)—Among the showiest of our late flowering perennials giving a wealth of bloom during September and October. For best effect should be planted in masses of one color.
- Abendroethe**—(Evening Glow)—Rosy Red; 3 feet.
- Feltham Blue**—Pretty Aniline Blue, very free; 2½ feet.
- Glorie Colwall**—Large, almost double; sky blue. 2½ feet.
- Maggie Perry**—Very large flowers; loosely arranged in large trusses in a pleasing shade of mauve.
- Novae Angliae**—Bright violet-purple. 4 feet.
- Nova Belgii St. Egwin**—Soft rose pink, very free. 3 feet.
- Perry's White**—Without doubt the finest white Hardy Aster yet produced. Strong grower. Flowers pure white—golden center. 2 inches in diameter and when fully developed, center turns to crimson. 3 to 4 feet.
- ★ **ALPINUS**—Indispensable for rockery or border; large bluish purple flowers with golden yellow center. 6 to 10 inches high. May and June.
- ★ **NEW JAPANESE HARDY ASTER—MAUVE CUSHION**—An entirely distinct species. Forms a round cushion-like plant; 8 to 10 inches high in center and 2 to 3 feet in diameter. Comes into bloom in October, continuing through November, when it is completely covered with mauve flowers.
- ★ **AQUILEGIA**—(Columbine)—The Columbines are one of the most elegant and beautiful of hardy plants, producing their graceful spurred flowers on stems rising 2 feet or more above the beautiful divided foliage.
- Dreer's Chrysantha**—Yellow—long spurred.
- Dreer's Long Spurred Hybrids**—Blue, white, pink and yellow. Can supply in mixture only.
- The following New Aquilegia are direct from England
- Glandulosa Vera**—Blue and white. 2 feet.
- Long Spurred Delicatissima**—Rose and yellow. 2 feet.
- Rose Queen**—Rose, white and yellow. 2 feet.
- Snow Queen**—White.
- Skinneri**—Scarlet and green.

- ★ **AUBRETIA**—(False Wall Cress)—One of the daintiest and most delicately beautiful of all dwarf creeping plants for carpeting beds or rockery, forming brilliant sheets of blue, crimson or rose, for many weeks in early spring. Large flowering Hybrids.
- ★ **BELLIS PERENNIS**—(English Daisy)—Improved double flowering white or pink.
- BOCCONIA CORDATA**—(Plume Poppy)—A noble hardy perennial, beautiful in foliage and flower, admirably adapted for planting in the shrubby borders. Flowers creamy white. 6 to 8 feet.
- BOLTONIA**—(False Chamomile)—Among the showiest of our native hardy perennials with large single white or pink hardy aster-like flowers.
- Asteroides**—White. 5 to 7 feet.
- Latisquama**—Pink, slightly tinged with lavender. 4 to 6 feet.
- BUPHTALMUM SALICIFOLIA**—(Yellow Oxeeye)—Producing an abundance of yellow star shaped flowers. June and July. 1 foot.
- CAMPANULA**—(Bellflowers)—**Canterbury Bells**—This popular variety in Pink, White, Blue and mixed colors. Single.
- ★ **Carpatica**—(Carpathian Harebells)—A pretty species growing in compact tufts not exceeding 10 inches in height. Flowers clear blue or white, fine for rockery or border.
- Glomerata**—Large heads of deep purple flowers. 2 feet.
- Latifolia Macrantha**—Large purplish blue flowers. May and June. 2 feet.
- Pescicifolia**—(Peach Bells)—Blue or white flowers. June and July. 2 feet.
- Pyramidalis**—(Chimney bellflower)—The most conspicuous of all Campanula, forming a perfect pyramid crowded with large salver-like porcelain blue flowers in August.
- ★ **Rotundifolia**—(Blue Bells of Scotland)—True Hare-bell. Clear blue flower from June to August. 1 foot.
- CENTAURA**—(Hardheads or Knapweed)—Of easy culture, delighting in an open sunny position. Not only makes a fine display in the border but is excellent for cutting.
- Macrocephala**—Large thistle-like yellow flowers. June to August. 3 to 4 feet.
- Montana**—Large blue flowers. June to August. 2 feet.
- Montana—Alba**—White.
- CEPHALARIA**—(Roundheads)—**Alpina**—Attains a height of 6 feet. Delicate sulphur yellow flowers in June and July.
- ★ **CERASTIUM**—(Snow in Summer)—**Tomentosum**—A desirable low growing plant with silvery foliage and white flowers in June. Excellent for rockeries or covering grasses.
- CHELONE**—(Shell Flower)—Stately and handsome perennials. 2 to 3 feet high, bearing numerous spikes of large flowerheads.
- Barata Hybrids**—Mixed colors.
- Lyoni**—Purplish red.
- COREOPSIS**—**Lanceolate Grandiflora**—One of the most popular perennials. Blooms entire summer and autumn. Rich golden yellow. Fine for cutting. 2 to 3 feet.
- ★ **CRUCIANELLA**—**Stylosa**—Early blooming rockwork plant with rose colored flowers. 6 inches.
- DELPHINIUMS**—(Hardy Larkspur)—Are our best blue cut flowers, perfectly hardy and established plants produce a number of spikes giving two or three crops during the season.
- Belladonna**—The freest and most continuous blooming of all. A clear turquoise blue.
- Bellamosum**—Habit and growth the same as Belladonna, but of a rich deep blue.
- Formosum**—The old favorite dark blue with white centre.
- Gold Medal Hybrids**—Seed selected from the best named varieties. Majority running to the lighter shades of blue. Can supply in mixture only.
- DIELYTRA** or **DICENTRA**—(Bleeding Heart)—An old fashioned favorite—its lovely racemes of graceful heart-shaped flowers are always attractive. Price 75c each.
- DIGITALIS**—(Foxglove)—Valuable and graceful flowers for garden, shrubby or woodland Gloxinea-flowered. A beautiful strain of finely spotted varieties. 4 to 6 feet.
- DORONICUM**—(Leopard's Bane)—**Caucasicum**—One of the most effective very early yellow spring flowering perennials.
- ★ **ERIOPHYLLUM CAESPITOSUM**—(Oregon Sunshine)—Tufted herbaceous perennials with finely cut foliage, woolly beneath. Flowers yellow.
- ECHINOPS**—(Globe Thistle)—**Ritro**—Interesting and showy thistle-like plants with globular heads of deep metallic blue flowers, which can be dried, remaining attractive for a long time. 3 to 4 feet high.



**ERIGERON—(Flea Bane)**—Hardy border plants, suggesting native asters, but blooming much earlier.

**Aurantiacus Hybrids**—More or less velvety. Perhaps the showiest of the genus. Rich mixture of color. 9 inches high.

**Speciosus**—Flowers rosy violet and purple. Fine for cutting, lasting several weeks. 1½ to 2 feet.

**ERYNGIUM—(Sea Holly)—Planum**—Handsome ornamental plants growing 2 to 3 feet high. Flower heads steel blue. Are useful to cut for vases or to dry for winter bouquets. July to September.

★**EUPHORBIA—(Wolf's Milk)—Cyparissias**—Many short plume-like branches from the crowns and adventitious root-buds, covered with spreading dark green leaves. Bright yellow flower-like bracts. In May and June.

**GAILLARDIA—(Blanket Flower)**—One of our showiest hardy plants. Combination coloring of yellow, brown, crimson and orange.

**Grandiflora**—Mixed colors. 2 feet.

**Kermesina Splenders**—Rich crimson.

**GAURA—Lindenheimeri**—One of the finest hardy plants with 18-inch length branches of white and pink orchid-like flowers.

**GALEGA—(Goat's Rue)**—Hardy herbaceous perennials. Odd pinnate leaves and pea-shaped flowers of purplish blue or white.

**Albiflora**—White flowers. 2 to 3 feet.

**Bicolor**—Blue and white.

**GERARDIA—Hybrids.** A native perennial from the Atlantic Coast. Flowers rosy purple. 18 to 20 inches high.

★**GEUM—(Avens)**—Well known plants growing about 18 inches high. Useful for cutting, rockery and borders.

**Coccineum**—Single, scarlet.

**Mrs. Bradshaw**—Tall, double, brilliant scarlet.

**GYPSOPHILIA—(Perennial Baby's Breath)**—Will thrive in any soil in a sunny position. Indispensable for bouquets.

**Paniculata**—When in bloom in July or August it forms a symmetrical mass, 2 to 3 feet in height, of minute pure white flowers.

★**Repens**—An elegant trailing plant for the rockery with clouds of snow white flowers in May and June.

**HELENIUM—(Sneeze Weed)**—Hardy perennials bearing yellow and brownish flowers.

**Autumnale Rubrum**—Robust grower, bright terracotta red flowers. 3 feet.

**Autumnale Superbum**—Massive spreading heads of deep golden yellow flowers. 5 feet.

**Riverton Beauty**—Rich lemon yellow with purplish black cone. August and September. 3 to 4 feet.

**Riverton Gem**—Old gold changing to wall flower red. August and September. 3 feet.

**HELIANTHEMUM—(Sun Rose)**—Pretty low growing evergreen plants, covered with flowers of the most brilliant covers. May to July.

**HELIANTHUS—(Hardy Perennial Sunflower)**—Most effective hardy plant for planting among shrubbery or in clumps in the lawn.

**Maximiliana**—Latest of all, blooming profusely in October. Golden yellow. 5 to 7 feet.

**Multiflorous Fl. Pl.**—Double golden yellow. 4 to 5 feet.

**Rigidus Japonicus**—One of the most desirable varieties, beginning to bloom in July. Golden yellow with dark center.

**Sparsifolius**—The best of the summer blooming varieties. Flowers 3 to 4 inches in diameter. 3 to 4 feet high.

**HELIOPSIS**—A native hardy perennial, like Helianthus, but blooms earlier.

**Pitcheriana**—Flowers golden yellow. 3 to 4 feet. July to September.

**HEUCHERA—(Coral Bells)—Sanguinea**—Most desirable dwarf compact bushy plant with coral red flowers on stems 2 to 2½ feet. June to August.

**HOLLYHOCKS—(Althea)**—Stately, majestic, hardy plants which are a necessary part of every garden. 6 to 8 feet.

**Double**—Bright rose, red, crimson, white, yellow, salmon rose and maroon.

**Single**—Pink, red, salmon, white and yellow.

**HYPERICUM—(St. John's Wort)**—A most desirable plant of free and graceful habit, producing long, slender and much branched stems. Flowers 2 to 2½ inches in diameter. Golden yellow.

**Calycinum**—Low growing, about 1 foot high, sending shoots up from the roots, a good ground cover.

★**IBERIS—(Hardy Candy Tuft)**—Dwarf plants, 8 to 12 inches high with evergreen foliage which is completely hidden by dense heads of flowers in spring.

**Gibraltarica Hybrid**—Color from pinkish lavender to white.

**INCARVILLEA—(Hardy Gloxinia)—Delavayi**—Handsome Acanthus-like foliage and large tubular flowers of a rich pink. 18 to 20 inches.

★**LINUM PERENNE—(Perennial Flax)**—Early blue flowers. May to August. Fine for borders of rockery.

**LOBELIA CARDINALIS—(Cardinal Flower)**—Handsome border plants, preferring a moist loam where they will not suffer from drought. Rich fiery cardinal flowers. Early August until late September. 2 to 2½ feet.

**LUPINUS**—Effective plants, producing large spikes of flowers.

**Alba**—White.

**Rosea**—A combination of light and dark pink.

**Moerheimii**—Pink and white.

**Polyphyllus**—Blue.

**LYCHNIS—(Lamp Flower)**—All of the Lychnis are of easy culture, thriving in any kind of soil.

**Chalcedonica—(Jerusalem Cross)**—Heads of brilliant orange-scarlet. 2 to 3 feet.

**Viscaria**—Forms a dense tuft of evergreen foliage and in June sends up spikes of handsome double deep red, fragrant flowers. 1 foot.

**LYTHRUM—(Loose Strife)—Salicaria**—A strong growing plant, thriving in any position, producing large spikes of rose colored flowers from July to September. 3 to 4 feet.

**MONARDA—(Bergannot)—Fistulosa**—Showy plants, growing from 2 to 3 feet high, succeeding in any soil. Blooming during July and August. Lavender.

★**MYOSOTIS—(Forget-me-nots)**—Splendid for beds, borders or rockeries.

**Alpestris**—Sky blue.

**Winter Everblooming.**

**Victoria**—Dark blue.

**PAPAVER ORIENTALIS—(Oriental Poppy)**—For brilliant coloring nothing equals them during their time of flowering. May to June.

**Goliath**—Rich scarlet.

**Lacks Koening**—Dark salmon pink.

**Mrs. Baker**—Rich wine color.

**Oriflamme**—Large gorgeous orange scarlet.

**Princess Victoria Louise**—Delicate salmon pink.

**PAPAVER NUDICAULE—(Iceland Poppy)**—Plant is of neat habit, forming a tuft of bright green fern-like foliage. Cup shaped flowers on stems, 12 to 18 inches long. Colors from orange to white. Mixture only.

**PENTSTEMON—(Beard Tongue)**—Hardy plants for the border. Very showy.

**Barbatus Torreyi**—Bright scarlet flowers June to August.

**Sensation**—Gloxinia-like flowers in variety of colors, including rose, sherry, crimson, purple, etc. Not quite hardy. Can supply in mixture only. 2 to 3 feet.

**Shirley Giant**—A new variety from England.

**PHLOX**—Among hardy perennials no class is of more importance. Succeed in any soil and position, and flowering through a long season.

**Albion**—White with faint aniline red eye. Medium.

**Beacon**—Brilliant cherry red. Tall.

**Baron von Dedem**—Deep pink, suffused orange, medium.

**Bridesmaid**—White, large crimson. Carmine center.

**Champs Elysee**—Bright rosy magenta.

**Coquelicot**—Scarlet, crimson eye.

**Diadem**—Pure white.

**Eclairer**—Rosy magenta with lighter halo.

**Elizabeth Campbell**—Bright salmon pink, white eye.

**Europa**—White with distinct crimson eye.

**Goliath**—Bright cerise with a deep eye. 3 feet.

**Mrs. Jenkins**—White late.

**Prof. Virchow**—Bright carmine overlaid with orange and scarlet.

**Rheinlander**—Salmon pink.

**R. P. Struther**—Rosy carmine with claret red eye.

**Selma**—Pale rose—mauve with claret eye.

**Von Lassburg**—White.

**Wm. Robinson**—Pale rosy salmon. Purplish eye.

★**PHLOX CANADENSIS—Divaricata**—One of our native plants commencing to bloom in April. Lavender flowers on stems 10 inches high.

★**PHLOX SUBULATA—(Moss or Mountain Pink)**—Mosslike evergreen foliage which during the flowering season is hidden under the masses of bloom. Fine for border or rockeries.

★**Alba**—White.

★**Lilacina**—Light lilac.

★**Rosea**—Bright rose.

**PINKS**—Hardy garden pinks. Old favorites, bearing their sweet clove-scented flowers in the greatest profusion.

**Elsie**—Bright rose maroon center. Double.

**Gertrude**—Deep rose. Double.

**Snow**—White double.

**White Reserve**—An everblooming pure white.

**NEW PERPETUAL HARDY PINKS**—Perfectly hardy and bloom continuously from early Spring until late Fall. Flowers are much larger than old type.

**Harold**—Large double pure white.

**Jean**—White with deep violet-crimson center.

**Robert**—Delicate shade of old rose.

**DIANTHUS PLUMARIS**—Single old fashioned pinks. All colors.

**PHYSOSTEGIA—(False Dragon Head)**—A beautiful midsummer flowering perennial, not unlike a gigantic heather.

**Virginia**—Bright but soft pink.

**Alba**—White.

**PLATYCODON—(Balloon Flower)**—Are closely allied to the campanula and form neat branched bushes. 2 to 2½ feet high. July to October. Blue and white.

**PLUMBAGO LARPENTAE**—Dwarf border and rock plant, covered with deep blue flowers during summer and fall months. 6 to 8 inches.

**POLEMONIUM—(Jacob Ladder)—Coeruleum**—Useful border plants succeeding best in a partially shaded position. Deep green, finely cut foliage and spikes of showy blue flowers. 15 to 18 inches. May and June.

**POTENTILLA—(Cinquofoil)**—Charming plants for the border with brilliant single or double red flowers from June to August. Single and double hybrids.

**PYRETHRUM—(Persian Daisy)—Hybridum**—Of easy culture in any garden soil where there is good drainage and full exposure to sun.

**PRIMULA VERIS—(English Primrose)**—Are the most beautiful and interesting of early spring flowering plants.

**RANUNCULUS—(Double Buttercups)**—A double flowered form of buttercup. 18 inches high. May and June.

**RUDBECKIA—(Cone Flower)—Golden Glow**—Strong, robust grower. 6 to 8 feet high. Masses of double golden flowers. Cactus dahlia-like flowers. July to September.

**Grandiflora Hybrid**—Dark orange yellow flowers with purplish black cone 2 to 4 inches in diameter. 3 foot high.

**Black Eyed Susans**—The old favorite.





**SCABIOSA CAUCASICA**—(Blue Bonnett)—A soft and charming shade of lavender. (Frequently white.) Commences to bloom in June, throwing stems 15 to 18 inches high.  
**Japonica**—Lavender blue flowers. July to September. 2 feet.  
**SOLIDAGO**—(Golden Rod)—**Canadensis**—Medium tall. Spikes of golden yellow flowers. July to October.  
 ★**SAPONIARIA**—(Soap Wort)—**Ocymoides**—Dwarf; fine leaved, with bright little pink flowers in summer. Rockery and edging.  
**SHASTA DAISY**—**Alaskan**—Immense, fluffy white blooms with golden yellow center. July to October.  
**STACHYS**—(Woolly Wound Wort)—**Lanata**—White woolly leaves and spikes of small purplish flowers about 18 inches high. June and July.  
**STATICE**—(Sea Lavender)—**Latifolia**—Large, branching flower, stems covered with myriads of small pale purple flowers which retain their color for months if cut and dried properly.  
**STOKESIA**—(Cornflower Aster)—**Cyanus**—A beautiful native plant blooming from early June until late September. Flowers are a handsome lavender blue and closely resemble an Aster.  
**Alba**—White.  
**SWEET WILLIAM**—(Dianthus BarbatuS)—A well known attractive free blooming perennial.  
**Newport Pink**—A lovely salmon and watermelon pink.  
**Scarlet Beauty**—Deep rich scarlet.  
 Mixed colors also.  
**THALICTRUM**—(Meadow Rue)—Very graceful, pretty flowered plants with finely cut foliage. Great favorites for planting in border.  
**Adiantifolia**—Foliage resembling maidenhair fern. Yellow flowers in July.  
**Dipterocarpum**—Fine, fern-like foliage, tall heads of lavender flowers brightened by yellow stamens and anthers.  
**TRITOMA**—(Red Hot Poker)—One of the most striking of Autumn flowers with tall spikes of flaming scarlet and yellow flowers.  
**Pitzierii**—Earliest to bloom.  
**Mirabilis Hybrids**—A new introduction from Germany.  
**THERMOPSIS**—**Caroliniana**—Showy tall growing plant, producing long spikes of yellow lupinus-like flowers in June and July. 3 to 4 feet.  
**THYMUS**—(Thyme)—**Variegated**—Small pale green and yellow leaves. Lavender colored flowers. 6 to 8 inches high.  
**Serpyllum**—Creeping habit, dark green foliage lilac flowers. 2 to 3 inches high.  
**VALERIANA**—(Coccinea)—Showy heads of reddish or pink flowers. 2 feet. June to October.  
**Alba**—White flowers.

**Officinasis**—(Hardy Garden Heliotrope)—Produces showy heads of rose-tinted white flowers from May to July, with a delicious heliotrope odor.  
**VERONICA**—(Speedwell)—**Longifolia Subsessilis**—The showiest and best of all Veronicas. Bushy plants. 2 to 3 feet high with long dense spikes of deep blue flowers. July to September.  
**Virginica Alba**—2 to 3 feet high. Flowers white.  
**Spicata**—Long spikes of bright blue flowers. One of the best for border plants.  
 ★**Repens**—Fine for rock work or carpeting. Light blue flowers.  
**VIOLA**—(Tufted Pansies)—**Blue Perfection**—Flowers continuously for nearly eight months of the year and while their flowers are not so large as those of the pansy, their floriferousness make them a welcome addition to any garden. Deep purplish blue.  
**VIOLETS**—  
**Gov. Herrick**—Large dark blue. Very free bloomer.  
**Princess of Wales**—Larger than Gov. Herrick, lighter blue.  
**Lady Hume Campbell**—Double pretty shade of light blue.  
**WALLFLOWERS**—The old fragrant favorite in mixed colors, including yellow, brown, etc. Mixture only. The following are new introductions from England.  
**Eastern Queen**—Flowers vary from apricot to cream white.  
**Primrose**—A citron of pale yellow.  
**Purple Queen**—Blossoms of a purplish hue.  
**Crimson King**—Rich deep purplish crimson. 9 inches high.  
**Vulcan**—Enormous flowers of ruby crimson. 9 inches high.  
**SALVIA**—(Meadow Sage)—**Azurea Grandiflora**—Sky blue flowers during August and September in the greatest profusion. 3 to 4 feet.  
**Patens**—Purest blue known. Late flowering.  
 ★**SAXIFRAGA**—(Stone Break)—★**Megasea**—Handsome, broad, deep green foliage which alone renders them useful while the pretty rose pink flowers which appear very early in the spring make them doubly effective. 1 foot.  
 ★**Pyramidalis**—A very robust grower. Rosettes are large and glaucous. Flowers very numerous in a large pyramidal panicle, white, speckled with crimson.  
 ★**Pride of London**—One of the finest Saxifraga in cultivation. Flowers white, spotted, carmine, on pink stems.  
 ★**SEDUM**—(Stone Crof)—Useful plants for border and rockery, producing their interesting flowers during late summer and fall.  
 ★**Acra**—(Golden Moss)—Foliage green, flowers bright yellow.  
 ★**Stahli**—Foliage tinted crimson in Autumn.  
 ★**Spectabilis**—One of the prettiest erect growing species. 18 inches high, broad light green foliage and immense heads of showy rose colored flowers.

ANNUAL VINES IN SEASON

## ORNAMENTAL CLIMBING VINES

### CLEMATIS

Clematis is one of the most beautiful and useful climbers. Their magnificent flowers, borne in great profusion in beautiful shades of lavenders, purples, reds and white, make them especially attractive.  
**RAMONA**—Beautiful lavender, best of its color.  
**VILLE DE LYON**—Red.  
**HENRYI**—Fine, large, creamy white flowers; a strong grower and very hardy.  
**JACKMANII**—Intense violet purple, with a rich velvety appearance; distinctly veined.  
 The above large plants, each \$1.00, postpaid.  
**CLEMATIS PANICULATA**—A rapid and vigorous grower; it produces sheets of medium-sized, pure white flowers of the most pleasing fragrance.  
 Choice plants, 50c; Extra fine, 60c.

### HONEYSUCKLE

**BELGIAN**—Flowers yellow, blotched with red above; blooms all summer, fragrant.  
**HALL'S JAPANESE**—Almost evergreen, very popular; white turning to yellow. Each 50c.

### KUDZU

**KUDZU VINE**—(Puereria Thunbergiana)—Large foliage and dense shade, growing fifty feet in one season. Flowers plentiful in August, rosy-purple, pea-shaped; in small racemes. Each 50c.

### ENGLISH IVY

Large, thick, shining, leathery leaves; evergreen. Each 25c.

**CINNAMON VINES** are the most desirable, easiest grown climbers in the world. Their abundant blossoms perfume the air for a long distance. Each 25c; five for \$1.00, postpaid.

### EUONYMUS

**RADICANS**—A most beautiful evergreen vine of vigorous growth and perfect hardiness. Clings to stone or brick. Each 60c.

### WISTARIA

**W. SINENSIS**—(Chinese Wistaria)—Grows 15 to 20 feet in a season; has long, pendulous clusters of pale blue flowers in May and June and in Autumn. Choice plants, 75c to \$1.50.  
**WISTARIA MULTIJUGA**—(Pink)—Two-year grafted. Each \$2.50.  
**WISTARIA SINENSIS**—(White)—Three-year grafted. Each \$3.00.

### DUTCHMAN'S PIPE

**ARISTOLOCHIA SIPHO**—A handsome bright green luxuriant vine, having large foliage and brownish, pipe-shaped flowers. Strong plants, each \$1.00.

### AMPELOPSIS

**VEITCHEI**—("Boston Ivy")—Leaves glossy green, coloring bronze in Fall; flowers small; berries deep blue; clings firmly to smooth walls.  
**QUINQUEFOLIA**—("Virginia Creeper")—Common American Ivy.  
**ENGELMANNI**—Similar to Quinquefolia, but leaves slightly smaller, and will cling to walls without any support. Very hardy and attractive. Strong 2-year roots, 50c.

### TRUMPET VINE

**BIGNONIA RADICANS**—(Trumpet Vine)—Strong climber; deciduous; flowers orange scarlet. Each 50c.



## MISCELLANEOUS FLOWERING PLANTS

*The following includes many useful and beautiful plants for Baskets, Porch Boxes, Bedding and House Plants*

**ABUTILON ECLIPSE**—Handsome variegated foliage; bright pendant flowers of scarlet and gold colors. Fine for vases and baskets. **Each 20c.**

**AGERATUM—(Blue Star)**—Bedding and border plant growing one foot high. Feathery blue flowers all Summer. **Each 15c; \$1.00 per doz.**

**CALCEOLARIA—(Shower of Gold)**—Pretty clusters of golden yellow flowers all through the season. **Each 20c.**

**COLEUS—(Fancy Leaved)**—Coleus are the most important of all the fancy leaved bedding plants. They also make very fine pot plants, especially if you have a warm room to winter them in. **Each 15c; 6 fine sorts 75c.**

**COMMON IVY**—Waxy green leaves, strong growing vine for window and porch boxes or for hanging baskets. **Each 15c.**

**GENISTA RACEMOSA—(Shower of Gold)**—Its pendant shaped flowers literally smother the plant during the Spring months, while at other times its graceful dark green foliage makes a very ornamental plant. Easily grown. **Each 25c; add 10c if postpaid.**

**MESEMBRYANTHEMUM SPECTABILIS**—Quilled-shaped, succulent leaves with large single thistle-like cerise pink flowers. Fine for baskets, vases or porch boxes. **Each 15c.**

**PETUNIA—(Irvington Beauty)**—Single-flowered. A very popular bedding and window-box plant. Covered all season with beautiful light pink flowers veined green and shaded to white in the throat. **Each 20c; 3 for 50c.**

**SALVIA—(New Zurich)**—A distinct and attractive variety of compact dwarf growth, of neatly rounded form, closely set with stiffly erect spikes of bright scarlet flowers. **Each 15c; per doz. \$1.25.**

**SMILAX**—For using as a green with cut flowers. Fine as a parlor or window plant. **Each 15c.**

**VINCA VARIEGATA**—Leaves are a glossy green, broadly margined a creamy white. The best of trailing plants for window boxes. **Each 20c; 2 for 35c.**

**VERBENA—(New Mammoth)**—The Verbena is, next to the Geranium, the most popular of all bedding plants. **Assorted colors. Each 15c; doz. \$1.00.**

**WANDERING JEW—(Tradescantia)**—White and Red Variegated. **Each 15c.**

### MASTODON PANSIES IN BLOOM

From March until June we offer our famous "Mastodon" Pansy plants in full bloom. Put up one dozen in a basket. Mailing weight 4 lbs.

**Price 60c to \$1.00 per basket, not prepaid.**

## FLAVORING AND MEDICINAL HERBS—PLANTS

**CHIVE**—Has mild onion flavor, grows in grass-like clumps; much used for flavoring. **Each 15c; doz. \$1.50.**

**ROSEMARY**—Infusions of the leaves are used in medicinal beverages. Produces an aromatic oil. **Each 25c; doz. \$2.50.**

**PEPPERMINT**—Hardy perennial for producing oil. **Each 25c; doz. \$2.50.**

**THYME**—Broad leaved, used in soup, stuffing and sauce. **Each 25c; doz. \$2.50.**

**LAVENDER**—By distillation produces the well-known Lavender water, the flowers for perfuming wardrobes, etc. **Each 25c; doz. \$2.50.**

**Large clumps, each 50c.**

**SANTOLINA—(Lavender Cotton)**—Used as border plant or for medicinal purposes. **Each 20c; doz. \$2.00.**

**SAGE (Giant)**—The leaves and tender tops are used in stuffings and sauce; also in the beverage known as Sage Tea. The Giant Sage is a greatly improved variety. **Each 15c; doz. \$1.50.**

**CINNAMON VINES** are the most desirable, easiest grown climbers in the world. They are from China—the land of wonders. Their abundant blossoms perfume the air for a long distance. No words can describe their delicious fragrance. Perfectly hardy—thriving in all soils, in sun or shade, wet or dry. No insects, blight or disease of any kind ever troubles them, no winter harms. Once planted they will grow a lifetime. **Each 25c., five for \$1.00, postpaid.**

**POPULAR ANNUAL BEDDING PLANTS**—Annual bedding plants are so inexpensive and satisfactory that they should be planted extensively for cut flowers in the home as well as for garden effects. They also make splendid displays in tubs and porch boxes. See page 58.

**BEGONIAS—(Tuberous Rooted)**—From their early first blooming until cut down by frost, Tuberous Begonias display a mass of most gorgeous and brilliant coloring. They are distinct and unique in wonderful shades of yellow bronze, white, reds, pinks, with thick waxy petals and grand ornamental foliage, never failing to excite the wonder and admiration of all who see them. **Each 30c; doz. \$3.00.**

Oregon Giant Pansy Plants, 75c per dozen

## SWEET VIOLETS

Price each 20c; 6 sorts, \$1.00, Postpaid.

### SINGLE

**BARONESS ROTHSCHILD**—Similar to Princess of Wales, but blooms more freely.

**CALIFORNIA**—Very showy flowers of enormous size, deep violet blue, deliciously fragrant.

**PRINCESS OF WALES**—Gigantic flowers, of a very rich shade of blue, extremely fragrant.

### DOUBLE

**LADY HUME CAMPBELL**—Beautiful light blue, very free-blooming, exquisitely fragrant.

**MARIE LOUISE**—A constant bloomer, producing large flowers, lovely deep violet purple.

**SWANLEY WHITE**—The finest and best double white violet in cultivation.



## VEGETABLE PLANTS

WE grow large quantities of vegetable plants, and can supply all the kinds listed below, in their proper season, in most any quantity. We have made arrangements this year so that we can supply all vegetable plants in two grades. If you want a quantity of plants write us early.

Transplanted plants are much stronger and better rooted, and are well worth the price especially in the early part of the season. We can supply most any of the leading sorts. **No plants sent C. O. D.**

**All Prices are Subject to Crop Conditions and Market Changes.**

**CABBAGE**—Transplanted and “pulled” plants in all standard varieties. Early and late at seasonable times.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Transplanted.....	\$0.25	\$1.25	\$1.00	\$8.00
Not transplanted.....	.15	1.00	.75	6.00

**KALE**—When you order Kale be sure to state whether you want the Garden Kale or the “Cow” Kale.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Thousand Head or “Cow Kale”.....	\$0.20	\$1.25	\$1.00	\$6.00
Garden or Curley Kale.....	.25	1.50	1.25	10.00

Special prices on large lots in season.

**BROCCOLI**—Our famous “St. Valentine” Broccoli should be in every garden. Broccoli is a Winter cauliflower very hardy and of the finest quality—“St. Valentine” is the best variety; plants can be set after June and are ready to use in March.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Broccoli.....	\$0.30	\$1.50	\$1.25	\$12.00

Write for prices on large lots. We will grow them to your order.

**SWEET POTATO PLANTS**—Sweet Potatoes can be successfully grown in most sections. The plants should be set out after the ground is warm. Rich, sandy bottom land is best, but any good garden soil will give good returns.

Prices	Postpaid		Not Prepaid	
	Doz.	100	Doz.	100 1000
For seasonable delivery.....	\$0.35	\$1.50	\$0.25	\$1.25 10.00

**CAULIFLOWER**—Cauliflower seed is scarce and high in some varieties and plant prices subject to change.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Early Varieties, transplanted.....	\$0.30	\$1.75	\$1.25	\$12.00
Not transplanted.....			1.25	10.00

Late kinds, transplanted..... } **Write for prices**  
 Late kinds, not transplanted..... }

Add 15c. per hundred if ordered by mail.  
**CELERY**—Fine, healthy plants in early Winter varieties furnished in season or grown to order.

To succeed with celery keep the plants growing constantly while young—if they “stand still” they are liable to run up to seed later.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Transplanted.....	\$0.30	\$1.25	\$1.00	\$8.50
Not transplanted.....				

Write for prices

**TOMATOES**—Tomato plants should not be set out before the weather is settled and ground warm; unless they are protected from frost.

If you do not know what variety is best tell us, we will give you the right one.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Transplanted.....	\$0.30	\$1.50	\$1.25	\$10.00

**BRUSSELS SPROUTS**—These are very hardy and should be grown the same as Kale or Broccoli.

Prices:	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Brussels Sprouts.....	\$0.25	\$1.50	\$1.25	\$10.00

## SIX BEAUTIFUL FLOWERING BEGONIAS

Price 20c. each; set of 6 sorts \$1.00, postpaid.

**BERTHA CHATEROCHER**—Glossy green foliage covered nearly the year round with cluster of bright scarlet flowers.

**COMPTA**—Pointed purplish-green leaves with silvery shadings. Pure white flowers.

**ARGENTEA GUTTATA**—Handsome erect growing sort, with pointed wine-colored leaves and silvery white spots; clusters of pure white flowers on the tips of the stems.

**FOLIOSA**—The freest-flowering Begonia we have. Makes a handsome window plant, with its glossy green leaves and bright pink flowers.

**MARJORIE DAW**—A strong-growing variety of slender habit with glossy green foliage and producing large racemes of salmon-pink flowers, drooping gracefully about the plant.

**METALICA**—A fine, erect growing Begonia with large dark green leaves of plush-like texture. The panicles of moped flowers are bright red, covered with downy hairs while the open flowers are pure white. **25 cents each.**

**REX BEGONIA**—Grown for the beauty of their foliage. The leaves are large, variegated and margined with a peculiar silver-metallic gloss. **Price choice plants, each 25c.**



Rex Begonia

**Plant Annuals in the bulb beds.** After the bulbs are through blooming they should be allowed to grow until late summer and the beds can be made very attractive with annual flowering plants without disturbing the bulbs. Forget-me-nots, Petunias, Pinks, Poppies, Verbenas and Candytuft are among the best.



We offer a splendid list of Ferns, including some of the newest as well as the older varieties.

## ORNAMENTAL FERNS

Price, small plants, 25c; postpaid. From 4-in. pots, 75c; 5-in., \$1.50, postpaid.  
Specimen plants, \$1.50 to \$3.00, F. O. B. Portland.

- BOSTON FERN**—This is the original and well known type of "Sword Fern."  
**TEDDY JUNIOR**—New Dwarf Fern. A sport from the Roosevelt Fern. Compact in form, rapid grower.  
**N. ROOSEVELT**—Resembles Boston Fern, produces more fronds; a wonderfully decorative window plant.  
**OSTRICH PLUME FERN**—(*Nephrolepis Whitmani*)—Sport from the Boston Fern.

## ASPARAGUS FERNS

20c each postpaid; larger plants, 35c and 50c each, by express.

- SPRENGERI**—(*Emerald Feather*)—This is undoubtedly one of the handsomest and most valuable evergreen trailing plants for the house and conservatory ever introduced. Beautiful sprays of lovely green feathery foliage. It makes a charming ornamental plant for the window or conservatory in Winter.  
**PLUMOSA**—(*Japanese Lace Fern*)—A finer and more delicate plant than the Sprengeri, but hardy and easily grown. Very satisfactory for window and house culture. An extremely graceful window climber, bright green feathery foliage, as fine as the finest silk or lace. No finer house plant than this.

## SPECIAL—SIX FINE TABLE FERNS FOR \$1.25

- ADIANTUM CUNATEUM**—(*Maiden Hair Fern*)—A very beautiful and graceful fern.  
**ASPIDIUM TSUSSIMENSE**—Valuable for fern dishes; of dwarf graceful habit.  
**PTERIS ARGYREA**—(*The Silver Fern*).  
**CYRTOMIUM FALCATUM**—(*The Holly Leaved Fern*) Hardy, dark green foliage.  
**PTERIS CRETICA ALBO-LINEATA**—A pretty and useful variegated variety.  
**PTERIS WILSONI**—A very beautiful sort for fern dishes.

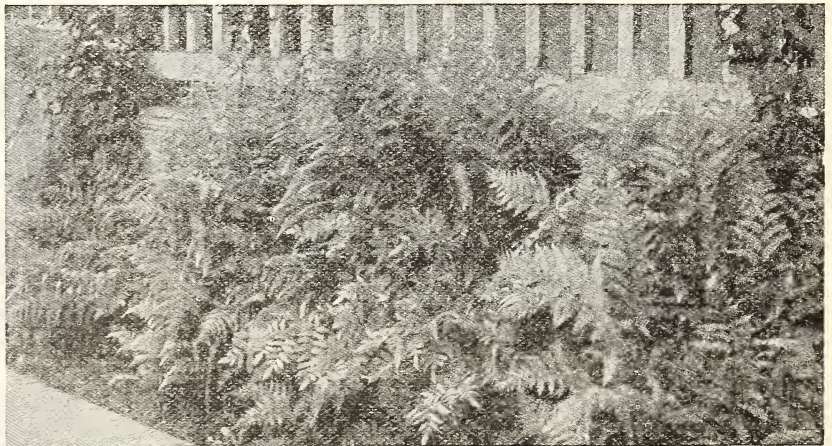
## A HARDY FERN BED FOR ONLY \$6.00

Assortment of ferns for general garden and foundation planting Collection, Postpaid, \$6.00.

- 12 Ostrich Plume Ferns
- 4 Osmunda Claytoniana
- 4 Lady Ferns

Half above Collection, \$3.50.

We have contracted these ferns from Northern Minnesota, where they are grown, and the plants will be shipped direct from ferneries. Hardy outdoor Ferns grow best in the shade or half shade and will do well in the border. They are just the thing for that shady place around your house where most flowers will not do so well.



Foundation Planting of Hardy Ferns

## FREE BLOOMING FUCHSIAS

Price 15c each, set of 6 sorts, 75c.

- ANNIE EARLE**—Tube and sepals waxy white; corolla single, clear carmine; splendid free blooming.  
**GENERAL ROBERTS**—Flowers very large, corolla plum color; tube and sepals crimson; one of the finest. Double.  
**MOLESWORTH**—Fine, large and elegant form, sepals long and reflexed, pure red; corolla double white.  
**MINNESOTA**—Single corolla of rich purple color; pure white sepals. Very free.  
**STORM KING**—Superb double white variety well known to all plant lovers.  
**TRAILING QUEEN**—Tube and sepals rosy-scarlet, corolla violet purple. Trailing habit fine for baskets and boxes.



**D**IAMOND QUALITY ROSES are large, sturdy, two-year old, field grown roses that will give you splendid flowers the first season. They are true to name and our list includes the best of the well known popular varieties, the most meritorious of recent novelties and the Gold Medal roses of famous European growers.

### PLANTING AND CARE

In our favored section, roses attain a perfection seldom equaled, but you cannot expect them to thrive and bloom unless you care for them. We offer the following simple suggestions:

**SOIL**—Any good, well-drained garden soil, enriched with fertilizer, will give excellent results. If heavy clay soil mulch well with burnt earth and manure, rotted sod or leaf mold.

**FERTILIZER**—Our odorless fertilizer, Bone Meal, Tankage of Blood, will give excellent results and should always be applied after the plants start their growth.

**WATERING**—When setting out, water regularly until roots are well set; then about once a week unless the ground is very dry; in such cases more often. Do not get the foliage wet after a hot day. This causes mildew.

*We offer a splendid assortment of popular roses and the best of the new ones, and can secure any variety in commerce, TRUE to NAME.*

**FINALLY**—Keep the surface well worked around the plants. This is as necessary as water or fertilizer. When planting cut back freely, and the bush will recover quickly.

**SHIPPING**—We always send all our two-year-old rose bushes charges collect by express or freight, packing them so they will carry safely even though they should be on the road for two weeks or more.

If necessary, we can send small two-year-old bushes by mail at an additional cost to cover postage, but in such cases we always prune the tops and roots ready for planting.

### RARE NEW GARDEN AND EXHIBITION ROSES

Fine 2-year Dormant Plants.

**CLEVELAND**—(H. T.)—Deep coppery yellow at base of petals, flushed reddish copper. Very large, beautifully formed and good in every way. A thoroughly fine variety. **Each \$1.00.**

**COLUMBIA**—(H. T.)—One of the greatest of recent introductions. The color is a true pink, deepening as it opens to a glowing pink. A striking peculiarity of this rose is that the shades all deepen as the rose opens. Single buds, long stems, splendid for cutting. **Each \$1.00.**

**GOLDEN EMBLEM**—A grand new Irish rose of ideal habit of growth with holly-like glossy green foliage, each stem bearing a glorious golden yellow flower of the finest form. The peer of all yellow roses. **Each \$1.50.**

**GOLDEN OPHELIA**—Rich golden-yellow flowers in greatest freedom on stout wirey stems clothed with glossy dark green foliage. Especially well adapted for cutting and personal adornment. **Each \$1.50.**

**GOLDEN SPRAY**—A rampant growing ever-blooming rose, with long arching canes forming attractive sprays of golden yellow buds, opening into large single flowers. **Each \$1.50.**

**HOOSIER BEAUTY**—Crimson scarlet with darker shadings, velvety texture. Bud long and pointed, deliciously fragrant. **Each 90c.**

**LADY HILLINGDON**—(T.)—Deep apricot yellow, long and pointed bud. Flowers are of good substance and very lasting. Foliage luxuriant. A fine forcing or garden rose, excellent for cutting. **Each 90c.**

**K OF K**—(H. T.)—New. Intensest scarlet known. Semi-single with huge petals. Free continuous bloomer. Sweet scented. **Each \$1.00.**

**LOS ANGELES**—(H. T.)—Flame pink toned with coral and shaded gold at base of petals. Beautifully formed, fragrant, vigorous and very free blooming. Nothing better. **Each 90c.**

**MISS LOLITA ARMOUR**—A magnificent new rose produced by the same hybridizer who gave us Los Angeles, one of the most popular novelties of the time. Color chrome yellow at base of petals, shaded to coppery orange. Flowers very large, of finest form, on stout canes. **Each \$1.50.**

**MRS. S. K. RINDGE**—A sister variety of Lolita Armour. Buds very long and pointed, rich golden yellow outside of petals stained at base with Indian red. **Each \$2.00.**

**WILLIAM F. DREER**—Soft shell pink, base of petals rich golden yellow. The same parentage as Los Angeles and beautiful in development from opening buds to expanded flowers. We are quite sure that all who try this variety will be pleased with it. **Each \$2.00.**

**CRIMSON EMBLEM**—A superb new Irish rose of a rich glorious crimson color heavily shaded maroon. Buds and flowers of superb form, produced on fine long stems. Wonderful mildew-proof foliage. **Each 90c.**

**GORGEOUS**—Strong, vigorous growing, with handsome olive-green foliage. Flowers very large, finely formed, produced freely on stout canes. Color deep orange-yellow, heavily veined and reddish copper. **Each 90c.**



# BEAUTIFUL ROSES OF RECENT INTRODUCTION

The following are the recent novelties and Gold Medal roses that have proven their merit and are now generally in great demand.

