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WHITACRE'S
Seeds, Plants and Bulbs

THE WESCO STRAWBERRY



This Strawberry promises to become the leading Market and Garden Berry because of its high flavor, good shipping properties and rich red color.
Don't fail to add this plant to your Order.

Wesco Seed Company

417 Maritime Building

Seattle, Washington

WHITACRE'S SEEDS, PLANTS AND BULBS

WHITACRE'S

"True to Variety Seeds"

✻ Captured all the First Prizes ✻

AT EVERY FAIR WHERE SHOWN THIS YEAR
IN OREGON, WASHINGTON AND CALIFORNIA

And we are officially notified that the Panama-Pacific International Exposition at San Francisco, Calif.,
has awarded us

Five Gold Medals

Two Silver Medals

AND ONE HONORABLE MENTION---ON EIGHT ENTRIES!

There is a Reason 

Read the articles in this booklet on WHITACRE'S SYSTEM and place your orders quick. No more car-lot orders can be taken for this season. A few tons have been reserved to fill small orders. First come first served. Money refunded if sold out

WESCO SEED COMPANY

417 MARITIME BLDG.

SEATTLE, WASH.

General Agents for Whitacre's "True to Variety Seeds."

C A T A L O G U E**Wesco Seeds and Roots**

417 Maritime Bldg., Seattle, Wash.

Growers and Distributors

F O R E W O R D

Five years ago we became convinced that there was a need and demand for home-grown acclimated seeds, and feeling that our experience as grower of high-grade produce would assist us in the growing and breeding up of better selections of seed, we began this line of work and now issue our second catalog. Since our rapidly increasing trade has justified this expectation and in presenting you with this annual catalog, we desire to call your attention to the following statements:

Washington and Oregon Grown Seeds

will, on account of their acclimation, give the best results, and while we do not contend that all lines of seeds can be grown successfully here, however there are many that reach perfection in this climate. This is especially noticeable in corn, beans, peas, cabbage, pumpkins, squash, onions and practically all the root crops. The increase in production from greater vitality and adaptiveness will materially increase your returns, as those who have made comparative trial have readily testified. Then again from a civic point of view, our demonstration of the possibilities of seed culture for the Pacific Northwest and the wonderful commercial opening that may be developed by careful and thoughtful farmers, should commend us, all things being equal, for at least a trial order.

Practical Experience

And the many tests we have made for years have given us a thorough knowledge of the varieties best suited for our climate, and aside from those varieties which we grow, have enabled us to secure our seed from the best sources. In that respect we differ from the average seed store where the experience used is more from a selling standpoint.

OUR CATALOGUE

Has been prepared with the desire to have it sensible and free from exaggeration. The cuts used are practically all made from photographs taken from samples grown by us and are reasonable illustrations of the results attained from our seeds. We are opposed to filling our catalogue with a long list of worthless novelties and are confining our list to the fewest possible of the best varieties, and introducing only those new sorts which have some added value over older introductions. Those who receive more than one copy of our catalogue will confer a favor by handing it to some one interested.

OUR GUARANTEE

We guarantee our seed to be true to name and will be responsible to the amount of the purchase price of the article. Germination is so dependent upon weather conditions, the time and manner of planting, which are beyond our control, that we do not guarantee this, other than in a fair and proper test, and under such will be responsible for the purchase price only. Under no conditions do we obligate ourselves for the failure of a crop other than has been set forth.

CHEAP SEEDS

We receive many letters asking for the lowest possible prices on a list of seeds. This desire on the part of so many farmers for price cutting is largely responsible for the immense amount of worthless, cheap seed that is being sold throughout the country and when the average farmer realizes that quality is the first and main consideration in seed buying, his demand will force the production of better seed all along the line.

This is not a cheap seed firm and our aim is not and never will be to sell the cheapest seed. Good seed means careful selection and years of work in breeding up. This cannot be done without added expense. If you would produce the best you must plant from thoroughbred stock, and after all, the difference between the cost of good and cheap seed does not begin to compare with the difference in crops.