Fine 2-year Field Grown Dormant Plants, 90 cents each



**COUNTESS CLANWILLIAM**—(H. T.)—A distinct and charming rose, producing flowers in great abundance. Color delicate peach pink, petals flamed and edged with deep cherry red. Long pointed buds opening to large full flowers. Of strong, vigorous habit.

**MARGARET DICKSON HAMILL**—Delicate straw color, its shell-like petals flushed at the edges on the reverse side with delicate carmine-rose. Strong in growth, free blooming and exquisitely fragrant. Bronzy green foliage on deep crimson leaf-stalks. Very distinct and a gem among new roses.

**MRS. CHARLES RUSSELL**—(H. T.)—"American Beauty" can compete with it when it comes to counting points. Stems three feet long, stiff and surmounted by grand rosy-pink blooms.

**OLD GOLD**—(H. T.)—Medium sized flowers of a vivid reddish orange color with coppery red and coppery apricot shadings. A splendid garden rose.

**OPHELIA**—(H. T.)—Orange salmon buds, opening to flowers of dainty pink. The foliage is clean, dark and leathery—growth vigorous and free, producing long canes. Blooms early and continuously.

**RAYON D'OR**—(Pern)—Long pointed buds of deep orange-cadmium smeared claret opening to a rich sunflower yellow. Foliage is deep, glossy green; and free from mildew.

**RED LETTER DAY**—Brilliant glowing crimson scarlet, opening into medium-sized cactus-shaped flower of curious formation. One of the freest blooming roses extant.

**SOUV. DE STELLA GRAY**—Long pointed buds of rich golden yellow, dashed with crimson at base of petals. Flowers produced on long stout stems. A beautiful fancy exhibition rose, shown in fine form at the Portland Rose Show on several occasions.

**SUNBURST**—(H. T.)—The finest of all yellow roses with long pointed buds. Color a superb cadmium yellow with orange yellow center. The foliage is a handsome bronze green.

**TIPPERARY**—Beautifully formed buds of a bright canary yellow, produced with great freedom. A fine new Irish rose with all the requisites of a good garden variety.

**LILLIAN MOORE**—(H. T.)—Flowers large and full; pure Indian yellow with slightly deeper center. Buds long and pointed.

**LOUISE CATHERINE BRESLAU**—(H. T.)—Coral red, shaded chrome yellow, opening to a shrimp pink, shaded coppery orange.

**MAD. EDOUARD HERRIOTT**—The famous winner of the *Daily Mail Prize*. The color being terra cotta bronze and geranium red, a new combination of colors in rose.

**MADAME MELANIE SOUPERT**—(H. T.)—Splendid new orange yellow shaded pink; beautiful, long pointed buds. Best of its color.

**MAD. RAVARY**—(H. T.)—Clear, orange yellow. Long pointed buds; flowers of fine form.

**MARQUIS DE SINETY**—(H. T.)—Deep saffron yellow, flushed reddish copper. Flower large, beautiful dark foliage.

**MELODY**—(H. T.)—Intense deep saffron yellow with primrose edges. Blooms medium size, very fragrant and freely produced.

**MRS. AARON WARD**—(T.)—A deep golden orange color shading out to lemon or creamy yellow at the edge of the petals. One of the most beautiful roses in existence.

**MRS. ALFRED TATE**—(H. T.)—Coppery red shaded fawn. Buds are about the longest we have ever seen on an outdoor rose. Will easily rank with the very best.

**PORTLAND SEED COMPANY'S DIAMOND COLLECTION of 6 Roses for \$4.50**—Los Angeles, K. of K., Margaret Dickson Hamill, Sunburst, Constance, and Cleveland.

**PORTLAND SEED COMPANY'S HARDY GARDEN COLLECTION of 10 Roses for \$5.00**—Frau Karl Druschki, Mad. Caroline Testout, American Beauty, Ulrich Brunner, Hugh Dickson, La France, Mrs. Aaron Ward, J. B. Clarke, Papa Gontier, and Mrs. John Lang.

When pruning roses make the cut in a slanting direction and then cover the cut with a dab of clay. It has lately been discovered that ordinary water glass, such as is used for preserving eggs, is a most excellent thing to cover cut on bushes or trees.

**MILDEW ON ROSES**—An excellent spray for roses affected with mildew is to use the regular Lime and Sulphur Solution, one gallon to 50 of water, and to each gallon of this mixture add a tablespoonful of baking soda.

Our DIAMOND LAWN GRASS makes an Evergreen, Velvety Turf

# GRAND GARDEN ROSES

*In this list you will find many famous prize winners and some of the most beautiful and popular roses*

Two-year old Field Grown Plants, 75c each

**ADMIRAL WARD**—(H. T.)—A fine bedding variety of vigorous growth and erect branching habit. Spherical blackish red bud opening to large, full, globular flowers of crimson red with shadings of fiery red and velvety purple.

**BETTY**—(H. T.)—Beautiful coppery rose color, overspread with golden yellow. Fragrant.

**BRITISH QUEEN**—(H. T.)—Pure white, large, full flowers, opening freely. One of the best white roses for bedding and cutting.

**CHATEAU DES CLOS VOUGEAT**—Deep, velvety crimson shaded with blackish maroon. The nearest approach to a black rose. As if cut from so much velvet, the most wonderful rose in color and texture. A true ever-blooming variety.

**DEAN HOLE**—(H. T.)—Beautiful silvery carmine, shaded bright golden pink. Free bloomer.

**DOROTHY PAGE ROBERTS**—(H. T.)—Coppery pink, suffused with apricot yellow, very free and perpetual, a delightful garden rose.

**EDWARD MAWLEY**—(H. T.)—Long pointed buds of deep, rich, velvety crimson. Growth is upright and branching with handsome foliage. One of the finest red roses.

**GEORGE DICKSON**—Very large, full and perfectly formed flowers freely produced. Color, blackish crimson of velvety texture, reverse of petals heavily veined with crimson maroon. A magnificent rose, invaluable for exhibition.

**HADLEY**—A fine American pedigreed rose producing flowers of elegant form and substance. Color rich crimson scarlet shaded maroon. A glorious rose.

**HARRY KIRK**—(H. T.)—Deep sulphur-yellow passing to a lighter shade at the edge of petals. Robust growth; free branching habit

**KILLARNEY**—The new Irish Beauty. Color an exquisite shade of deep shell pink lightened with silvery pink. The base of the petals is a soft silvery white relieved with enough yellow to make it more attractive. The buds are exceptionally long and beautifully formed.

**LADY ROBERTS**—Rich apricot yellow, base of petals coppery red shaded with orange. Nice long sharply pointed buds developing into well formed open flower. A pure bred tea-rose of great merit.

**LADY ASHTOWN**—(H. T.)—One of the finest pinks of a rich, deep, silvery tone; flowers large.

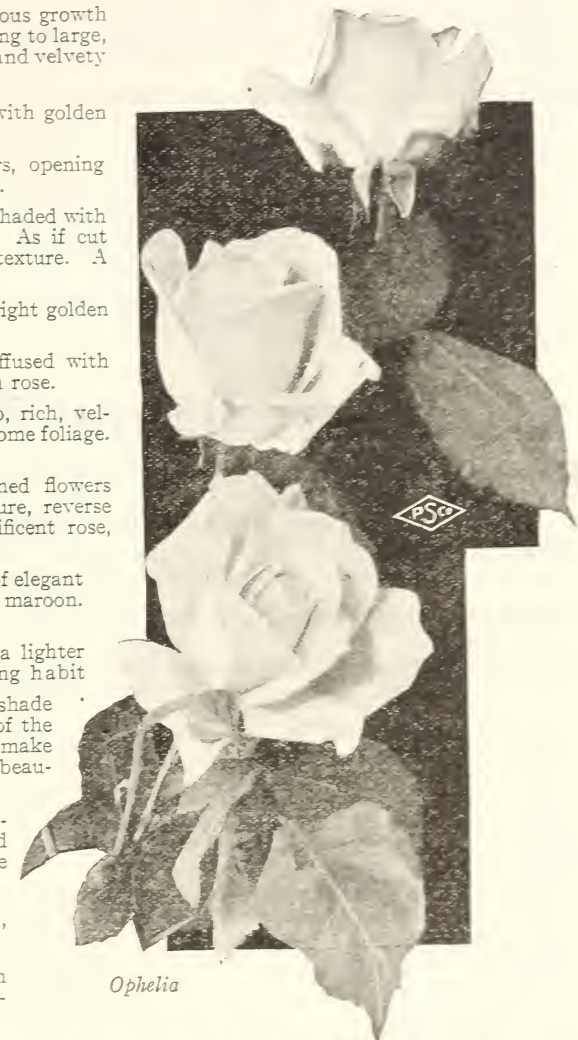
**LYON**—(Pernetiana)—Beautiful shrimp pink with salmon and chrome yellow shadings. Large coral red buds, beautifully formed. A continuous and free bloomer.

**MILDRED GRANT**—(H. T.)—Silvery white flushed delicate pink. By far the largest variety in the H. T. class, and easily the largest rose of good form. In spite of their great size and weight, the flowers are borne perfectly erect, as stems are amply stiff and strong. There is nothing coarse about it as with some large kinds.

**PAPA GONTIER**—(T.)—A vivid cherry red color, shaded yellow, reverse of petals crimson.

**PRESIDENT W. R. SMITH**—A superb new rose of American origin, producing elegant-shaped buds and open flowers. Of an exquisite silvery pink color and sweetly perfumed. Large handsome leathery foliage, on stout thornless canes, each surmounted by a handsome flower. A grand variety for the garden.

**RHEA REID**—(H. T.)—Flowers large and double; rich dark velvety red; a good red garden rose.



*Ophelia*

**RICHMOND**—(H. T.)—Vivid red buds and flowers of the most perfect and desirable form.

## BABY RAMBLER OR DWARF POLYANTHUS ROSES

Two-year-old plants, not prepaid, 75c each.

**BABY RAMBLER**—(Dwarf Bush Type)—Not over 18 inches high, producing large trusses of light crimson flowers; clean dark green foliage.

**CECILE BRUNNER**—Bright rose, yellowish in center; very sweet; dwarf polyanthus.

**PINK BABY RAMBLER**—(Mrs. W. Cutbush)—Clusters of pretty double bright pink flowers; freely produced in panicles; always in bloom.

**MOSS ROSES**—Red, Pink and White. Each 60c.

For **HARDY FERNS** Suitable for **SHADY BORDERS** and **ROCK WORK**, see Our Special Collection on Page 64.

## FAVORITE GARDEN AND EXHIBITION ROSES

*A choice collection of the best standard varieties, "tried and true," sure to give satisfaction.*

**Two-year field-grown plants, 60c.**

**FLORENCE PEMBERTON**—(H. T.)—Creamy white, suffused pink. Very large and full.

**GENERAL McARTHUR**—(H. T.)—Dazzling crimson scarlet; delicious perfume and magnificent foliage. Blooms in great profusion.

**GRUS AN TEPLITZ or VIRGINIA R. COXE**—(H. T.)—Color fiery crimson, with a dark velvety sheen, very fragrant. Free blooming.

**J. B. CLARKE**—New Irish variety of great merit either for garden decoration or for cut flowers. The color is bright crimson shaded maroon; petals large, well-shaped and of immense substance; flowers very full and perfectly formed. Growth vigorous and tree-branching habit; flowering freely and continuously from early Summer until late Autumn.

**ANNUAL VINES**—*Cobaea Scandens, Wild Cucumber, Canary Bird, Morning Glory, Nasturtiums, etc.* SEEDS AND PLANTS IN SEASON.

**JOSEPH HILL**—(H. T.)—Salmon pink shaded yellow. Outside petals yellow suffused copper.

**JULIET**—(H. B.)—A wonderful combination of old gold on the outside of petals and a rich rosy red on the inside. Flowers large, full and delightfully scented.

**KAISERIN AUG. VICTORIA**—(H. T.)—Elegant, large pointed buds; large, full double flowers; color delicate creamy white; fragrant.

**LA FRANCE**—(H. T.)—A silvery rose, changing to pink. A general favorite. Sweetest of all roses.

**MAMAN COCHET**—(T.)—Color is a deep rosy pink, the inner side of the petals silvery rose.

**WHITE MAMAN COCHET**—(T.)—Immense size, exquisitely fragrant; long, pointed buds.

**WINNIE DAVIS**—Fine apricot pink shading to the flesh tint at base of petals. A grand hardy garden rose.

## FINEST HARDY PERPETUAL ROSES

FOR Eastern Oregon and Washington or in sections where the winters are severe, this collection will thrive and bloom freely where the Tea and Hybrid Tea roses would not prove satisfactory.

**Two-year-old Field Grown Plants 60c each, unless otherwise noted.**

**AMERICAN BEAUTY**—(H. P.)—One of the largest, sweetest and best; rich, rosy crimson, shaded and veined in a most charming manner.

**Each 50c.**

**BARONESS ROTHSCHILD**—(H. P.)—Flowers of immense size; color bright rosy pink.

**Each 50c.**

**CONRAD F. MEYER**—A most valuable addition to the list of hardy free-blooming roses. The color is a beautiful pure silvery pink.

**Each 50c.**

**DUCHESS OF WELLINGTON**—(H. P.)—Intense saffron yellow stained with rich crimson which as the flower develops, become deep coppery saffron yellow. Delightfully fragrant.

**Each 75c.**

**FRAU KARL DRUSCHKI**—(H. P.)—The white American Beauty. Makes splendid buds and immense flowers; perfectly double.

**GENERAL JACQUEMINOT**—(H. P.)—Bright shining crimson; very rich and velvety.

**Each 50c.**

**HUGH DICKSON**—(H. P.)—Glowing crimson-shaded scarlet. A strong grower and perpetual bloomer (should be cut back freely).

**MADAME CAROLINE TESTOUT**—A grand rose of the La France type, but with flowers larger and finer. Color, bright satiny pink; very fragrant and free in bloom. One of the handsomest roses and should be planted extensively.

**Each 50c.**

**MRS. JOHN LANG**—(H. P.)—A soft, delicate pink, with satiny tinge; very free flowering.

**PAUL NEYRON**—(H. P.)—Deep, shining rose, blooms freely, the largest variety in existence.

**ULRICH BRUNNER**—(H. P.)—Extra large, bold flowers, full and globular; color, rich glowing crimson, elegantly flamed with scarlet.

**Each 50c.**



*Single Roses*

### PORTLAND SEED CO. CHOICE COLLECTION OF 12 ROSES

for \$7.00—We can recommend this collection for general planting to the amateur who wishes limited number of varieties, and who is still desirous of extra choice flowers. American Beauty, Mad. Caroline Testout, Dean Hole, Frau. Karl Druschki, Hoosier Beauty, Juliet, Irish Elegance, Mrs. Alfred Tate, Gruss An Teplitz, Baroness Rothschild, Mildred Grant, and Columbia.

### SINGLE ROSES

**AUSTRIAN COPPER**—(A. B.)—A beautiful single rose of bright reddish copper.

**Each 50c.**

**IRISH ELEGANCE**—(S.)—Large, single, golden bronze flowers of great beauty, free and constant bloomer, with deep bronze foliage.

**Each 75c.**

**IRISH FIREFLAME**—(S.)—Deep orange splashed crimson, changing to fiery orange crimson; buds hold shape long time.

**Each 75c.**





# CLIMBING AND PILLAR ROSES

Two-year-old bushes, field-grown, 75c each (except as noted)

- AMERICAN BEAUTY**—Rich crimson color; delightful fragrance; very free bloomer.  
**AMERICAN PILLAR**—Without question, the finest single flowered Climbing Rose in cultivation. Color clear bright rosy pink.  
**CECIL BRUNNER**—Clusters of pretty pink flowers, especially beautiful in bud.  
**DR. VAN FLEET**—Flowers large with high built center and petals beautifully undulated and cupped. Color the most beautiful shade of shell pink ever seen in a rose. A rank climber, immune from mildew.  
**FRAU KARL DRUSCHKI**—Identical to bush type; good pillar rose.  
**GLOIRE DE DIJON**—An old favorite, noted for its free flowering, its delicate tea scent, and its shades of color, being a blending of amber.  
**GENERAL McARTHUR**—(H. T.)—Dazzling crimson scarlet; delicious perfume and magnificent foliage. Blooms in great profusion.  
**HOOSIER BEAUTY**—Identical with that superb new bush variety Hoosier Beauty, except that it is a rampant climber. Crimson flowers shaded to black.  
**CLIMBING KAISERIN A. VICTORIA**—Strong rapid growing climbing form of the popular rose. Fine large ivory white flowers. One of our best climbers.  
**CLIMBING LADY ASHTOWN**—Strong, vigorous climbing sport of this well-known valuable rose.  
**LA FRANCE**—Identical with the well known La France; vigorous climber.  
**MAD. CAROLINE TESTOUT**—Immense globular flowers of the same beautiful shade of pink as seen in the bush sort.  
**MARECHAL NEIL**—A magnificent deep golden yellow variety; so famous as to need no description; finest of its color. Each \$1.00.  
**CLIMBING METEOR**—Rapid grower; rich, dark, velvety crimson flowers.  
**PAPA GONTIER**—(T.)—A "Native Sport" from this favorite variety.  
**PINK CHEROKEE**—Lovely single blossoms, 3 to 5 inches in diameter, saucer shaped and of a beautiful shade of light pink.  
**SHOWER OF GOLD**—A beautiful new climber of the Wichuriana type. It is of very vigorous growth, with dense glossy green foliage. Produces masses of golden yellow flowers.  
**SILVER MOON**—Similar in habit of growth to Dr. Van Fleet, but with large saucer-like single flowers of silvery white color. Flowers of wonderful substance on long stems.  
**SUNBURST**—A splendid climber of the same beauty and freedom of bloom as the bush form of this popular rose. Each \$1.00.  
**WILLIAM A. RICHARDSON**—Color, rich coppery yellow, flushed with carmine; a very beautiful variety, having few equals.

## THE POPULAR RAMBLER ROSES

The Rambler Roses are strong, vigorous climbers, growing ten to twelve feet high in one season.

Two-year-old Plants 65c each

- FLOWER OF FAIRFIELD**—Brilliant crimson, base of petals white; a splendid grower and a great improvement over the old type.  
**DOROTHY PERKINS**—Polyanthus type; a beautiful bright shell-pink; large double flowers.  
**RED DOROTHY PERKINS**—Fine crimson Rambler; glossy green foliage; never troubled with mildew. Flowers very double.  
**TAUSENDSCHON**—A lovely shade of soft pink, free and vigorous; splendid foliage.

## ALPHABETICAL LIST OF ROSES

Price		Price		Price		Price	
Admiral Ward.....	\$0.75	Frau Karl Druschki.....	\$0.60	Lady Hillingdon.....	\$0.90	Mrs. John Laing.....	\$0.60
American Beauty.....	.50	General Jacqueminot.....	.50	Lady Roberts.....	.75	Mrs. S. K. Rindge.....	2.00
Austrian Copper.....	.50	General McArthur.....	.60	La France.....	.60	Old Gold.....	.90
Baby Rambler.....	.75	George Dickson.....	.75	Lillian Moore.....	.90	Ophelia.....	.90
Baroness Rothschild.....	.50	Golden Emblem.....	1.50	Los Angeles.....	1.00	Papa Gontier.....	.75
Betty.....	.75	Golden Ophelia.....	1.50	Louise Catherine Breslau.....	.90	Paul Neyron.....	.60
British Queen.....	.75	Golden Spray.....	1.50	Lyon.....	.75	Pink Baby Rambler.....	.75
Cecile Brunner.....	.75	Gorgeous.....	.90	Mad. Melanie Soupert.....	.90	Pink Cherokee.....	.75
Chat. Des. Clos Vougeat.....	.75	Grus and Teplitz.....	.60	Mad. Ravary.....	.90	President W. R. Smith.....	.75
Climbers.....		Hadley.....	.75	Mad. Caroline Testout.....	.50	Rayon D'Or.....	.90
Cleveland.....	1.00	Harry Kirk.....	.75	Mad. Edouard Herriott.....	.90	Red Dorothy Perkins.....	.65
Columbia.....	1.00	Hoosier Beauty.....	.90	Maman Cochet.....	.60	Red Letter Day.....	.90
Conrad F. Meyer.....	.50	Hugh Dickson.....	.60	Marechal Neil.....	1.00	Rhea Reid.....	.75
Constance.....	1.00	Irish Elegance.....	.75	Marg. Dickson Hamill.....	.90	Richmond.....	.75
Countess Clanwilliam.....	.90	Irish Fireflame.....	.75	Marquis De Sinety.....	.90	Souv. De Stella Gray.....	.90
Crimson Emblem.....	.90	J. B. Clark.....	.60	Melody.....	.90	Sunburst.....	.90
Dean Hole.....	.75	Joseph Hill.....	.60	Miss Lolita Armour.....	1.50	Tausendschon.....	.65
Dorothy Page Roberts.....	.75	Juliet.....	.60	Moss Roses.....	.60	Tipperary.....	.90
Dorothy Perkins.....	.65	Kaiserin Aug. Victoria.....	.60	Mildred Grant.....	.75	Ulrich Brunner.....	.50
Duchess of Wellington.....	.75	Killarney.....	.75	Mrs. Aaron Ward.....	.90	White Maman Cochet.....	.60
Edward Mawley.....	.75	K of K.....	1.00	Mrs. Alfred Tate.....	.90	William F. Dreer.....	2.00
Florence Pemberton.....	.60	Lady Ashtown.....	.75	Mrs. Charles Russell.....	.90	Winnie Davis.....	.60
Flower of Fairfield.....	.65						

## BEDDING LANTANAS

A fine class of Summer blooming bedding plants also known as shrubby Verbenas. They vie with the Geraniums and Cannas in their brilliancy of colors during the Summer. Price 15c each; set of 6 sorts 75c.

- AMEIL**—Covered all summer with umbels of little florets red on the outer edge and orange-yellow in the center. A little gem for bedding.  
**CRAIGI**—Velvety cardinal red center studded with golden yellow. Free blooming and good grower.  
**COUNTESS DE BIENCOURT**—Rich rose centered primrose yellow. Each floret with golden yellow throat.  
**IOLANDE**—Beautiful umbels of showy flowers in shades of crimson, orange and yellow.  
**JAUN D'OR**—Large umbels of light sulphur yellow flowers changing to a beautiful shade of pink.  
**RADIATION**—Bronzy red with golden yellow center. One of the brightest and best bedding sorts.



## PAEONIES

Double Herbaceous

**T**HE demand for the Paeony increases more each year, closely rivaling the rose in size, color and fragrance. They make a gorgeous display wherever planted, succeeding in any soil or climate, but thrive best in deep, rich, well-drained loam. Paeonies are always free from disease and insects do not bother them. They are hardy, thrifty growers, bloom freely, and nothing will add more to the beauty and attractiveness of the lawn.

We are listing this year some of the newest and most beautiful varieties in existence, secured at large expense from the renowned hybridizers of France and England.

**PRICES: F. O. B. Portland; if mailed, postage extra.**

**ALSACE LORRAINE**—Creamy-white delicately tinted with Havana brown. **Each \$5.00.**

**ALBERT CROUSSE**—Immense, full formed bloom; salmon-pink. **Each 75c.**

**ALBATRE**—Ivory white, one of the very choicest. **Each \$1.00.**

**ASA GREY**—Pinkish white, with minute dots of lilac. **Each \$1.00.**

**BARONESS SCHROEDER**—Delicate pink, fading away to white. **Each \$2.00.**

**BOULE DE NEIGE**—Strong grower, large white blossom, with crimson edge. **Each 75c.**

**COURONNE D'OR**—Snow-white, but reflecting golden yellow. **Each 65c.**

**DELACHI**—Violet crimson, very free bloomer. **Each 75c.**

**DORCHESTER**—Hydrangea pink. Very late. Good. **Each 75c.**

**DUCHESS D'ORLEANS**—Deep pink, center tinted salmon. Mid-season. **Each 50c.**

**DUCHESS DE NEMOURS**—Cup-shaped, sulphur-white blooms. **Each 65c.**

Fine for cut flowers.

**KELWAY'S OUCEN**—Blush pink, a lovely sort. **Each \$10.00.**

**L'ECLATANTE**—Crimson red, a grand paeony. **Each 75c.**

**OFFICINALIS ALBA**—Opens pink, soon changing to white. Earliest. **Each 65c.**

**OFFICINALIS RUBRA**—The early red flowering paeony. **Each 65c.**

**PRIMEVERE**—The nearest to a yellow paeony. **Each \$8.00.**

**QUEEN VICTORIA**—White blush tint. Great **Decorative Day flower.** **Each 50c.**



**EDULIS SUPERBA**—Brilliant pink. Best Decoration Day Paeony. **Each 50c.**

**ELEGANTISSIMA**—Light, cherry pink. Midseason. Good cut flower. **Each 50c.**

**FELIX CROUSSE**—Brilliant red, flamed center. Extra firm; very double. **Each \$1.00.**

**FESTIVA MAXIMA**—Large, early, white. Carmine dots in center. **Each 65c.**

**KARL ROSENFELD**—A perfect ball of velvety crimson scarlet. **Each \$5.00.**

## HARDY IRIS

Hardy Iris is one of the best of the early spring flowers, is hardy everywhere and if planted in a moist situation or watered freely will produce magnificent orchid-like blooms of great size and delightful fragrance. Comes in charming color effects in **blues, browns, yellows, purples, white.**

**CAPRICE**—Rose, with base a deeper rose red.

**EDITH COOK**—Clear yellow, base yellow veined dark red maroon.

**FLORENTINE**—Cream white, faintly flushed lavender.

**HECTOR**—Soft yellow, base velvety crimson.

**HONORABILIS**—Golden yellow, falls mahogany crown.

**LIBERTY**—Bright azure blue, superior to Pallida Dalmatica. Grows three to five feet high.

**LOHENGRIN**—Cattleya rose, graceful large flower.

**MIDNIGHT**—A rich deep purple, the finest in color.

**MADAM CHEREAU**—White, with border of clear blue.

**NIBELUNGEN**—Olive green, base yellow purple and white.

**PRINCESS VICTORIA LOUISE**—Pale yellow, base rich violet, edged cream, very attractive.

**PURPLE PRINCE**—Violet blue, falls dark purple.

**Strong roots, each 25c; per dozen \$2.50.**

## JAPANESE IRIS

(Iris Kaempferi)

Japanese Iris are unsurpassed for their brilliant and varied colorings, producing effects that are truly marvelous. Blossoms early summer. Plant three inches deep, about 4 inches apart, divide the clumps every two years.

**AZURE**—Double. Immense flower exquisitely wavy, mauve blue with darker halo surrounding the yellow blotch at base of petals. Very large and fine.

**AMETHYST**—Single. Very large wavy petals, most exquisite lavender shade.

**GOLD BOUND**—A fine double pure white, enriched by a creamy glow from the gold banded center.

**MAHOGANY**—Large double, flower purple mahogany red.

**MT. HOOD**—Double. Light blue, shaded darker, bright orange center.

**DOUBLE AND SINGLE MIXED**—No named varieties—All colors and shades. **Each, 20c; doz. \$2.00; 100, \$15.00.**

**PRICES: Strong roots each 40c; per dozen \$4.00.**

**F. O. B. Portland; if mailed, postage extra.**

## DAHLIAS

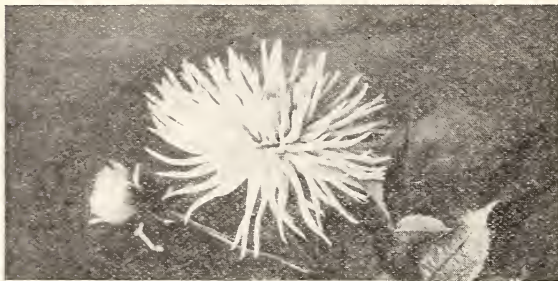
**CULTURE**—*DAHLIAS* will grow to perfection in any good garden soil, preferably one that contains a little sand. Plant as soon as the frost is gone and the ground warm, cutting the tuber to a single strong eye, and placing it on its side at a depth of about 6 inches, in ground that has been previously well cultivated. An excellent way to start Dahlias is to sprout the tubers in a green house and set out the rooted plants. These are generally believed to give more and better flowers, but is more trouble than planting the bulbs. Rows should be 4 feet apart, plants 18 inches to 3 feet apart in the row, depending on whether planted for a hedge or for specimen plants. Cultivate thoroughly until ready to bloom, then deep tillage must cease and only the surface be lightly stirred, as deep cultivation at this time is fatal to blooming. Tall varieties should be staked.

If you use commercial fertilizer, do not apply until the plant starts growth, then work into the top soil, 5 or 6 inches from the plant. Bone meal is an excellent fertilizer for Dahlias but must be applied early, as it is slow in action. When the plant is well up, say 6 to 10 inches, pinch off the top, leaving 2 or 3 joints. This will cause it to branch out into a more sturdy, bushy growth. Water freely.

**NOTE.**—In this locality we recommend the planting about the middle of April and shipment of bulbs will be made the later part of March, that we may be the better able to ship only bulbs with good eyes. Do not delay your order for some of those listed are in short supply.

### SOME RARE VARIETIES OF SPECIAL MERIT

- BILLIONAIRE**—One of the largest Paeony Dahlias grown. Beautiful shade of bright golden orange. Very showy. Each, \$1.00.
- CITY OF PORTLAND**—Truly a wonderful dahlia. Color a clear, rich, deep yellow. Immense flowers that are graceful and artistic, held upright on long stems. Paeony type. Each, \$2.00. Stock limited.
- EDITH CAVELL**—(Paeony)—Enormous flower on very long, stout stems. Without doubt one of the greatest novelties ever offered. The flowers are of the full petaled Paeony flowered type. Color is an elegant reddish bronze, shaded with old gold. Each, \$1.50.
- GLORIEUX**—Rich, golden yellow, tinted bronze and usually tipped white. A free bloomer and worthy of a place in the most up-to-date collection. Decorative. Each, \$2.50.
- HAZEL DUTTON**—New Hybrid Cactus—Very large flower, a long stem and long and twisted, curled petals. Color a beautiful light pink. INTRODUCED by the PORTLAND SEED CO., 1924. Each, \$1.50.
- LADY BETTY**—A beautiful new Dahlia. Extra large. Blooms freely all season. Color a lovely creamy white suffused with pink. There are none like it. Decorative. Each, \$3.50. Stock limited.
- MARY BURNS**—(California Decorative)—A combination of red and old gold, the outside of the petals being old gold and the reverse side a dull red. A wonderful exhibition variety. Each, \$2.00.
- MARY E. WALKER**—New Decorative—Fine large vivid red. Grand stem. Very Floriferous. A great acquisition all should plant. INTRODUCED by the PORTLAND SEED CO., 1924. Each, \$2.00.
- MILLIONAIRE**—One of the largest decorative Dahlias in existence. Color a light lavender shading to white in the center. Each, \$1.00.
- MRS. I. DE VER WARNER**—One of the finest decorative Dahlias introduced to the public in 1923. A deep mauve pink or orchid. Extra strong grower. Producing gigantic blossoms freely on long stems. Each, \$5.00. Stock limited.
- MRS. EDNA SPENCER**—Hybrid Cactus—Large new variety of a delicate shade of orchid pink. Beautiful form and stout stems. Extra free bloomer and a vigorous grower. Each, \$1.00.
- OSAM SHUDOW**—Famous California Dahlia of recent introduction. Color a beautiful old rose, suffused with lilac and shading to yellow at base of petals. Blooms 9 to 11 inches across. Decorative. Each, \$3.00.
- OREGON SUNSET**—A new Paeony Dahlia of wonderful beauty. Rich golden yellow, heavily suffused reddish brown. Free flowering, with long stout stems. Each, \$2.00.
- PATRICK O'MARA**—Decorative—The flowers are 8 inches in diameter and borne on long, strong, erect stems. The color is an unusually soft and pleasing shade of orange-buff, slightly tinged with rose. One of the most lasting cut-flower Dahlias. Each, \$1.00.
- RITA GILL**—Decorative—A grand flower, large, with long stems. Color a combination of cherry and wine. INTRODUCED by the PORTLAND SEED CO., 1924. Each, \$1.50.
- ROSEMAROR**—Decorative—Giant blooms 9 to 12 inches across, color a beautiful rich rosy pink. Sure to become popular. Each, \$1.00.
- SNOW KING**—A new hybrid Cactus Dahlia of great merit. Standing erect on a strong long stem. A pure white dahlia with curled tips and wonderful foliage. This is a new variety of proven merit and should be taken by all desiring a dependable white cactus. INTRODUCED by the PORTLAND SEED CO., 1924. Each, \$1.50.
- THE GRIZZLY**—Decorative—A rare novelty of deep, rich crimson-maroon, on perfect stem. Of immense size and a prolific bloomer. Each, \$1.50.
- U. S. A.**—Hybrid Cactus—A mammoth flower of an exquisite deep orange, very unusual in a Dahlia. One that attracts attention everywhere. Each, \$3.50. Stock limited.



## FINEST CACTUS DAHLIAS

From comparative tests in the field we have selected the following as being the best of their types and color. This list contains many of the newest Dahlias as well as the best of the older ones.

Prices F. O. B. Portland; if mailed, postage extra.

- BORDER KING**—Large, incurved flower of deep, rich glowing scarlet. A beautiful exhibition variety. Each, 75c.
- BIZZARE**—A bi-colored cactus. Lower half a crimson scarlet; upper half a pure white. Early. Each, 50c.
- CAPTAIN SCOTT**—(English Cactus)—A very free flowering white with long petals. Good stems and constant bloomer throughout season. Each, 50c.
- \***CONQUEST**—Beautiful dark, rich crimson of large size with narrow, incurved and slightly twisted petals. Very fine erect habit of growth; long, wiry upright stems. Each, 50c.
- COUNTRY GIRL**—Color a golden amber passing to a salmon-rose at the tips. Each, 30c.
- EDITH CARTER**—Yellow, heavily tipped with bright carmine. Very erect habit and stems. A brilliant showy flower admired by everyone. Each, 50c.
- ESTHER**—Soft silvery lilac rose. One of the best. Each, 50c.
- FRANCES GRAHAM**—Giant salmon-rose colored flower, slightly on the hybrid-cactus type. Each, 50c.
- F. W. FELLOWS**—One of the largest Cactus Dahlias, blooms freely on long stems. Orange with narrow straight petals. Each, 50c.
- GEO. WALTERS**—One of the largest and best varieties to date. Salmon pink with gold suffusion in the center. Wonderful bloomer, with long, stout stems. A leader and always in great demand. Each, 75c.
- GOLDEN WEST**—California Dahlia of great beauty. Free blooming, on long stems. Color, Golden Yellow. Each, 50c.
- HOFFNUNG**—A beautiful chamois-rose with light yellow at the base of the long, incurved petals. Wonderful free flowering giant hybrid cactus of great merit. Each, 50c.
- INDOMITABLE**—Long, narrow petals, perfectly incurved; color, rosy mauve. Each, 50c.
- JOHANNESBURG**—Bright gold, which is admired by all; monster blooms are produced freely the entire season on good strong stems. Each, 35c.
- KALIF**—A giant flower, color a brilliant pure scarlet. The immense blooms are freely borne on long, strong stems and make a wonderful display. Each, 75c.
- LAWINE**—Large bold white. Good cut flower. Each, 35c.
- LA FAVORITA**—(California Hybrid Cactus)—This splendid new variety is a beautiful brilliant salmon, shading from a dark reddish salmon in the center to salmon pink at the twisted points. Each, \$1.00.

- MELODY**—Clear yellow, heavily tipped white; large, incurved flower with good stems. A free bloomer and best of its color. Each, 50c.
- MODELL**—Clear yellow with rosy lilac tips. Free bloomer. Each, 35c.
- MRS. DOUG. FLEMING**—Without doubt one of the best whites. Very narrow, incurved florets, and so numerous as to make monster flowers. Extra free and constant; erect stem. Each, 40c.
- MRS. FERDINAND JEFFRIES**—Immense deep velvety garnet red flowers. Each, 50c.
- MRS. SEARLE**—Variegated; tips of petals white, shaded blackish red throughout. Each, 35c.
- MRS. WARNER**—New Hybrid Cactus, creamy white, tinted delicate pink; one of the best to date. Each, 60c.
- NORMAN**—New. Bright orange red. Very large flowers; extra fine for exhibition. Dwarf grower. Each, 75c.
- OLYMPIC**—Extra deep. Deep crimson. Invaluable for exhibition. Each, 75c. Stock limited.
- PATRICIA**—(Oregon Hybrid Cactus)—While not large, this flower of white shaded lavender has a great future as a cut flower, not only on account of its good keeping qualities and grand stem but for its dainty coloring. Each, 75c.
- PIERROT**—Lovely, deep amber, usually boldly tipped white. Flowers are of immense size, very double and produced freely. One of the best. Each, 50c.
- RED**—(Hybrid Cactus)—A dwarf cactus. Excellent for massing in front of shrubbery. Each, 25c.
- RHIENSCHER FROSCHIM**—Very beautiful. Lower half of petals creamy white, passing to a luminous carmine rose at tips. Each, 50c.
- RUTH GLEADELL**—New. A beautiful shade of yellow suffused with pink on outer petals. Each, 50c.
- SALMON ROSE**—Petals broad and curled, light salmon rose, with gold center. Each, 35c.
- SWEET BRIAR**—Exquisite shade of light pink. An early and very free bloomer. Each, 30c.
- THE QUAKER**—Delicate lavender blush; a very unusual shade; early and free. Each, 35c.
- THE IMP**—The darkest Cactus Dahlia known. Petals narrow and incurved, claw like. Each, 50c.
- VALPARAISO**—Beautiful shade of reddish coral. Constant bloomer. GOOD. Each, 40c.
- WOLFGANG VON GOETHE**—(H. C.)—Rich apricot shade overlaid bright carmine. Each, 50c.
- YELLOW KING**—Deep sulphur-yellow. Each, 35c.

### SHOW

- W. W. RAWSON**—Pure white overlaid with amethyst blue. Each, 30c.
- DREER'S WHITE**—A magnificent white of largest size, great purity, long stems. Each, 35c.
- A. D. LIVONI**—This grand old variety still remains the best pink of this type. Each, 25c.
- MRS. ROOSEVELT**—Delicate silvery rose. Each, 30c.
- GRAND DUCH. MARIE**—Pleasing buff, overlaid orange; reverse tinted pink; fine, T. e. g. c. Each, 30c.

- ROBERT MANTELL**—New. Deep crimson-maroon. Each, 50c.
- DREER'S YELLOW**—Very large blooms; resembles Dreer's White, except color. Each, 50c.
- DR. I. B. PERKINS**—Pure snow white. Excellent cut flower. Each, 30c.
- ANNA REHORST**—Rich deep shade of purple. Each, 50c.
- MAUD ADAMS**—Variegated white and pink. Each, 40c.