ABOUT ORDERING

ORDER EARLY as there is a heavy demand on some stock and it may be exhausted. REMITTANCE MUST ACCOMPANY ORDER by money order, express order or bank draft. Stamps will be accepted to the amount of \$1.00, but above this we would prefer money orders, etc. Prices in this catalogue by EXPRESS or FREIGHT do not cover shipping expenses. E or F indicates express or freight.

All prices up to and including one pound include shipping expenses, and for more only when indicated.

BE SURE TO GIVE SHIPPING INSTRUCTIONS AND WRITE YOUR NAME AND ADDRESS PLAINLY ON YOUR ORDER SHEET.

MISTAKES

Unfortunately, like other human beings, we are apt to make mistakes and if an error does occur we will consider it a favor to be notified at once so that we can rectify the oversight. We do not substitute unless so instructed.

MARKET GARDENERS

Who wish to purchase seed in quantities are entitled to reduced prices, and we will be pleased to give them quotations upon their list.

Seeds, plants and bulbs are not governed by the rate on commercial goods, the rate being 8c per pound, or 1c for each two ounces or fraction. Where convenient, shipments for short hauls can be made cheaper by express, as the minimum is 35c.

APPRECIATION

We extend to all our customers thanks for their patronage and wish to express our appreciation to those who have so kindly mentioned this firm to their friends. Our aim is to give every one a square deal and we hope those who have not yet purchased of us will at least favor us with a trial order.

BANWINE RHUBARB

THE MONEY MAKER FOR THE SMALL GROWER

THREE TIMES THE VALUE OF ANY OTHER CROP



One of my Rhubarb Demonstration Plants

Where my justly famous Banwine Rhubarb is grown to test out new varieties and instruct growers in proper culture. This field was transplanted just 60 days before this picture was made. The plants made a growth of four feet across, as seen by the lath shown on the plant in front of the picture. First cutting of half pound stalks just beginning.

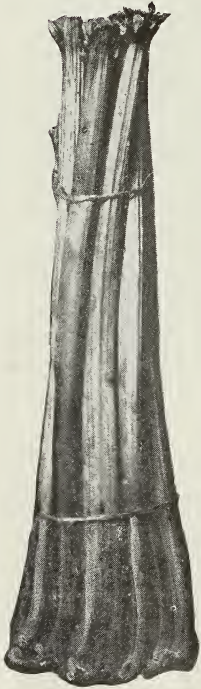
Description of Banwine Rhubarb—a Moneymaker.

This is a new giant variety, a quick grower, very early heavy stalks. Very tender, brittle and of finest flavor. It excels Burbank's Giant, Riverside Giant (Cummings), and is far superior and three times as profitable as the ordinary Giant or Victoria, Linneous and others. Has produced close to \$900 profit per acre.

PRICES: Divided Roots (Buds or Eyes, as they are often called) 15c each, 2 for 25c 6 for 60c, 12 for \$1.00, postpaid; per 100, \$7.50 postpaid. Quantity price on request. Note:—A divided root from the true mother plant is the only safe way to propagate—seeds do not come true.

Banwine Rhubarb

CULTURE:-- Plant Rhubarb in the richest soil you have; moist soil is better than very dry. Use a liberal supply of well rotted cow manure when planting and again each fall, as a top dressing over the hills or rows.



A satisfactory and profitable method in field planting is to plow a furrow at least sixteen inches deep, fill about half full of rich, well-decayed manure, rake in a few inches of dirt, and set the plants or buds so as to be just flush or level after all is finished.

Commercial Fertilizers rich in Nitrate can be used to advantage in the early spring to force a rapid growth.

In planting a few roots for the home garden, dig a hole about the size of a tub, fill the bottom with manure, then some loose garden soil and plant. A few forks of manure over the crown of the plant each fall will help to start a rapid, vigorous, quick growth in the early spring.