## DECORATIVE DAHLIAS

- BALLON**—A very odd shade of bronze apricot, suffused with gold; quite distinct. **Each, 35c.**
- BILLIE BURKE**—An extra free flowering, soft yellow of extra large size. The long, flat petals are narrow and very numerous, forming a bloom of attractive formation. **Each, 50c.**
- CHOWCHILLA**—A bright, warm yellow; petals long and partly rolled; immense flowers. **Each, 35c.**
- CREAM KING**—A beautiful cream shade overlaid primrose. **Each, 60c.**
- COPPER**—Color copper shading to bronze. **Each, 50c.**
- DELICE**—Lovely shade of pink, broad petaled flowers. **Each, 35c.**
- DR. HENRY SEWELL**—Combination of pinkish-fawn and golden-amber shades. Blooms large and handsome. Very early. **Each, 30c.**
- DR. HARRY TEVIS**—Old shade of old rose, suffused with gold and shaded apricot. True stock. **Each, 75c.**
- GARIBALDI**—(Holland Decorative)—One of the best from Holland. A very full and very large flower with very fluffy petals on a good stem. Color is a bright scarlet. Particularly attractive. **Each, 50c.**
- GODFREY'S CRIMSON**—Bright crimson, darker center. Very satisfactory. **Each, 75c.**
- HORTULANUS WITTE**—Very long stemmed. Pure glistening white. **Each, 35c.**
- JONKHEER BOREEL**—An elegant large flower of brownish buff-yellow color. A most beautiful shade. **Each, 75c.**
- JEAN CHARMET**—Extra large, lilac pink. Reliable. **Each, 35c.**

- LATONA**—Fine large flower of pretty pale yellow tinged buff and lavender. Freely produced on the stoutest, erect stems. This new Holland creation is sure to be in great demand very soon. **Each, 50c.**
- MADONNA**—Flowers of hybrid cactus type. One of the most charming white Dahlias. The blooms are often eight inches across, and ivory white. Last for days when cut. **Each, 50c.**
- MARCELLA**—A delightful, clear, soft pink. This variety is bound to become a great favorite with every one, especially Florist. **Each, 75c.**
- MINNIE BIRGLE**—Bright rich red. **Each, 25c.**
- POLAR STAR**—The purest white Dahlia of remarkable beauty. Flower is large and full and carried on 18-inch stems. **Each, 75c.**
- PRINCESS MARY**—(Holland Paeony)—Vivid light pink, margined blush. Very showy. Carries a mass of flowers on strong stems. **Each, 50c.**
- PRINCESS JULIANA**—An erect pure white Dahlia on long strong stems. **Each, 35c.**
- PURPLE MANITOU**—A clear deep purple. The best of its color. **Each, 35c.**
- SOUVENIR DE GUSTAVE DOAZON**—Magnificent rich scarlet, often growing 9 inches in diameter; constant bloomer. **Each, 35c.**
- SULPHURIA**—An extra large, clear sulphur yellow, without shading. Early and a most constant bloomer. **Each, 50c.**
- ZEPELIN**—A bright lilac lavender. Flowers of large size and perfect form. Magnificent flower. **Each, 50c.**

## PAEONY FLOWERED DAHLIAS

- AUTUMN GOLD**—Blending of bronze and buff. Large size; very free on good stems. **Each, 35c.**
- AMPHION**—Large mauve, pink flowers, with artistically curled and twisted petals. **Each, 50c.**
- BLACK BEAUTY**—Dark velvety maroon, often shaded violet. Attractive flower. **Each, 60c.**
- CARMENSYLVIA**—An exquisite shade of salmon pink. Of fine form. Extra fine for cut flowers. **Each, 50c.**
- DOMINO**—(English Paeony)—Crimson shaded maroon. Extra good. **Each, 40c.**
- DR. H. H. RUSBY**—Immense yellow, shading to primrose tips; profuse bloomer. **Each, 30c.**
- GEISHA**—Golden yellow, changing to red and again to yellow tips. A sure bloomer and most popular. 8 to 10 inches across. **Each, 50c.**
- HELEN LADD CORBETT**—Beautiful, soft pinkish lavender of large size and perfect form. Long stems and very constant bloomer. **Each, 30c.**
- HIG GILL**—Golden yellow, reverse tinted bronze; very large on long, strong stems. **Each, 50c.**
- KAKADEE**—Hybrid-paeony Dahlia of the greatest merit. The color is a most beautiful lemon yellow, changing to almost white at the tips. A large attractive flower on very stout, erect stems. Plants are dwarf, needing no staking. **Each, 50c.**
- LAURA**—(English Paeony)—Pale silvery rose. Very large flowers with broad twisted petals, on strong, erect stems. **Each, 50c.**
- LIBERTY**—A most magnificent, new shade of salmon-scarlet. English novelty of enormous size, produced freely and erect on long stems. By far one of the best for any purpose we have ever grown. **Each, 50c.**

- LIEUT. ORVILLE A. STEVENS**—New. A distinct shade of light orange-scarlet; blooms large, on good stems. **Each, 50c.**
- MADAM VON BYSTEIN**—A magnificent lilac lavender, changing to light blue. **Each, 30c.**
- MAPLE LEAF**—A rich golden yellow, heavily marked with red. A very odd and unusual Dahlia. **Each, 40c.**
- MRS. JACK GREEN**—(Paeony)—A very large and full flower on a strong stem. Color a beautiful shade of rich scarlet. A California Dahlia that the originator may well be proud of. **Each, 50c.**
- OLD GOLD**—Deep golden amber. Massive flower on good strong stems. **Each, 60c.**
- OREGON BEAUTY**—Bright fiery scarlet with golden sheen. Free blooming. **Each, 35c.**
- PRIDE OF CALIFORNIA**—Large red flower, very attractive and an exceptionally good keeper. Fine for exhibition. **Each, 75c.**
- PRIDE OF PORTLAND**—An immense flower, the color of Geisha but the yellow is brighter and also the red. **Each, \$1.50.**
- WADAWANNOCK**—Bright coral red flower with broad, flat petals. A strong healthy grower with large flowers, good stems. **Each, 35c.**
- WHITE FLAG**—Pure snow white. Large flowers on long stiff stems. Very free bloomer. **Each, 35c.**
- VAN DYCK**—Large graceful flower of lovely salmon pink with heliotrope suffusion. **Each, 35c.**

## POM PON DAHLIAS

Same as the Show type, except they are of diminutive size, but have longer stems and are great bloomers. They are all ideal for cut flowers, as they are very long keepers.

- BELLE OF SPRINGFIELD**—Brick red. **Each, 15c.**
- LITTLE BELLE**—A clear, mauve pink. **Each, 15c.**
- SAN TOY**—White, tipped with tyrian rose. **Each, 15c.**

- CATHERINE**—Bright yellow. **Each, 15c.**
- DARKEST OF ALL**—Dark maroon, almost black. **Ea., 25c.**
- GEORGE IRELAND**—A dainty mauve. **Each, 30c.**

**EXTRA CHOICE MIXED**—Many high priced varieties, mixed in digging. **Each, 25c; doz., \$2.50.**



## GLADIOLI

**E**XQUISITE coloring, vigor, ease of cultivation and freedom from insect pests and diseases are making Gladioli universal favorites that should have a place in every garden. They come into bloom at a season when there are few other flowers.

**CULTURE**—Gladioli may be planted as early as the ground can be worked or as late as June. A sunny situation is preferred. Plant to a depth of 3 to 6 inches, depending on the size of the bulb. Largest bulbs are not always best, as some varieties do not produce large bulbs. Any garden soil will give satisfactory results, but if well enriched, cultivated and freely watered when bulbs first show, Gladioli will amply repay you for this additional care. If cut when the first bud opens and put in water, the flowers will open perfectly, keep for many days, and colorings is richer and more delicate than if left to open on plant.

### BEAUTIFUL NEW GLADIOLI

- AMERICAN BEAUTY**—A tall stalk. A very imposing presence. A flower with a personality. It is one of the very best of the ruffled type; of a charming cream tinted with a delicate pink. A single stalk in a vase is suitable for any setting. It will harmonize well with the color scheme of the finest room. We hope you will try this. **Each, \$1.00; doz., \$10.00.**
- AMERICAN BEAUTY**—Large brilliant American Beauty rose colored flowers, often having ten blooms open at one time. Gayest and vividest glad of all. **Each, \$1.00; doz., \$10.00.**
- AMERICA**—Exquisite shade of flesh pink-tinted lavender. **Each, 5c; doz., 50c; 100, \$3.50.**
- ANNA EBERIUS**—This variety has created a sensation everywhere, with growers and amateurs alike. It will be one of the most grown varieties in the next few years; its coloring, growth and propagating is unexcelled. Dark velvety purple; throat deeper shade; flowers of large size spikes 3 to 4 feet high; fine, long, well-set spikes. **Each, 35c; doz., \$3.50.**
- AURORA**—Fine scarlet, very early, the earliest of all scarlets. **Each, 10c; doz., \$1.00.**
- BARON HULOT**—A brilliant indigo blue, free flowering and very attractive. **Each, 15c; doz., \$1.50.**
- BUTTERFLY**—Very strong and vigorous grower. Large, pale salmon yellow ruffled flowers. New. **Each, 25c; doz., \$2.50.**
- BRIMSTONE**—Light sulphurish yellow, extra large, new. **Each, 50c; doz., \$5.00.**
- BYRON L. SMITH**—Very choice. Lavender with sulphur blotch in throat. Closely resembles color of a beautiful cattelya orchid. One of the best glads. **Each, 50c; doz., \$5.00.**
- CHICAGO WHITE**—A good growing bright white, wide open flowers of good substance. Commercial variety. **Each, 10c; doz., \$1.00.**
- CRIMSON GLOW**—Dark, deep, rich red in color. Gives a vital touch to the garden's color scheme that would be hard to equal. A good stalk and stands well, holding its flowers a long time. **Each, 25c; doz., \$2.50.**
- E. J. SHAYLOR**—This is truly beautiful. It remains long in bloom, its several side shoots prolonging the season, sometimes for weeks. Each bulb will usually make two very tall erect flower stalks, sometimes three. In color a beautiful soft pure deep rose pink. Many wide open flowers at a time. We know of no gladiolus that will give greater satisfaction. **Each, 50c; doz., \$5.00.**
- EVELYN KIRTLAND**—A tall, slender, graceful stalk with very charming bright coral pink blooms of good style and expression. It does well under good garden conditions and is a most satisfactory flower for house decoration. **Each, 15c; doz., \$1.50.**
- FAIRFAX**—Solid magenta; lip of throat light yellow with a deep magenta spot; flowers 5½ inches in diameter, spikes 5 to 6 feet high. **Each, 20c; doz., \$2.00.**
- GLORY OF HOLLAND**—White with inner throat slightly marked red, sometimes tinged delicate pink. **Each, 10c; doz., \$1.00.**

- GOLDEN MEASURE**—It is perhaps the best of all yellow gladioli. A very tall, vigorous stalk carrying several large, golden flowers open at a time. Stands heat very well and is a most satisfactory flower. No garden is quite complete without it. **Each, 50c; doz. \$5.00.**
- HALLEY**—Salmon pink with creamy white blotch. Large flower and early bloomer. **Each 5c, doz. 50c**
- HERADA**—To all who love a pure mauve this will prove a joy. On a graceful stem several wide open blooms of this rare and charming color make a place for itself in any garden and also in the affection of the garden's owner. **Each, 15c; doz., \$1.50.**
- INDEPENDENCE**—Light flame scarlet with dark red throat; long spike, early. **Each, 15c; doz., \$1.50.**
- LE MARCHAL FOCH**—An importation from Holland under special permit of the U. S. Government Department of Agriculture. In color a delicate pink; in size, very large. Many flowers open at a time. This is new and valuable. **Each, 25c; doz., \$2.50.**
- LILY LEHMAN**—Brilliant light pinks to blush white. Flowers resemble a lily of the best sorts. **Each, 20c; doz., \$2.00.**

## GLADIOLI—Continued

**JACK LONDON**—Light salmon with brilliant orange flame stripes; golden yellow throat with ruby striped center; flowers 5 inches in diameter, spikes 5 to 6 feet.

Our best commercial variety and largest propagator. Will soon be grown by the million. It is perfect in every way. As a cut flower it is our most profitable variety, as we have never been able to supply the demand. It makes a wonderful showing under artificial light. **Each, 30c; doz., \$3.20.**

**MARY PICKFORD**—Was awarded a Certificate of Merit by the Royal Horticultural Society, London, 1920. Picture if you can a flower of good size and style of the most charming creamy tone, with throat markings of soft lemon yellow blending harmoniously with the main body color. Even the unopened buds are cream colored and very striking. This is quite a rare feature among gladioli. You will like it. **Each, 15c; doz., \$1.50.**

**MONALISA**—Large wide clear toned flower of most refined lilac or light lavender. Self colored and slightly ruffled. A real beauty. **Each, 25c; Doz., \$2.50.**

**MRS. FRANCIS KING**—Bright red, deeper throat markings, tall slender spike. Great favorite. **Each, 10c; doz., \$1.00.**

**MRS. FRANK PENDLETON**—The wonder flower. On a ground of purest white, a cool, bright, clear, rose pink covers all its wide open petals. The lower petals have a dash of crimson blended in perfect harmony with the delicate pink color scheme. We place this first on our list. A single one is a joy; a dozen, a summer's delight; a hundred, a grand mass of color and many charming bouquets for the home. Give fresh water every morning and they bloom for days as finely as in the garden. **Each, 15c; doz., \$1.50.**

**MRS. DR. NORTON**—A very choice cream and pink. Winner at flower shows. A tall, erect, straight stem with flowers well placed so that the beauty of each flower stands out in a distinct way all its own. The combination of color in this variety is exceedingly attractive. It is particularly beautiful in artificial light. **Each, 15c; doz., \$1.50.**

**MRS. WATTS**—Glowing American Beauty shade, a royal red rose color, very beautiful. **Each, 15c; doz., \$1.50.**

**MRS. WILLARD RICHARDSON**—Deep crimson, maroon center; large, flaring flowers; flowers 5 inches in diameter, spikes 4 to 5 feet high. An unexcelled red which does not fade. **Each, 30c; doz., \$3.20.**

**MYRTLE**—Very delicate arbutus pink. One of the most most beautiful pink glads every originated. Flower and stalk small but of wonderful beauty. **Each, 15c; doz., \$1.50.**

**NIAGARA**—Lovely deep cream, shading to a canary yellow on the two lower, inside petals. The giant flowers open freely, has broad dark green foliage. **Each, 15c; doz., \$1.50.**

**PEACE**—Large flowers of good form; almost pure white; strong grower. **Each, 10c; doz., \$1.00.**

**PANAMA**—A new seedling of America, identical except in color, which is much deeper pink. Spike long and the large flowers are well arranged. **Each, 15c; doz., \$1.25.**

**PINK PERFECTION**—Clear, soft pink. The large graceful flowers loom freely. Most wonderful pink ever introduced. **Each, 15c; doz., \$1.50.**

**PRESIDENT TAFT**—Large pink, red blotch on lower petals. **Each, 10c; doz., \$1.00.**

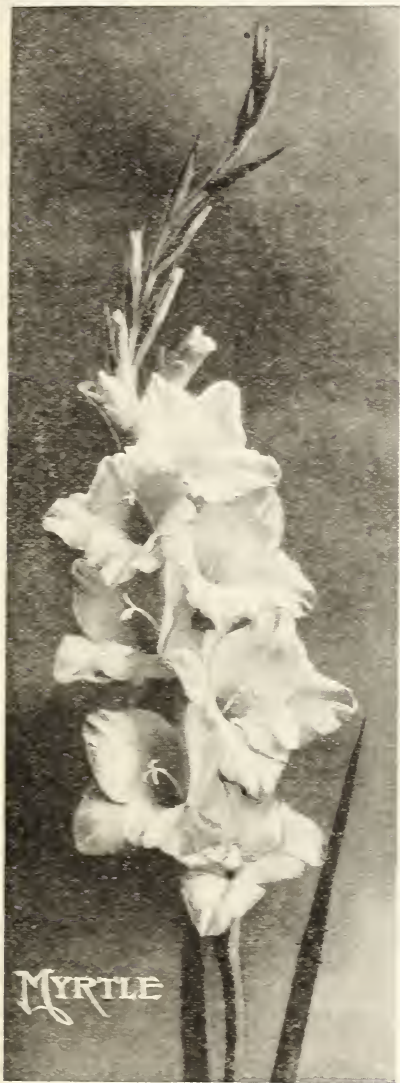
**PYTHIA**—A very large red, good stalk carrying its massive clear dark flowers, several open at once. A splendid variety and one that is largely grown and well liked. Very showy and satisfactory in every way. **Each, 50c; doz., \$5.00.**

**ROSE GLORY**—A strong vigorous grower, a magnificent garden variety, adding grace, beauty and color, with its pure rose pink and deeper pink in throat, to any collection. Its petals have good texture and stand wind and heat well. The edges of all petals are delicately ruffled or fluted, which adds to its charm. **Each, 25c; doz., \$2.50.**

**R. J. KUNDERD**—A very large flower, brilliant red in color. So bright, so clear as to be startling but still altogether charming. Its petals are like the finest softest silk, but in spite of this it stands the heat well. If you want the very finest red, without question get this. **Each, \$1.00; doz., \$10.00.**

**ROEM VAN KENNEMERLAND**—Immense, wide open flowers of rich rose pink, with a cream throat. Grand new sort of greatest merit. **Each, 20c; doz., \$2.00.**

**SCHWABEN**—Large flowers of clear canary yellow with magenta line in throat. Very vigorous grower. **Each, 10c; doz., \$1.00.**



**PRINCE OF WALES**—As popular as the fine young man whose title it bears. A clear light salmon in color. A very early variety and very valuable for house decoration. This is one that we highly recommend. You make no mistake in buying it. **Each, 15c; doz., \$1.50.**

**PRIMUMELLA**—When this was priced at \$2.50 each it sold rapidly; at its present price we find it hard to supply the demand. A blend of the Ophelia rose color and a delicate creamy yellow almost impossible to describe. It is very beautiful. **Each, 75c; doz., \$7.50.**

**PRINCIPINE**—An intense scarlet, with white throat. **Each, 10c; doz., \$1.00.**

**PRIDE OF LANCASTER**—A brilliant orange salmon. Rich, fiery, deeper orange throat. Tall, large, massive bloom. Plenty open. A beautiful ruffled variety. New. **Each, 50c; doz., \$5.00.**

**PURPLE GLORY**—The tallest of all. A splendid presence. Color the deepest, darkest maroon like the richest velvet. Petals deeply ruffled or fluted. Makes a wonderful showing in the garden, one stalk in bloom attracts instant attention among a multitude of blooms. We highly recommend this as one to be selected, particularly if you love dark rich colors. **Each, \$1.00; doz., \$10.00.**

## GLADIOLI—Continued

**THOMAS T. KENT**—Rose-pink with ruby running through center of each petal; very vigorous in growth; this is one of our largest varieties; one of the heaviest propagators; flowers 6 to 8 inches in diameter, spikes 6 feet high. It has proven a favorite everywhere. **Each, 35c; doz., \$3.50.**

**WAR**—A deep, rich, velvety crimson self color. Many consider "War" the most striking Gladiolus ever produced. Our stock is extra fine, and everyone should plant them. **Each, 15c; doz., \$1.50.**

**WILBRINK**—Wonderfully delicate. A large flower of light lavender pink, with deeper lines in the throat. **Each, 20c; doz., \$2.00.**

**PRIMULINUS HYBRIDS**—A beautiful new race of Gladioli; dainty and graceful flowers in various brilliant shades. **Each, 10c; doz., \$1.00.**

**WILLIE WIGMAN**—Creamy white with red throat, large. **Each, 10c; doz., \$1.00.**

**YOUELL'S FAVORITE**—A large flower and plant. Striking rosy lavender pink. Conspicuous and fine. It is all its name signifies. New. **Each, 25c; doz., \$2.50.**

**DIAMOND MIXTURES**—Select named varieties with choicest Childsi Hybrids. **Each, 7c; doz., 75c; 100, \$5.00.**

**GLADIOLI, FINE MIXED**—A large variety of fine flowers unequalled for the price. **Each, 5c; doz., 50c; 100, \$3.00.**

## CANNAS

**CANNAS** require a rich, moist soil and should not be planted until all danger of frost is past. They are quick growers and the new flowering sorts bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be excelled, and the varieties offered are equally valuable for the beauty of their bloom. **Prices, except where noted: Bulbs or plants in season, each, 30c; doz., \$3.00, not postpaid.**

**FIREBIRD**—New. Considered the best red-flowered, green-leaved Canna. Flowers are fiery, bright red, borne in immense trusses. Height, 4 feet.

**ORANGE BEDDER**—Rich orange color with scarlet infusion. A dazzling bedding variety which catches the eye at once. One of our finest. **Each, 35c; doz., \$3.50.**

**ROSEA GIGANTEA**—Deep rich dark pink shaded to coral. Grows four feet high. Immense spikes of bloom in great freedom.

**THE PRESIDENT**—New. Considered the best red-flowered, green-leaved Canna. Flowers are fiery, bright red, borne in immense trusses. Height, 4 feet. **Each, 35c; doz., \$3.50.**

**CITY OF PORTLAND**—A magnificent "Test out" pink with salmon suffusion. Luxuriant green foliage, very vigorous and hardy. **Each, 35c; doz., \$3.50.**

**KING HUMBERT**—The mammoth flowers are a brilliant orange-scarlet, with bright red markings, foliage is broad and of a rich coppery bronze with brownish green markings; 5 to 6 feet.

## GERANIUMS

**GERANIUMS** are undoubtedly the most popular bedding plant of the time. Their free rapid growth and continuous blooming qualities keep them in the front rank among the long list of bedding plants. Beds of one color or variety have been very popular of late years, being very effective in all garden efforts, and for Winter flowers inside nothing is more satisfactory. They are of the easiest culture, requiring to be kept cool and given plenty of air, with an occasional sprinkling of the foliage to clean and freshen it. Keep the roots moist, not too wet, and have good drainage in the pots. No other flower can take their place as bed or border plant, and inside they grow beautifully throughout the year, making cheery house plants.

Our list of varieties include a number of rarely beautiful novelties as well as the very best standard sorts, and prices are so low as to place them within reach of everyone.

### RARE NOVELTIES—SINGLE GERANIUMS

Price, 20c each; set of 10 sorts, \$1.50

**FREDERICK PLESSIS**—Large trusses of well rounded florets. Color light scarlet shaded to large, white center, very striking.

**HALL CAINE**—Immense circular flowers of a rich bright scarlet, in very large, heavy trusses. One of the very finest for bedding or houseplant.

**JEAN LIONETT**—Grand trusses on stout, heavy flower stalks. Color, reddish purple, each floret maculated with orange in the center.

**LOUIS REAU**—Currant red, bordered with crimson, prominent white markings in center. Splendid bedder.

**LUCILE HILL**—Large trusses of the beautiful ruffled form; perfectly circular florets of largest size; rich salmon shaded with rose.

**MARQUIS DE LONQUEIL**—Rich geranium red shaded to light carmine with very large white center. Large trusses on fine strong stems.

**QUEEN OF WHITES**—Beautiful free flowering white variety as pure as driven snow. Always in bloom.

**ROMILDA VICINI**—White ground overlaid with light rosy-salmon with a reticulated effect. Upper petals feathered with crimson.

**ROSAMINE**—Large trusses of fine flowers; delicate rose color, reverse of florets clear violet, the whole maculated with white.

**UNIVERSE**—Very large circular florets in umbels of fine size. Color, light bright scarlet with prominent white eye.







## TWELVE FINE SINGLE GERANIUMS

Price, 15c each; set of 12 sorts, \$1.50

- ALICE LEMON**—A grand single white, plants a mass of white-bloom. Large circular florets, pure white heavily marked peach pink at center.
- EUGENE SUE**—Odd shade of russet orange, very distinct.
- JACQUERIE**—Rich, vivid crimson, immense trusses.
- MRS. A. BLANC**—Silvery salmon shaded to peach; one of the richest colored sorts.
- MADAME MOSNAY**—Peculiar shade of carmine-lake, shaded to violet and white. Very distinct and striking.
- METEOR**—Brilliant crimson maroon. A magnificent bedding variety.
- MILDRED RIVAL**—Pure rose pink, with conspicuous white blotch on two upper petals.
- MRS. BROWN POTTER**—Dwarf compact grower producing large trusses of a bright rose-pink color. One of the best bedding geraniums we have.
- MRS. E. G. HILL**—Very large trusses of single florets; color clear salmon, with a white center.
- NUIT POITEVINE**—Trusses and florets of grand size; rich, rosy violet; the upper petals feathered with scarlet at their base. Very distinct and much admired.
- VICTOR GROSSET**—Rich shade of apricot salmon flushed with peach. Flowers large and freely produced. Very handsome.

## RARE NOVELTIES—DOUBLE GERANIUMS

Price, 20c each; set of 10 sorts, \$1.50

- BLANCAFLUER**—Fine new double white with flowers of wonderful purity of color. Sturdy growing and free blooming.
- E. H. TREGO**—Rich crimson scarlet flowers in grand trusses all summer long. A grand bedding variety.
- EUGENE CARRIER**—Enormous semi-double florets of rich copper color shaded salmon rose. Robust growth, trusses immense in size.
- ERNEST CHEBROUX**—Very large trusses of rich bright cerise colored flowers, each floret with large distinct white eye.
- FLEUVE BLANC**—Very large double florets in great trusses on heavy foot stalks. Color, white tinted with pearly rose. A wonderful new sort.
- LOUIS MAZIEUX**—A gorgeous flower of a brilliant vermilion scarlet with prominent white markings in center of the florets.
- MADAME TURIN**—Plant vigorous, free blooming with very large trusses of wide florets; ground color pure white, rosy salmon center.
- ORNELLA**—Bright scarlet in large heavy trusses. Splendid bedder.
- PIERRE COURTOIS**—Velvety purple spotted with light violet, a rare color among geraniums.
- SATIN ROSE**—Light pink, upper petals shaded to white at base. Large massive trusses produced freely.
- VIRGINIA**—Delicate daybreak-pink shaded dainty-rose with large white center.

## FLORISTS' SUPPLIES

*We carry a complete line of high-grade stocks at prices so reasonable that you cannot afford to "Go East" for them. Write us your requirements or send in a trial order.*

## TWELVE FINE DOUBLE GERANIUMS

Price, 15c each; set of 12 sorts, \$1.50

- ABBIE SCHAEFFER**—Rich deep crimson maroon in fine large trusses freely produced.
- ALPHONSE RICARD**—Immense trusses of large round flowers of the most vivid scarlet.
- C. W. WARD**—Rich salmon shaded to orange. Large trusses on strong stalks. Magnificent zoned foliage.
- EDMOND BLANC**—Large trusses of rich purplish violet flowers borne in greatest freedom. One of the finest dark colored sorts.
- GOLDEN DAWN**—Bright orange scarlet shaded to yellow. Fine large trusses of bloom. Very distinct.
- JEAN VIAUD**—Soft rose color shaded to white. Immense florets in large trusses. Magnificent variety.
- MADAME LANDRY**—Distinct salmon pink. Lightly shaded scarlet. Magnificent trusses.
- MME. RECAMIER**—Snow white; strong vigorous grower; flowers abundantly produced in large trusses.
- MRS. LAWRENCE**—Beautiful satiny pink shaded to white; a gem among geraniums.
- S. A. NUTT**—The best of the rich, dark crimson varieties; trusses massive.
- SCARLET BEDDER**—Bright scarlet flowers in large trusses holding color well in the hottest weather. Never out of bloom. Nice dwarf grower with handsome foliage. One of the best.
- THOMAS MEEHAN**—Bright vinous-rose color, upper petals heavily marked with orange. A rare new color among Geraniums. Wonderfully free in bloom.

## IVY LEAVED OR TRAILING GERANIUMS

These are unexcelled as basket or window-box plants, as well as being useful in bedding, covering the ground quickly with their deep green, ivy-shaped leaves and brilliant colored flowers.

Price, 20c each; set of 6 sorts, \$1.00

- BALLADE**—Large double flowers of a tender lilac color, feathered with crimson.
- COLONEL BADEN POWELL**—The nearest approach to a pure white variety in this class of geraniums. Fine large trusses.
- CHARLES TURNER**—Brilliant pink, approaching scarlet. Upper petals nicely feathered maroon. Large trusses. Best of all ivy geraniums.
- GARDEN GLORY**—Brilliant scarlet, upper petals veined crimson; rich and attractive.
- INCOMPARABLE**—Exquisite shade of rosy-carmine, sturdy growing and free blooming.
- MADAME THIBAUT**—Beautiful shade of soft rose pink, upper petals delicately feathered with crimson maroon; undulated petals, immense trusses, luxuriant waxy foliage.

## NEW HELIOTROPES

Price, 15c each; set of 4, 50c, postpaid

- ALBATROSS**—Elegant dwarf, bushy growing new variety of great merit; large panicles of pure white flowers in great confusion.
- HEAVENLY BLUE**—Large, close panicles of exquisite light blue flowers, with a white eye.
- LAVENDER QUEEN**—A beautiful shade of lavender, suffused with rosy mauve. A dwarf robust grower, free continuous bloomer.
- ROYAL PURPLE**—Color, deep violet purple, with white eye; very floriferous; highly recommended for bedding. \$1.00 per dozen.



## PELARGONIUMS—LADY WASHINGTON GERANIUMS

Price, 25c each; set of 7 sorts, \$1.50

**AGATHEA**—White flushed with apple-blossoms. Upper petals blotched maroon. Splendid growing habit.

**DUCHESS OF PORTLAND**—Large round flowers vinous cerise shaded to vermillion. Upper petals darkly blotched and veined.

**EASTER GREETING**—Remarkable for its free blooming proclivities, equally as fine bedder as a pot plant. The flowers a fiery amaranth red, petals distinctly blotched, maroon.

**FAIR MAID**—Lower petals white flushed light pink; upper petals blackish maroon surrounded with crimson and bordered white.

**LAVENDER QUEEN**—Clear lavender with two dark blotches on upper petals. Very distinct.

**LINDA**—Bold flowers of clear salmon pink, feathered maroon on upper petals.

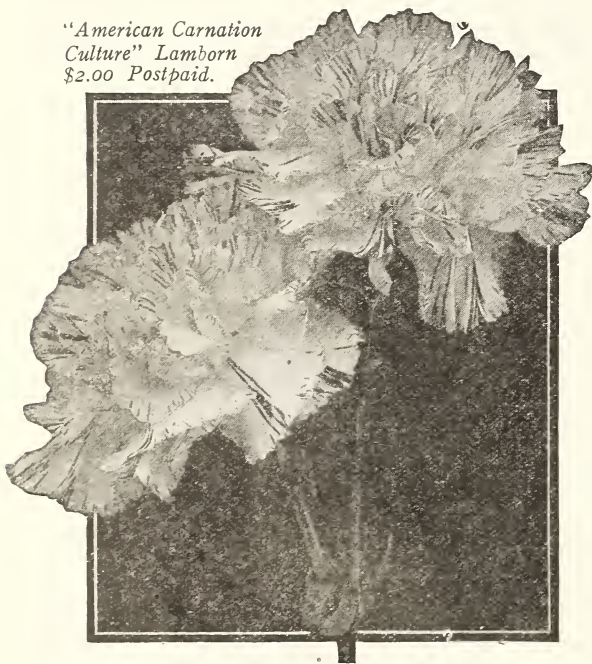
**LORD CARRINGTON**—Very large round flowers; crimson maroon surrounded with purplish rose. Large white center. Very distinct.

## TEN CHOICE CARNATIONS

**C**ARNATIONS will thrive in any good fresh garden soil. After danger of frost is over, set 10 to 12 inches apart each way, cultivate and water as needed until they begin blooming, then mulch with light manure that has straw in it; plants should be staked or strung to support them. Carnations are easily grown in the house for winter flowers.

Price, 20c each; set of 10 sorts, \$1.50

"American Carnation Culture" Lamborn  
\$2.00 Postpaid.



**ALICE**—Large nicely fringed, well formed flowers on stout stems. Colors light pink with silvery shadings. One of the best sorts we have.

**AVIATOR**—Flowers very large and massive with finely fringed petals and strong calyx. Stems long and very stout; color bright rich scarlet. A true everbloomer.

**BELLE WASHBURN**—A bright, deep scarlet; a most perfect color, soft yet brilliant; the flower is of the largest size and perfectly double.

**BONORA**—A beauty; fancy variety of fine size and form, borne on long, stout stems. Color white flaked and splashed with red.

**ENCHANTRESS**—Flowers very large, borne on long stems. The color is a superb shade of flesh pink. An early and continuous bloomer.

**MATCHLESS**—Very large flowers, pure white maculated with apple-plossom. Fine strong growing habit.

**MRS. C. W. WARD**—Simply superb, both in form and color; brilliant dark pink, of immense size.

**POCAHONTAS**—Rich crimson-maroon flowers of fine size and build. Rarely beautiful variety.

**WHITE WONDER**—Snow white flowers, produced on strong wiry stems. Nicely fluted and very fragrant.

**WHITE ENCHANTRESS**—A pure white sport from the famous variety Enchantress, having the same general habit and characteristics.

### Field Grown Carnations for Forcing—for Delivery in Season

**BEGONIAS**—(Tuberous Rooted)—From their early first blooming until cut down by frost, Tuberous Begonias display a mass of most gorgeous and brilliant coloring. They are distinct and unique in wonderful shades of yellow bronze, white, reds, pinks, with thick waxy petals and grand ornamental foliage, never failing to excite the wonder and admiration of all who see them. **Each, 30c; doz., \$3.00.**

**GLOXINIA HYBRIDA**—A popular tuberous rooted house plant producing rarely beautiful flowers in shades of scarlet and blue often bordered white. One of the finest summer blooming bulbs. **50c each.**

## TWELVE FINEST EXHIBITION CHRYSANTHEMUMS

Price, 15c each; set of 12 sorts, \$1.50, postpaid



**CHARLES RASER**—Elegant snow-white incurved blooms of fine size and build. Comes on long stout stems grandly clothed with luxuriant foliage.

**CHIEFTAIN**—Very large and perfectly incurved flowers of a beautiful silvery pink color.

**DR. ENGUEHARD**—Flowers delicate pearl-pink; large, beautifully incurved; very double and of exquisite form.

**GOLDEN EAGLE**—Large golden-yellow flowers of the finest incurved form; petals of great substance tubular or rounded and folding towards the center in elegant manner.

**HARVARD**—The darkest chrysanthemum extant; when well grown it produces a good medium sized bloom of the darkest shade of crimson.

**MAJOR BONNAFFON**—Soft, clear yellow, full in the center, eight inches in diameter and nearly as deep; perfect form.

**MARIGOLD**—A giant in growth and bloom. Luxuriant green foliage clothing its heavy stems each crowned with a gorgeous orange yellow flower of the finest incurved form.

**MRS. B. E. HAYWARD**—Rich bright pink blooms of the best incurved form. Fine robust growing and free blooming.

**TINTS OF GOLD**—Bright yellow tinted with bronze. Handsome incurved bloom of great substance and keeping qualities.

**W. H. WAITE**—Immense full flowers of finest incurved form on stout stems. Color rich golden bronze, shaded with terra-cotta. A wonderful piece of coloring.

**WILLIAM TURNER**—Pure white in color, and we have never seen anything larger or more impressive for the exhibition table.

**WHITE CHIEFTAIN**—Compact incurved flowers of elegant form and nice size; pure white tinged with pearl. A popular cut flower sort with florists.

## EARLY JAPANESE CHRYSANTHEMUMS

Price, 15c each; set of 12 sorts, \$1.50, postpaid

**BRUTUS**—Beautifully formed flowers of a rich chestnut red, reverse of petals gold. One of the best dark-colored varieties.

**CHRYSOLORA**—In our field trials during the past season this variety stood out preeminently as the finest yellow in the collections. Large incurved flowers of elegant form.

**COMELETA**—Bright rich golden yellow, incurved flowers, produced in great profusion early in the season. A most satisfactory variety for the garden.

**CRYSTAL GEM**—A beautiful new white variety producing its magnificent blooms in much profusion very early in the fall. A glorious decorative variety.

**EARLY FROST**—Pure snowy white flowers, the inner petals incurving and outer ones reflexing into a fine shaped bloom. Very early and free.

**EARLY ROSE**—Large incurved flowers of a rich shade of lavender pink. Very free in bloom. One of the best garden varieties.

**EARLY SNOW**—Showy white, of perfect incurved form, very large; this is undoubtedly one of the most useful varieties ever introduced.

**GOLDEN GLOW**—A handsome yellow variety of pure tint; splendid in size and form, and a magnificent addition to the very early varieties.

**MRS. COOMBES**—Striking flowers of a soft lavender color. Broad reflexed petals opening into large fine flower of massive build.

**OCONTO**—Rank in growth, free in bloom, flowering in early October this fine white variety is going to become very popular.

**RED WARRIOR**—Beautifully formed flowers of a rich chestnut red, reverse of petals gold.

**UNAKA**—A grand new incurved Japanese variety of a beautiful silvery rose color. One of the most beautiful pink sorts in cultivation.

## NEW ENGLISH SNAPDRAGON

A **SPLENDID** class of summer blooming bedding plants which have become popular of late years because of the many beautiful new varieties which come from England. The various sorts grow about 1½ feet high and cover a wide range of color. Snapdragons are best planted annually like Geraniums and are quite as effective for bedding purposes.

Price, 15c each; \$1.50 per doz.; set of 10 kinds, \$1.25

**ENCHANTRESS**—Exquisite almond blossom pink. Very large closely set on fine strong stalks. Early and very free blooming.

**FLAME**—Brilliant orange scarlet flowers in fine strong spikes blooming with great freedom. A blaze of color.

**FIERY BELT**—Vivid orange with white throat. Splendid large spikes of closely set flowers.

**GOLDEN QUEEN**—Rich golden yellow flowers of fine size on heavy close set spikes. Very striking bedding variety.

**GOLDEN MORN**—Raspberry red and old gold with golden yellow lip. A beautiful combination of color. Very distinct.

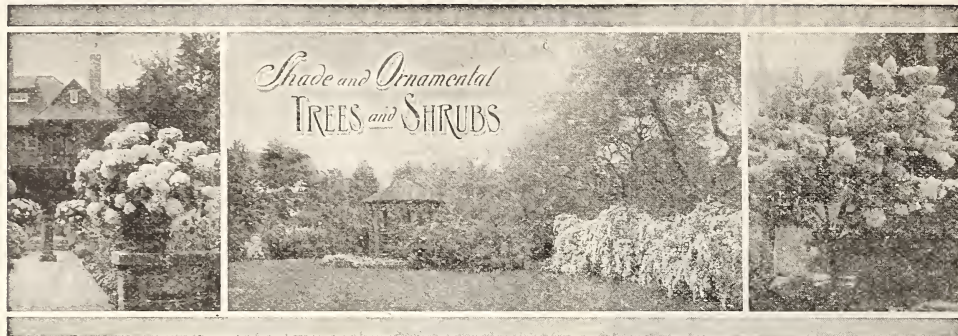
**MATCHLESS**—Large spikes of brilliant apricot color with golden yellow throat. Very effective when massed in groups or borders.

**NELROSE**—Exquisite old rose color in close set spikes of bloom on fine stout stems. One of the most popular for cutting and a splendid bedder.

**PEACE**—Lovely rose pink with salmon shadings. Fine healthy growing and free blooming variety. Splendid for beds and borders.

**PRIMA DONNA**—Rich terra cotta shaded with pink with golden yellow throat. Strong growing and very free.

**WHITE QUEEN**—Large spikes of pure white flowers, produced with great freedom. Splendid for borders and beds.



Deliveries can be made from November until May, orders are accepted at any time for delivery in season.

**W**E use every precaution to deliver healthy, vigorous stock, but the measure of your success will depend upon the planting and care given, as careless or ignorant handling kills thousands of fine trees and plants every season. Avoid unnecessary exposure of roots to the air. In the case of evergreens that are "balled," **do not remove the burlap.** Plant as received, only cut the string around the top, then **loosen the burlap after the tree is set.** If you cannot plant immediately on receipt, **always "heel" in the trees so their roots may be in contact with good soil.**

Leaving the ground loose after planting has caused tremendous losses that are generally and unjustly blamed to the nurseryman. Another cause of great loss is the wind working the newly set trees loose from the soil. This kills them. Always stake newly set trees if in a windy situation. After trees are set, make a plan of the grounds, marking the different varieties, then remove the wire labels, as they may damage the growing limb.

An hour's exposure of roots to wind or sun may kill any tree; this is especially true of evergreens. In planting cut off the bruised or broken roots with a sharp knife.

If the soil is good and properly prepared, only a hole large enough to easily take the roots need be dug, but better results can always be obtained by digging out a large space and filling in with good top soil. In setting the trees, do not put deeper than they stood in the nursery, excepting some dwarfs, which go a little deeper. **Be sure to Pack the Earth Solidly Around the Roots.** The neglect of this important detail is responsible for many failures.

## DECIDUOUS SHRUBS

Prices F. O. B. Portland.

### ALMOND

(Prunus)

Beautiful flowering shrubs that bear a profusion of flowers resembling little roses along the stem. One of the earliest blooming shrubs.

Each \$1.50.

**PINK FLOWERING**—(P. Japonica)—Well known early dwarf shrub. Double clear pink little roses festoon the gracefully bending branches.

**WHITE FLOWERING**—(P. Japonica)—Same though white flowers.

### ALTHEA

(Rose of Sharon)

Late Summer blooming shrub that continues on up into the fall when color is scarce, bearing flowers that closely resemble the Hollyhocks in color and size. Colors pink, white or red.

Each \$1.00.

### AZALEA

**A MOLLIS**—Low growing shrub that in the early Spring is covered with gorgeous flowers before the leaves appear. Excellent planted under trees or in groups. Cannot guarantee colors, mostly orange, yellow and white.

Each \$3.00.

### BERBERRY

**COMMON**—(B. Vulgaris)—Very graceful and well known; with showy fruit in Fall.

Each 75c.

**B. THUNBERGI**—(Japanese)—Low growing with clusters of white flowers in May. Foliage changes to a beautiful red in Autumn.

Each 75c.

### BUDDLEYA

(Summer Lilac—Magnifica)

This fine new shrub produces long straight slender branches that terminate in long spikes of lilac-like flowers of a beautiful shade of lavender blue. Commences to bloom in June and continues until frost. Fine subject for lawn or tall hedge. Two-year plants.

Each 75c.

### CALYCANTHUS

**FLORIDUS**—(Sweet Scented Shrub)—An old favorite, double, dark crimson flowers, very fragrant and blooms all season.

Each 75c.

### CHERRY

(Cerasus)

**FLOWERING CHINESE**—Large double white.

Each \$1.50.

**FLOWERING SIEBOLDS RED**—Large double red.

Each \$1.50.

**CHERRY**—(Cerasus)—Japanese Weeping Cherry—4 feet, single pink flowers.

Each \$3.50.

### CRAB

(Malus)

**BECHTEL'S FLOWERING**—Bears masses of double rose-like flowers of delicate pink color, and delightful fragrance. Grows tree shape.

Each \$1.50.

### BROOM

(Cytisus)

**ALBA**—(White)—A fine hardy variety, attaining good size. Blooms in early Spring.

Each 75c.

**SCAPARIUS**—(Scotch)—Rapid growing shrub bearing clusters of bright yellow flowers in Spring.

Each 75c.

**JUNCEA**—(Spanish Broom)—The most beautiful of all, stems almost leafless, and of a vivid green. Blooms all Summer when color is most desirable.

Each \$1.00.

### DEUTZIA

**PRIDE OF ROCHESTER**—(Deutzia Crenata)—Pure white, tinged with blush. Flowers very double, blooming during May and June.

Each 75c.

**LEMOINE'S**—(D. Lemoinei)—One of the hardiest shrubs and most popular variety, flowers in large clusters of pure white.

Each 75c.

**WATERI**—(D. Crenata Flora Rosa Plena)—Beautiful dainty double pink flowers. A fine lawn subject. Very showy.

Each \$1.00.



DECIDUOUS SHRUBS—Continued

ESCALLONIA

A very compact growing shrub with waxy dark green leaves about two inches long. Bears tubular shaped flowers nearly all Summer.  
**ALBA**—White.  
**ROSEA**—Pink. Each \$1.00.

FORSYTHIA  
 (Golden Bell)

**F. FORTUNEI**—Blooms in dense masses of golden yellow flowers in early Spring. Beautiful as lawn tree. Each 75c.

HONEYSUCKLE  
 (Bush)

**WHITE TARTERIAN**—Bushy upright growth, flowers freely. Red and orange berries stay on until Fall. Each 75c.

HYDRANGEA

**JAPANESE OTAKSA**—One of the most popular lawn plants. The flowers run in shades of pink, blue and white, mineral in soil often changing them to two or three shades in one. Fine for shady places. Each 75c to \$1.50.  
**PANICULATA GRANDIFLORA**—(Tree Hydrangeas)—Grows three or four feet high. Flowers are in cone shape on ends of branches, and are pure white, afterwards changing to pink, remaining on tree until destroyed by frost. Each \$1.00.  
**BUSH HYDRANGEA**—Same as above but not in tree shape. Each 75c.

KERRIA

A very graceful shrub that bears bright yellow flowers. Rose shaped in early Spring, vivid green branches. Very showy in winter. Each 75c.

LILAC

(Syringa Vulgaris)

Every home should have one of these handsome little trees with their delicious fragrance. Grafted sorts.  
**CHAS. X**—Large trusses of reddish purple flowers. Single, each \$1.25.  
**MICHAEL BUCHNER**—Double large clear deep purple. Each \$1.25.  
**MAD. LEMOINE**—Large panicles of double white flowers. Each \$1.50.  
**S. LUDWIG SPAETH**—Single purple. Each \$1.25.  
**COMMON SORTS**—  
**Lavender.** Each \$1.00.  
**White or Purple.** Each 75c.

MOCK ORANGE

(Syringa)

Large hardy shrub with a profusion of white creamy flowers, very fragrant. Each 75c.

PRUNUS

(Flowering Prune)

**P. PISSARDI**—Foliage and fruit red, covered in Spring with clouds of white flowers. Each \$1.00.  
**P. BLIVIANS**—Same as Pissardi in growth but flowers double pink. Most beautiful of all and very rare. Each \$2.00.  
**P. VESUVIUS**—Foliage comes out light green gradually getting darker until Fall, when it becomes blood red. Very showy fruit. Each \$1.50.

QUINCE

**JAPANESE FLOWERING QUINCE**—Covered with bright scarlet flowers very early in the Spring before the leaves appear. Each 75c.

SPIRAEAS Each 60c

**SPIRAEA THUNBERGII**—Charming spiraea with graceful form and abundant blooms.  
**BILLARD'S**—(S. Billardi)—Flowers red in dense spikes, blooms most of Summer.  
**VAN HOUTTE'S BRIDAL WREATH**—(S. Vanhouetti) Very graceful; flowers white in round clusters. May.  
**CRIMSON**—Anthony Waterer—(S. Bumalda)—A most desirable variety, having deep red flowers, blooming all Summer; fine for foreground planting.  
**JAPANESE**—(S. Callosa)—Purplish foliage while young, flowers rosy pink in July.  
**BLUE SPIRAEA**—Beautiful Autumn blooming shrub. Flowers bright blue the entire length of stems. Each 75c.

SNOWBALL

**COMMON**—Flowers globular, pure white, in May. 3 to 4 feet, each 60c; 10 \$5.00.  
**JAPANESE**—Flowers pure white, delicate large globular heads in May. 2 to 3 feet, \$1.00.

TAMARIX

**JUNIPERINA**—(Africana)—Ornamental tree with soft, juniper-like leaves, pink flowers. 3 feet, each \$1.50

WEIGELIA

Each 75c.  
**CANDIDA**—Flowers white, bush tall.  
**ROSEA**—Flowers light pink, shrub compact.  
**EVA RATHKE**—Flowers red, one of the best.  
**VARIEGATED**—Leaves become silver white.

WEeping TREES

WILLOW (Salix)

**WISCONSIN**—(S. Babylonica Dolorosa)—Large glossy leaves and very pendulous habit. Each \$1.00.  
**AMERICAN**—(S. Babylonica)—The well-known common weeping willow. Each \$1.00.

DECIDUOUS TREES

ASH	ELM	LINDEN (Tilia)	MULBERRY (Morus)
BEECH	HAWTHORNE	BROOM (Cytisus)	OAK (Quercus)
BIRCH (Betula)	HORSE CHESTNUT	MAGNOLIA	POPLAR (Populus)
CATALPA	(Aesculus)	MAPLE (Acer)	SYCAMORE or PLANE
DOGWOOD	LABURNUM	MOUNTAIN ASH	(Platanus)
(Cornus Florida)	(Golden Chain)	(Sorbus)	

For Full Description of All the Above Mentioned, See Our Autumn Catalog, 1923

CONIFEROUS EVERGREENS

ARBOR VITAE (Thuja)	HEMLOCK (Tsuga)	JUNIPERUS	PINE (Pinus)
CEDAR (Cedrus)	FIR (Abies)	(New Varieties)	SPRUCE (Picea)
CYPRESS (Cypressus)	JUNIPER (Juniperus)		

For Full Description of All the Above Mentioned, See Our Autumn Catalog, 1923

**CINNAMON VINES** are the most desirable, easiest grown climbers in the world. They are from China—the land of wonders. Their abundant blossoms perfume the air for a long distance. No words can describe their delicious fragrance. Perfectly hardy—thriving in all soils, in sun or shade, wet or dry. No insects, blight or disease of any kind ever troubles them, no winter harms. Once planted they will grow a lifetime. Each, 25c; five for \$1.00, postpaid.



## EVERGREEN SHRUBS

### AZALEA

**CRIMSON—(A. Hinodegiri) (Asahi)**—Evergreen variety from Japan, bright, minute, waxy foliage that turns garnet in Winter. Loaded in early Spring with masses of scarlet flowers which almost cover the plant. Low-growing, and one of our best massing shrubs.

Choice plants, each \$2.00 to \$2.50.

### ABELIA

**ABELIA GRANDIFLORA**—Graceful evergreen shrub with small glossy leaves and tubular shaped flowers of a bluish pink color. One of the few late Summer, early Fall blooming shrubs.

Each \$1.50.

### ACUBA

(Japonica) (Japanese Laurel)

**ACUBA JAPONICA**—Variegated medium-sized shrub, with yellow spotted leaves. Has red berries after certain age.

Each \$1.50.

**ACUBA JAPONICA—(Green)**—Same as variegated, only leaves are dark glossy green, bearing fruit which stays on all Winter at age of two years.

Each \$1.50.

### BARBERRY

**BERBERIS DARWINI**—Shrub with holly-like leaves and blue berries; clusters of yellow flowers adorn the branches in early Spring; desirable for hedges.

Each \$1.00.

### BOXWOOD

(Buxus)

Handsome hardy evergreens that are very popular for use as specimens in lawns, hedges and for tubbed plants.

**PYRAMIDAL BOXWOOD**—Cone shaped plant of great beauty.

2 to 2½ feet, each \$4.50.

2½ to 3½ feet, each \$6.00.

**GLOBE BOXWOOD**—Trimmed in shape of a globe.

Each \$2.50 to \$5.00.

**BOXWOODS FOR HEDGES AND BORDERS**—Write for prices on quantity desired.

### CAMELLIA

**CAMELLIA**—Small trees with shining waxy leaves, and beautiful waxy flowers, very much resembling a small rose. We are only able to offer these in assorted colors.

1½ feet high, each \$2.50.

### COTONEASTER

A very beautiful shrub, practically evergreen. They are hardy with fine cut leaves and showy red berries that stay on all Winter. They come in both bush or trailing shrub, and tall growing form. They can be used for most any purpose.

**C. HORIZONTALIS—(Trailing Cotoneaster)**—Low-growing with horizontal branches, dark green leaves. Fruit bright red.

Each \$1.00 and \$1.50.

**C. MICROPHYLLA**—Small leaved trailing form with minute green leaves. Fine for rockwood—more evergreen.

Each \$1.50.

**C. FRANCHETTI**—A large sized shrub of graceful droopy habit, covered with a mass of red berries in Fall.

Each \$1.00 and \$1.50.

**C. SICONSI**—A pretty shrub of upright growth, bright leaves and white pinkish flowers, covered with large red berries all Winter. Fine for massing.

Each 75c to \$2.00.

### DAPHNE

Evergreen Japanese shrub with waxy light green foliage. Pink and white flowers in early Spring that are well known for their wonderful fragrance. We offer these plants well rooted out of 5-inch pots. No color guaranteed.

Each \$1.50.

### HOLLY (Ilex)

We have a fine lot of Hollies, grafted stock. No trees sent out without berries on them.

**ENGLISH—(Aquifolia)**—Prickly, dark green foliage; grows moderately fast, covered during the Winter months with bright red berries.

Berry-bearing trees, each \$3.50 and up.

### JUNIPER

**EXCELSA STRICTA**—A beautiful slow-growing Juniper. Pyramidal in form with light green foliage. Fine for specimen planting in yards.

Each \$2.00 and \$3.00.

### LAURISTINUS

**LAURISTINUS**—Well known evergreen shrub, with dark green leaves. Flowers white tinted with pink, blooming in late Winter, early Spring.

Each \$1.00 to \$2.00.

### LAUREL

**ENGLISH LAUREL—(Laurel Lauro-Cerasus)**—A small tree or shrub with large handsome shining foliage during the entire year. Fine for hedges or specimen plants.

Each 75c to \$2.00.

(Write for special price on hedge plant size.)

### LONICERA

**NITIDA—(Evergreen Bush Honeysuckle)**—New evergreen shrub, slender branches with bright glossy foliage. Excellent for massing or tub plant. There is no better evergreen shrub for the price.

Each \$1.00 to \$1.50.

### OREGON GRAPE

**OREGON GRAPE—(Mahonia Aquifolia)**—Official flower for the State of Oregon. Holly leaved Berberry. Fine for shady places.

Each \$1.00.

### PRIVIT CALIFORNIA (Ligustrum Ovalifolium)

**CALIFORNIA PRIVIT**—Our best plant for hedges. Plant in double row 2 feet apart, 6 inches between plants, and takes 2 plants to the foot.

18 to 24 in., 10 plants \$1.00; \$7.50 per 100.

24 to 30 in., 10 plants \$1.25; \$10.00 per 100.

### PYRACANTHA

**EVERGREEN THORN**—Tall growing shrub with long narrow green leaves, small white flowers, followed by orange scarlet berries that stay on all winter. There is no better shrub for the background. Very popular. We have both the orange scarlet and orange yellow berried plants.

Each \$1.50 to \$2.00.

### RHODODENDRON

**GRAFTED VARIETIES**—Magnificent, June and July flowering evergreen shrubs; the finest and most hardy of all evergreens; they prefer a somewhat shady situation. There are many varieties, the flowers of which are produced in great abundance and in shades of the following colors: White, blue, purple, cherry, lilac, mauve and crimson.

Each \$5.00 to \$6.00.

Extra large specimens, \$8.00.

### VERONICAS

Shrubs of compact growth forming well rounded specimens which can be used singly or in groups. Fine to use as borders or to place in front of taller growing species. Does well in shade, and as well in sun. Becoming more popular every year.

**V. BUXIFOLIA—(Box Leaved Veronica)**—A small shrub of upright growth, very compact. Small foliage with pure white flowers.

Each 75c to \$1.25.

**V. CYPRESSOIZES**—Globular shaped with numerous slender branches clothed with scale-like leaves which give it the appearance of cypress. Valuable in the shrubby border.

Each 75c to \$1.50.

**V. TRAVERSI**—Upright growing variety. One of the hardiest. Bears white flowers during early Summer. More common.

Each \$1.00 to \$1.50.



# FRUIT TREES, BERRY BUSHES, PLANTS

**I**N THE PURCHASE of fruit stocks great care should be given to the selection of varieties that will meet your conditions and requirements, as many that thrive and bear abundantly in one section often prove disappointing under variable conditions. Also many splendid sorts for home use are totally unsuited for profitable marketing. For this reason we offer a large assortment of improved varieties carefully tested and selected for their special merits and their adaptability to varying conditions, and if you will state whether you intend growing for distant or local market or for home use, giving location and general conditions, we can recommend or assist in the selection of those varieties that will give you best results.

If trees are frozen in transit, do not unpack, but set away in a cool cellar and allow them to thaw gradually. Trees or roses that are dried out and shriveled should be buried, tops and all, in moist earth for a few days. This will restore them.

## APPLES

First Grade, 2 years.....	Each, 75c; per 10, \$6.50; per 100, \$50.00
First Grade, 4 to 5 feet.....	Each, 50c; per 10, \$4.50; per 100, \$40.00
First Grade, 1 year, 3 to 4 feet.....	Each, 40c; per 10, \$3.50; per 100, \$30.00

F. O. B. Portland; if mailed, postage extra.

## PEARS

We can supply all standard varieties of Pears.	
First Grade, 1 year, 4 to 6 feet.....	Each, 75c; per 10, \$7.00; per 100, \$60.00
First Grade, 1 year, 3 to 4 feet.....	Each, 60c; per 10, \$5.50; per 100, \$50.00

F. O. B. Portland; if mailed, postage extra.

## CHERRIES

4 to 6 feet.....	Each, \$1.25; per 10, \$10.00; per 100, \$90.00
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F. O. B. Portland; if mailed, postage extra.

## PLUMS

3 to 4 feet.....	Each, 40c; per 10, \$3.50; per 100, \$30.00
4 to 5 feet.....	Each, 50c; per 10, \$4.50; per 100, \$40.00

F. O. B. Portland; if mailed, postage extra.

## PRUNES

First Grade, 2 years.....	Each, \$1.00; per 10, \$9.00
First Grade, 1 year, 6 to 8 feet.....	Each, 75c; per 10, \$6.00; per 100, \$55.00
First Grade, 1 year, 4 to 6 feet.....	Each, 50c; per 10, \$4.00; per 100, \$35.00
First Grade, 1 year, 3 to 4 feet.....	Each, 40c; per 10, \$3.00; per 100, \$25.00

F. O. B. Portland; if mailed, postage extra.

## PEACHES

4 to 5 feet.....	Each, 75c; per 10, \$6.50; per 100, \$50.00
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F. O. B. Portland; postage extra if mailed.

## APRICOTS

3 to 4 feet.....	Each, 50c; per 10, \$4.50; per 100, \$40.00
4 to 5 feet.....	Each, 75c; per 10, \$6.50; per 100, \$50.00

F. O. B. Portland; postage extra if mailed.

## NECTARINES

4 to 5 feet.....	Each, 75c; per 10, \$6.50; per 100, \$50.00
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F. O. B. Portland; postage extra if mailed.

## QUINCE

First Grade, 2 years.....	Each, \$1.00; per 10, \$9.00
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F. O. B. Portland, postage extra if mailed.

## NUT TREES

GRAFTED ENGLISH WALNUTS, ALMOND, BUTTERNUT, HICKORY, FILBERTS.

**FILBERTS**—We have a very choice lot of Barcelona, and as a Pollenizer, the Aveline. The authorities at the Oregon Agriculture College recommend the Avelines as the best Pollenizers for the Barcelona. We can make you these at 75c each in lots of ten, or in lots of 100 or more at 65c each, F. O. B. Portland. The supply is limited so order early.

## DWARF FRUIT TREES

PRICE: Each, \$1.00; per 10, \$9.00. F. O. B. Portland; postage extra.

DWARF PEARS—Bartlett. DWARF APPLES.

## GRAPES

PRICES, except where noted: Write for prices in quantity.

2-year plants, not prepaid, postage extra. Each, 25c.; per 10, \$2.00; per 100, \$18.00.

All stock listed above are fully described in our Autumn Catalog. Copy mailed on request.



## ASPARAGUS

### GROW WASHINGTON PEDIGREED ASPARAGUS

The Best in the World

#### WHY WASHINGTON ASPARAGUS?

Because this is the variety that the Bureau of Plant Industry at Washington, D. C., has developed after many years of experimental work beginning in 1908.

Asparagus fields have been affected in the past years with rust and other disease, and the United States Department of Agriculture has devoted painstaking work in combating these diseases. The final outcome will, it is believed, to be the replacement of old varieties of asparagus by a new strain, which is larger, more uniform, more productive, hardy and disease-resistant. The Washington asparagus owes its origin, in fact, to efforts to combat the rust and other diseases. It is our firm belief that growers in this section, and other asparagus growing sections, will find it greatly to their advantage to plant the Washington Pedigreed Asparagus, and we are certainly fortunate to be able to offer our customers quantities of the Washington and limited quantities of the Mary Washington Asparagus.

The Washington Asparagus is more largely grown and its merits more largely known, the Mary Washington being a more recent production has not been given the tests of the parent plant but the indications are that it will prove a little earlier.

Color, green. Very similar to the Palmetto and Argenteuil.

#### HOW MANY PLANTS TO THE ACRE?

A common planting is in rows 5 feet apart, 15 inches apart in the row, about 7000 plants to the acre. See back cover of this catalog for an actual photograph of a bunch of Washington Asparagus taken from a shipment. Washington and Palmetto Asparagus planted this last spring, side by side, we find the Washington has made double the growth over the Palmetto.

**PRICE**—1-year plants, postpaid, per doz., 40c.; per 50, \$1.00; per 100, \$1.75. By express or freight, not prepaid, per 50, 75c; per 100, \$1.00; per 1,000, \$7.00. Write for quantity prices.

### PALMETTO

The favorite green asparagus. Extra early and the uniformly large stalks remain tender, being in prime condition for some days after coming above the ground. Palmetto is a heavy, sure cropper.

**ONE-YEAR-OLD PLANTS**—Postpaid, 30c. dozen, 75c. per 50, \$1.15 per 100. By express or freight, 25c dozen, 50c per 50, 75c per 100, \$6.00 per 1,000.

**TWO-YEAR-OLD PLANTS**—Postpaid, 40c. per dozen, \$1.00 per 50, \$1.75 per 100. By express or freight, 30c. per dozen, 75c. per 50, \$1.25 per 100, \$8.00 per 1,000.

### HOP ROOTS

**Oregon's Famous English Cluster Hops. Regular Root Cuttings**, 10c. each, 3 for 25c.; 75c. doz.; \$4.00 per 100, postpaid.

### HORSERADISH ROOTS

Plant in the Spring 18 by 24 inches apart. Set the whole root small end down.

**Prices**—2 for 15c.; 50c. per doz.; \$2.00 per 100. Lcw prices by the 1,000.

## BLACKBERRIES

**PRICES, not prepaid, 1 year: Each, 20c.; per 10, \$1.75; per 100, \$15.00.**

**HIMALAYA GIANT**—(Evergreen)—An exceedingly strong rampant grower of a trailing nature; everbearing; an enormous yielder. The berries are large, juicy, coreless, sweet and firm, with a delicious aromatic flavor. Its deep-rooting qualities enable it to produce a large, firm berry even in a very dry season.

**ELDORADO**—A valuable new variety; fruit large, jet black, melting, sweet and rich; hardy and very productive; fine for Oregon.

**LAWTON**—Fruit large; very productive; well and favorably known; Oregon's most popular kind.

**THORNLESS MAMMOTH BLACKBERRY**—(Cory)—It is a strong, vigorous grower; bears prolific; the canes grow thick and stout until about 5 or 6 feet long when they take the trailing habit, at which time they should be trellised.

It has a delicious flavor of its own, somewhat resembling the wild California blackberry. It is self-fertilizing—never been known to fail to bear.

Another very important feature is that it is almost seedless.

**Tips**—Spring del. only      Each 20c.; 100, \$12.00.  
1-Year transplanted      Each 25c.; 100, \$20.00.

## LOGANBERRY

The loganberry is generally larger than the blackberry, often an inch and a quarter long; color dark red and produced in immense clusters. It partakes of the flavor of both the blackberry and raspberry. Fruit ripens early; excellent for jelly or jam. June.

**PRICES, not prepaid**—Large, well-rooted plants; Two-year-old, each 25c; 10 for \$2.25; 100 for \$20.00. One-year-old, each 15c; 10 for \$1.35; 100 for \$12.50.

## DEWBERRY

**Price, not prepaid: Each, 20c.; per 10, \$1.75; per 100, \$12.50**

**LUCRETIA**—Fruit large, soft, sweet; no hard core. Hardy; good for this coast. Last of May.

**GARDENIA**—Large glossy black; delicious heavy bearer; trailing vine. June.



## RHUBARB

### PANAMA RHUBARB

**T**HIS RHUBARB won the first prize at both the San Francisco and San Diego Expositions, and is being placed on the market at a price that should warrant extensive planting. As a rhubarb the Panama is unquestionably in a class by itself. Words cannot describe its wonderful flavor and the many other qualities that make it far superior to any other rhubarb. Panama is an everbearing rhubarb, growing continuously throughout the year, both summer and winter. Frost will not kill it, and in the absence of frost it will make its best and most profitable growth during the winter. It is a far cry from the superlative Panama to the ordinary Eastern and other varieties. In size it is more than twice the size, and the stalks are much heavier and larger, full grown stems often being three feet long and weighing two pounds.

**FLAVOR**—The flavor has been described as of the plum type, although due to its elusive taste, it is almost impossible to definitely fix it. Suffice it to say that a Panama rhubarb pie or sauce is so far superior to others, that comparison is out of the question. The Panama is comparatively free from acid, requires less than half the amount of sugar ordinarily used, and should not be peeled. All the roots are what is known as subdivisions.

**CULTURE**—The Panama is very easily grown. Plant not more than one-half inch below surface of ground, and water immediately after. Keep the ground well cultivated close to the plant within a radius of at least two feet from the plant. During the first two months irrigate once a week and cultivate after each irrigation. Plant from three to four feet apart in the row, and have rows from four to five feet apart.

**PRICE**—Each, 40c; dozen, Postpaid, \$4.00; per 100, F. O. B. Portland, \$35.00.



### RIVERSIDE GIANT RHUBARB

**RIVERSIDE GIANT** is very favorably known and has stood the test of time, being crisp, tender, free from stringiness, with a good color and a delicious, distinctive flavor. The skin is so thin that it disappears in cooking. Riverside Giant has every good quality of a commercial rhubarb and is so vigorous and productive that over thirty-five tons per acre is a conservative estimate for the season. Cuttings begin in March and usually four are made, the last one in July. Full information for preparation of the soil and growing the crop, as practiced by the originator, will be sent on request to all purchasers.

**PRICE**—Each, 15c.; doz., \$1.50; per 100, \$8.50. Special prices on large lots.

*Don't plant rhubarb along a fence, near trees or other crops. Give plenty of room. Write for cultural directions.*

## CURRANTS

Currants are a profitable, easily grown crop, and the market is always good.

**PRICES:** Each, 25c; per 10, \$2.00; per 100, \$15.00. F. O. B. Portland, postage extra.

**PERFECTION**—New; largest and most prolific currant; bright red, rich flavor, mild sub-acid.

**CHERRY**—Very large; deep red; fine for preserving; valuable market variety.

**FAY'S PROLIFIC**—Bright red, very sweet; fruit hangs on better than most varieties.

**WHITE TRANSPARENT**—The best white currant known. Splendid market variety; rich flavor; mild sub-acid.

## DIAMOND FERTILIZERS

*The Base is Bone Meal and Tankage—No Cheap Filler. Every Pound is Good Fertilizer.*



**DIAMOND QUALITY Fertilizers** are complete fertilizers of the highest grade and concentration, no inferior ingredients or cheap fillers are used in their preparation, Bone Meal and Tankage forming the base to which is added the necessary Potash, Nitrogen and Phosphoric Acid. Each package is marked plainly, showing the percentage of available plant food. Use it on your Rhubarb.



# STRAWBERRY PLANTS



**DIAMOND Quality Strawberry Plants are large, vigorous and healthy.** They are heavily rooted and have large, full crowns; have been carefully grown and are free from disease and pests. We dig as ordered and pack for shipment in ventilated crates of 1,000 plants each. **They are grown from our select strains and are always true to name; no substitution is ever allowed without instructions from the purchaser.**

Our select strains of **New Oregon, Gold Dollar, Marshall, Magoon.**

## NEW OREGON

Our Own Introduction

**Best, Most Uniform and Heaviest Yielding Main Crop Strawberry**

**PRICE: \$8.00 per 1000. F. O. B. Portland.**

"NEW OREGON" is large, firm and of fine form, averaging 15 to the quart box; color a brilliant, deep, rich red, having a glossy varnished appearance when fully ripe. This dark blood red coloring extends through to the very center, and, no matter how large, "NEW OREGON" is never hollow. When fully ripe the distinctive flavor is suggestive of the wild berry, is crisp and delicious, and will remain on the vine for three days without injury, keeping perfectly for many days after picking; stands handling and long shipments and will hold its color, shape and flavor when canned.

"NEW OREGON" is an early bearer, being ready for marketing the first half of May in the Willamette Valley and holds up in size and quality throughout the season, which in some localities extend until frost.

## STANDARD VARIETIES OF STRAWBERRIES

**GOLD DOLLAR—(Extra Early)—**Gold Dollar berries are large size, dark red all through and have fine flavor. Foliage heavy, large and spreading, which protects the blooms from early frosts. Gold Dollar Strawberries are the standard early berry in the big markets of the Northwest and are always in demand.

**MAGOON—**Berry large, fine and of excellent sub-acid flavor; bears heavily; especially adapted to Western Oregon and Washington.

**MARSHALL—**Very large; dark crimson throughout; fine flavor; a fine market and table berry. Our stock is true, vigorous and prolific.

PRICES:—All varieties except Fall Bearing.....	Prepaid	(1 doz., \$0.30	Not	25,	\$0.40	
		25,		.50	100,	1.00
		100,		1.50	1000,	8.00

**Not less than 500 plants of a kind at 1000 rate. Special prices on 3000 or more.**

All out plants are officially inspected in the field by the State Horticultural officers and by our own inspectors.

## FALL OR EVERBEARING STRAWBERRIES

Fall bearing Strawberries, also known as "Everbearing," are very satisfactory for home gardens and under some conditions will prove profitable commercially, but require special care and attention to secure best results as the late fruit will be small and yield less if the first blossoms are not removed and the plants are allowed to fruit early and continuously. When properly grown they are of splendid quality and yield heavily until frost.

**PROGRESSIVE—**Rich, red color, firm and of delicious flavor. Good keepers and shippers. Blossoms should be cut back about 4 weeks before the berries are wanted. We consider this the best of its class.

**SUPERB—**Considered by some as being the best of the everbearing, but in our experience they do not ship as well as the "Progressive" although they are a little larger when properly grown and the quality is fully equal to that of the best of the standard sorts.

**PRICES: Postpaid, per doz., 60c.; 25 plants, \$1.00; 100 plants, \$3.00. Not prepaid, per doz., 50c.; 25 plants, 75c. 100 plants, \$2.50; 1000 plants, \$18.00.**

# RASPBERRIES

### (BLACK CAPS)

Prices, except where noted: Not prepaid, 2 Year—Each 25c.; 10, \$2.25; 100, \$20.00; 1-Year—Each 20c.; 10, \$1.50; 100, \$12.50.

**GREGG—**Of good size, fine quality; very productive and hardy. Takes same position among black caps as Cuthbert among the red sorts.

**PLUM FARMER—**Large black, hardy and productive. One of the very best.

### (RED CAPS)

Prices, except where noted: Not prepaid, 1-Year—Each 10c.; per 10, 50c.; per 100, \$2.00.

**CUTHBERT—**Deep rich red, large and firm; one of the best market berries. Ripens medium to late.

**MARLBORO—**Standard, light crimson, large, very firm; good commercial variety; ripens early.

# GOOSEBERRIES

**PRICES: Each, 25c.; per 10, \$2.00; per 100, \$12.00; F. O. B. Portland.**

**Federal Quarantine prevents shipment of Gooseberries into the State of Washington**

**PEARL—**Large, light yellowish green; very hardy and free from mildew; superior in size and quality. Very prolific.

**OREGON CHAMPION—**Berries very large, pale green; sweet, fine; gush strong, prolific bearer. This is the standard commercial sort for our section and is best for home use.



# MISCELLANEOUS FLORISTS' SUPPLIES

FOR FLORISTS AND NURSERYMEN

**PLANT STAKES**—Round cedar, painted green.  
3 ft. \$1.00 doz.; 3½ ft. \$1.25; 4 ft. \$1.60;  
5 ft. 2.00; 6 ft. 3.00.

**VITAPLASTIC**—(Glazing Compound)—The best, most dependable glazing material. Never hardens or cracks. Write for circular.

Price: Gal. \$2.15; 5 gals. \$10.00; 20 gals. \$40.00.  
**VITAPLASTIC MACHINE** \$5.00.

## WOODEN POT LABELS

4-inch—Plain Per 100 25c; 1,000 \$1.20.  
Painted Per 1,000, wt. pkd. 4 lbs., 1.75.  
5-inch—Plain Per 100 25c; 1,000 1.65.  
Painted Per 1,000, wt. pkd. 6 lbs., 2.15.  
6-inch—Plain Per 100 30c; 1,000 2.10.  
Painted Per 1,000, wt. pkd. 9 lbs., 2.60.

## TREE LABELS

Painted Copper Wire Per 100 40c; 1,000 \$2.40.  
Unpainted Copper Wire, wt. pkd. 4 lbs. per 1,000.  
Per 100 35c; 1,000 \$2.00.

**PENCILS**—Indelible, for marking. Each 15c.

**WIRE HANGING BASKETS**—  
10 in. 25c; 12 in. 30c; 14 in. 40c.  
Special Quantity Prices.

**WIRED TOOTH PICKS**—2½ inches long.  
Box 10,000 \$2.60.

**WIRED MATCH STICKS**—4 inches long; green.  
Box 12 Bunches, \$3.25.

**WIRED MATCH STICKS**—6 inches long; green.  
Box 8 Bunches 3.10.

## CUT FLOWER BOXES

We can supply Cut Flower Boxes in the following sizes. Florists write for prices.

3x18x5	3½x24x5	4x24x8	5x36x8	6x36x14	8x20x20
3x21x5	3½x30x5	5x28x8	6x40x10	8x16x16	8x24x24

## FLOWER POTS

Florists, nurserymen and growers should send list of requirements for Special Prices.  
**BIRD'S NEPOSET WATERPROOF PAPER FLOWER POTS**

These pots can be used over and over for transplanting and similar use. In fact, the pots can be used in every way that earthen pots can. Ideal for transplanting and shipping potted plants. Cost less. No breakage. Hold moisture better. Their use is increasing. Why not try them?

PRICES PER THOUSAND F. O. B. PORTLAND

2 -inch.....	\$4.20	3 -inch.....	\$6.65	4-inch.....	\$10.90
2½-inch.....	4.90	3½-inch.....	8.70	5-inch.....	16.00

## "NICO-FUME" TOBACCO POWDER

Tobacco Powder impregnated with a high strength nicotine solution. Effective for fumigating in greenhouses to destroy Aphis, Thrips, etc. Fill an ordinary 2½-inch flower-pot heaping full of the "Nico-fume" Powder, pour the powder out on the bare ground or cement walk in a narrow pile about 7 inches long. For moderately rapid fumigation light the pile at one end, for extra rapid, light both ends. Use a pile to each 5,000 cubic feet of air space. Place piles at equal distance apart.

1-lb. can.....	\$1.25	5-lb. can.....	\$4.75
10-lb. can.....			\$8.50

F. O. B. Portland.

## "NICO-FUME" LIQUID

For fumigation and spray for greenhouse work. Kills Aphis, Red Spider, Mealy Bug, Thrip, etc.

PRICE

1-lb. can.....	\$2.25	4-lb. can.....	\$15.00
8-lb. can.....			\$8.00

Cannot be mailed. All F. O. B. Portland.

## BAMBOO PLANT STAKES

Just the thing for Greenhouse use.

24 inch by ¼ inch.	\$1.00 per hundred.	36 inch by ¾ inch.	\$1.25 per hundred.
30 inch by ¼ inch.	1.15 per hundred.	48 inch by ¾ inch.	2.00 per hundred.

All F. O. B. Portland.

## Porch Boxes, Japanese Tubs, Hanging Baskets, Lawn Vases, Potted Plants

Specimen Ferns, Palms and Ornamental Plants furnished to order. We can assist you in securing special decorative effects for House or Garden. Tell Us Your Plans—WE CAN SAVE YOU MONEY.

ALL PRICES QUOTED ABOVE F. O. B. PORTLAND, unless otherwise stated. Subject to market changes.

**GLAZING POINTS**—(Peerless)—Best point made; 1,000 in box. Weight 2 lbs. Price 75c.

Our line of Chiffons, Ribbons, Cords, Wire Designs, Foil, Baskets and general Florist Supplies stock is very complete.

## RAFFIA

—In ordering Raffia by mail, be sure to add postage on 1 lb. or more.

**RAFFIA**—Natural color.

Price: ¼ lb. 15c.; postpaid 20c.; not postpaid, lb. 30c.

**COLORED RAFFIA**—Any shade, the popular colors being red, yellow, orange, black, blue and purple.

Per pkg., postpaid, 25c; per lb. \$1.50.

Headquarters for **MAGNOLIA LEAVES**.

Write for prices. We can save you money.

**CYCAS LEAVES**—Sizes 8x12, 12x16, 16x20, 20x24.

**WIRE**—Cut and uncut. Sizes 18, 20, 22, 24. Cut in 12-lb. boxes, and uncut in 12-lb. coils.

**WIRE DESIGNS**—For Florists; Anchors, Bases, Broken Columns, Broken Wheel, Crescent, Crescent Wreaths, Crosses, Odd Fellows' Pillows, Shower Wreaths, Shields, Stars, Triangles, Wreaths Flat. Tell us what you want, and we will supply it.



**BULL DOG CLIPS**—If once used, always used.

Price: \$1.00 per box of 1,000.





## DIAMOND FERTILIZERS

*The Base is Bone Meal and Tankage—No Cheap Filler. Every Pound is Good Fertilizer.*



**DIAMOND QUALITY Fertilizers** are complete fertilizers of the highest grade and concentration, no inferior ingredients or cheap fillers are used in their preparation, Bone Meal and Tankage forming the base to which is added the necessary Potash, Nitrogen and Phosphoric Acid. Each package is marked plainly, showing the percentage of available plant food.

**SPECIAL FERTILIZER BOOKLET** giving complete details and prices of the different fertilizers which we can supply, together with full information for their application, will be sent on request. This booklet is instructive, reliable and of great value to all interested in fertilizers.

**FERTILIZERS IN SMALL GARDENS**—Amateur garden makers are often puzzled as to the amount of fertilizer needed for their small plots, because the usual directions give only the amount per acre. The following table shows (approximately) the proper proportions:

100 lbs. per acre equals 1 lb. for a plot 10 x 43 ft.	300 lbs. per acre equals 1 lb. for a plot 10 x 14 ft.
200 lbs. per acre equals 1 lb. for a plot 10 x 21 ft.	400 lbs. per acre equals 1 lb. for a plot 10 x 11 ft.
500 lbs. per acre equals 1 lb. for a plot 10 x 9 ft.	

**Applied in quantities of 1,000 lbs. to a ton per acre**, our fertilizers, with intelligent culture will sustain and gradually improve the soil and increase the yield and quality of the product, even though the crop be entirely removed and no other manuring done. The roots, vines, stubble and whatever of weeds or waste there is, all assist in providing the necessary humus. A greater amount is often used to advantage by market gardeners. Complete instructions will be found in our Fertilizer Booklet, sent free. If there is any special information you require, write us; your inquiries will have our prompt and careful attention and our experience may help you.

## DIAMOND PLANT FOOD

**For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated.**

A complete, highly concentrated, powerful fertilizer, clean and odorless, wonderfully invigorating to all plants: producing luxuriant foliage and larger and more brilliant flowers.

A 40c package will feed a dozen large plants a whole year. Special instructions on each package.

**Price:** ½ lb. pkg. 25c, by mail 35c; 1 lb. pkg. 40c, by mail 50c.



### PRICES, FERTILIZER, F. O. B. PORTLAND, OREGON PRINTED PRICES SUBJECT MARKET CHANGES

**GENERAL AND VEGETABLE**—An all-round fertilizer, which can be used on any crop, but is especially adapted for grain and general farm crops. Analysis: Nitrogen, 4 per cent; phosphoric acid, 8.25 per cent; potash, 3.50 per cent. **10 lbs. 50c; 100 lbs. \$2.60; ton, \$50.00.**

**Fruit and Onion Fertilizer**—This fertilizer is also used for blackberries, raspberries, etc. We sell large quantities for growing the famous Hood River strawberries. Analysis: Nitrogen, 3 per cent; phosphoric acid, 8 per cent; potash, 9.50 per cent. **10 lbs. 50c; 100 lbs. \$2.85; ton \$55.00.**

**ODORLESS LAWN AND ROSE**—Our Diamond Lawn Fertilizer promotes a vigorous, healthy growth, giving the desired dark rich green appearance; can be used at the time the seed is planted and later as a top dressing. One hundred pounds is sufficient for an ordinary city lot, and is far more effective and less objectionable than stable manure. Remember, it contains no weed seeds. When used as a top dressing it is best to make several light applications about two weeks apart. **10 lbs. 50c; 25 lbs. \$1.00; 50-lb. sack \$1.65; 100 lbs. \$3.00; ton \$57.00.**

**BONE MEAL**—Fine ground, is one of the best fertilizers. This is a very valuable enricher of the soil, and one of the most economical at present prices. **5 lbs. 30c; 10 lbs. 50c; 100 lbs. \$3.25; ton \$62.50.**

**SHEEP GUANO**—The best natural manure, dried and ground. Concentrated, soluble; quick in action, and free from weed seed. Splendid for vegetables; fine for roses and flowers. Excellent for lawns. **10 lbs. 40c; 25 lbs. 75c; 50 lbs. \$1.00; 100 lbs. \$1.50; ton \$25.00.**

**SUPERPHOSPHATE**—This is a concentrated form of phosphoric acid, and it is actually the cheapest form in which to buy phosphoric acid. Our present stock contains 17 to 18 per cent available phosphoric acid. **Per lb. 5c; 100 lbs. \$1.65; ton \$30.00.**

**TANKAGE**—Ground meat scraps and bone, desiccated in a vacuum, is very rich in phosphoric acid and nitrogen. **Per 100-lb. sack \$3.15; ton \$60.00.**

**NITRATE OF SODA**—For immediate results Nitrate of Soda is the very best for stimulating and forcing the growth of plants or any other crop. **1 lb. 10c; 100 lbs. \$3.75; ton \$68.00.**

**FISH GUANO**—Fish cooked, dried and ground is a strong fertilizer, rich in nitrogen, carrying considerable phosphorus and largely used by vegetable growers. We do not recommend this for lawns or city use, as odor is objectionable. **100 lbs. \$3.60; ton \$70.00.**

**POTASH—KAINIT** is an imported potash salt containing 12 to 14 per cent of potash. A good fertilizer for all crops except tobacco. **100 lbs. \$2.25; ton \$42.00.**

**MURIATE**—Carrying 50% and upwards actual Potash. **100 lbs. \$3.00; ton \$58.00.**

**SULPHATE**—Carrying 50% actual Potash and no chlorine. **100 lbs. \$3.25; ton \$63.00.**

**PLANT more PERENNIAL FLOWERS.**



## FERTILIZER—Continued

For Lime-Sulphur Solution, Fertilizing, and General Purposes, Use Our

### DIAMOND "S" BRAND REFINED FLOUR SULPHUR



**SULPHUR, The New Fertilizer**—Recent field experiments in the Northwest have demonstrated the fact that Sulphur is one of the most valuable fertilizing materials that can be applied to the soil, not only being readily taken up as a powerful stimulant by practically all classes of vegetation, but having the further and more valuable property of making available the insoluble potash and phosphoric acid contained in all soils as well as being an effective fungicide and insecticide. Apply one to two sacks per acre. We offer agricultural Sulphur in two forms:

**DIAMOND S SULPHUR**—Finely powdered and 100% pure. Price 110 lbs. \$3.30. Write for Prices in Quantities.

### ANCHOR BRAND VELVET FLOWERS OF SULPHUR

For Dry Dusting of Trees, Vines, etc., Bleaching Fruit, etc.

**IMPALPABLE POWDER**—100% Pure, for Dry Dusting and Making Paste or wettable Sulphurs. \$5.75 per 110 pounds. Write for Prices in Quantities.



### USE TORO BRAND PREPARED SULPHUR

To Increase Crop Yields, drill into the soil 200 to 400 pounds per acre of "TORO" Brand. \$3.75 per 110 pounds. Write for Prices in Quantities.

**Note** AS FERTILIZERS ARE SOLD ON A SMALL MARGIN, PRICES ARE SUBJECT TO MARKET CHANGES, but you will always get FULL VALUE for your money.

**LAND PLASTER, OR GYPSUM**—Made from pure gypsum, free from clay or other foreign matter. This is especially valuable for clover crops. 10 lbs. 25c; 100-lb. sack \$1.00; ton \$17.00.

**LIME ROCK**—Fine Ground.—This is the form of lime recommended by the Agricultural Department. Use ½ to 1 ton per acre. 100 lbs. \$1.00, ton \$16.00.

**H. O. LIME**—A blended mixture of Raw Ground Limestone and Hydrated Lime. Much more effective than Raw Ground Lime Rock, and practically goes twice as far. Specially recommended for Sour Soils. 100 lbs. \$1.50; ton \$28.00.

ASK FOR FERTILIZER BOOKLET AND SPECIAL INFORMATION REGARDING SULPHUR

### DORMOIL

**DORMOIL** is a miscible oil spray manufactured at Hood River, Ore., and has been used by the big commercial orchards in that section with the greatest success, especially in spraying for leaf roller.

As a **SUMMER SPRAY**—Very efficient for young San Jose Scale and certain Aphis, when diluted with 50 to 100 gallons of water to one gallon of Spra Oil—depending on the foliage, which, if very tender, should be sprayed with a weaker solution than 1 to 50.

As a **WINTER SPRAY**—For San Jose Scale, Pear Scylla, Leaf Roller, Woolly Aphis, use one gallon of Spra-Oil to 15 or 16 gallons of water.