Rhubarb culture is easier than potato and very profitable. One frequently hears growers say that there is no money in rhubarb. To the writer, who has seen families supported on very small fields, this sounds like a joke. Mr. W. H. Funk, Long Beach, Cal., took \$225.00 off one-fourth acre for three years. The highest price he got was 3c. Mr. Sargent, an old resident of Grand Mound, Wash., kept himself and wife in groceries and clothes for several years off less than one-third acre. My profits this year will be over \$800.00 per acre. However, I do not try to force small markets to buy my crop, but nearly all of it is shipped.

It is the man that tries to get winter or early spring prices—7c to 10c—in summer, for a wheelbarrow load, and with perhaps a poor variety, who says there is no money in the Rhubarb business.

Berry Growers, Add this Valuable Crop to Your Field and Watch the Easy Money Come In!

Listen to the testimonials. Space permits but few:

"I have used all my roots so far in increasing my own acreage."

"I sell my Rhubarb to a market lady who is getting a regular trade from customers who come back again and again for it."—H. M. Myers, Tukwila, Wash.

"I have an acre and one-half of ground that cost me \$150.00 planted in Banwine Rhubarb. I will begin to ship the roots this fall and will have enough to more than pay for my whole three and one-half acre tract, and enough plants to add one-half acre to my field. The start cost me about \$75.00 and two years use of the ground. The stalks paid for the cultivation."—B. A. Newcomb, 808 Eighth Ave., Seattle, Wash.

"I took \$225 from one-fourth acre last season."—Wm. Funk, Burnett, California.

BOYS, Get father to let you have a corner of the field and set out a patch of our delicious Banwine Rhubarb and raise enough to buy you a horse and buggy in a short time.

RHUBARB PROPOGATION

Regarding the BANWINE RHUBARB: This plant is an extremely fine variety of rhubarb, originated by an expert Jap gardener who having literally disappeared from the earth we are unable to get its exact pedigree, but in this case a pedigree is unnecessary as the plant speaks for itself. It is of the Giant varieties, a very quick growth, heavy stalk, scarcely any fiber or peeling; in fact, it is so brittle that it is difficult to gather for market without breaking the stalk, and frequently it breaks from its own weight if allowed to grow too large.

This plant, I believe, excels the Burbank Giant Winter, which was said to be the finest plant in the United States until the Banwine was put on the market. After four years' test we are positively able to state that the plant will bear out this reputation.

We are having printed in this Catalog a cut showing a bunch prepared for market from the fourth pulling, 1913, which barb was 2 feet long; each stalk averaging 17 ounces in weight. Its great size, together with its exceedingly delicious flavor, is causing a premium to be placed upon it in the markets, and we are very anxious to get enough contracts so that we can place this plant in carload lots to eager Eastern buyers.

Therefore, it will be necessary, if you are desirous of securing some of this valuable plant, to immediately place your order.

I furnish this Rhubarb to you at a price of \$5.50 per 100 buds, f. o. b. shipping point. You can easily figure what a profit there is in this when you consider that this plant will increase from 10 to 25 buds the first year, thereby making a profit of \$15 to \$35 the first year. for every 100 rhubarb roots shipped you.

The plants should be set out in the fall in the North, and during February and March in the South.

I have a small stock on hand reserved for shipment of quick orders. First come, first served, and all money will be returned if the order cannot be filled. Or you may make a small payment sufficient to cover freight and return, and pay the balance to your nearest bank after having inspected the plants.

PRICE

\$1.00 per 12 buds, prepaid by parcel post.

\$3.00 per 50 buds, F. O. B. shipping point F or E

\$5.50 per 100 buds. F. O. B. shipping point. F or E

Full instructions for growing with each shipment, which if followed will insure success. We guarantee these roots true to variety and will make good all shortage in count and for weak roots if claim is made within 48 hours after receipt of plants.