**Directions for Diluting**—Shake and stir well while in the original package; after this, mix with one part of water to one part of Dormoil which will readily emulsify to a creamy consistency. When this is thoroughly mixed, put it in the spray tank and it will stay in suspension. Price: qt. 40c; gal. 95c; 5 gals. \$3.50; 10 gals. \$6.50; bbl. \$22.00 f. o. b. Portland.

### CASEIN SPREADER

It pays to use a good spreader when spraying, and Casein lime spreader is the best yet. Ready to use, no cooking, no odor, cost trifling. For a thoro job use it and it sticks in spite of rain.

Write for descriptive matter. Price: 1 lb. carton 25c, postage extra; 100 lbs. with measure \$13.00 f. o. b. Portland.

### DRY LIME SULPHUR

Controls all scale and fungus diseases for which Lime-Sulphur Solution is recommended. More convenient to handle and saves freight on water. Put up in air-tight packages which should be used when opened. For Winter spray use ten to fourteen pounds to fifty gallons of water. For summer in combination with Arsenate of Lead use two to three pounds to fifty gallons of water.

Price: 1 lb. 25c, 5 lbs. \$1.00; 10 lbs. \$1.80; 25 lbs. \$3.75; 100 lbs. \$12.00.

### DIAMOND LIME AND SULPHUR SOLUTION

For San Jose Scale

You cannot afford to risk a cheap, open kettle product. Be safe. Use the best.

**DIAMOND LIME AND SULPHUR SOLUTION** is prepared in pressure tanks by steam, and is always uniform and of the highest efficiency tests 30 Baume Scale, is made of the purest and best quality of Sublimed Sulphur and of Lime, is a clear, deep cherry colored liquid, free from sediment, and is all ready to mix just as you get it. Merely add eleven gallons of water with each gallon of the Lime and Sulphur Solution. There is no sediment to clog the sprayers. No boiling to be done, which saves fuel, time, labor and annoyance. It is always alike and uniform in strength and results. Price: 1 qt. 30c; 1 gal. 75c; 5 gals. \$2.40; 50-gal. bbl. \$12.00 f. o. b. Portland.



## SPRAYS, INSECTICIDES

NOTE—Poisonous Sprays marked \* cannot be mailed.

### ★“CORONA” Arsenate of Lead—DRY POWDERED

Contains only Arsenic and Lead Oxides. No Fillers

**MIXES QUICKLY AND EASILY. STAYS MIXED LONGER AND STICKS** better to leaves, branches and fruit than ANY OTHER Arsenate.

“CORONA” Dry Powdered Arsenite is a light, fluffy powder that cannot freeze, dry out, cake or lose its strength—carries the highest possible percentage of arsenic oxide, 33%—is always uniform and requires only one pound to 50 gallons of water. Efficient, economical and convenient. Highest percentage of killing power. Prices, ½ lb., 40c; 1 lb., 55c; 4 lbs., \$1.75; 10 lbs., \$4.00; 1 Case 12-4 lb. pkgs., \$16.25.

Write for latest quantity prices.

**POISON—CANNOT BE MAILED**

**FOR DUSTING**—“CORONA” DRY used as a dust spray is a safe, inexpensive, easily applied and efficient remedy for all chewing garden pests—and for use on fruit trees, berry bushes and plants—that will insure perfect fruit and clean vegetables.

“Garden Pests and their Control” and full information about “CORONA” mailed on request.

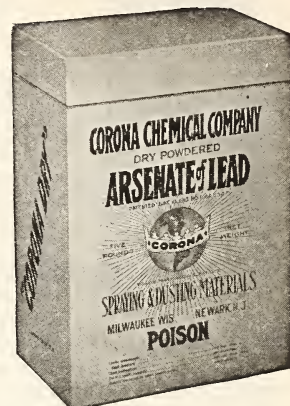
### Use “CORONA DRY” in Your Vegetable Garden

**TOMATOES**—For tomato worms, flea beetles, etc., make first application two weeks after setting out the plants.

**CUCUMBERS**—All chewing insects that injure cucumbers are quickly destroyed by dusting leaves and stems above and below. Corona Dry will not burn the foliage as Hellebore does.

**POTATOES**—Corona Dry is fatal to flea beetles and all chewing insects that damage the foliage. Mixed half and half with Dusting Sulphur will control and prevent early blight.

Choose a bright day with a light wind and apply the powder from the windward side. It is not necessary to have the foliage appear white but care should be taken to cover all parts. **Begin Early.** Don't wait until the damage is done.



**CABBAGE, CAULIFLOWER AND KALE**—To control cabbage worms, dust about ten days after plants are set and as often as necessary until they begin to head. **Do not use any poison on plants after they start to head.**

**SWEET CORN**—The corn ear worm develops from an egg on the new silk or husk and feeds on the silk, following it into the ear. “Corona Dry” gives absolute control of this pest. Thoroughly dust the new silk as soon as it appears.

**CARBOLINEUM—AMERICAN—Wood Preserver**—This is the pure CARBOLINEUM, used for preserving any kind of timber above or below ground. Painting roofs, fence posts, farm buildings, chicken houses and roosts to prevent mites and other pests. **Quart can, 60c, weight, 4 lbs.; gal. \$2.00; 5 gals., \$7.50.**

\* **LION DRY BORDEAUX MIXTURE**—Dry Powdered Bordeaux when mixed with cold water in the proportion of nine pounds to fifty gallons, gives a standard Bordeaux Mixture. Keep in a tightly closed package. **Price, 1 lb., 40c; 5 lbs., \$1.50; 25 lbs., \$4.50; 50 lbs., \$8.50; 100 lbs., \$16.00; 200 lbs., \$30.00.**

**SULPHUR—FOR DUSTING**—Use the ANCHOR Brand. See page 89.



# FORMALDEHYDE

**Will Prevent Oats Smut, Stinking Smut of Wheat, Barley Smut and Leaf Stripe**

Use one pint formaldehyde in 40 gallons of water for wheat and barley. Spray oats with one pint formaldehyde in 10 pints of water. For **Potato Scab** soak the potatoes for two minutes in a warm solution (118° to 122° F), one pint in 15 gallons of water; small lots on the stove in wash-boiler; larger lots in tank heated with tank heater and large lots in tank heated by steam from tractor or other boiler. Full directions on application.

**Pts., 60c; Qts., \$1.00; Gal., \$3.25.**

**CABBAGE DISEASES**—Brown or black-rot cabbage is a bacterial disease. Club-root is a slime mold disease. Fusarium wilt, known also as “yellow”, Black leg, known also as wilt, fungus diseases. Treat all seed just previous to planting. Soak for twenty minutes in a solution of one part formaldehyde to 320 parts water or 1 teaspoonful to 1 pint of water.

**ONION SMUT**—This disease lives in the ground. It appears on the young plants, which are stunted, as numerous blisters which are filled with a black powder. If necessary to use infected land, apply solution in drill 1 pint to 16 gallons water, after dropping the seed and before covering it, at the rate of 1 gallon solution to 85 feet of row. (12 pints Formaldehyde to 200 gallons water per acre). Onion sets are not subject to smut injury.

**CUCUMBER ROOT ROT**—Thoroughly wet soil with Formaldehyde solution. 1 pint to 12½ gallons of water. Wait several days before planting.

**LETTUCE ROSETTE AND ROT**—Wet soils in green houses or out of doors two weeks before setting of plants with one part formaldehyde to 100 parts of water, using one gallon to each square foot of surface.

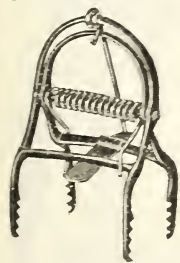


**"WOOD-LARK"**  
TRADE MARK  
**SQUIRREL  
AND GOPHER  
POISON**  
QUICK, CERTAIN,  
DEADLY.

Exterminates Squirrels, Sage Rats, Field Mice, Pocket Gophers, Prairie Dogs, Crows. Use early when green food is scarce. Price 1 lb. package 60c (Cannot be mailed)

**REDDICK  
MOLE TRAP**  
No Mole Can Pass under it and Live

These traps are strong and durable and worth the price to anyone troubled by moles.

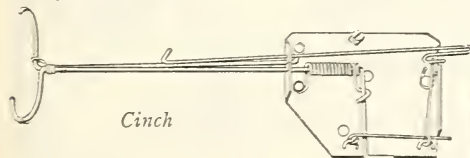


**OUT  
O'SIGHT  
MOLE TRAP**

One of the best. Sure to "get them." Weight, 2 lbs. Price, \$1.25

**CINCH GOPHER TRAP**

Fits the hole, a sure killer and the most satisfactory trap. Weight, 1 lb. Price, 85c.



Cinch

**THE OFFICIAL RAT TRAP**

The Government selected this trap from among thousands of models submitted. Spring releases with either upward or downward pressure—Rats Nibble Upward. The "Official" always gets them.

Official Rat Trap, weight, 1 lb. Each, 20c.  
Official Mouse Trap, weight, 4 oz. Each, 5c.

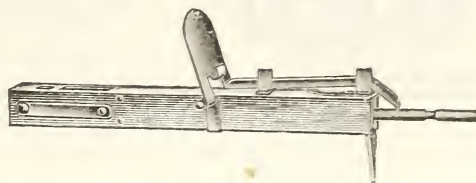
**BARNES' WORM EMULSION**

See full description on page 112

16 oz. 60c; qt. \$1.00; gal. \$3.00; 5 gal. \$12.50

**THE NEVER-FAIL GOPHER GUN AND  
BURGLAR ALARM**

For the Positive Destruction of Gophers, Moles, Squirrels, Rats and Other Burrowing Pests



**INSTRUCTIONS**

First—Dig opening in front of hole so that gun can be inserted in hole in position parallel to surface of ground. Then to load—open gun by tipping barrel pressing on same with thumb through oblong slot and insert 38 BLANK cartridge; close barrel.

Place gun well in gopher hole, press anchor plate into ground to steady same, then see that trigger plate is free and pull back firing pin until trigger engages in notch. See that outer end of firing pin is free from ground.

For moles—Dig straight down where mole has thrown up mound and you will find hole. Enlarge the same enough to get ample room for gun and place same as for gophers. Mole may not come back the same day, but come he will.

Keep the gun clean and it will last a life time. Price, \$2.00 each, postpaid.

**POISON GAS BALLS**

For the extermination of Ground Squirrels, Gophers, Prairie Dogs and Moles.

**SAFE—SURE—ECONOMICAL**

Will not explode. Do not deteriorate. No danger to Live Stock, Domestic Fowls or Wild Game.

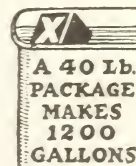
Hold the exterminator in mouth of squirrel's burrow, light the sharp edge with torch or match, after the ball is ignited and burning freely, roll it as far as possible into the burrow. Cover the hole with clod of dirt, then with enough fine dirt to seal tightly so that none of the gas fumes can escape. Throw no fine dirt on the burning ball. Each 5c; doz. 50c; 100 \$2.00. Postage extra.

**TARX**

A Solidified Soluble Coal Tar Disinfectant

A new and better Dip and Disinfectant in a handy, cheap form. A money-saver and time-saver for every user of Dips and Disinfectants. Not only handier and cheaper, but stronger and more efficient. Does the work of five times its weight in liquid. Just crush a small cube of Tarx in a gallon of water and you have a gallon of the best dipping and disinfecting solution. Each cube makes a gallon. No measuring, no mistake, no breakage, leakage or waste. You get the right strength every time.

It keeps indefinitely; never loses strength; is not affected by heat or cold. Each 5-lb. cake is marked off in 150 cubes, enough to make 150 gallons. It will go farther, do better work and at less cost than any other Dip or Disinfectant ever used. Use it for dipping cattle and sheep, spraying hogs, spraying poultry houses. Keeps barns sanitary. Cleans foul places that breed disease. Dissolves readily in water and can be used in any spray pump. Send for special booklet. 1 lb., 50c; 5 lbs., \$2.00. Postage extra.





## SPRAYS, SPRAY MATERIAL, WASHES



**VEGETABLE SPRAY**

For destroying and preventing maggots, grubs and worms that infest turnips, radishes, beets, rutabagas, cabbage and cauliflower, etc., also recommended for combating crown borers in strawberries.  $\frac{1}{2}$  pt., 50c; pt., 75c; qt., \$1.25; gal., \$2.75.

Portland Seed Company's  
APHISCIDE

### Our Best Summer Spray for Roses

A clean, efficient spray for aphid, thrip, and kindred insects on plants of any kind. Specially fine for house plants, as it has no offensive odor and will not injure or stain the plants. Price, qt., 35c; gal., 65c.



**BUG DEATH**—A non-poisonous insect-killing powder that is in high favor among gardeners for cabbage, tomato and cucumber bugs, etc. Use 12 lbs. per acre. Per lb., 35c; 5 lbs., \$1.00.

**BUHACH**—Oz., 30c;  $\frac{1}{4}$  lb., \$1.00; 1 lb., \$1.75.

**TREE TANGLEFOOT**—For caterpillars, moths and worms. Protects against all climbing insects. One pound makes a band 9 feet long. Price, 1 lb., 60c; 5 lbs., \$2.75; 10 lbs., \$5.25; 25 lbs., \$11.00.

**HAMMOND'S SLUG SHOT**—For destroying slugs, cabbage and turnip flea, currant worms, etc. Per 5-lb. pkg., \$1.20.

**HAMMOND'S GRAPE DUST**—To prevent mildew on roses, grapes, and gooseberries. Per 5-lb. pkg., \$1.50.

**PURITAN LIME**—A specially manufactured and highly refined lime product for household and other uses. Can be used as a whitewash or for any purpose where a slack lime is desired. Price, per pkg., 35c.



**PURITOL**—A white disinfectant paint in dry powdered form. Ready to use when mixed with cold water. Excellent for use in chicken house, stable, dog house, hog house, dairy, etc. Keep the interior of your buildings clean. Price, pkg., 65c.



**\*NICO-FUME**—Best fumigant and spray for greenhouse work. Kills aphid, red spider, mealy bug, thrip, etc.  $\frac{1}{4}$  lb., 75c; 1 lb., \$2.25; 4 lb., \$8.00; 8 lb., \$15.00.

**LEE'S GARDEN INSECTICIDE**—(Non poisonous)—This is a new addition to the famous "Lee Line" of insecticides. We recommend "Lee's Insecticide" as one that is suited to the needs of the average gardener, and one that is guaranteed to give satisfaction. 1 lb. sprinkler top can, 35c; 2 lb. sprinkler top can, 60c.

### Use Sulphur

in connection with your fertilizers and make your soil give you the highest possible returns. It is a first class fertilizer, fungicide and insecticide.

### GOULD SPRAY PUMPS

will give and maintain the necessary pressure to spray right. They are built for lasting service.

Note—All articles on this page marked with an (\*) are poison and cannot be mailed.

Prices quoted are F. O. B. Portland, if mailed postage extra.

### A SUCCESSFUL REMEDY FOR CABBAGE MAGGOT

### \*"BLACK LEAF 40" 40% Nicotine

Destroys Aphid, Thrips, Leaf Hoppers on all tree, bush and vine fruits, vegetables, field crops, flowers and shrubs; also Apple Red Bug, Pear Psylla and similar soft-bodied sucking insects—all without injury to foliage. Combines readily with other sprays. 1 oz., 6 gals. spray, 35c;  $\frac{1}{2}$  lb., 40 to 120 gals. spray, \$1.25; 2lb., 160 to 500 gals. spray, \$3.50; 10 lbs., 800 to 2500 gal. sprays, \$13.50.

### \*CUT WORM FOOD

### Use a Teaspoonful to a Plant or Hill

Cut worms are very fond of this special preparation which is eagerly eaten by them in preference to the plants. A careful test proved 95 per cent of the applications effective on Melons, Cucumbers, Cabbage, Cauliflower, Squash, Tomato and Flowering Plants. Easily apply by sprinkling around the plants and will not injure them in any way. Price, 1-lb. pkg., 50c; 5 lbs., \$2.00.



### BLUE LABEL SLUG DESTROYER

Kills slugs and keeps them away from young plants. Not harmful to delicate foliage.

For Sweet Peas, Pansies and all garden truck sprinkle lightly on and around the plant. Price, 1  $\frac{1}{2}$  lb. pkg., 25c; 6 lb. pkg., 75c.

### \*BLUESTONE—(Vitriol)

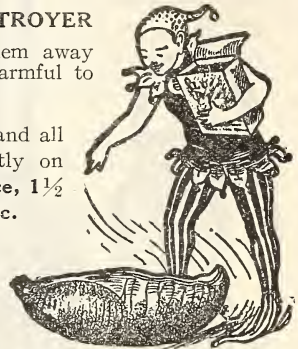
Lb., 20c; per 100 lbs., market price.

### \*PARIS GREEN—(Lion

Brand)—The standard of purity. Guaranteed superior to other makes. Price,  $\frac{1}{4}$  lb., 25c;  $\frac{1}{2}$  lb., 40c; lb., 75c.

**FISH OIL SOAP**—For aphid, plant lice, etc. Per bar, 20c; 100 lbs. bulk, \$12.00.

**TOBACCO DUST**—Lb., 15c; 10 lbs., \$1.25; 100 lbs., \$10.00.



You can control

### ROOT MAGGOT

Absolutely Protects  
CABBAGE, RADISHES, TURNIPS,  
ONIONS, Etc.

A Positive Remedy for Root Maggot

Prices, 2 lbs., 25c; 4 lbs., 60c; 8 lbs., 90c; 25 lbs., \$2.50.





# GOULD'S SPRAY PUMPS

We are General Agents for the Gould Sprayers, guaranteed to be the best built, most lasting and of the highest efficiency. They are the recognized standard.

## GOULD'S STANDARD SPRAYER

Powerful, Large Capacity, Durable

The "Standard" Sprayer is made with 2½-inch cylinder. The cylinder is brass-lined, the plunger brass-encased and the valves are brass, making all working parts proof against the spraying mixtures. The plunger is easily repacked without taking the sprayer to pieces, and is unusually large, known as a "differential" plunger, which produces a continuous stream of liquid from the nozzle, similar to a double-action pump. The large standard provides an ample air chamber. The base is made so as to fit either the end or side of a barrel.

- Outfit A—Pump and strainer only..... \$12.50
- Outfit B—Pump with agitator and suction pipe..... 14.00
- Outfit C—Same as B, with one 15-foot lead of hose and nozzle..... 18.25
- Outfit D—Same as C, with two 15-foot leads of hose and nozzle..... 22.75
- Outfit E—Same as D, with 2 bamboo extensions and globe valves..... 27.50

We supply a barrel and mount sprayer for \$2.50 extra.

## GOULD'S POMONA—Our Leading Barrel Pump

Fig. 1100—"Pomona" Spray Pump has won for itself an enviable reputation. We unhesitatingly offer it as the best orchard spray pump for mounting in a barrel. It has great power and capacity. Briefly stated, other points of superiority are: No leather packings, consequently no hardened and useless valves. All working parts bronze, including plunger, gland, valves, valve seats, etc. Plunger is outside packed. Valves are easily accessible. Air chamber is very large and of steel, free from imperfections of cast iron. Lever long and powerful, with adjustable stroke, 3, 4 or 5 inches. The agitator, as shown in the cut, is operated by the stroke of the handle, so whenever any liquid is pumped it is thoroughly agitated. Pump is held securely by small anchor located at bottom of barrel, and by adjustable clamp plate at the top. New plate admits insertion or withdrawal from barrel without removing the agitator.

- Outfit A—Pump only..... \$25.00
- Outfit B—Pump with 12½ ft. best spray hose, one Vermorel nozzle, one 8-foot bamboo extension with cut-off, complete..... 31.00
- Outfit C—Same as Outfit B, except we furnish a good hardwood barrel and mount the outfit..... 33.50
- Outfit D—This is our regular Pomona outfit, the best barrel pump outfit that can be bought. It consists of one No. 1100 pump with two 12½ ft. leads of best spray hose, two Vermorel or Seneca nozzles, two 8-ft. bamboo extensions, with cut-off; all in working order and mounted in barrel..... 39.00



## FRUITALL

Fig. 1188—"Fruitall" Spray Pump is made on the same general lines as our famous "Pomona." It is, however, made lighter and of smaller capacity. All working parts, including plunger, gland, valves, valve seats and strainer are made of brass. Pump is held in barrel by anchor at bottom and adjustable clamp at top, fitting over end of stave. Not made for side of barrel.

- Outfit A—Pump only..... \$16.50
- Outfit B—Pump with 15 ft. of spray hose and one Vermorel nozzle, all complete... 21.00
- Outfit C—Pump mtd. in bbl., 15 ft. hose, 8 ft. bamboo nozzle and cut-off, all complete 26.50

NOTE.—Extra spray hose at 17½ cents per foot.

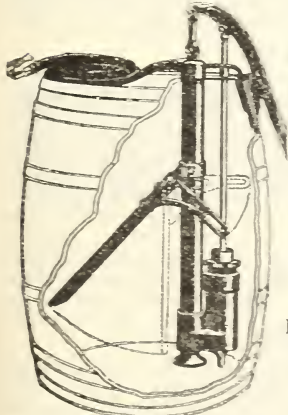
## MONARCH TWO-CYLINDER SPRAY PUMP

Fig. 1640—Monarch—This pump has many advantages and we believe it is the best of the large pumps. The main advantages are: First, the long lever, which can be shifted to pull or push, or to lift or drop, and can be changed by the operator any time he desires a relief; second, pump stands outside of the barrel, and all parts can be easily looked after; third, cylinders are perpendicular, and any grit will not lie against the plunger, to wear it or the packing out, as in the case with the horizontal cylinders; fourth, there are no valves in the plungers; the packing is on the outside, and can be tightened any time, without taking anything to pieces; fifth, the four brass valves (each one by itself and under a separate cap) can be reached by merely unscrewing the cap, and without disturbing the rest of the pump.

- Outfit A—Pump only, 2-inch cylinder, including strainer and hose connection..... \$40.00
- Outfit B—Coupled with 6 feet ¾-inch suction hose..... 42.00
- Outfit C—Pump, suction hose, 25 ft. best spray hose, 8 ft. bamboo extension, Globe valve, nozzle..... 50.00

If 2½-inch cylinder is wanted add \$5.00 to price of pump.

Monarch  
Fig. 1640





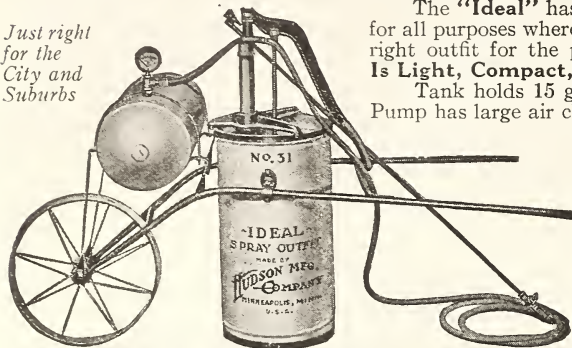
# SPRAY PUMPS AND SPRAYERS—Continued

## “IDEAL” SPRAYING OUTFIT

The “Ideal” has been designed for small growers, city and suburban homes, and for all purposes where nothing as large as a barrel or power outfit is needed, and is the right outfit for the poultryman who does much regular spraying or whitewashing. **Is Light, Compact, Easy to Operate.**

Tank holds 15 gallons; will not slop or spill. Has 20-inch wheel, 2½-inch tire. Pump has large air chamber. Bronze ball valves; removable. Well made; gives a pressure of 275 pounds, has mechanical agitator and strainer. Outfit complete, 10 feet, ¾-inch hose, 8-foot extension in two pieces, one T-handle shut-off, one “Ideal” nozzle; shipping weight, crated, 130 pounds. **Price, \$37.50.**

*Just right  
for the  
City and  
Suburbs*



## BROWN'S AUTO SPRAY

The Auto-Spray No. 1 is strong and simple in its working parts. Two pumpings of about fifteen strokes on the plunger will discharge contents under high and constant pressure. The Sprayer is equipped with our patent non-clogging nozzle.

The Solution Tank holds about four gallons and is made of galvanized steel or heavy sheet brass. We recommend brass as it will not corrode with strong solutions and is more lasting.

The brass air pump, made of seamless tubing, is provided with our Cam Locking Device which closes the filler opening airtight with a half turn of the pump handle.

Made without screws or bolts. Easy to take apart.

Valves and washers resist oil and other solutions that attack rubber.

Diameter, 7 inches, height, 2 feet;

capacity, 3½ gallons; weight, empty, 7 pounds, weight, loaded, 39 pounds; shipping weight, 15 lbs.

**Price, galvanized with auto pop nozzle, \$6.50;**

**brass, \$9.00.**



*Auto Spray No. 1*

**Price, galvanized with auto pop nozzle, \$6.50; brass, \$9.00.**

## Take Care of Your Sprayer

*Always empty remaining solution, and pump through clean water after using. Clean thoroughly before pulling away at end of season.*

*Never leave sprayers containing liquid where they will freeze; if cylinders are iron they are apt to crack and if brass they will expand.*

## DIAMOND PLANT FOOD

**For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated**

Produces luxuriant foliage—brilliant and lasting flowers. A 40c package will feed a dozen large house plants a whole year. **Price, ½ lb. pkg., 25c—postpaid, 35c; 1 lb. pkg., 40c—postpaid, 50c.**

## CULTURE SUGGESTIONS FOR POTATOES

No crop responds more readily to thorough cultivation and fertilization than potatoes. Poor ground cannot be expected to produce good crop, but ground thoroughly conditioned to a fine tilth, properly fertilized, with sufficient moisture either added or conserved can reasonably be expected to yield not only paying crops but tubers of exceptional quality. First of all poor seed will never produce a good crop, so good seed stock is first requirement, fertile ground in good condition and thorough, clean cultivation is also necessary, and with these success is assured if moisture conditions are satisfactory. We recommend a fertilizer analyzed about 3 to 3½ Am., 8 to 10 Phosphorous and 6 to 10 Potash applied not less than 500 lbs. per acre. See pages 32-33-35.

## JUNIOR COMPRESSED AIR SPRAYER

The Junior Sprayer is made for the man who needs a high pressure compressed air sprayer. It is particularly adapted for the backyard garden or small truck farm, for use around the chicken house, in the dairy barn, hog pen, or for disinfectants in hotels, restaurants, theatres and other public buildings. It will do any work the larger models can, for it differs from them only in capacity. It is substantially made and will give entire satisfaction. Capacity, about 2½ gallons. Shipping weight, 9 lbs. **Galvanized Tank, \$5.25; All Brass Tank, \$8.25.**



## FAVORITE COMPRESSED AIR SPRAYER

The Favorite is a high pressure compressed air sprayer. It may be used for spraying potatoes, fruit trees, vines, garden truck; for whitewash, cold water paint, disinfectants, stock dips, insecticides, washing windows, buggies, automobiles, etc.

**Tank—7½ inches diameter, 20 inches high; capacity, approximately 4 gallons. Made in either galvanized or brass. Brass is recommended where**

the sprayer is used with a corrosive mixture because it resists the action of the solution. Copper-bearing galvanized sheet is used exclusively in the galvanized tank on account of its rust-resisting properties.



**Pump—1¾ inches diameter, 15 inches long; seamless brass tubing. Valve is brass, recessed to prevent possibility of damage. A half turn of the “D” handle frictions the pump into place. All fittings, including the handle, are malleable, eliminating breakage. **Galvanized Tank, \$6.50; Brass Tank, \$9.00.****



# SPRAY PUMPS AND SPRAYERS—Continued

## PORTLAND SEED CO.'S BUCKET PUMP

This little pump is very convenient for all sorts of small work. Has brass cylinder and valves, two nozzles, for fine or coarse work, and an extra solid stream cap. Weight 6 lbs. Price, \$5.00.



## MODOC PUMP

The Modoc is a double acting high pressure spray pump of large capacity. It will develop 150 lbs. pressure at the nozzle—may be used with any bucket or small tank. Valve and Plunger easily removed for cleaning and inspection. All parts, except the handle and foot rest, are of brass, insuring long life.

**Cylinder**—One inch in diameter, 18 inches long, forming the outside tube of the pump. Seamless brass tubing.

**Discharge Equipment**—3 feet  $\frac{3}{8}$  inch Spray Hose and fog nozzle for spray or solid stream. Price, \$4.25. Weight, 6 pounds.



Modoc

## ASPINWALL SPRAYER

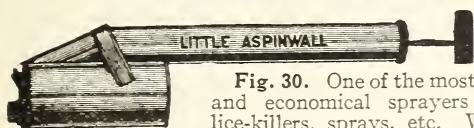


Fig. 30. One of the most convenient and economical sprayers for liquid lice-killers, sprays, etc. Weight, 1  $\frac{1}{4}$  lbs. Price, 50c.

## SPECIAL GLASS JAR SPRAYER

Jacket and Air chamber made of heavy tin plate—Plunger rod copper Bessemer—Double tubes giving large dense spray—Tank Standard Quart Mason Jar. Price, 75c.

## FEENEY DUST GUN



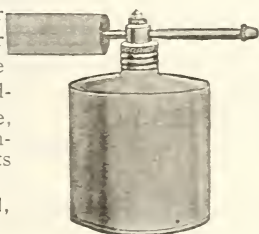
The dust cloud from a MODEL B DUSTER COVERS EVERY SURFACE of the THING THAT IS TO BE

DUSTED—TOP, sides underside and ALL—HUNTS EVERY CRACK AND CREVICE—nothing escapes being treated—IT DOES THE JOB COMPLETELY. Price, \$1.00.

## P. S. CO.'S. CONTINUOUS HAND SPRAYER

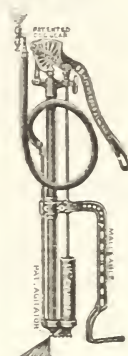
This is the best hand sprayer to date, has a compressed air chamber, which makes pressure continuous, has brass nozzle, adjustable to spray, fine or coarse, brass ball valve, simple in construction, light, durable, works easy. Weight, 1  $\frac{1}{2}$  lbs.

Price, tin, 95c; galvanized, \$1.10; brass tank, \$1.35.



## LEVER HANDLE BUCKET PUMP

The lever handle and large air chamber make this the most powerful bucket pump and the easiest one to operate. All working parts are solid brass with brass ball valves and patent agitator. Fitted with graduating nozzle to throw a fine or coarse spray or a solid stream. Weight, 8 lbs. Price, \$7.35.



## INSECT POWDER GUN

No need to waste any powder if you use this small hand powder blower to apply powder of any kind on poultry, dogs or cats.

Price each, small, 15c; large, 30c, post-paid.

## PLUVIUS LAWN SPRINKLER



Pluvius

Properly constructed, iron stand, upper part all brass. Turns with small force. Weight, 3  $\frac{1}{2}$  lbs. Each, \$2.00.

## BUSY

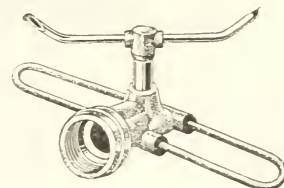
A regular water flirter, runs easy. Weight, 2 lbs. Price, \$1.25.



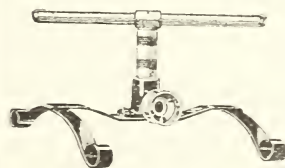
Busy

## THOMPSON "JUNIOR" REVOLVING SPRINKLER

An unusually efficient little revolving sprinkler. With 50 pounds pressure will cover a circle about 30 feet in diameter. The Sprinkler Head is mounted directly upon a zinc base with wire-extensions. Price, \$1.00.



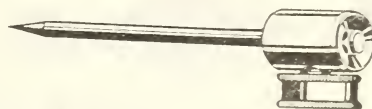
## RAIN INSURANCE



Seven inches high on sled seven inch revolving head, throws a wonderful fine spray forty to fifty feet, revolves fast on any pressure. Does not stick or rust, no repairs, no leaks. Price each, \$2.50.

## THE PERFECT STICK STAND SPRINKLER No. 10

Sprays a mist even on low pressure 30 to 35 feet, simple in construction, no leaks, nothing to wear out. Price, \$1.00.



Fruit Trees Demand Bees for Proper Pollination



# NOZZLES, CONNECTIONS AND HOSE SUPPLIES

**NON CLOG**—Best hop nozzle; throws a perfect spray; of greater capacity and a great improvement over other nozzles; produces a fog in great volume at a light pressure. Weight 8 oz. **Price 75c.**  
**Non Clog Angle.** **Price 85c.**

**VERMOREL NOZZLE**—With degorger; affords a conical discharge. Very popular. Weight 4 ozs. **Price \$1.00.**

**SENECA**—Gives a very wide spray; discharge easily graduated. Use this nozzle for whitewashing. Weight 5 ozs. **Price \$1.25.**

**NOZZLE ELL**—Weight 2 ozs. **Price 25c.**

**HOSE CONNECTION**—For nozzle or extension. Weight ¼ lb. **Price 35c.**

**HOSE REDUCER**—For nozzle or extension. Weight 3 ozs. **Price 45c.**

**DOUBLE CUT-OFF**—Weight 2 lbs. **Price \$2.50.**

**BRASS Y**—¼-inch, for nozzle only. Weight ¼ lb. **Price 50c.**

**BRASS YERDON'S BANDS**—½-inch. **Each 10c; doz. 75c; postpaid 85c.**

**CALDWELL BANDS.** **Doz. postpaid, ½-inch or ¾-inch 35c.**

**BAMBOO EXTENSION**—Has iron pipe inside of bamboo, threaded for nozzles and stopcock.

<b>Price:</b>	<b>Bamboo</b>	<b>Bamboo</b>
2 to 4 ft.....	\$1.15	10 ft.....
6 ft.....	1.45	12 ft.....
8 ft.....	1.75	

**With Stopcock, add \$1.00**

**STOPCOCK**—Weight ½ lb. **Price \$1.00.**

**SPRAY HOSE COUPLINGS**—2½-inch shank for heavy pressure spraying. **For ½ or ¾-inch hose, price pair, 75c. postpaid.**

**HOSE COUPLINGS**—For garden hose, ½-inch or ¾-inch, complete. **Price per pair 40c; postpaid 45c.**

**HOSE WASHERS**—½-inch, rubber. **Doz. 10c.**

## FOR SPRAY PUMPS AND GARDENS

**NOTE.**—All our hose, excepting spray, is furnished in 50-foot lengths, and comes coupled ready for use. We will cut any of these hose in 25-foot lengths at an additional cost of 35 cents for couplings. We will cut ½-inch Pomona and Monarch Spray Hose in any length desired, at an extra cost of 75 cents for spray couplings in less than 50-foot lengths.

**MONARCH SPRAY HOSE**—Absolutely the best hose we can buy; the rubber is of exceptionally good quality and is very heavy; and we do not hesitate to recommend it to orchardmen, who must have a very high-grade and strong spray hose. **½-inch, per foot 27c.**

**AJAX**—A splendid molded hose, will stand high pressure. **¾-inch only. Per ft. 23c.**

**SPECIAL**—A good hose for hand power pumps. **½-inch. Per ft. 17½c.**

**COTTON GARDEN HOSE**—5 ply. **Price per ft. ½-in. 18c; ¾-in. 20c.**

**SUCTION HOSE**—This is an excellent grade of suction hose, and is what we furnish with our regular pump outfit. **Per ft. ¾-in. 40c; 1-in. 60c; 1¼-in. 70c.**

**CORRUGATED GARDEN HOSE**—A new process, corrugated rubber hose, that will not kink or break. Especially recommended for florists and gardeners who use hose continuously. **Price per ft. ½-in. 18c; ¾-in. 20c.**

**ST. HELEN'S GARDEN HOSE**—Where a hose of medium price is wanted it will give excellent satisfaction. **Price ½-in. per ft. 12½c.**

## SPRAY CALENDAR—WHEN TO SPRAY, WHAT TO USE

Insect or Disease	Plant Attacked	What to Spray With	First Spraying
Codling Moth.....	Apple, Pear.....	Arsenate of Lead.....	Just before calyx cups close.
San Jose Scale.....	Apple, Pear.....	Scalecide, Standard Sulphur Lime Solution..	When leaves are off the trees.
Oyster Shell Bark Louse.....	Apple, mainly.....	Standard Sulphur-Lime Solution.....	When leaves are off the trees.
Peach, Moth or Twig Borer.....	Peach.....	Scalecide, 1 part to 20 parts water.....	When the insects appear.
Woolly Aphis.....	Apple.....	Scalecide, 1 part to 40 parts water.....	When the insects appear.
Aphis.....	Roses and plants.....	Aphicide, Nicotidine.....	Just as soon as the insects appear.
Cabbage Worm.....	Cabbage.....	Bug Death (non-poisonous).....	Before the worms eat into the cabbage.
Cabbage Aphis.....	Cabbage.....	Scalecide, 1 part to 40 parts water.....	When the insects appear.
Slug.....	Pear, Cherry, Peas.....	Slug Shot or Bug Death.....	
Thrips.....	Roses.....	Thrip Juice, or Aphicide.....	When the insects appear.
Cottony Scale.....	Pear, Currant.....	Scalecide, 1 part to 40 parts water.....	When the insects become cottony (May)
Scab.....	Apple, Pear.....	Bordeaux.....	Just before blossoms open.
Blackspot Canker.....	Apple.....	Bordeaux, double strength.....	Immediately after leaves fall.
Leaf Curl.....	Peach.....	Standard Sulphur-Lime Solution.....	Before buds burst.
Mildew.....	Gooseberry.....	Potassium Sulphide, 1 oz to 2 gallons water.	Just as buds burst.

## SPRAYING to be effective, MUST BE WELL DONE—

**Gould Spray Pumps** will give and maintain the necessary pressure to spray right. They are built for lasting service.

**Caution Against Spraying When Trees are in Full Bloom**—*Spraying when trees are in bloom may destroy bees and other insects necessary to pollinate, and these natural agents should not be interfered with as their work of transferring the pollen insures beautiful crops and shapely fruit.*



Fig. 20

## ACME SINGLE POWER BELLOWS

Fig. 20—Excellent for blowing powder on vines and bushes; good size, and works fine. Weight 2 pounds. **Price \$1.65.**

## HANDY DUST SPRAYER

Made of heavy tin. Resembles a liquid sprayer. One of the most effective dust sprayers made. Will give satisfaction. **Price, 65c.**

**Note**—All articles on this page if mailed, postage extra.

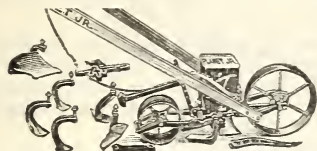
**Our Booklet "FERTILIZERS"** tells what you should know about Fertilizers—what they are for, how and when to apply—and is mailed free on application.



# Planet Jr. Garden Tools



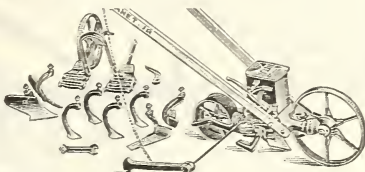
Why worry along with slow out-of-date implements and meager results? Planet, Jr., tools are far more economical—they do three to six times the work, get bigger crops, and outlast several ordinary implements. **Fully guaranteed.** You are actually losing money whenever you cultivate without them.



**No. 4 PLANET JR. COMBINED HILL AND DRILL SEEDER, WHEEL HOE, CULTIVATOR AND PLOW**—Soon pays for itself in the family garden as well as in the larger acreage.

Sows all garden seeds (in drills or in hills), plows, opens furrows and covers them, hoes and cultivates quickly and easily. Weight 50 lbs. Holds 2 qts. **Price, \$22.50.**  
**No. 4D**—Seeder only, **Price, \$18.00.**

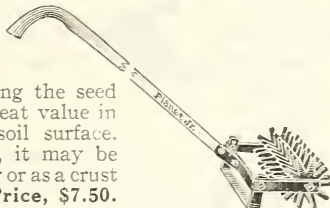
**No. 25 PLANET JR. HILL AND DRILL SEEDER, DBL. AND SGL. WHEEL HOE**—A splendid combination for the family garden, onion grower, or large gardener. It is a perfect seeder, and combined dbl. and sgl. wheel hose. Weight, 60 lbs. **Price, \$27.25.**



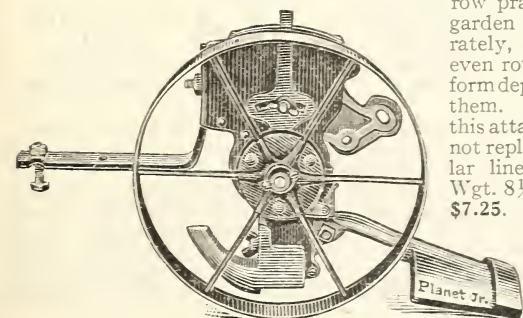
**No. 3 PL. JR. HILL & DRILL SEEDER**—A favorite among onion growers, market gardeners and seedsmen. The index and seed cut off rod is conveniently placed at the top of

the handle. Weight, 43 lbs. Holds 3 qts. **Price, \$22.00.**

**PLANET JR. STAR PULVERIZER, LEVELER AND WEEDER**—This tool is especially adapted for preparing the seed bed, and will be found of great value in smoothing and fining the soil surface. After the crops are started, it may be used between rows as a weeder or as a crust breaker. Weight, 10 lbs. **Price, \$7.50.**



**No. 35 PLANET JR. SEEDER AND ATTACHMENT FOR WHEEL HOES AND GARDEN PLOWS**—Ever since the wheel hoe replaced the hand hoe in the kitchen garden there has been an insistent demand for a small seeder that could be attached to the wheel hoe. We are now prepared to furnish the seeding attachment shown here which can be attached to any Planet Jr. Single or Double Wheel Hoe or Garden Plow, with the exception of No. 33 Single Wheel Hoe. It is quickly attached by single bolt and will sow in a continuous row practically any garden seeds—accurately, in straight even rows, at a uniform depth and cover them. Remember this attachment does not replace our regular line of seeders. Wgt. 8½ lbs. **Price, \$7.25.**



**No. 12 PLANET JR. DOUBLE WHEEL HOE, CULTIVATOR AND PLOWS**

—A single and double wheel hoe in one. Straddles crops till 20 inches high, then works between. Has steel frames and 14-inch steel wheels. The greatest hand-cultivating tool in the world. Weight, 33 lbs. **Price, \$13.75.**



**No. 11 DOUBLE WHEEL HOE, CULTIVATOR, PLOW RAKE**—These Double Wheel Hoes are the highest type of machines of this kind made. Light and durable—can be used by man, woman or boy. Weight, 39 lbs. **Price, \$17.50.**

**No. 13 DOUBLE AND SINGLE WHEEL HOE**—This is the No. 12, with 6-inch hoes only, these being the tools that are most used. Weight, 28 lbs. **Price, \$10.00.**



**No. 16 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR, RAKE AND PLOW**—Single Wheel Hoes are lighter than double and do almost the same variety of work. Used mostly between the rows, yet by mounting the wheel on other side of the arm, they can be used to hoe both sides at once while the plants are small. Weight, 26 lbs. **Price, \$11.50.**

**No. 17 PLANET JR. SINGLE WHEEL HOE**—This combination



has a most useful set of attachments and there is scarcely any garden cultivation it will not do. Weight, 24 lbs. **Price, \$9.50.**

**No. 17½ PLANET JR. SINGLE WHEEL HOE**—Same type as No. 17—One pair of 6-inch hoes and three cultivator teeth. **Price, \$8.75.**

**No. 18 SINGLE WHEEL HOE**—Same type as No. 17—This tool has one pair of 6-inch hoes only—the tools that are most constantly useful. **Price, \$7.50.**



**PLANET JR. GRASS EDGER**—With the No. 2 Planet Jr. Edger you can edge either straight or curved walks of cement, stone or brick, rapidly and easily. **Price, \$2.00.**



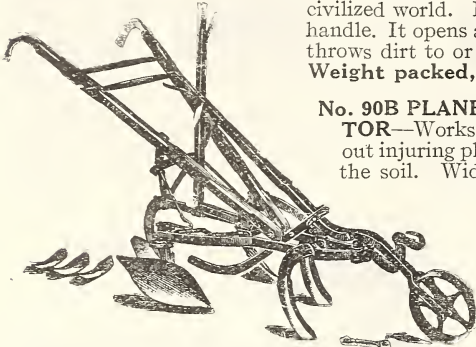
# Planet Jr. Garden Tools



The name Planet Jr. has become synonymous with labor saving among farmers and gardeners everywhere and they instinctively want the implements that bear the Planet Jr. trade mark.

Fifty years of study and experiment have resulted in the perfection of a complete set of cultivating tools which combine in the highest degree effective work, ease of handling and wear resisting quality.

**No. 8 PLANET JR. HORSE HOE AND CULTIVATOR**—In general use throughout the civilized world. Is strongly built to withstand incredible strain, yet it is light and easy to handle. It opens and closes furrows, hoes right up to the plants without danger of injuring, throws dirt to or from the row and throws back from center again. **With Steel Wheel. Weight packed, 83 lbs. Our Special at \$23.00.**

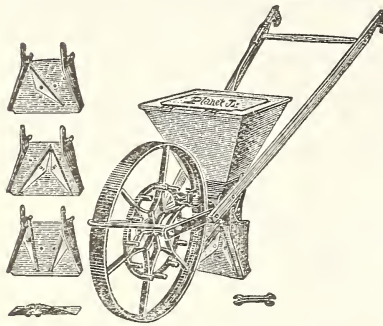


**No. 90B PLANET JR. 12 TOOTH HARROW, CULTIVATOR**—Works deep or shallow, coming up close to row without injuring plants, cuts out all the weeds, stirs and mellow the soil. Width, adjustable, 12 to 32 inches. A special favorite with strawberry growers, market gardeners and truckers. **Price complete, \$23.00; less Pulverizer, \$19.25.**






**No. 20 PLANET JR. FERTILIZER, PEA AND BEAN SEEDER**—It will sow fertilizers evenly from 100 lbs. to 1000 lbs. to the acre. With material in any reasonable condition it will not clog; is galvanized, has no cogs, gears or stirring devices, and will give splendid satisfaction. **Price, \$42.00.**

**No. 20D PLANET JR.**—Fertilizer distributor only. **Price, \$35.00.**



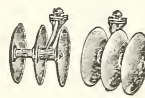
## CULTIVATING ATTACHMENTS FOR PLANET JR. TOOLS

### PLOWS

	Plow for Single Wheel Hoe <b>Price, \$1.50 Each</b>		Plows for Double Wheel Hoe <b>Price, \$1.50 Pair</b>		<b>Double Mould-board Plow</b> Fits Sg1. Hoe <b>Price, \$2.50</b>
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### HOES

**S100 & S101 Hoes**  
Made in two sizes.  
**Price per pair,**  
4½-in. **\$1.30**  
6 -in. **1.40**

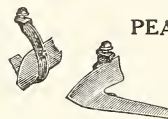


### DISC HOES

Have extra high shields to prevent dirt from falling back on plants. **Price, \$3.50 pair.**



**C & D Hoes**  
2 Sizes **Price per pair**  
7-inch.....**\$1.60**  
8-inch..... **1.75**



**PEAT LAND HOES**  
**6-inch Only,**  
**\$2.50 Pair**

### RAKES



### Rakes

Excellent for fine cultivation.  
3-tooth, per pair... **\$1.50**  
5-tooth, per pair... **2.00**  
7-tooth, per pair... **3.00**

### CULTIVATOR TEETH

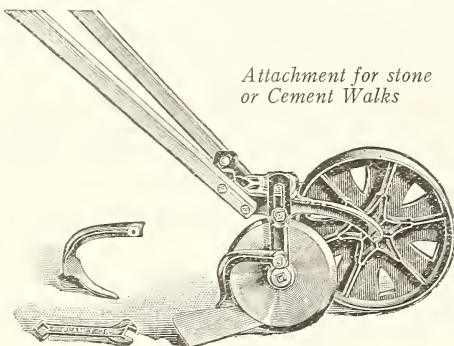
**THREE-PRONG CULTIVATOR TEETH**  
**\$2.25 Pair**



**CULTIVATOR TEETH ALL STEEL**  
**Price each, 40c**



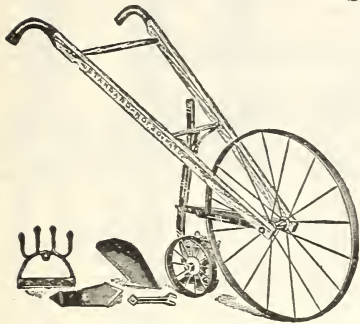
Attachment for stone or Cement Walks



**PLANET JR. GRASS EDGER**—Cement, Brick or Stone Walks—

Thousands of miles of walks are still edged slowly, laboriously and poorly, with a spade or sod cutter. With the Planet Jr. Edger you cut the turf at the speed of a walk. In edging cement or flagstone walks, the Planet Jr. Edger cuts out a small "V" shaped piece of turf leaving a uniform finish. By a simple change the tool may be used either for cement, brick, stone, or gravel walks and drives, or for flower beds. It can be set to allow the wheel to run either on the walk or on the grass. Use after rains. Packed weight, 26 lbs. **Special while stock lasts, \$5.00.**

## GARDEN TOOLS—Continued



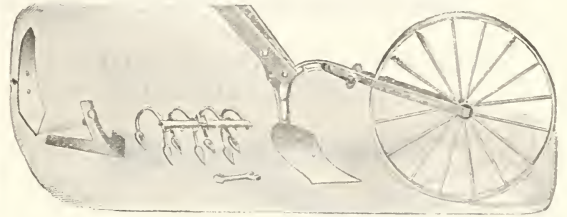
of this style. Midget Seeder only, \$4.25; Seeder and Cultivator, \$9.25.

**STANDARD No. 20 or JONES SPECIAL GARDEN PLOW AND CULTIVATOR**—Not equaled by any other Cultivator. 24-in. wheel, without seeder.

**Price, \$5.25**

The above cut shows the Standard No. 20 with the Midget Drill Seeder attached. This seeder can be attached to other makes of cultivators

**No. 7 GARDEN PLOW AND CULTIVATOR**  
Five Tools: Plow, Rake, Weeder and Double Diamond Point Markers. Has 24-inch Wheel.



**No. 7**—This has an 18-inch wheel and handles adjustable to proper working height. The special adjustment for depth gives easy control. **Weight complete, 18 pounds. Price, \$5.75.**

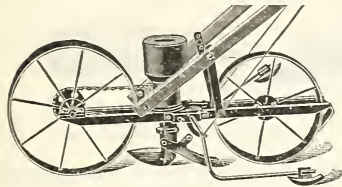
**No. 6**—The Swing Frame and extended curved handles insure easy running and a steady draft. The tools are sharpened and polished and will scour in use. 24-inch wheel. Similar to Standard No. 20. **Weight packed, 24 pounds. Price, \$5.00.**

### STANDARD GARDEN TOOLS

**No. 14 SINGLE WHEEL HILL AND DRILL SEEDER**—A complete hill and drill seeder that can be changed from one to the other instantly. **Special price, \$10.95.**

**No. 13 SINGLE AND DOUBLE WHEEL CULTIVATOR**—3 cultivator teeth, 2 hoes and 2 plows. **Special price, \$8.75.**

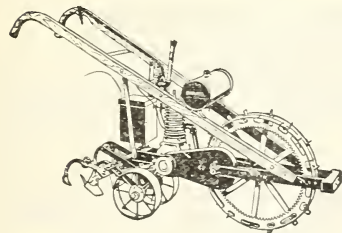
**No. 22 SINGLE WHEEL CULTIVATOR**—3 cultivator teeth, 2 hoes and 1 plow. **Special price, \$7.15.**  
To Close Out, Special Prices While Stock Lasts



*For Onion Growers*

growing onions you cannot afford to be without one. Also especially good for lettuce, spinach, beet, cabbage and will sow anything from turnips to peas. **Weight packed, 45 pounds. Price, \$15.00.**

**IRON KING SEED DRILL**—A well-made, durable and easy running machine, accurate and reliable, and with careful use will last a lifetime. It will save the price of the machine in sowing a few acres. If you are



### SPRYWHEEL GARDEN TRACTOR

**SPRYWHEEL** is a light, easily handled and economically operated garden tractor or power cultivator, designed and developed to do successfully by power that kind of work ordinarily performed by hand labor with hand tools, or wheel hoes, thus reducing the manual labor to a minimum, and greatly increasing the amount of work performed.

No matter how much may be paid no garden tractor will do better work, give better service or better satisfaction than **SPRYWHEEL**. With a **SPRYWHEEL**, one person can do as much work as five men with wheel hoes. This saving in the cost of labor quickly pays for a **SPRYWHEEL**.

One gallon of gasoline keeps **SPRYWHEEL** working all day, enables one man or boy to cultivate 15 miles or more of single row in a day, considerably more when the plants are small and planted in narrow rows so that a two-row attachment can be used. Any **PLANET JR.** attachments will fit the **SPRYWHEEL**.

#### SPECIFICATIONS

Length over all.....	.63 inches	Traction Wheel Diameter.....	20 inches
Tool Holder.....	Adjustable 7 to 14 inches	Rear Wheels (2).....	9x2¼ inches

#### STANDARD EQUIPMENT

Sprywheel complete with Adjustable Tool Holder, One Pair M-17 Adapter Plates, One Pair 6-inch Hoes, and 3 wide point Cultivator Teeth. **TOTAL WEIGHT ONLY 135 POUNDS. Price Model C Cultivator, only \$145.00 F. O. B. Portland.**

### SIDE-CUTTING POWER LAWN MOWER

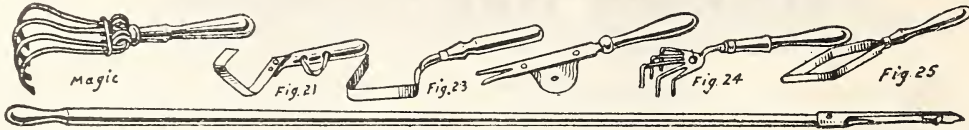
The **SPRYWHEEL** Side Cutting Lawn Mower is built right; parts are machined to the same standard of accuracy as in automobile construction. It turns easily and works close up to trees, shrubbery, walks, and fences. Its power plant is the famous **SPRYWHEEL** engine which has met with enthusiastic approval in the United States and many foreign countries. The twenty-inch mower is made by skilled workmen and of the best materials.

**Model S**—Sprywheel Power Lawn Mower, only \$145.00 F. O. B. Portland.

**Model C. L.**—Combination Lawn Mower and Sprywheel Cultivator, \$180.00 F. O. B. Portland.

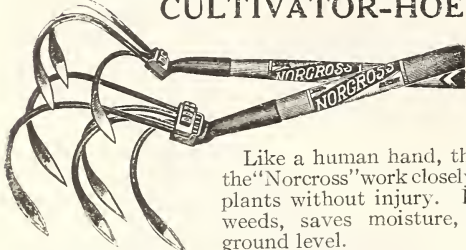


GARDEN TOOLS, IMPLEMENTS, ETC.—Continued



Hall's Dandelion Puller

NORCROSS ADJUSTABLE CULTIVATOR-HOE

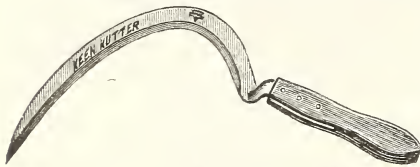


Like a human hand, the fingers of the "Norcross" work closely around the plants without injury. Keeps down weeds, saves moisture, leaves the ground level.

**FIVE PRONG** for regular garden work; 4 ft handle, weight, 4 lbs. **Price, \$1.25.**

**THREE PRONG**—lighter in weight, for narrow rows and close work, 4-ft. handle, weight, 3 lbs. **Price, \$1.00.**

GRASS HOOKS OR SICKLES

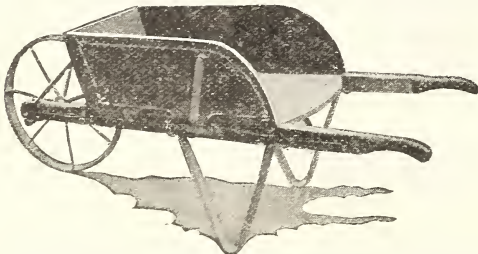


These are the latest style and shape.

**VILLAGE BLACKSMITH**—Hand forged, weight, 1 lb. **Price, 75c.**

GRASS SHEARS

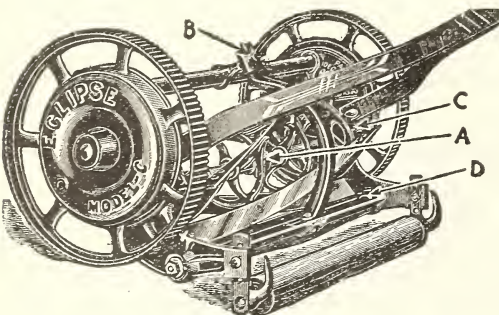
**VILLAGE BLACKSMITH—No. V51. 1 lb. \$1.25.**



AMERICAN GARDEN WHEELBARROW

20-inch steel wheel with 2-inch oval tire. Solid steel axle and malleable axle boxes. Oval pressed steel legs. Vermillion finish and varnished. Light but rigid—built to last. Shipped K. D.

**No. 1—Size of deck, 17x22x29. Price, \$7.50.**



LAWN MOWERS

HIGHEST GRADE. FULLY GUARANTEED

**ECLIPSE—Self Sharpening**—This is one of the best built, most durable and satisfactory Lawn Mowers. The thumb-screws for bringing the revolving and stationary blades into position are easily adjusted—as is also the arrangement for sharpening all blades to fit so they cut like shears.

- 14-in. cut, 10-in. wheel. . . . . \$20.50
- 16-in. cut, 10-in. wheel. . . . . 21.50
- 18-in. cut, 10-in. wheel. . . . . 22.50
- 19-in. cut, 10-in. wheel. . . . . 23.50

HAND WEEDERS

**MAGIC WEEDERS**—Made of best quality hard steel wire, an ideal tool for cultivating the surface soil.

**Magic No. A**, 3 tines, short handle, weight, 1 lb. **Price, 25c.**

**No. 21—Lang's**. Weight, 1 lb. **Price, 25c.**

**Fig. 23—Hazeltine's**. Weight, 1 lb. **Price, 35c.**

**Fig. 24—Excelsior**. Weight, 1 lb. **Price, 25c.**

**Fig. 25—Noyes'**. Weight, 1 lb. **Price, 30c.**

GARDEN TROWELS



Maynard

Don't class these tools with the cheap stock offered by the department stores.

**MAYNARD STEEL SHANK**—Extra heavy. **Price, \$1.00.**

**No. 85**—New style long handle. Weight, 1 lb. **Price, 50c.**

**No. 40**—Presses steel. All purpose, black enameled finish. **Price, 25c each.**

**No. 41**—Six inch; steel transplanting trowel. Weight, 1 lb. **Price, 30c.**

ALL-PURPOSE RAKE

For Dandelion, Garden or Lawn

The All-Purpose Rake is unequalled for removing yellow dandelions. When it is pulled across the lawn, the stems, leaves and blossoms are wedged between its teeth and easily pulled out. It is also a first class rake for general work. It will pick up the acorns, pebbles, small twigs, etc., which an ordinary rake will not touch, and will clean the lawn of cut grass and dead leaves in better shape than is possible by any other means. It is self cleaning. A single backward stroke cleans the rake. **Price, \$1.00.**





# PRUNING TOOLS, ETC.

NOTE—Compare Numbers on Cut to Those in Descriptions

## PRUNING SHEARS

- No. 4773—9-inch; full polish, with double brass springs; best American make. Weight, 1 lb. Price, \$2.35.
- No. 40—9-inch; bright finished, polished blade spiral steel spring; made for hard service. Weight, 1 lb. Price, \$1.75.
- No. 41.—Same as No. 40, except with ratchet nut. Weight, 1 lb. Price, \$1.90.
- No. 30—7-inch; black finish; polished blade; very good. Weight, 1 lb. Price, \$1.25.
- No. 31—Same as No. 30, only 9-inch ratchet nut an American make. Weight, 1 lb. Price, \$1.40.
- No. 50—Five and a half-inch; nickel-plated, small but of best material; fine for ladies. Weight, 1 lb. Price, \$1.25.
- Levins Shear No. 23. Price, \$1.00.
- Grape or fruit thinning. Price, 65c.

## BUDDING KNIVES

Prices Postpaid

- No. 13—Plain wood handle, stationary blade. Price, 50c.

## GRAFTING KNIVES

- No. 6—Plain wood handle, stationary blade. Price, 60c.

## PRUNING KNIVES

- No. 2—Plain wood handle, stationary blade. Price, 70c.
- No. 4—Polished wood handle. Price, 90c.

## BRANCH SHEARS

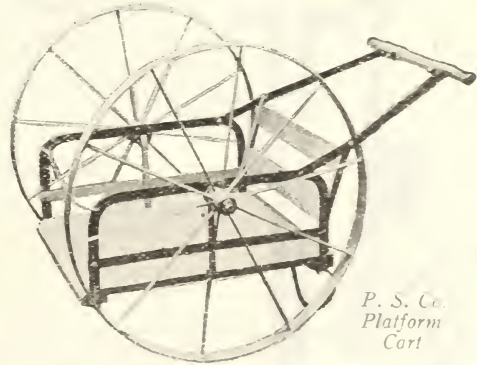
- No. 126—26-inch. Weight, 5 lbs. Price, \$2.45.
- Fig. 35—Standard pattern. Satisfactory for light work; a good value. 24-inch handle, weight, 2½ lbs. Price, \$1.60.
- Your Roses and Trees should be properly pruned and you should have good tools to use.

## NORTHWEST FRUIT PICKING LADDER

- 6, 8, 10 and 12-ft. lengths. Strong, light and serviceable. Price, 50c per foot.

## HANDY CARTS

All metal parts malleable steel, strong, light, easy to wheel.



Platform, 27 x 30 inches; 36-inch wheel; 2½-inch tire. Weight, K. D., 85 lbs. Price, \$13.75.

P. S. Co. Platform Cart

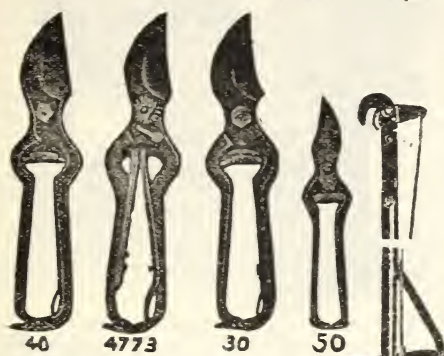
## BERRY HOOK No. 99



3½-ft. handle. Hook of good quality steel. Used in cutting out dead berry bushes—and similar work. Each, 75c.

## VALUE OF "DUSTING SULPHUR"

THE most common fungous diseases that annoy the gardener and orchardist are Mildew on climbers and roses or flowers, Early Blight on potatoes, Scab on apples and pears, and Brown Rot on peaches. DUSTING SULPHUR is good for all these. This superfine sulphur is the only sulphur sufficiently fine for use in Dust Mixtures. See Index.



## NEW BASTIAN PRUNER

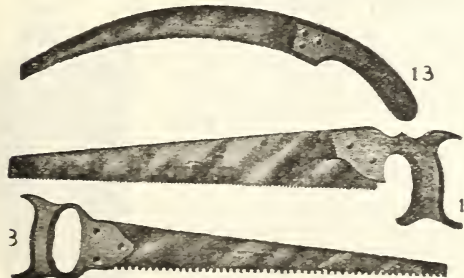
Makes a Clean, Sharp Cut  
The powerful lever of the new Bastian Pruner enables you to do the same work in half the time and with half the labor that would be required with old-style Pruners. Blades are of finished Damascus steel, very strong, and hold their cutting edge. Simple in construction, light, strong and durable. We recommend the Bastian to all fruit growers.

- Prices F. O. B. Portland
- 6 ft. . . \$1.75 12 ft. . . \$2.50
- 8 ft. . . 2.00 14 ft. . . 2.75
- 10 ft. . . 2.25 16 ft. . . 3.00



Bastian

## PRUNING SAWS



- No. 13—California Pruner (Crescent). Finest silver steel. 14-inch. Each, \$1.25.
- No. 1—Pruning Saw. Made of genuine silver steel. 16-inch, each \$1.35; 18-inch, each, \$1.50.
- No. 3—Duplex Pruner. 16-inch, each \$1.50; 18-inch, each \$1.75.

## GRAFTING WAX



LION BRAND—¼ lb., 20c; ½ lb., 30c; 1 lb., 60c. Add postage at zone rate.

# THE CLIPPER GRAIN AND SEED CLEANER

USED BY ALL AGRICULTURAL COLLEGES AND BY THE U. S. DEPARTMENT OF AGRICULTURE

No work done on the farm brings such large returns as thoroughly preparing the grain and seed by recleaning and grading for planting. This insures an even stand of strong, healthy plants, and a larger yield of a higher grade. The "Clipper" cleaner is especially adapted to this kind of work on account of its ability to separate the small, also the light, dead seed or grain from the perfect seed or grain.

Other mills depend entirely upon screens for this work, and with unsatisfactory results. The "Clipper" screens all straw and foreign matter from the grain before it enters the air shaft, and the "Vertical Blast" does the rest.

Screens are so arranged as to be in plain view and of easy access to the operator while machine is in operation, and a set of ten being furnished with either the No. 1B or No. 2B. These are ample for general work—but special screens can be furnished for any cleaning operation.

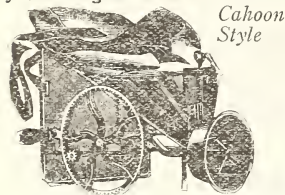
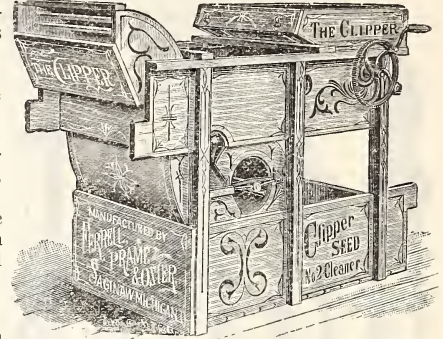
**Guaranteed to do the most perfect work of any Hand Seed Cleaner manufactured.**

The "Clipper" is a first-class, inexpensive and durable mill for general use.

No. 1B—Capacity 20 bu. Grain or 10 bu. Seed per hour.....	\$ 42.50
No. 2B—Capacity 25 bu. Grain or 15 bu. Seed per hour.....	50.00
No. 6—POWER MILL. Capacity 200 bu. Grain or 35 bu. Seed per hour.....	150.00
No. 16—POWER MILL. Capacity 200 bu. Grain or 35 bu. Seed per hour.....	265.00

We can also supply Clipper Power Cleaners of large or small capacity for any purpose.

We have supplied "Clipper Cleaners" to the mills, dealers and prominent growers of the Northwest. If you grow grain or seed and do not own a "Clipper," you are losing many times its cost every year. Let us send you "The Clipper" Catalog of hand and power cleaners. All sizes and prices. A "Clipper" will improve the quality and increase the yield of grain.



Cahoon Style

## BROADCAST SEED SOWERS

**CYCLONE—Save Valuable Seed**—It is like throwing money away to sow more seed than is necessary. Uneven seeding is just as wasteful. With the Cyclone Broadcast Seeder you can sow any kind of seed perfectly even over the ground at the rate of fifty acres per day and any desired amount per acre. It will pay for itself in the saving of seed in a few hours' work. **Each \$2.50.**

**CAHOON STYLE**—The standard broadcast seed sower of the world, made of steel, iron and brass and with ordinary care will last a lifetime. This is the most popular and best built seed sower; has a force feed and does excellent work. Instructions with each machine. Weight 9 lbs. **Price \$5.00. Each \$1.00.**

**TIN HORN SEEDER**—Adjustable. A good serviceable seeder at a very low price. Weight 1 pound.

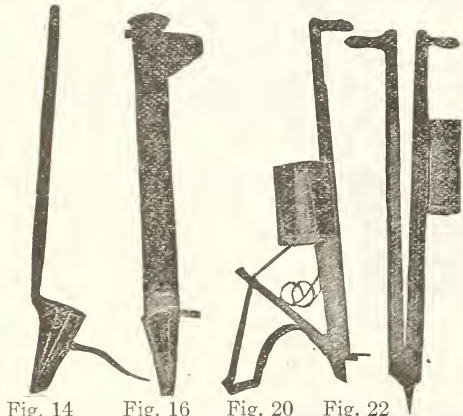


Fig. 14 Fig. 16 Fig. 20 Fig. 22

## CORN PLANTERS

**ACME AUTOMATIC—One Hand (Fig. 20)**—Puts the right number of kernels just where you want them and at the proper depth, requiring only one hand, either right or left. Weight, packed, 6 lbs. **Price \$3.00.**

**ACME—(Fig. 22)**—A two-handed planter. Light, well made, and especially adapted to heavy, cloddy or stony soils. Adjustable—from popcorn to large kidney beans. Weight, packed, 4 lbs. **Price, \$1.50.**

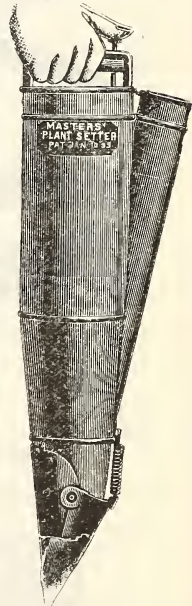
## MASTER'S PLANT SETTER

With a "Master's" you can set, water and fertilize 10,000 plants a day and do better work than if set by hand. Works as fast as you walk. Sets cabbage, kale, celery, tomatoes and vegetable plants of all kinds. Weight, packed, 5 lbs. **Price \$6.00.**

## POTATO PLANTERS

**PEERLESS—(Tubular)—(Fig. 16)**—This light tubular planter locks itself as it is lifted out of the ground and the next potato may be dropped in at once. Opens automatically by forward movement. Weight, pld., 5 lbs. **Price \$2.35.**

**PINGREE or ACME—(Fig. 14)**—Similar in action to the tubular. You lift the planter up to drop in the potato. Weight, packed, 4 lbs. **Price \$1.60.**



## CORN KNIVES

**NIAGARA**—Brown tapered blade. Length including handle, 22½ in., weight, packed, 2 lbs. **Price 85c.**

**VILLAGE BLACKSMITH**—Straight blade 22½ in., including handle. Weight, pld., 2 lbs. **Price \$1.00.**

## DIAMOND FERTILIZERS

The Base is Bone Meal and Tankage—No Cheap Filler. Every Pound is Good Fertilizer.

**DIAMOND QUALITY Fertilizers** are complete fertilizers of the highest grade and concentration, no inferior ingredients or cheap fillers are used in their preparation, Bone Meal and Tankage forming the base to which is added the necessary Potash, Nitrogen and Phosphoric Acid. Each package is marked plainly, showing the percentage of available plant food. Use it on your Rhubarb.





## POULTRY SUPPLIES

**I**N THE following pages we offer everything necessary for the successful production of poultry and you can depend upon the supplies and appliances listed as being the standards in their line.

**NEW METHODS** of brooding by the use of the Standard Colony Brooder stoves have proven economical and successful, reducing the cost of raising chicks, developing them quickly into sturdy strong growers that make weight more rapidly than chicks brooded under old methods.

**WE ARE PIONEERS** in the Poultry Supply business in the Northwest, and our Famous Diamond Poultry Food and Supplies are the standards wherever known. Our Poultry Supply Department is in the hands of trustworthy practical poultrymen—men of experience, who are competent to confer with and advise you on any subject pertaining to the raising of Poultry—a service that is free to you.

If in doubt concerning any details of Profitable Poultry Keeping, Appliances, and the best breeds for special purposes write our Poultry Department. They will gladly give information asked for, assist and advise, and it's all free for the asking.

**IN THIS CATALOG** you will find a list of books and pamphlets on the production and management of poultry, each work having been turned out by an expert in the business. If you would succeed in your chosen business, or pastime, you should make good use of those books. It is possible to economize in equipment without serious loss but it is decidedly unsafe to attempt to buy cheap breeding stock, cheap feeding material or to try to get along without the best books for instruction or reference. The real poultry enthusiast is as energetic and persistent in the study of his literature as he is in the care of his stock, knowing that his greatest success will be attained by keeping abreast of the times and in taking advantage of every short-cut and new discovery which will fit his particular conditions.

**ON THE FOLLOWING PAGES** you will find a list of poultry goods prepared under formulas worked out by experts of the widest experience, formulas which have stood the test of actual use for over twenty-five years and which, as there is no variation in their food values, have become standardized and are absolutely reliable. It is impossible to produce good poultry with poor food, and as our Diamond Quality Chick Food, Baby Chick Mash, Egg Food, Growing Food, Pigeon Food and All Grain Scratch Food are made in our own mill, under the supervision of our own experts, we know that no better foods can be found in any market at any price, at any price. That "the best is always the cheapest" is a proverb which fits poultry raising more closely perhaps than any other line of modern business.

**DIAMOND BABY CHICK MASH**—We desire to call your attention to our Baby Chick Mash. **GROWS—MA-TURES—FATTENS.** This mash is a milk-equal that prevents bowel trouble, leg weakness and carries them safely through the dangerous first three months. You should give it a good trial.

### FEEDING AND CARE OF NEWLY HATCHED CHICKS

Newly hatched chicks, whether incubator or henhatched, should not be fed before removing from the incubator or nest and they must not be removed until the chicks are all hatched and dried. This may be only a few hours or may take a day or two from start to finish. In the meantime, nature provides all the food the chicks need for the first two or three days of their life. Earlier feeding is to be avoided as it frequently causes indigestion. In the case of incubator chicks, it is customary to remove them any time from 24 to 48 hours after hatching. Place them in a brooder already warmed to a temperature of 95 degrees. The assembled chicks will raise this temperature to about 99 or 100 degrees which is right for the first few days. Gradually reduce so that in two weeks it is 90 and in three weeks 80. From then on 80 to 75 degrees is sufficient. This temperature refers to the heat in the hover and not the brooder outside of the hover. If you have a Buckeye Brooder Stove no attention to the temperature is necessary.

Always keep a fine litter or chaff on the floor of the brooder. This should be changed when soiled. Also a plentiful supply of fine hard grit. Chick food can be fed on a board or shingle or in a feeding trough. Hard boiled eggs finely chopped, shells and all, mixed with stale bread provide a splendid meal for a starter. A little Diamond Chick Food scattered in the litter induces exercise and aids digestion. Being a normally balanced ration, it is therefore safer to feed than the home prepared foods. An active chick is a healthy chick.

Feed four or five times a day for the first few days unless the food is in a trough, which does away with the need of frequent attention. Both methods have their advocates. The principal thing is to keep the chicks busy scratching. Diamond Chick Food is properly balanced to supply every need of the growing chicks, frame, flesh and feathers. Always ready for immediate use. Saves time and furnishes everything essential for the welfare of the chicks without waste. They will eat it all to the very last morsel.

### TO POSITIVELY STOP HENS AND DOGS EATING EGGS

Break a small hole at end of egg, shake out about one-fourth of the contents, and then pour in one-half teaspoonful of extract of Gentian. Shake the egg well and stop the hole with paraffin, placing it in the nest where they can get it. Gentian is a very bitter tonic and the taste always stays with them. It is harmless, and one which forever satisfies the taste for eggs.

### INCUBATION TABLE

This table is correct if temperature of Incubator is kept correct throughout the hatch, but some variation would occur, if for instance the Incubator ran too low, chicks would be a day or two later.

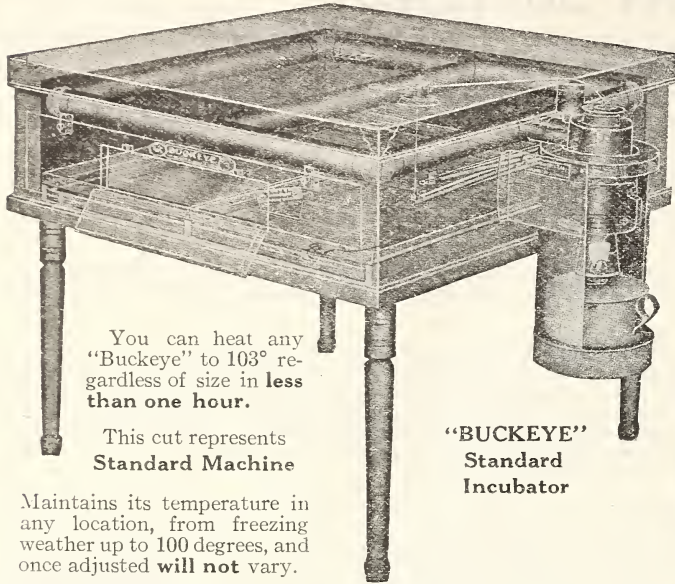
Eggs—Geese—30 days.  
Eggs—Turkeys—28 days.

Eggs—Chickens—21 days.  
Eggs—Ducks—28 days.

Eggs—Pheasants—25 days.  
Eggs—Guinea Hens—25 days.



“BUCKEYE” HOT WATER INCUBATORS



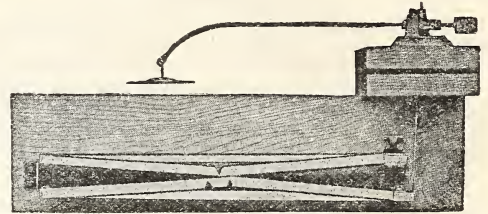
You can heat any “Buckeye” to 103° regardless of size in less than one hour.

This cut represents Standard Machine

“BUCKEYE” Standard Incubator

Maintains its temperature in any location, from freezing weather up to 100 degrees, and once adjusted will not vary.

You fill the lamp, turn the eggs—and the “Buckeye” will hatch every hatchable egg. No experience needed.



Buckeye Thermostat

Nearly half a million “Buckeyes” are in operation in all parts of the United States.

READ THE FOLLOWING STATEMENTS FROM THE MANUFACTURER

THE unprecedented success which has followed the Buckeye for twenty-five years is primarily due to the invention of the **Buckeye hot-water system**, without which that perfect balance between the **temperature, moisture and ventilation** which is so necessary to successful incubation, would be a physical impossibility. Heating the egg chamber without cooking all the moisture out of the air is responsible not only for the abundant supply of natural moisture but at the same time the soft, radiated heat from the hot water tank provides an absolutely uniform temperature and permits the perfect ventilation of the egg chamber.

**We guarantee the temperature of every Buckeye we build to be uniform within a fraction of a degree at all times in the egg tray.**

The regulation of temperature is purely automatic and needs no watching. You set the regulator when the hatch is started and do not touch it again until the next hatch.

The incubator can be operated in any temperature regardless of sudden changes. Regardless of size or price, we guarantee every Buckeye to work satisfactorily in any temperature down to freezing. No previous incubator experience is required to operate a Buckeye. Outside of filling the lamp and turning the eggs, everything is automatic and requires no attention from the operator.

PRICES AND SIZES OF BUCKEYE INCUBATORS F. O. B. Portland

Size	Style	Weight	Price	Size	Style	Weight	Price
No. 14—65-egg,	Sgl. wall, sht. lgs.	55 lbs.	\$18.00	No. 2—175-egg,	Standard	135 lbs.	\$48.25
No. 16—110-egg,	Sgl. wall	85 lbs.	30.75	No. 3—250-egg,	Standard	200 lbs.	62.50
No. 17—210-egg,	Sgl. wall	125 lbs.	40.50	No. 4—350-egg,	Standard	230 lbs.	73.75
No. 1—110-egg,	Standard	110 lbs.	41.00	No. 5—600 egg,	Standard	325 lbs.	116.00

Nothing left to the judgment of operator—that’s why a “Buckeye” never goes wrong.

“BUCKEYE” INCUBATORS—PRICE LIST OF EXTRA PARTS

Thermometers for Incubators (Tested).....	\$1.00	Brackets for all Incubator Regulators.....	\$0.35
Thermometer Holders for Incubators.....	.15	Lamp Support for Standard Incubators.....	2.50
Lamp Bowls for all Incubators.....	1.00	Lamp Hanger for Incubator Styles A, B, C.....	.50
Lamp Burner No. 2, (will fit Incubators Style A, B, and C, Standard 110 and Standard 220).....	.50	Lamp Hanger for Incubators Styles E and H.....	1.50
Lamp Burner No. 35 (will fit Incubators No. 60, No. 1, No. 2, Style E and Style H).....	.75	Incubator Legs (long).....	.75
Lamp Burner No. 50 (will fit Incubators No. 3, No. 4 and No. 5).....	1.00	Incubator Legs (short).....	.35
Lamp Burner No. 3.....	.75	Dampers (only) for Incubators.....	.25
Lamp Chimneys for all Incubators.....	.50	Egg Testers.....	.50
Lamp Wicks for all Burners, per dozen.....	.35	Drain Caps for Incubators.....	.25
Thermostats for Incubators (metal).....	2.50	Filler Caps for all Standard Incubator Tanks.....	.35
Connecting Rod and Nut for all Incubator Regulators.....	.50	Filler Caps for Incubator Lamp Bowls.....	.25
Lever for all Incubator Regulators.....	1.00	Door Catches for Standard Incubators.....	.25
		Underwriters’ Lamp Support with Gas Heater Complete.....	4.50

When ordering new tanks for old incubators, the order must be accompanied by the exact dimensions of the tank to be replaced. Diagrams for this purpose will be furnished on application.

When ordering new parts for old incubators, always mention size and design of the incubator.

A large percentage of the agricultural colleges and experiment stations throughout the United States have adopted the Buckeye as the standard incubator, which is a high tribute to any mechanical device.

The BUCKEYE Catalog mailed on request.

# BUCKEYE COAL-BURNING STANDARD "COLONY" BROODER

This is the Famous Original Brooder Stove that has been copied or imitated by every manufacturer of Brooder Stoves



## SELF REGULATING—EVERLASTING

Cuts the Cost of Equipment and Operation to Less than Half—Reduces the Time and Labor to Less than a Fourth. Nothing to Break. Nothing to Wear Out. The Simplest, Safest and Most Economical Brooder Ever Invented.

These brooder stoves are efficient and satisfactory in every respect; require but little attention, can be operated anywhere; burn hard coal, coke, briquettes or gas; fill the firebox once and shake down the ashes twice a day and they require no further attention.

The Hover is galvanized steel, can be readily raised out of the way when the stove needs attention, has no curtain to wear out or collect dust and will care for any number of chicks from one or two up to full capacity. As the Hover is open all around the ventilation is perfect and the chicks never crowd.

The temperature is regulated automatically by a thermostat attached to the stove and which will hold the temperature within a range of one or two degrees at all times.

**Prices:**  
No. 25—Capacity 1200, Canopy 56 in., Wt. 109 lbs. .... \$34.00  
No. 19—Capacity 1000, Canopy 52 in., Wt. 95 lbs. .... 29.50  
No. 18—Capacity 500, Canopy 42 in., Wt. 75 lbs. .... 23.75

Gas Burner for Brooder Stove:

No. 25—\$7.00      No. 19—\$6.00      No. 18—\$5.00

The above includes one length of pipe. Only one length of pipe included with each brooder.

## EXTRA PARTS FOR STANDARD BROODERS

Wafer Thermostats.....	\$0.50	Grate Lock.....	\$0.50	Regulator Bolt.....	\$0.20	3-inch Pipe for Brooder	
Lower Regulator Arms.....	1.00	Stove Lid.....	.75	Baffle Plate.....	1.00	Stoves, per length.....	\$0.30
Upper Regulator Arms.....	1.50	Check Draft Cover.....	.50	Hover Ring.....	2.00	5-inch Pipe for Brooder Stoves,	
Half Grate (plain).....	1.50	Check Draft Protector.....	.50	Hook Rod.....	.25	per length.....	.35
Shaker Grate.....	1.50	Ash Pit Door.....	1.00	Upper Flue Cylinder.....	5.00	Elbows for 5-inch Pipe.....	.30
Shaker Handle.....	.50	Ash Pan.....	.50	Elbows for 3-inch Pipe.....	.25		

## THE BUCKEYE "IMPROVED" BLUE FLAME

### OIL HEATED COLONY HOVERS

Burns Coal Oil—Has a Clean, Steady Blue Flame that Gives an Abundance of Heat. No Gas Fumes. Safe and Economical.

Regulated with a Wick Guaranteeing a Continuous Oil Supply. Fill the reservoir every 24 hours.

This is the BUCKEYE "IMPROVED" Blue-Flame Brooder which we are confident will prove universally satisfactory.

In the construction of this new brooder valves of every kind have been eliminated. This burner operates on exactly the same principle as the wickless burner used in old models, but instead of feeding the oil through a valve, the oil is fed to the burner by an old-fashioned wick such as everybody understands.

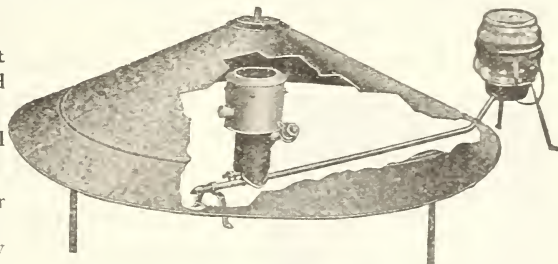
To start the burner, it requires no priming, it is only necessary to open the canopy and apply a match to the wick. The same as you would an ordinary house lamp and it is controlled in precisely the same manner. To secure more heat the wick is turned up and to reduce the heat it is turned down. It requires no special education to operate it.

The efficiency of this brooder is superior to any that we have had the pleasure of handling. It not only produces a great volume of heat, but it does it with a small consumption of oil.

The "IMPROVED" Buckeye Blue-Flame Brooder is positively insured against the clogging of oil or flushing the burner. The large free channels guard against all chances of stopping the oil supply and a continuous supply of heat is therefore assured during every minute of the day or night. Just as long as any oil remains in the reservoir, it will feed to the burner and a system of regulation that cannot go wrong.

These brooders are made in three sizes only and the entire heating system supplied, will be made in one size only; everything the same with exception of the size of the canopy; these are made in the following diameters and are estimated to have the following capacity: No. 27, 200 chicks; No. 28, 350 chicks; and the No. 29 up to 500 chicks and this is the size we recommend as the extra first cost is but little more than the smaller sizes and it enables you to care for any number up to capacity with practically no additional cost of operation.

If you live where it is hard to obtain a suitable fuel for the Coal Burning Colony Brooder, you surely will make no mistake in the purchase of one of these new "IMPROVED."



Showing the "Improved" Buckeye Blue-Flame Brooder with a portion of the canopy cut away.

### SIZES AND PRICES

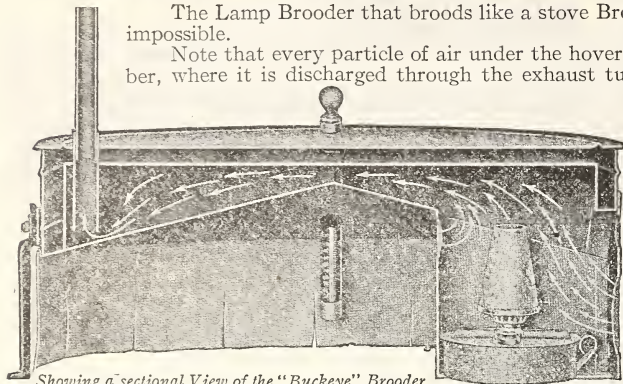
No. 27—34 inch Hover, wgt. 42 lbs.	\$18.75
No. 28—42 inch Hover, wgt. 50 lbs.	22.25
No. 29—52 inch Hover, wgt. 60 lbs.	24.75



# THE BUCKEYE PORTABLE BROODERS

The Lamp Brooder that broods like a stove Brooder. The chicks hover at the curtain, making crowding impossible.

Note that every particle of air under the hover is drawn from the outside—then up into the upper chamber, where it is discharged through the exhaust tubes. Every particle of impurity is drawn up and out—nothing can come back.



Showing a sectional View of the "Buckeye" Brooder

The Portable Lamp Brooders are designed to meet the needs of the poultry raiser who produces only a small number of chicks. It is smaller, more compact and has a capacity up to about 150 chicks.

The body of the brooder is made of galvanized iron and has a lamp chamber which is separate from the space occupied by the chicks. The air is heated by passing around and over the lamp and is distributed equally over the entire brooding chamber. Each brooder is supplied with a thermometer which registers the actual temperature of the brood chamber at all times.

## PRICES

Made in Three Sizes	{ No. 20—Diameter 19 inches, 60 chicks.....	\$12.50
	{ No. 21—Diameter 22 inches, 100 chicks.....	16.25
	{ No. 22—Diameter 30 inches, 150 chicks.....	20.00

## EXTRA PARTS FOR BUCKEYE BROODERS

Thermometers (tested).....	\$1.25	Lamp Burners (No. 35).....	\$0.75	Lamp Chimneys.....	\$0.50
Lamp Bowls.....	1.00			Lamp Wicks, per dozen.....	.35

## EXTRA PARTS FOR BUCKEYE BLUE FLAME BROODERS Nos. 11 and 12

No. 134 Vaporizer.....	\$1.00	No. 136 Outside Chimney.....	\$0.75	No. 138 Inside Chimney.....	\$0.75
No. 135 Burner.....	1.50	No. 137 Central Chimney.....	.75	No. 139 Chimney Cap.....	1.00

## EXTRA PARTS FOR BUCKEYE BLUE FLAME BROODERS Nos. 27, 28, 29

B. F.- 127 Canopy legs for No. 27.....	\$0.50	B. F.-1275 Glass oil tank with bail and handle.....	\$1.50
B. F.- 128 Canopy legs for No. 28.....	.50	B. F.-1276 Automatic valve for glass oil tank.....	1.50
B. F.- 129 Canopy legs for No. 29.....	.50	B. F.-1277 Supply pipe with oil cup and stand.....	3.50
B. F.-1271 Burner with wick.....	5.00	B. F.-1278 Wick, each.....	.50
B. F.-1272 Enameled burner drum.....	2.50	B. F.-1279 Canopy lid.....	.75
B. F.-1273 Inner perforated tube of burner drum.....	.50	B. F.-1280 Oil cup and stand.....	2.00
B. F.-1274 Outer perforated tube of burner drum.....	.50		

Asbestos Lighting rings for the RELIABLE OIL BURNING Brooder, 20c. Each; Dozen \$2.25



# THOROUGHbred POULTRY

COCKERELS and older birds.

PULLETS and Hens from the finest laying strains.

## DAY OLD CHICKS

Selected from the finest laying strain of White Leghorns, and other breeds of HIGH EGG PRODUCTION.



All chicks guaranteed free from White Diarrhoea at time of shipment, according to O. A. C. standard test. Deliveries will be made in order received, commencing about the 15th of February, 1924. ORDER EARLY. Write for prices, stating breed and quantity wanted.

Send us your orders for Poultry, any breed or strain, and secure the advantage of expert, critical selection, that guarantees full value for your money. We do not depend on any one breeder, but can give you the pick of the prize-winning strains at right prices.

PRICES depend entirely upon grade of stock wanted.

For fancy exhibition stock write us your requirements. We can fill the bill.



# "DIAMOND QUALITY" POULTRY FOODS

**D**iamond Poultry Foods are manufactured from choice, clean, wholesome material. They are made to a standard and are the result of a lifetime of careful study and experiments by a thoroughly practical expert, who is recognized authority on feeding.

## DIAMOND CHICK FOOD

A Properly Balanced Ration that will make chicks grow and keep them healthy. For Young Turkeys, Pheasants and all young fowls **DIAMOND CHICK FOOD** is unexcelled. The safest, most dependable and satisfactory food.

The select grains that are used in the preparation of Diamond Chick Food are cut by a special process, screened to a **uniform size** and **run through a Fanning Mill to remove the dust and meal**, which is the fatal element in **most Chick Foods**. After this process the ingredients are carefully weighed and mixed in correct proportions. **No guess work.**

**Diamond Chick Food** gives the chicks just what **Nature intended they should have**, a food composed of grains (cracked), small seeds, bone, etc., mixed in the right proportions to produce a quick and profitable growth without loss.

**Diamond Chick Food** is so convenient, always ready for use, and you can raise so many more chicks by feeding it that it is the **cheapest food you can buy**. **Write for Prices.**

*Our trade mark on every original package is your protection. Demand it of your dealer.*

*Baby chicks must have clean, wholesome food. They are sure to thrive on "Diamond."*

## DIAMOND BABY CHICK MASH

A veritable chick insurance and is a starting and developing food for chicks without an equal.

### On the First Month's Feed Depends the Future Returns FOR EARLY MATURITY

After the chicks are a few days old, keep Diamond Baby Chick Mash constantly before them in dry form, just as it comes from the bag, in a feeder which they can get at easily without getting into.

When 48 hours old, and three times a day thereafter, throw into the litter a feed of Diamond Chick Food (allow one pint to

every 50 chicks per feed, at first). Feed only as much as they will eat up clean. Also scatter in the litter a handful of chick-size grit once a day for the first few days, then keep a supply in a box or hopper always before them.

Plenty of **fresh air**, **fresh** clean water, **fresh** finely chopped green feed, and table scraps, are essential **at all times**.

Above all—watch your chicks. Do not **overfeed** grain or scraps, as the Mash contains every food element necessary for perfect development.

It will, if necessary, keep for months if stored in a **cool dry place**.

### FOR EARLY BROILERS

Feed exactly as for early maturity, with the addition—when the chicks are three weeks old—of an extra mid-day feed, every other day, of 50% each of finely ground cornmeal and Diamond Baby Chick Mash moistened into a crumbly mass either with water or sweet skim milk. This with two **grain** feeds a day, composed chiefly of Diamond Growing Food, will promote a healthy rapid growth.



## DIAMOND GROWING FOOD

### ALL GRAIN—WRITE FOR PRICES

#### For Quickly Developing Little Chicks Into Big Profit-Paying Broilers

Our special formula for promoting a rapid, healthy growth, and should be fed after the third or fourth week; nothing else needed; will quickly produce large, plump "Broilers." **Write for Prices.**

## DIAMOND SCRATCH FOOD

### ALL GRAIN

*Complete, economical and satisfactory for every feeding requirement from the three-weeks-old chick to mature fowls.*

A perfect "working ration" for fowls. Carefully prepared in correct proportion, a veritable "hen's delight." When fed in conjunction with Diamond Egg Food a scant allowance scattered in the scratching material in the morning keeps the hens busy hunting for the grains. In the evening feed sufficient that hens may go to roost with crops full.

Diamond Scratch Food can be fed to young chicks at three weeks and has every element necessary to hasten normal growth and build up bone and flesh.

**A rich, nourishing food they greatly relish. Write for Prices.**

### HIGH GRADE MEAT SCRAPS

**DIAMOND BRAND**—A new meat product, perfectly prepared, fine ground and clean.

### DIAMOND MEAT MEAL

A highly concentrated food. Being cooked meat, dried and ground. Very rich in protein. It should be mixed with the soft food. No hides or tankage in our meat meal, but, as its name implies, meat, cooked, dried and ground; unexcelled for egg-production. **Write for Prices.**





## DIAMOND EGG FOOD

### A LAYING MASH

*Makes hens lay when eggs are high; keeps poultry healthy. Unequaled for feeding young chicks.*

A complete ground food to be fed dry or wet. Starts hens laying and **keeps them at it**. Hastens moulting. Puts poultry in prime condition. Makes young fowls grow fast.

**No Drugs—No Stimulants**—but a rich, wholesome nourishing food for growing fowls and hens, encouraging rapid growth and increasing egg production. Can be fed dry or as a mash and is the most successful combination of egg producing elements.

Feed **Diamond Egg Food** to the hens in your breeding pens and they will produce eggs of strong vitality that hatch into sturdy, vigorous chicks.

**Put up in 100-lb. bags. Full weight.**

**Write for Prices.**

**PURE POWDERED BUTTERMILK**—Is the pure solid content of the liquid buttermilk, with only the water taken out and nothing else added.

It contains all the food elements of the liquid buttermilk but the process of drying puts it in a convenient form that will keep indefinitely and can be hauled long distances with only moderate freight charges. Can be used just when needed and with no waste from spoilage or slopping. **Write for Prices.**

**DIAMOND CRYSTAL GRIT**—Every poultry raiser should keep a supply of grit in each pen. Made in two sizes, chick and hen size. We always send hen size unless otherwise ordered.

**DIAMOND BLOOD MEAL**—The most highly concentrated egg-producer on the market. To be fed in soft food. Unexcelled as a food for forcing growth of chicks or as an egg food. **Write for prices.**

**ALFALFA MEAL**—A substitute for green food for winter feeding. Can be mixed with dry or wet mash.

**ALFALFA LEAVES AND BLOSSOMS**—The best substitute for green food for Winter feeding; helps keep the egg basket full; mixed with the soft feed is good for large or small chicks; endorsed by leading experts. **Write for prices.**

**OIL MEAL.**

Soy Bean Meal.  
Linseed Meal, Old Process.  
Cocoanut Meal.  
Cotton Seed Meal.

**Write for Prices.**

**BONE MEAL**—Our "Diamond Brand" is finely ground from hard white bones, and of a superior quality. This is used by Poultrymen in their feeding mash for laying hens.

**GRANULATED BONE**—Our "Diamond Brand" is made from selected hard white raw bones, and of a superior quality; an indispensable food for laying hens. **DIAMOND. Price: \$3.25**

**CHARCOAL**—Our Charcoal is prepared especially for poultry; no dust; a good thing for bowel trouble, sour crop and indigestion; a health preserver.

**FISH MEAL**—A fine-ground, pure, sweet fish meal, containing protein—feed as you would meat meal; a rich, wholesome food for poultry.

**OYSTER SHELLS, CRUSHED**—We offer nice clean stock, free from dust and waste. These should be within reach of your hens at all times. In two sizes: coarse and fine.

**DIAMOND. Oyster.**  
**OREGON. Oyster.**

**Price: 6 lbs. 25c.**  
**7 lbs. 25c.**

**POULTRY PEPPER COMPOUND**—A good tonic and invigorator; ground. **Price: 1 lb. 25c.**

**Write for Quantity Prices, on all the above**

## Use GERMOZONE Keeps Poultry Healthy

Poultry diseases, even colds and roup, almost always start with bowel trouble. Bowel trouble starts mostly from musty or spoiled food.

Grain, whole or ground, if it becomes damp and lays around for a week or two is apt to become musty and **musty feed is poison for chickens.**

**GERMOZONE Kills or Counteracts the Musty Poison in Food**—And, as a remedy for colds, roup, canker, sore head, swelled head, chicken pox, sores, swellings, loss of feathers, etc., Germozone is unexcelled.

**GERMOZONE is the cheapest hen-health insurance one can buy.** A 75c package of Tablets will last 20 hens 20 weeks, 400 hens one week, or one hen 400 weeks, or less than 10 cents per year per hen. It means better birds, fewer losses, less worry and trouble, and more eggs.

**Buy Germozone in the TABLET FORM—no loss from broken or spilled bottles, easier to handle and carries safer in the mail.**



*Feed your laying hens plenty of Sunflower Seed. It is a splendid food for them, is cheap, and if you have a small piece of idle land you can produce sufficient seed to feed a large flock through the winter.*



# LEE'S FOODS AND REMEDIES FOR STOCK AND POULTRY

THE GENUINE MERIT of the LEE FOODS and REMEDIES and their recognized superiority is their best guarantee, and you can depend upon them absolutely to do all that is claimed for them. The valuable booklets of the Lee Company are free to poultry keepers and stockmen, and contain reliable and complete information to date on poultry and stock feeding problems. We mail them on request.

## LEE'S LIQUID LICE KILLER

FOR 20 YEARS THE STANDARD

Destroys either by vapor or contact. No trouble to apply; just paint the roosts or wall at night. Rids poultry and houses of all vermin; is prepared exclusively for this purpose, and there is nothing just as good.

Price: Qt. 60c; 1/2 gal. 90c.; gal. \$1.50; 5 gals. \$6.00.

## LEE'S GERMOZONE

Regular use of Germozone insures BETTER health; BETTER chicks; BETTER layers; and the RIGHT kind of BREEDERS. Use it for Bowel Complaint in little chicks; for Cholera, Roup, and other diseases among the older fowls; and regularly TWICE-A-WEEK for ALL fowls. It prevents contagion, tones the system, and insures BETTER health for the entire flock. Liquid, not prepaid, 4-oz. bottle 40c; 12-oz. 75c; 32-oz. \$1.50; gal. \$4.50; tablets, postpaid, pkg. 75c.



LEE'S EGG MAKER is not a tonic nor a medicine, but a meat food of great value. It will make hens lay, chicks grow, and keep them all in a healthy, vigorous condition. 2-lb. pkg. 50c.; 5-lb. pkg. \$1.00; 25-lb. pail \$4.25.

LEE'S HEADLICE OINTMENT—For little chicks. Large box, 15c. 1-lb. can, 30c.

LEE'S LOUSE POWDER. 1-lb. can, 30c.  
LEE'S WHITE DIARRHOEA REMEDY—The best medicine for this dangerous disease of little chicks. Wt. 2 lbs.; 12-oz. bottle, 50c.

LEE'S HOG REMEDY—Cures all diseases of hogs and keeps them healthy. 7 1/2-lb. pkg. \$1.50, mailing weight 9 lbs.; 25-lb. pail, \$4.00.

LEE'S DIP—For lice, ticks, mange, itch or scab, on cattle, sheep and hogs. Qt. 75c; 1/2 gal. \$1.25; gal. \$2.00; 5 gals. \$8.00. Mailing weights: Qt. 3 lbs.; 1/2 gal. 5 lbs.; gal. 10 lbs.

LEE'S WORM POWDER—For horses, cattle, sheep and hogs. Safe and sure in result. Pkg. 35c; wt. 1 1/4 lbs.  
LEE'S BEST CONDITIONER STOCK FOOD—Promotes good health, digestion and assimilation.

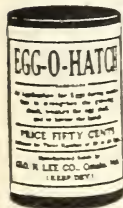
7-lb. pkg. \$1.50; 25-lb. pails \$4.50.  
LEE'S PEERLESS GOPHER KILLER—For killing gophers, squirrels, etc. Sure death.

Quart can, wt. 3 lbs., 75c.  
LEE'S PEERLESS BUG KILLER—Wt. pkd., 2 lbs.; 12-oz. bottle 35c.

LEE'S SMOKE FLAVOR—Hickory Smoke Extract applied to meat preserves it indefinitely, imparting the delicious flavor that is only otherwise obtained by smoking with green hickory.

12-oz. bottle, wt. pkg. 2 lbs., 50c; 32-oz. bottle \$1.00.  
LEE'S FLYO-CURO—We sell thousands of cans of this fly spray every season, and it gives good satisfaction. Qt. 60c; 1/2 gal. 90c; gal. \$1.50; 5 gals. \$7.00; mailing weights, qt. 3 lbs.; 1/2 gal. 5 lbs.; 1 gal. 10 lbs.

## EGG-O-HATCH and EGG-O-LATUM DON'T GET THE TWO NAMES MIXED

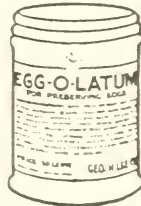


Egg-o-hatch is a dry powder. It is mixed with water and the resulting liquid is applied to eggs two or three times during the 21 days of incubation. It is a liquid that does three things—supplies oxygen for the growing chicks; absorbs carbon dioxide given off; makes more brittle and porous the shell of the egg.

Price 50c. postpaid. Will treat 600 eggs.

Egg-o-latum is a white cerate. Rubbed over the shell of the egg it seals every pore so no air, moisture, odors, or germs can get in. Preserves the egg in all its original freshness. The application of Egg-o-latum is easily and quickly done. A dozen a minute and they will keep a year. Fresh eggs must be used, unfertile ones are best. One package treats 50 doz. eggs.

Price 50c. postpaid.



PRICES ON THIS PAGE F. O. B. PORTLAND WHEN NOT OTHERWISE STATED

*POULTRY LICE ARE EXPENSIVE LIVESTOCK. Keep lice and mites out of your poultry houses by the liberal and persistent use of Lee's Liquid Lice Killer. Spray it on walls, roosts and floors, also on the bottom of the nest boxes under the straw. A supply should be on hand at all times.*

Keep your yards and houses clean and well ventilated—use Germozone in the drinking water—Lee's Liquid Lice Killer

LEE'S GARDEN INSECTICIDE—(Non-poisonous)—This is a new addition to the famous "Lee Line" of insecticides. We recommend "Lee's Insecticide" as one that is suited to the needs of the average gardener, and one that is guaranteed to give satisfaction. 1 lb. sprinkler top can, 35c.; 2 lb. sprinkler top can, 60c.

**Diamond Baby Chick Mash** For little chicks, broilers and roasters. Grows—Matures—Fattens.

**Diamond Chick Food** Saves little chicks. Helps them to grow into big strong healthy birds.



MISCELLANEOUS POULTRY SUPPLIES—Continued



Portland, Oregon

Kant-Krack Egg Box is specially designed for the safe delivery of valuable eggs for hatching and is a great favorite with poultrymen.

Made of heavy corrugated paper. Only a few seconds work to set the box up, pack it with eggs, and address it. These boxes are light but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing.

No.	Size	Wt.	Each	Six	Doz.
3	15-Egg	1 lb.	\$0.25	\$1.45	\$2.75
4	30-Egg	1½ lb.	.40	2.30	4.50
5	50-Egg	2 lb.	.60	3.50	6.50

IDEAL PAPER EGG BOXES

Intended for use in delivering eggs to private families. Nicely printed with a blank space for your name and address. Weight 12 lbs. per 100.

Prices: 1-dozen size, 20c. dozen; \$1.10 per 100; \$10.00 per 1000. Sample box by mail 5c.

LIVE CHICK BOXES

Our Live Chicken Boxes for delivering day-old chicks are safe, economical, convenient. They come in three sizes at the following prices:

25-chick size, each 25c; doz. \$2.50; 50-chick size, each 35c; doz. \$3.50; 100-chick size, each 50c.; doz. \$4.75.

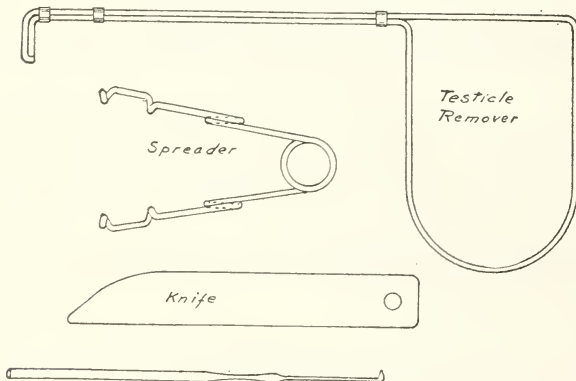
DIAMOND CHICK FOOD

Saves little chicks. Helps them to grow into big strong healthy birds.

VALENTINE'S CAPONIZING INSTRUMENTS

Simple and easily understood by the beginner and enable the expert to do faster and better work than ever before. These instruments make it possible to complete the operation from one side and through one incision, lessening the danger to the fowl and saving more than half the time. Full and complete directions for use also for care of the fowl before and after the operation.

Price per set, postpaid, \$3.50.



SHELL—AN EGG NECESSITY

Did you ever stop to think it would be an impossibility for a hen to produce an egg without carbonate of lime to make the shell, to hold it together during formation and add strength thereafter?

Carbonate of lime is readily available from shells grown in salt water.

When fowls are kept on hard or frozen ground, we find small eggs and occasionally a soft-shelled egg is laid. They never fully materialize for the reason there is nothing to hold them together.

Remember, if you want eggs, keep oyster shell constantly before them and feed our "Diamond Egg Food." There is nothing better. Contains all ingredients for making the inside of the egg, acts as a tonic to the fowl, and when used in connection with shell-making material results are certain.



EGG CASES

30-doz. size complete with fillers. Each 70c.

NEW PARCEL POST EGG CRATE

The Strongest, Lightest Egg CARRIER

You can mail eggs in this crate 150 miles with return of crate for 3¼ cents a dozen. Size—12 doz. Each 90c

EGG CASE FILLERS

Packed in cases containing fillers for 12 30-doz. cases.

Per Case \$3.35

Fillers for 1 30-doz. case. Fillers.

Each 5c

DIAMOND POULTRY REMEDIES

DIAMOND ROUP CURE—Comes in powder form. Full directions in each box. Regular 50c and \$1.00 size.

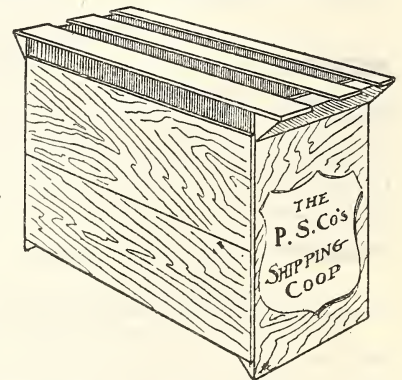
Special Price, per box, postpaid, 30c and 60c.

DIAMOND CHOLERA CURE—Comes in powder form. Soluble in water. Full directions on each box.

Special Price, per box, postpaid, 35c. Regular 60c size.

DIAMOND BABY CHICK MASH

For little chicks, broilers and roasters. Grows, Matures, Fattens.



P. S. CO.'S SHIPPING COOPS

These Coops are all wood, neat, very light, but strong. Poultry raisers who are selling poultry at fancy prices should always use these coops to ship their birds in. If your birds are worth shipping at all, they are worth putting in a neat, up-to-date coop.

Our prices are very low. Coops always shipped K.D. (in flat), as the freight rate is much lower. Order a few of each size and have them on hand for rush orders. No. 1, for single bird or small pair; No. 2 for large bird or small trio; No. 3 for large trio or pen of small birds.

No. 1—10x21x18.....	Each \$0.60; Six for \$3.25
No. 2—12x24x20.....	Each .75; Six for 4.00
No. 3—20x24x20.....	Each 1.00; Six for 5.25

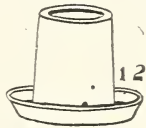
# FEEDERS AND FOUNTS

**GALVANIZED WALL FOUNTAIN—No. 5—**Cyphers Style, very serviceable. To be hung on the wall or against an upright post. Its construction protects the water from becoming soiled. **One gallon size, weight 2 lbs., each 95c. Two gallon size, weight 2½ lbs., each \$1.20.**

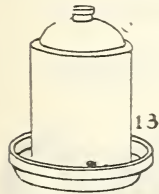
**No. 1 "DIAMOND" SANITARY SELF-FEEDING BOXES—**Made of heavy galvanized iron; soon pays for itself in preventing waste of feed. Keeps grit, shells and charcoal before the fowls at all times. **Price, 3 compartments, weight 2½ lbs., each \$1.10. Large size, 2 compartments, weight 3 lbs., each \$1.45.**



**No. 12 GALVANIZED IRON FOUNTAINS—**Our Galvanized Iron Drinking Fountains, we believe, are the best in use. They are easily filled, cleaned and kept clean. Lighter than the earthenware and safer to ship.



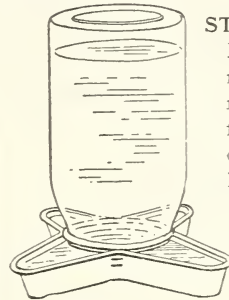
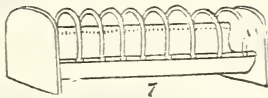
**Price—**To close out, while they last: Medium size, weight 1 lb., each 35c; large size, weight 1½ lbs., each 45c.



**SANITARY STONE FOUNTAIN—**These are strong and well finished; made in two pieces. They probably keep the water cooler than the galvanized fountains, but are heavier to handle and more liable to break.

**Price: ½ gal. 65c; 1 gal. 75c; 2 gal. \$1.25.**

**No. 7 WIRE COVERED FEEDER—**A practical, convenient feeder for young chicks. Durable and easily cleaned. Weight 1 lb. **Price, 12 inches, each 50c.**



**STAR FOUNTS AND FEEDERS—**Made of one solid piece of pressed metal, holds a Mason quart jar, has more available space for drinking or feeding than other feeders of this class. **Price, without jar, each 10c.**

**CIRCULAR CHICK FEEDER—**Made of heavy galvanized iron. The cover fits tight and chicks cannot climb into it. Convenient and economical. Made in two sizes. **8 holes. Each 15c. 12 holes. Each 25c.**



## McCANDLISH IMPROVED CHICK FEEDER

Equipped with Adjustable Partitions for Various Kinds of Feed. An ideal Drinking Receptacle. Also made of Galvanized Iron. No Rough Edges. Waste Impossible. Cannot Capsize. The Revolving Rod Prevents the Chicks from Perching Upon It, Making the Feeder Absolutely Sanitary. Lengths: 20 and 30 inches. **Prices: 50 and 75 cents.**

## NORWICH AUTOMATIC EXERCISER AND FEEDER

Every kernel of grain put into this feeder will go to your flock, not a single one will be wasted. Absolutely bird and rat proof. Rain or dampness cannot affect it. Saves its cost in ninety days by preventing waste, requires no attention except filling of hopper when empty. Adjustable for slow or fast feeding.

**KEEPS THEM BUSY ALL THE TIME**

Guaranteed to improve the flock, increase the egg production and save feed. Descriptive pamphlet on request.

**MADE OF HEAVY GALVANIZED IRON**

**No. 2—14 quarts ..... Each \$4.75.**

## NORWICH DRY MASH HOPPER

Solves the problem of Automatic Dry Mash Feeding. The vibrator rods make clogging impossible and the construction of feed basin eliminates waste.

**Price, 8 qt. capacity, weight 8 lbs., \$3.25.**



*Chicks 6 Weeks old will operate this feeder*



## Diamond Chick Food

**Saves little chicks. Helps them grow into big strong healthy birds.**

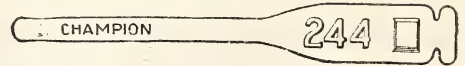


## MISCELLANEOUS POULTRY SUPPLIES

### LEG BANDS FOR POULTRY AND PIGEONS (SEE CUTS)

Every chicken must have a leg band on before it can be entered in a poultry show. In ordering *Leg Bands*, be sure to state size wanted, or breed of fowls bands are to be used on, and number wanted for males for females.

**CHAMPION**—Latest and best adjustable leg band out. Has neat, compact and smooth fastening, with no catching points; easily attached and absolutely secure. **Prices, postpaid, 12 for 20c; 25 for 25c; 50 for 40c; 100 for 65c.**



**SPIRAL COLORED LEG BANDS**—Made like a key ring—easy to put on, nothing to catch or tear off—instantly identifies your birds as far as you can see the color. All sizes from chick to mature fowls.

**Ten Colors**—Red, White, Yellow, Black, Pink, Green, Brown, Purple, Light Blue, Dark Blue. **Prices, postpaid, 12 for 20c; 25 for 25c; 50 for 40c; 100 for 65c.**



**SMITH SEALING TOOL**—Made especially for sealing the Smith leg bands. **Plain jaw, \$1.50; lettered jaw, any letter, \$1.75; postage, 10c.**

**SMITH SEALED**—Made of aluminum and so constructed that by simply crushing a soft rivet they are sealed on the bird's leg, and must be destroyed to be removed. **Prices, postpaid, 12 for 35c; 25 for 60c; 50 for \$1.00; 100 for \$1.85.**

**SMITH SEALED**—Pigeon. Doz., 30c; 100, \$1.00.

### THERMOMETERS

**FOR INCUBATORS—TESTED**

"Buckeye." Tested. **Each, \$1.00.**

Fig. 6—P. S. Co.'s triangle shape; metal back. **Each, \$1.00.**

Fig. 10—P. S. Co.'s straight; metal back. **Each, \$1.00.**

**FOR BROODERS**

"Buckeye." For Nos. 20, 21, 22. **Each, \$1.25.**

Fig. 2—P. S. Co.'s; for any style brooder. **Each, \$1.00.**

**HOTBED THERMOMETERS**

For taking temperature of soil at varying depths.

No. 3½. **Each, \$1.75.**

No. 3. **Each, \$1.50.**

All Metal. **Each, \$1.25.**

### BREEDER'S MAGIC EGG TESTER

**The Manufacturer's Challenge**—Any person in the world to hatch one egg the Magic Egg Tester registers unhatchable **before incubation**. No light. No electricity. No expense and lasts a lifetime. **Shows the hatchable eggs before incubation.**

*Don't set another egg until you have the Breeder's Magic Egg Tester.* **Price each, \$2.50.**

### BUCKEYE EGG TESTER

Cheap but practicable. **Price, 50c, postpaid.**

### RABBIT DISHES

Earthenware Rabbit dishes have incurved edges that prevent them from rooting out their food. Very serviceable. **Price, 6-inch, 20c each; 8-inch, 25c each. Cannot be mailed.**

### WORMS ARE POULTRY'S GREATEST ENEMY

Many so called remedies are offered and some will cause live worms to be expelled, but the expelled worms are frequently eaten by Poultry, and greater infection results than before because the worms themselves are a mass of eggs. But **BARNES WORM EMULSION** kills the worm, eggs and all, without harm to the chicken. Send for booklet giving full details. **16 oz., 60c; qt., \$1.00; gal., \$3.00; 5 gal., \$12.50; bbl., 30 gal., \$60.00.**

### PETTEY'S POULTRY PUNCH

Latest, most convenient Poultry Punch; can be put on a key ring or used for a watch charm. Will not clog. Very practical. **Postpaid, 25c.**



### SCISSOR POULTRY PUNCH

Strong. Cuts clean. **Each, 15c; postpaid, 20c.**

### RELIABLE POULTRY MARKER

For marking the web between the toes. One of the best and handiest markers. **Postpaid, 35c.**

### NEST EGGS

**CHINA**—Best grade Opal Eggs. Weight per dozen, ¾ pound. **Price, each, 5c; 12 for 50c.**

**LIME NEST EGG**—These are superior to the China egg, not so cold, and are indestructible. Weight per dozen, 2 lbs. **Price, each, 5c; doz., 40c; postpaid, each, 10c.**

### WIRE HEN'S NESTS

Strongly made; very durable; fasten to the wall; no harbor for vermin. Weight, 10 oz. each. **Price, each, 25c; dozen, \$2.75.**



# MANN BONE CUTTERS

The only mill that will cut Green Bone and not clog

THE Mann's Green Bone Cutter is offered to the poultry world on a warranty to produce a perfectly edible food, with no waste, from any lot of green bones, with less labor, and less annoyance than any other bone cutter.

We send the Mann's to any responsible poultryman with this understanding: If you are not satisfied that it meets every claim we make for it, notify us, and we will give instructions to return the machine, and will, upon receipt of same, refund purchase price. Could you ask more?

The Mann's is the only machine which has a self-governing feed, producing uniform pressure against the knife, whether the bone be hard or soft. You set the machine to suit your strength, and it never requires more power than you set it for.

**MANN'S No. 5**—Has four knives, large solid cylinder, and has the latest patent automatic governing spring feed which makes it one of the best low-priced bone cutters ever offered. We can furnish with crank, balance wheel, or mounted on iron stand.

Mechanism of the Mann's showing automatic force-feed, cylinder parts, etc. Mann's catalog gives all details.

**MANN'S No. 7**—The New No. 7 is mounted on a strong iron stand, and has patent automatic governing spring feed. Large open-hinged cylinder, giving instant access to all working parts, has six knives, gear guard, anti-clog device, heavy balance wheel and other improvements. (See cut.)

**MANN'S No. 7½** Adapted to run either by hand or power without any change. The particular advantage of the 7½ is that while it is a complete power machine, it can be operated by hand just as easily as the No. 7. It is recommended even if you have no power, for should you get power you need be at no further expense

**MANN'S No. 12—POWER**—Strictly a power machine. Capacity 120 to 150 pounds per hour. Horsepower required, one to two. Just the machine for marketmen, extensive breeders, or anyone who has large quantities of bone to cut.

**MANN'S CORN SHELLER**—Best low-priced corn sheller made. A profitable tool if you have corn to shell. Weight 10 lbs. Price \$3.75.

**MANN'S CAST IRON MORTAR**—For breaking glass, crockery ware or oyster shells. Weight 33 lbs.; height 12 inches; 9 inches square; pestle 4 feet long. Price \$4.00.

## PRICE LIST OF MANN'S BONE CUTTERS

New Styles	Price	Wgt.
No. 5C (with crank handle)	\$ 15.00	30
No. 5B (with balance wheel)	18.00	55
No. 5BM (B.W. and iron stand)	24.00	80
No. 7 (B.W. and iron stand)	27.50	107
No. 7½ (hand or power)	40.00	150
No. 12 (power machine)	80.00	260
No. 15 (power machine)	155.00	420



## MANN'S HANDSOME 40-PAGE CATALOG

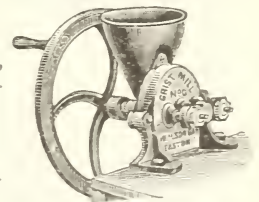
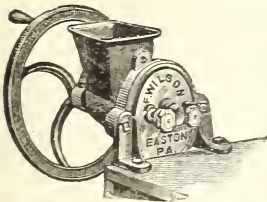
Is fully illustrated and tells all about the different style Green Bone Cutters, Clover Cutters, Corn Shellers, Grit Smashers, etc., and contains much valuable information. Free on request.

## WILSON'S DRY BONE MILL No. 1

This is a practical mill, grinding all kinds of shell, crockery, grit, burnt dry bone, feed, etc., coarse or fine. Weight 33 lbs. Price. \$7.50.

## WILSON'S GRIST MILL No. 0

Made for grinding flour, corn meal, etc., and for cracking grain. Weight 30 lbs. Price \$7.50.



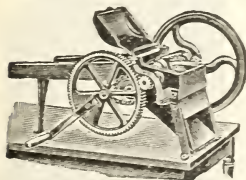
## "NEWMODEL" CLOVER CUTTER FOR POULTRY

The "New Model" Clover Cutter cuts either green or dry, such growths as clover, alfalfa, vegetable tops, etc., into ½ inch lengths.

The "New Model" is made only of iron and steel, from entirely new patterns. It is a strong feeder, has large capacity, runs unusually easy and will do perfect work indefinitely.

The Cutting Mechanism is the most vitally important part of a Clover Cutter. The radically different construction of the "New Model" admits of perfect cutting at all times, because the cutter bar is adjustable and easily accessible, and the four 7-inch spiral steel knives can readily be removed for sharpening.

Length over all 28½ inches. Weight knocked down 70 pounds.



- Removable Steel Knives
- Adjustable Cutter Bar
- Runs Easy—Cuts Fine
- Is Durable.

Price \$21.00

## GILT EDGE EGG SCALE



Simple in construction and easy to operate, graduating by the ounce per dozen. Is universally used.

Price \$2.00 or \$2.10 postpaid.

## THE LINCOLN EGG SCALE

Price 50c or 60c postpaid.

## DIAMOND CHICK FOOD

Saves little chicks. Helps them to grow into big strong healthy birds



**"More MONEY from your COWS"**

# KOW-KARE

Makes Poor Cows Good—Good Cows Better, and Makes More Money for Cow Owners.

## "THE HOME COW DOCTOR"

A handbook for cow owners, describing diseases that effect a cow's productivity and telling how to prevent and cure them in a single cow or a whole herd. **Free on request.**

**KOW KARE** (originally Kow Kure) is different from anything ever discovered for cow troubles. It is the only cow medicine that is strictly for cows only.

It is not a stock food, but a specific remedy especially for cow diseases, such as Barrenness, Scours, Milk Fever, Caked Udder, Bloating, Red Water, Swelling of Bag, etc. It prevents abortion and removes retained after-birth. It tones up the system, renews vitality, restores

appetite to cows that are "off feed," and keeps them healthy. Makes poor cows good, good cows better, and makes more money for cow owners. It increases the milk flow, and enables the cows to produce strong, vigorous calves. It is the dairyman's gold mine, and a sure profit-payer. **Medium cans, Mail wt. 2 lbs., Price 65c.; Large cans, Mail wt. 4 lbs. \$1.25. If mailed postage extra.**

## AMERICAN DAIRY ASSOCIATION REMEDIES

**BAG BALM**—A soothing, penetrating ointment for all affections of the bag. **65c packages—wt. 1/2 lb.**  
**GRANGE GARGET CURE**—An unsurpassed and positive cure. **Postag extra. 70c cans—wt. 2 lbs.**

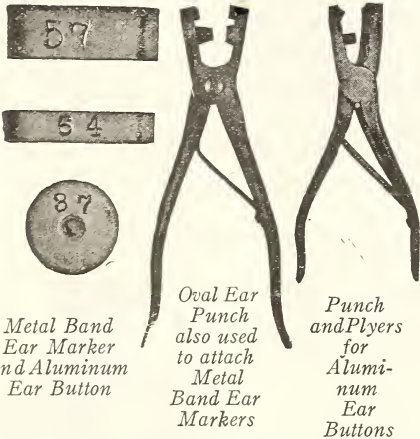
**HORSE COMFORT**—For wire cuts and all flesh wounds. **35c bottles—wt. 1 lb.; 65c. bottles—wt. 2 lbs.**  
**AMERICAN HORSE TONIC**—A general improver for horses. **35c boxes—wt. 1 lb.; 70c boxes—wt. 2 lbs.**

## MARKERS FOR CATTLE, SHEEP AND HOGS

Metal Ear Labels and Ideal Ear Buttons are satisfactory and easily applied marks of identification that are indispensable to breeders and stockmen. Your name and address on one side, number on the other.

**OVAL EAR PUNCHES**—Cattle size: wt. 1 1/4 lb. each, **\$1.75; Sheep and Hog size, \$1.40. Postage 10c. each.**

Not more than ten large letters can be used on the hog and sheep size; 15 large letters on cattle size or 22 small ones.



Metal Band Ear Marker and Aluminum Ear Button

Oval Ear Punch also used to attach Metal Band Ear Markers

Punch and Pliers for Aluminum Ear Buttons

Prices—Two sizes	Sheep and Hog	Cattle
100 with name and number.....	<b>\$1.75</b>	<b>2.25</b>
50 with name and number.....	<b>1.25</b>	<b>1.50</b>
25 with name and number.....	<b>.85</b>	<b>.90</b>
100 with name only, or No. only.....	<b>1.25</b>	<b>1.75</b>
50 with name only, or No. only.....	<b>1.00</b>	<b>1.25</b>
25 with name only, or No. only.....	<b>.75</b>	<b>.85</b>
Weight for mailing, Cattle size, 2 1/2 lbs. per 100; Sheep size, 1 lb. per 100. <b>If mailed postage extra.</b>		

### IDEAL EAR BUTTONS Pure Aluminum Hardened

Medium sized, suits all animals, clinches tight, cannot come out; double strength. Name and address on top side; number on bottom, or number and name can both appear on one side if not more than 18 letters and figures; if more than 18 both sides can be used to the limit of 30 letters and figures. Easily attached with special punch and pliers.

PRICES	500, wt. 4 lbs.....	\$16.50
25, wt. 3 oz.....	<b>1.35</b>	
50, wt. 1/4 lb.....	<b>2.00</b>	<b>1000, wt. 6 lbs..... 30.00</b>
100, wt. 3/4 lb.....	<b>3.75</b>	<b>If mailed postage extra.</b>
<b>Punch and Pliers, wt. 1 lb..... \$1.50</b>		

All of above if mailed, postage extra.

## SPROUTED OATS

### INCREASE THE EGG YIELD, DECREASE THE FEED BILL

A bushel of oats sprouts into **three bushels** of nutritious green feed. Hens lay more eggs, young chicks grow faster and are more healthy on green feed. Oats, rye and wheat can be easily and quickly sprouted and make the most economical and profitable food for winter.

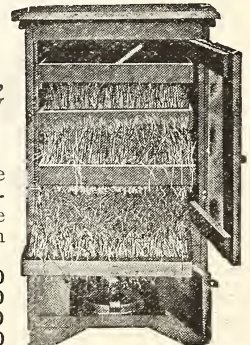
### PREMIUM SECTIONAL OAT SPROUTERS—All Metal

Outside wall lined with asbestos—inside wall metal grain chamber, heat passing between the walls. One of the principal advantages of the Metal Sprouter is the very small floor space occupied. If an additional quantity of sprouted grain is needed, owing to an increase in the size of the flock, one or more additional sections may be added, greatly increasing the capacity without in the least enlarging the space occupied.

Small Base—1/4 bu., 2 trays, 25-35 hens, weight 25 pounds.....	<b>\$11.00</b>
Small Section—1/4 bu., 2 trays, 25-35 hens, weight 12 pounds.....	<b>3.50</b>
Large Base—1 bu., 2 trays, 100-150 hens, weight 50 pounds.....	<b>19.50</b>
Large Section—1 bu., 2 trays, 100-150 hens, weight 33 pounds.....	<b>7.50</b>

### LAMPLESS GRAIN SPROUTERS—Must be used in a heated room

All metal, convenient to drain. Both sprout and root are aerated to promote a healthy growth without mold.	
No. L 1/2—1/2 bu., 4 trays, 50 hens, weight 12 pounds.....	<b>\$ 5.50</b>
No. L1—1 bu., 5 trays, 100 hens, weight 20 pounds.....	<b>9.00</b>
No. L2—2 bu., 6 trays, 200 hens, weight 35 pounds.....	<b>13.50</b>





## BLATCHFORD'S CALF MEAL

The Complete Milk Equal is in reality a substitute for milk—and should not be considered as an ordinary "feed" or "meal."

It contains all the elements of milk—a "baby food" for calves.

It is absolutely the **only** milk-substitute that contains in proper proportion the elements necessary for rapid and healthy growth, and the only calf meal that is thoroughly cooked and prepared for easy digestion.

Sold in 100, 50 and 25-lb. bags. 100 lbs. makes 100 gallons of Complete Milk-Equal.

	25 lb.	50 lb.	100 lb.
Calf Meal .....	\$1.85	\$3.50	\$6.60
Chick Mash .....	1.75	3.25	6.35

F. O. B. Portland Subject to Market Changes.

## CHALLENGE BRAND CONDENSED MILK PRODUCTS

Are made from Buttermilk and Skim Milk, cultured. Nothing is added, and only the Water removed by evaporation. Contain 30% solids, and are perfectly soluble.

Keep your flock up to its highest point of efficiency by the regular and continuous use of Challenge Brand. "It's Cultured"—There's a Difference.

Also a Valuable Feed for Hogs in Building and Fattening for the Market.

Put up in wooden containers. PRICES: 5 gallons \$3.75; 10 gallon keg \$6.50; ½ bbl. \$13.50; bbl. \$23.50. F.O.B. Portland.

## LESLIE SALT

Stock and Dairy men—we carry a line of Leslie salt especially adapted for your use. The prepared bricks on account of shape, size and hardness are found to be the most economical method of salting stock.

They come in 5 and 10 lb. cubes but can be cut with a carpenter's saw into smaller pieces.

The half ground salt comes in 50 and 100 lb. bags and is found valuable for certain domestic uses.

The Pet Stock fancier will find the Petlick of great value for Rabbits and other pets, all of which need salt.

It comes in round wheel-shaped blocks with a hole in the center so they can be nailed to the wall and eliminates waste. About 2½ inches in diameter.



Increases Milk Production  
20 Per Cent

### PRICES:

Half Ground, 100 lbs. ....	\$0.85
Half Ground, 50 lbs. ....	.50
Comp. Bricks, 10 lbs. ....	.20
Comp. Bricks, 5 lbs. ....	.15
Petlicks. ....	.10
Petlicks, pkg. of 10 .....	.85



## SO-BOS-SO

Protects Stock From  
the Torture of Flies

Your cows will give more milk—your horse will do more work on less feed if protected by So-Bos-So at a cost of less than ½ cent a head per day.

Horses hitched or harnessed will stand quietly or work in comfort if protected by So-Bos-So, and many runaways will be avoided. So-Bos-So is a boon to blacksmiths.

So-Bos-So is easily and quickly applied with a hand sprayer, cloth or sponge and is the only really efficient "fly bouncer" that we have ever seen.

### PRICES

Be sure to look for the trade-mark as there are many preparations offered that will prove disappointing.

Gallon cans, wt. 10 lbs., each .....	\$1.60
Half-gallon cans, wt. 5 lbs., each .....	1.00
Quart cans, wt. 3 lbs., each .....	.65





## BEE SUPPLIES

**I**F YOU live in the suburbs, keep poultry, or live on a farm, keep a few stands of bees; they will amply repay you for the little attention they require, and will often return you a splendid profit.

**IF YOU OWN AN ORCHARD** then you must of necessity keep bees if you would secure the largest crops of most salable fruit, for proper pollination is essential to best development. A most interesting series of experiments on the Pollination of the Apple, conducted by the Oregon Agricultural College, proves the total inadequacy of all pollenizing agents, with the single exception of Bees. The wind, which at first thought would seem dependable, is a total failure outside of the radius of a few feet, even under most favorable conditions, and very uncertain at any distance. Some few varieties are self-fertilizing, but these are vastly improved by crossing the pollen with other sorts, and the busy honey bee seems to be our sole reliance for effective work. Fortunately, bees are easily obtained, are very little trouble, and an orchard and apiary make an ideal combination from a business standpoint. This subject is well worthy the careful investigation of all orchardists, and we would be pleased to hear from those interested.

**WE ARE THE PIONEERS** in the Bee Supply business in the Northwest, are thoroughly familiar with local conditions and requirements and if you are new to the business or the country we can be of much help in saving you any unnecessary outlay, work or loss of time and can start you on the right road to success. Stocks are large and complete and we can fill any size order on short notice and will give the small order just as careful attention as the larger one.

**WESTERN PINE AND CEDAR HIVES** made to our order in standard sizes and designs; of first class material and workmanship, are very popular with local beekeepers. Our Western lumber is satisfactory and lasting and we recommend them as being economical and serviceable.

The magnitude of our business and its steady growth is a guarantee of service and quality, and we look forward to the pleasure of serving you.

PORTLAND SEED COMPANY.

### HOW TO ORDER

**WHEN TO ORDER.** Don't wait until your Bees have swarmed before you order you hives or supplies. Send in your orders early and be on the safe side.

**PREPAY STATIONS.** When you send in orders to go by freight or express, be sure that you add money enough to pay freight charges **if your station is a prepay, which is always the case where there is no regular agent.**

**BEE SUPPLIES BY MAIL.** The prices named in this catalog are **not prepaid unless so stated.** Many of the lighter supplies can be mailed, when it is necessary, but we believe express or freight the most satisfactory way of sending.

**LARGE ORDERS.** Perhaps you want only a hive or two and a few supplies; it may be your neighbors are in the same fix. This is your chance to make up a club order and secure your hives or supplies cheaper.

**PRICES—All prices are subject to change without notice.**

### REAL BARGAINS IN BEE SUPPLIES

At these prices stock will not last long; first come, first served.

Root Hives, Eastern pine, Fig. 2-8, no supers, crates of 5 KD. ....	<b>\$8.75</b>
Root Hives, Eastern pine, Fig. 2-8, no supers, with metal spaced frames .....	<b>9.25</b>
Root Danzenbaker, Eastern pine, Fig. 2-10, no supers, crate of 5 .....	<b>7.50</b>
Root Danzenbaker, Eastern pine, Fig. 0-10, empty, lots of 5.....	<b>2.50</b>
3½x5x1½ Ideal Sections.....500 for <b>\$5.00</b> ; 1,000.....	<b>9.50</b>
7 to the foot.....500 for <b>3.50</b> ; 1,000.....	<b>6.00</b>
Dazenbaker Separators, per 100.....	<b>5.00</b>

### SOW BUCKWHEAT FOR FALL BEE PASTURAGE

To insure plenty of winter stores for your bees, sow buckwheat any time in the late spring or early summer. It will bloom in about sixty days from planting and give an abundance of nectar much sought after by the bees. The honey is dark but makes good winter stores.

### BEGINNERS' OUTFIT

To the inexperienced we recommend the following complete equipment—all that is necessary except the bees—these you can generally purchase near your home and save the express charges. It is best to have them examined by an experienced man to see that the colony is in a healthy condition.

**ITALIAN BEES** (the leather colored), are to be preferred but any strong colony will do for we can supply pure bred Italian Queens that will soon Italianize the colony as the worker bees live but a short time.

- 1 Copy A B C and X Y Z Bee Culture.
- 1 Fig. 1-8 Western Cedar Hive.
- 1 Clark's Cold Blast Smoker.
- 1 Bee Veil No. 2.
- 1 Parker Foundation Fastener.
- 1 Porter Bee Escape, Mounted.

- 1 Pair Long Canvas Gloves.

**"GLEANINGS IN BEE CULTURE"**—The best bee magazine—a year's subscription.

**PRICE Without Bees \$11.50**

F. O. B. Portland.





# Portland Seed Company's Hive Combinations

Our Western hives, either Pine or Cedar, are standard sizes and well made of select material dovetailed. When ordering note the different figures. Fig. 1 means complete with sections and foundation for starter. Fig. 2 means without sections and foundation starter. Story and a half hives are preferred by many, consisting of brood chamber, brood frames, excelsior cover, bottom board, super for sections, with section holders and separators. Single story hives are equipped with brood frames, covers and bottom boards. Supers used for sections or for extracting with half Hoffman frames or hive bodies with full depth frames require no extra cover or bottom boards. In complete or Fig. 1 hives, we send one sheet of foundation as starter for brood frames and one sheet of super foundation for starter in sections. If full sheets are wanted, these must be ordered by the pound. Hives and supers are packed and shipped in crates of 5 K. D. and no less than 5 will be shipped K. D. except at nailed price, the added cost being for breaking crates and repacking.

**NOTE**—Original crates of five hives are too large for Parcel Post. Nailed hives and supers are sold at increased price to cover cost of nailing and these take a higher freight rate than crates K. D. All supers for sections take the regular size  $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{7}{8}$  sections.

## PORTLAND SEED COMPANY'S DOVETAILED PINE HIVES

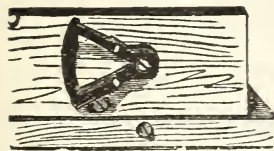
These hives made especially for our trade.	Each Nailed	5 K. D.	Wt. of 5	These hives made especially for our trade.	Each Nailed	5 K. D.	Wt. of 5
8 fr. Fig. 1, 1½ story..	\$4.15	\$17.00	140	10 fr. Fig. 2 with Super	\$3.75	\$15.00	163
8 fr. Fig. 1 Single story				no Sections .....			
no Super .....	2.70	11.00	103	10 fr. Fig. 2 Single story			
8 fr. Fig. 2 with Super				no Super .....	2.75	11.25	127
no sections or start-				8 fr. Hive Body and			
er .....	3.50	13.75	135	brood frames.....	1.40	6.00	...
8 fr. Fig. 2 Single story				8 fr. Covers .....	.70	2.75	...
no Super .....	2.60	10.50	100	8 fr. Bottom Boards ..	.50	2.00	...
8 fr. Hive Body empty	1.00	4.25	35	10 fr. Covers .....	.75	3.25	...
10 fr. Fig. 1, 1½ story.	4.45	18.50	178	10 fr. Bottom Boards..	.60	2.50	...
10 fr. Fig. 1 Single story				10 fr. Hive Body empty	1.05	4.25	...
no Super .....	2.85	11.75	128	10 fr. Hive Body and			
				brood frames .....	1.50	6.25	...



Order Number

We can also supply the same equipment as above, in CEDAR HIVES, at an added cost of 10 cents each.

## Van Deusen Hive Clamps



Very convenient for fastening bottom board to hives and various other uses. They come in pairs. Without screws, per pair, 10c; 10 pairs, 90c; add 3c per pair postage for single pairs.

## SECTION HOLDERS

Six section holders with separators, one follower and springs are put in each super, and each section holder holds four one-pound honey boxes. The bottom strip is  $\frac{1}{4}$ -inch thick and is cut out to fit insets of sections.

Western,  $1\frac{7}{8} \times 18\frac{1}{8}$  inches, slotted. Weight 20 lbs. per 100. Each, 5c—per 100, \$4.50  
 Blocks— $1\frac{7}{8}$  Western. Per 100, \$1.25  
 Bottoms only— $1\frac{7}{8}$  in. wide, slotted. Western. Wt. 11 lbs. per 100. Each, 3c—Per 100, \$2.50

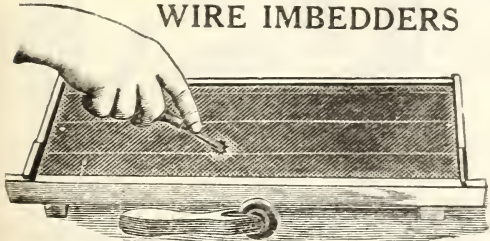
## SEPARATORS

One separator should always be placed between each two section holders so that the bees will build the honey comb even in each section.

Western (Veneer) 8 lbs. per 100. Per 100, 90c

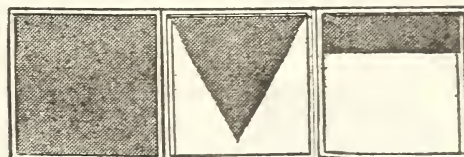
Write for lowest market prices on larger orders.

## WIRE IMBEDDERS



This cut shows the Spur Imbedder at work.

## COMB FOUNDATION



Full Sheet, Triangular and Quarter Sheet Method of Using Foundation

There is little question but that it pays to use foundation in full sheets in the brood frames and sections, especially the latter. If you think you cannot afford so much you should at least have a strip for a starter. It will help much more than it costs you in getting straight, even combs. You can use a starter any width from one inch up.

Our foundation is made by the "Weed process," and is a very superior article. Packed in 1, 2, 3, and 5-lb. cardboard boxes in a case.

When you order, be sure to tell what grade you want, and give price.

## PRICES OF COMB FOUNDATION

GRADE	Size of Sheets	No. per lb.	In 1 lb.	In Lots of 10 lbs.
Medium Brood	$7\frac{3}{4} \times 16\frac{7}{8}$	7	\$0.70	\$6.70
Extra Light Brood	$7\frac{3}{4} \times 16\frac{7}{8}$	9	.75	7.30
Light Section	$3\frac{7}{8} \times 15\frac{1}{2}$	28	.80	7.80
Extra Light Section	$3\frac{7}{8} \times 15\frac{1}{2}$	39	.85	8.30

## Miscellaneous Hive Parts

DIVISION BOARDS. Wt. 5 oz. Each, 15c—10, \$1.25

FOLLOWERS Each, 5c—10, 50c

TIGHTENING SPRINGS 12 for 15c—100, 90c

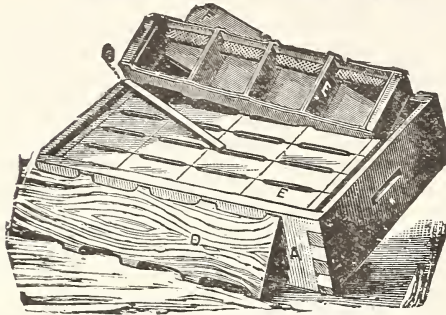
SPUR WIRE IMBEDDER. This is like a tracing wheel, with the teeth set to firmly imbed the wire and not injure the comb. Price by mail, 50c.

ELECTRIC WIRE IMBEDDER. A practical device that imbeds the wire by heating it electrically, the wire melting its way into the center of the wax foundation, only requires two common dry cells, simple and inexpensive. Price, without batteries, \$1.50.



# Portland Seed Company's Dovetailed Supers

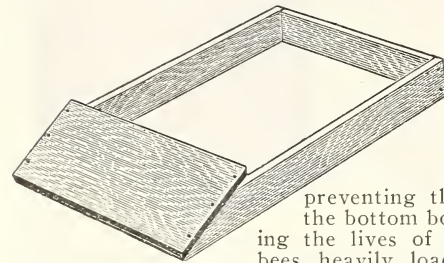
This is one of the best Supers sold for the use of 4¼x4¼x1½ sections having beeways. We use wood separators (or slat separators), beeway sections, and section holders having bottom bars scored out to correspond with the beeways in the sections.



Super, Designated as Fig. 1—Complete  
**HIVE STANDS**

Pine	Each Nailed	5	
		K.D.	Weight
Fig. 1 8 fr. Complete	\$1.35	\$5.75	40 lbs.
Fig. 2 8 fr. Less Sec. and Fdn.	1.05	4.50	35 lbs.
Fig. 0 8 fr. Empty	.55	2.25	22 lbs.
Fig. 1 10 fr. Complete	1.75	7.75	45 lbs.
Fig. 2 10 fr. Less Sec. and Fdn.	1.20	5.00	38 lbs.
Fig. 0 10 fr. Empty	.90	3.75	25 lbs.
The above in Cedar, add 5c each.			
8 fr. Extracting	1.10	4.50	40 lbs.
10 fr. Extracting	1.30	5.25	45 lbs.

Extracting supers are deeper and take the Half-Hoffman shallow extracting frames.



die on the ground unless an easy runway is furnished.  
All Cedar Stand

A good hive stand will save its cost many times in raising the hive up from the ground, preventing the rotting of the bottom board and saving the lives of bees. Many bees heavily loaded fall and die on the ground unless an easy runway is furnished.

30c each K.D.

## SECTION HONEY BOXES

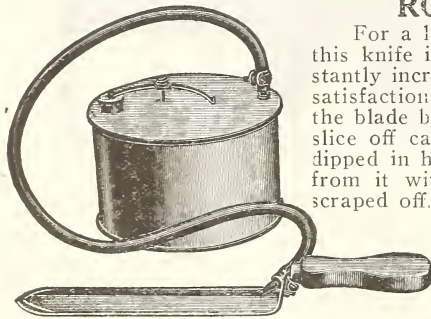


Our No. 1 Sections are made of the choicest white basswood lumber, and are all perfect in finish and free from defects. They are not all snow-white, but vary from that to a light cream color. 4¼x4¼x1½ always sent unless otherwise ordered.

P. S. Co.'s No. 1 per 100 \$1.90—per 500 \$7.75—per 1000 \$15.00.

P. S. Co.'s No. 2 per 100 \$1.85—per 500 \$7.50—per 1000 \$14.50.

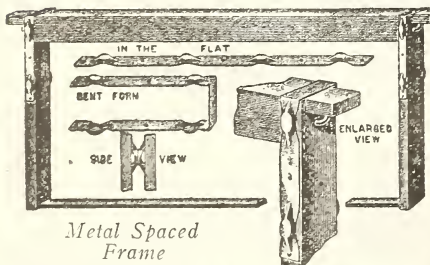
## ROOT STEAM HEATED UNCAPPING KNIFE



For a large amount of uncapping, especially where combs are tough or cold, this knife is undoubtedly the best tool that has ever been devised and its constantly increasing use among large beekeepers is sufficient proof of the complete satisfaction it gives. The handle is made in one piece and fastened securely to the blade by an improved method. The great feature of this knife is that it will slice off cappings much more rapidly than a cold knife or one that has to be dipped in hot water. As the knife is kept constantly hot, the cappings slide off from it without sticking, while with the cold knife the cappings have to be scraped off.

The copper boiler used with this knife is equipped with a fool-proof safety-valve which we have tested under every condition. It is adjustable, and the opening is also used as a filler hole. This boiler, in connection with a suitable oil or gasoline stove, completes the outfit. Three feet of rubber steam hose are furnished with the knife. Steam-heated 10-inch knife, 3-ft. tubing. Wt. 2 lbs. Price.....\$5.50  
Steam boiler with safety valve for use with above. Wt. 3 lbs. Price 3.00

## HOFFMAN BROOD FRAMES



Metal Spaced Frame

### NEW METAL SPACED FRAME

Recommended where there is much propolis. Spacing is accurate and frames handle easily.

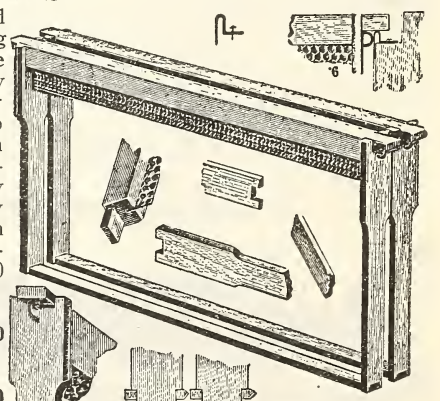
Per 10, \$1.00—100, \$5.00. Wt. per 10, 5 lbs.  
Metal Spacers Only—Per 100, Wt. 1¼ lbs. \$1.00.

The Hoffman Improved Foundation Fastening Frames (see cut) are the latest, most satisfactory brood frames. The top bar is made with a beveled strip which holds the foundation absolutely in place, perfectly straight and exactly in center of top bar. Any one can put foundation in these new frames very rapidly.

Per 10 Per 100  
Improved F. F.  
Western, Wt. per 10, 4½ lbs. \$0.75 \$6.00  
Half Hoffman

Western, Wt. per 10, 2½ lbs. .75 6.00

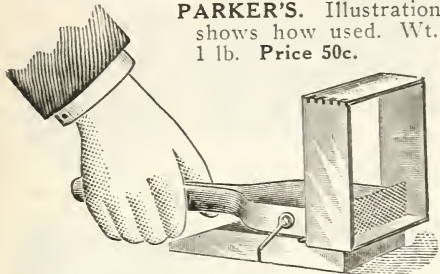
The Half Hoffman Frame is used in the Ideal super or shallow extracting super.



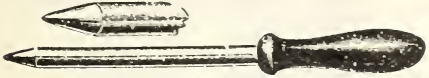
Hoffman Frames—Showing Foundation Starter

**FOUNDATION FASTENERS**

**PARKER'S.** Illustration shows how used. Wt. 1 lb. Price 50c.



**ROOT'S FOUNDATION FASTENER.** Complete with lamp, weight 8 oz. Price, 75c; without lamp, 35c.



*Daisy Foundation Fastener*

*Root's Foundation Fastener*

**VAN DEUSEN WAX TUBE FASTENER.**

For fastening the foundation sheets to thin top-bars there is nothing better than the Van Deusen Wax-Tube. It is simply a tube half an inch in diameter, six inches long and tapering. This is filled with hot wax, and the point is then slowly drawn along the edge of the foundation in contact with the top-bar, leaving a fine stream of hot wax to cement it. Price 45c each; by mail, 50c.

**BEEKEEPERS' GLOVES**

**CANVAS**—Long Sleeve, Oiled, Ladies' or Misses. Price \$1.25—Postpaid \$1.35.

**HONEY BOARDS**



**ZINC HONEY BOARDS**

No. 1 or 11                      No. 12 or 13  
**ROOT'S OR TINKER'S**

Honey boards are used to confine the queen of the brood chamber, and are very generally used in the production of extracted honey. Nos. 1 and 11 are of unbound zinc, and are placed directly on top of the frames. This allows the bees to pass through the holes directly over the spaces between the frames. When placed on the dovetailed or other similar hives there is a bee space above and below the zinc.

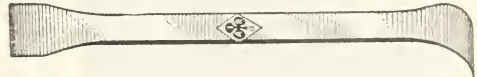
**PRICES**

- No. 11. 8-frame, unbound, 12x19½ in...\$0.45
- No. 1. 10-frame, unbound, 14x19½ in... .50
- No. 8. 8-frame, wood and wire, 13½x20 in. .... .90
- No. 7. 10-frame, wood and wire, 16x20 in. .... 1.00
- 8-frame, 7-wire ..... Each, 1.00
- 10-frame, 7-wire ..... Each, 1.10

**"GLEANINGS IN BEE CULTURE"**

Send us your subscription. Price \$1.00.

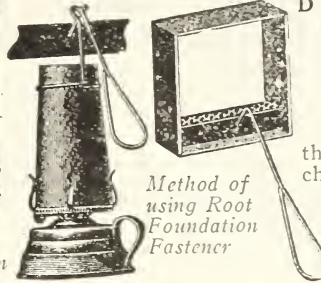
**ROOT NICKELED STEEL HIVE TOOL**



Made of spring steel; will stand any strain as a pry or scraper; is the best tool made. Wt. 4 oz. Price, each, 65c.

**DAISY FOUNDATION FASTENER.**

This is one of the best for putting starters into sections. Very simple. Easily operated. With lamp, Wt. 6½ lbs., \$3.40. Owing to the danger of breakage, no chimney is sent with lamp.



*Method of using Root Foundation Fastener*

**BEE VEILS**

**HAT VEILS.** These veils have a rubber band around the top, so as to fit the hat snugly. The lower edge is bound to prevent fraying. The kinds of material are given below.

**Price List (Postpaid)**

- No. 1 Veil, made entirely of silk tulle .....\$1.60
- No. 2 Veil, cotton tulle, with silk tulle face..... 1.40
- No. 3 Veil, cotton tulle through-out ..... 1.20



**GLOBE BEE VEIL.** No trouble to put on or take off. Protection against mosquitoes, flies, bees, gnats, etc. The veil weighs only five ounces. Price \$1.65.

**ALEXANDER.** Made of fine Bronze Wire Cloth. Stands clear of the face; has muslin top and bottom. Weight 1 lb. Price \$1.50.



**PORTER BEE ESCAPE**

No well regulated apiary can afford to be without bee escapes any more than it can afford to be without a bee smoker. The Porter is very much the best.

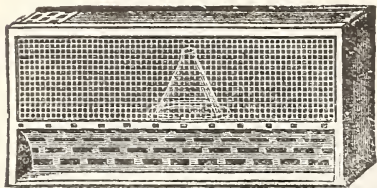


In taking off the honey it is the greatest labor saver that has been introduced in late years. It avoids "breaking the back" in shaking heavy supers to get the bees out; does away with the cruelty of smoking the bees. There is no need of receiving a single sting, and robbers stand no show whatever. All that is necessary is to slip an escape board between the super and brood nest or main part of the hive (say toward night), on each of the colonies from which you desire to remove the honey. Price, as per illustration, postpaid, ..... 25c  
Price, mounted on board (weight 2¼ lbs.)..... 70c

**PORTER'S ESCAPE FOR HONEY HOUSES**

The escape shown above is designed to be used in the hive, but this one is especially made for use on doors and windows of workshops, extracting rooms and other places where bees get in, and it is desirable to get them out without the possibility of their returning. No extracting room will be complete without one or more of them. Weight 2 oz. Price, 25c postpaid.

## ALLEY'S COMBINED DRONE AND QUEEN TRAP



This is placed before the entrance of the hive, and is designed automatically to catch and cage the drones in an apartment by themselves. They can then be carried to another apiary, or be destroyed, as circumstances require. The trap will also catch the queen when a swarm issues, and hold her confined until the apiarist can give her his attention. As she cannot get away, the bees will, in all likelihood, return into the hive. An excellent non-swarmer device. Directions for use are attached to each trap. Wt. 1 lb.

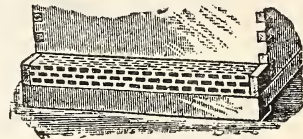
**IMPROVED WIRE FRONT.** Each, 8 frame, \$1.00—10 frame, \$1.10.

## BEE ENTRANCE GUARDS—ROOT'S OR TINKER'S

These are to admit workers, and to exclude drones. After the drones are out, fix the guards over the entrance; at night the drones can be destroyed.

Price, Zinc Front, 35c.

**IMPROVED WIRE FRONT.** Wt. 6 oz. Price, 8 frame, 35c—10 frame, 35c.



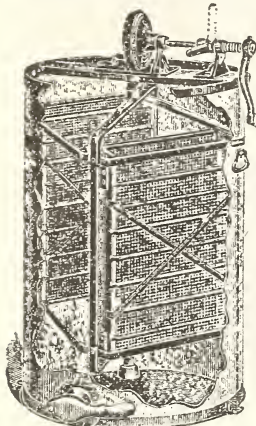
## HONEY EXTRACTORS

The New Root Four-Frame Automatic Extractors are fitted with a brake, and a slight pressure, when it comes time to reverse, will turn the pockets, the other side to when they can be speeded up without having to stop the extractor. They reverse instantly without jar or injury. This is a great advantage and an exclusive feature. Has ball-bearing and slip gear device. Root Extractors are built for hard service and are the best made. Weight 210 lbs. Price, each, \$90.00.

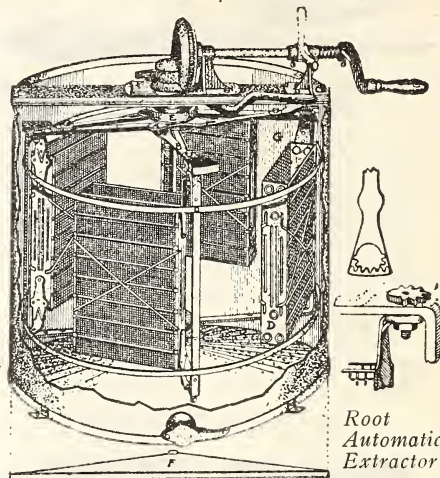
### COWAN TWO-FRAME EXTRACTOR.

The Cowan Extractor now takes the lead over all others in use, as it is easily reversed. Always the best machine when rapid work is required. Price \$45.00.

**NOVICE TWO-FRAME.** For any size frame not over 9½ by 18½ inches; not reversible; weight 45 lbs. Price \$33.50.



Two-frame  
Reversible Cowan



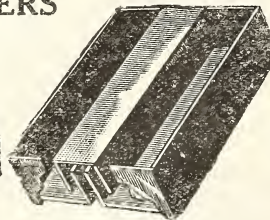
Root  
Automatic  
Extractor

## HATCH WAX PRESS

The most practical and satisfactory wax press, every part being thoroughly tested to withstand the enormous strain placed upon a machine of this type. The quality of the wax is superior to that secured by other methods, and the economy and simplicity of operation makes the Hatch the best press for the average bee keeper.

Price, each, \$20.00.

## BEE FEEDERS



Boardman

Miller's Feeder

**BOARDMAN'S FEEDER.** (See cut.) Wt. ½ lb. Price, without jar, 35c.

**DIVISION BOARD FEEDER.** Made to hang in brood chambers, to one side or between the frames. Wt. 1¼ lbs.

Price 55c.

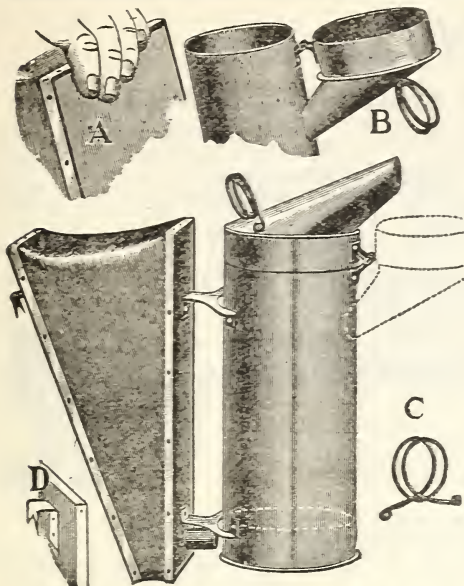
**IT PAYS TO FEED BEES.** Do not let them go into winter quarters short of stores. Sugar Syrup, 2 parts sugar to 1 of water for winter stores, fed in early fall, makes ideal winter feed. Sugar syrup, 1 part sugar to 1 of water, fed to stimulate brood rearing is practical and economical if fed when bees are flying and when no honey can be gathered from outside sources.

**ALEXANDER FEEDER.** This is a comparatively new feeder. The bottom board slides forward, and the feeder is placed at the back and under the hive. The bees go into the feeder from the brood chamber. This feeder has many good features. Weight 1¼ lbs. Price, 75c.

**MILLER'S FEEDER.** A superior feeder for feeding colonies their winter stores. It sets on the hive in the same space occupied by a super. It measures 12x18½x4½ inches, and will hold about 25 pounds of syrup. When set on the hive it effectually shuts all bees beneath it, and they enter it from below. The syrup is poured in on either or both sides. Wt. 5 lbs. Nailed up complete, each, \$1.25; in flat, 90c.

## DANZENBAKER HIVES

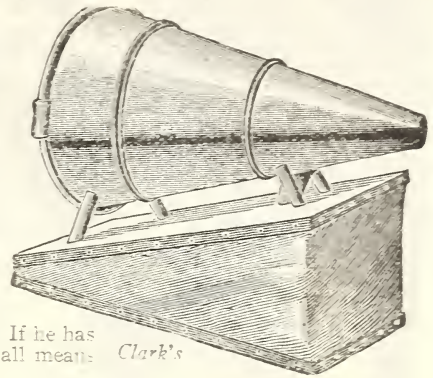
We offer a limited quantity of these first class Eastern manufacture at bargain prices, and these with their closed end frames make virtually double walled hives. 10-frame single story K. D. crates of 5, \$8.00 Danz Brood Frames, \$5.00 per 100.



## SMOKERS

Every owner of a hive of bees should have a smoker. A few blasts of smoke will quiet the bees so they can be handled with safety.

**CLARK'S COLD BLAST**—Probably the most popular smoker in use today is the cold blast, although many are now changing to the hot blast, claiming that they are more effective. The Clark is the best low priced smoker. Weight 1 1/4 lbs. Price \$1.10.



### Size Smoker to Select

If one has only a few colonies, and does not expect to have many, he can get along with the **Small**. For ten or twenty colonies, and possibly more, he should have nothing smaller than the **Medium**. If he has fifty or more colonies, by all means *Clark's* have the **Large** size.

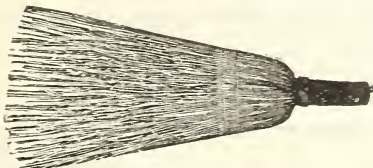
**Small**, 3 x 5 1/2 in., wt. 2 lbs., each. Price \$1.10  
**Medium**, 3 1/2 x 7 in., wt. 2 1/2 lbs., each. Price 1.60  
**Large**, 4 x 7 in., wt. 3 lbs., each. Price 2.00

## HONEY KNIVES

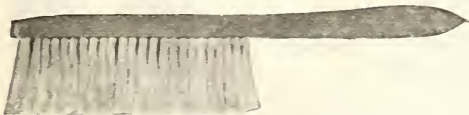


**BINGHAM**. Price \$1.80; by mail, \$1.85.  
**BINGHAM**, steam heated, with tubing.  
 For description, see page 116. Price \$5.50.

## BEE BRUSHES



**COGSHELL'S**—For the wholesale brushing of bees off combs when extracting, we do not hesitate to pronounce this the best. Wt. 4 oz. Price 30c; by mail, 35c.



**HANDY BEE BRUSH**—Made of horse hair. One of the very best, most lasting brushes. Weight 7 oz. Price 45c; by mail 50c.

## THE ABC & XYZ OF BEE CULTURE

*The Largest and Most Complete Work on Bees in the World. The Best Book for all Beekeepers.*

Every beekeeper needs this greatest of all books on beekeeping. It is as intensely interesting as it is practical and useful. It is the first and last word in the apiary. It is up-to-the-hour in all bee matters. It has enjoyed the largest sale of any bee book in any language.

### T-TINS AND RABBETS

	Per 10	Per 100
T. Rab., 12-in.	20c	\$1.90
14-in.	25c	2.40
T. Tins, 13-in.	25c	2.35
15-in.	25c	2.45
Fl. Tins, 13-in.	20c	1.40
15-in.	20c	1.45



### No. 30 TINNED WIRE

3/4-oz. spools, Ea.	10c
1/4-lb. spools, Ea.	25c
1/2-lb. spools, Ea.	40c
1-lb. spools, Ea.	60c
5-lb. coils, Ea.	\$2.50

Add postage if mailed.

## HONEY SHIPPING CASES

These have a glass front, and corrugated, non-dripping packing, which protects against breakage, and are designed for marketing honey. If you expect the best market price, you must put your honey up in nice cases.

24-lb. Eastern, 4 1/4 x 1 1/2 Sections. Nailed, Each	55c
24-lb. for 3 5/8 x 5 Sections—Ideal, Nailed, Each	30c

## QUEEN BEES

We are in a position to furnish untested Italian queens after the middle of April, weather conditions being favorable. It takes about seven days to get these in from the apiary, so do not expect queens by return mail. **Untested Queen**, May, June, July, August, September. Price \$2.00.

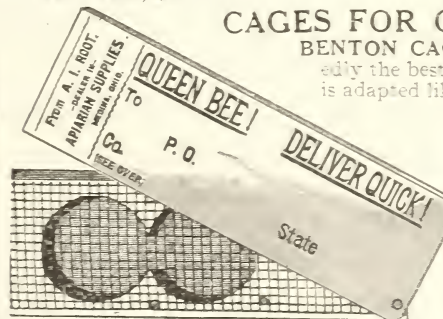
**Tested Queens** cannot be furnished before May. Price each, \$2.50.



## CAGES FOR QUEENS

**BENTON CAGE**—This is undoubtedly the best cage for mailing and is adapted likewise for introducing.

Directions for introducing are printed on the cover. Price, no candy, by mail, 5c each, 100 \$4.50.



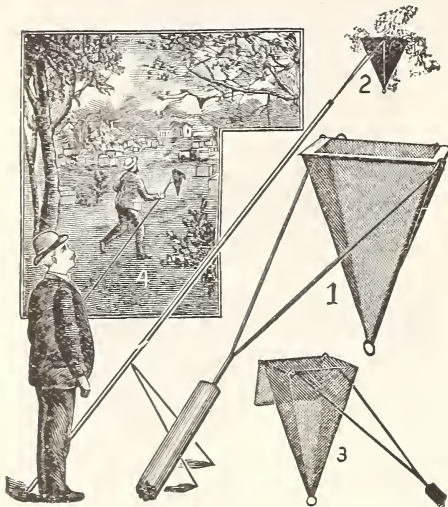
**ROOT'S QUEEN REARING OUT-FIT**—A complete set of tools and materials,

with instructions, enabling one with little experience to rear his own queens at small expense. Price \$6.50.



SWARMING DEVICE

MANUM'S SWARMING DEVICE



A most complete swarming device. To hive a swarm, place the open basket under a cluster of bees, so that when they are shaken from their position they will fall into the basket. Close the lid, and as most of the bees will be inside, they can be carried and emptied into the hive. The swarmer is light and conveniently carried.

Price, wire basket, without pole, bail only, \$2.50. Weight 3 1/2 lbs.

WEST QUEEN-CELL PROTECTOR

Complete directions for use accompany each lot of cages. Price each, by mail, 15c.

SPIRAL CAGES

We also furnish spiral cages to be slipped over these cell protectors, as shown in the cut at the right. They are designed to hold the virgin queen, after she hatches, till she can be disposed of.

Price each 15c; by mail.



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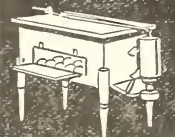
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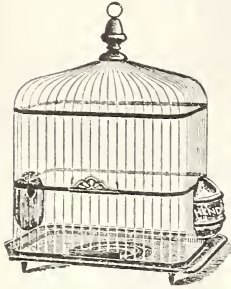


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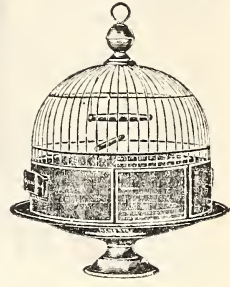


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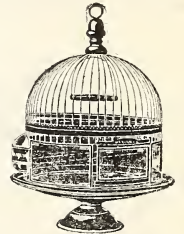
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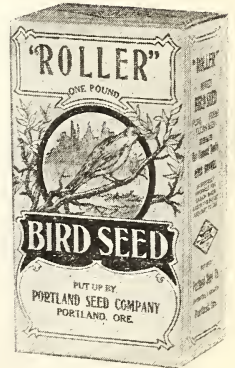
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Parcel Post Rates apply to <b>Seeds, Plants and Books</b> weighing over 8 ounces. Other fourth-class matter over 4 ozs. is charged at pound rates	First Pound or Fraction Thereof	Each Additional Pound or Fraction	
Local or District Rate—Portland Office and Rural Routes therefrom.....	\$0 .05	½ cent	Weight Limit, 70 lbs.
1st Zone (up to and including a radius of 150 miles from the point of mailing).....	.05	\$0 .01	Weight Limit, 70 lbs.
2nd Zone.....	.06	.02	Weight Limit, 70 lbs.
3rd Zone.....	.07	.04	Weight Limit, 50 lbs.
4th Zone.....	.08	.06	Weight Limit, 50 lbs.
5th Zone.....	.09	.08	Weight Limit, 50 lbs.
6th Zone.....	.11	.10	Weight Limit, 50 lbs.
7th Zone.....	.12	.12	Weight Limit, 50 lbs.

The 8th zone rate applies to ALASKA, HAWAII, the PHILIPPINES and SHANGHAI, CHINA, with 20 lb. weight limit—To CANADA, MEXICO, CUBA and PANAMA, when over 4 oz. and not exceeding 4 lbs. 6 oz. 20 lbs. can be sent to MEXICO and PANAMA as Foreign Parcel Post.



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your speed*

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