DAHLIA CULTURE



Dahlias are becoming more popular every year, the reason for which is not far to seek, as the lovely and showy blooms are at their best when the other flowers of our gardens have lost their freshness. Another class or type has recently been added by the introduction of the **Paeony** or **Climatis flowered** varieties. This new race is very freeflowering and begins to bloom much earlier than the other classes, the flowers being produced on long stems quite above the foliage. In England the paeony flowered Dahlia is completely displacing the long-time popular Cactus type, especially among the ladies, as it is found that the flowers are better adapted for cutting.

Dahlias will succeed in almost any soil, but do best in a light loam or sandy loam. The ground should be well prepared by deep digging and by incorporating a liberal quantity of well rotted manure and bone meal, though some growers only manure the place where each Dahlia is to be planted, taking out the soil to a depth of 19 inches to two feet, by two feet wide, and mixing a quantity of manure with the bottom spit (spade full). If the dahlias are to be planted in a bed, a space of four feet should be left between each plant, while the plants should be set diagonally in the rows. The roots should be planted about six inches deep, placing the root on its side that the eyes may be well covered.

PLANTING SEASON

In the Southern states February and March, and in the Northern states May to early June, are to be preferred. But it should be remembered that it takes the plant about 14 to 20 days to get through the ground, therefore the planting should be so timed that all danger of frost is over before the young shoots appear, otherwise it would be well to cover them each night with pots and boxes until warm weather sets in.

When the shoots appear above ground remove all but the strongest one, and when this has attained a height of about 12 inches or rather has made at least two sets of leaves, pinch out the top, as this will induce it to form branches from the base under the soil, and so make a more symmetrical plant, and better adapted to withstand all winds without the aid of staking. Where the plants are inclined to make spindly growth, such as in partially shaded positions, each plant should have a short stake provided, to which the central shoot should be tied, using soft twine that will not cut into the stem.

To have strong, healthy plants it is imperative that the soil be consistently stirred, especially during a dry spell. Besides keeping the ground clean and free of weeds, this forms a natural mulch for the plants, preventing undue evaporation of the moisture contained in the soil; therefore never allow the surface to become hard, but keep the hoe going.

During hot dry weather the plants will be greatly benefited by frequent and copious watering, but this should only be done in the evening, and never given in dribblets. Unless you are prepared to give the plants a thorough soaking at least twice a week, never start it; rather give the plants a good mulching of stable manure or grass and leave the rest to the weather.

EXHIBITION BLOOMS

If the grower contemplates exhibiting, the plants must be given extra care and attention. A proportion of the branches must be cut out of the plants, and also the laterals immediately below the flower bud; while only one bud should be left on each shoot, removing the others; and in timing the flowers for a show, it is well to remember that from the time a bud forms it will be three to four weeks before it is a perfect bloom. This disbudding only refers to the Show, Fancy, Decorative and Cactus types; the Pompons and Singles do not require it.

FEEDING

When the plants are in full flower it is well to assist them with the use of some artificial fertilizer such as nitrate of soda or any other good commercial fertilizer. This may be put on the soil around the plant and raked in, or could be given in a liquid form; but should the weather be dry at the time, it would be well to water the plants thoroughly with clear water previous to applying the fertilizer.

PROTECTION DURING WINTER

When the plants are killed by the fall frosts, the roots should be carefully lifted; choose a bright, dry day for this operation. Start by cutting the branches off to within six inches of the ground level, and after digging up the roots turn them bottom up and allow them to dry in the open for a few hours before putting away for the winter. Do not be particular in removing the adhering soil, as it will dry up and help to keep the bulb fresh. When thoroughly dry, pack away in boxes or other suitable receptacles in a cool frost-proof cellar or shed until the spring. Dry sand or soil packed around the roots will help to keep them fresh and sound, besides being an added protection against frost.

PRINCIPAL CLASSES OF DAHLIAS

Cactus Dahlia—These have long pointed petals, which in some varieties are straight and in others incurved, all being perfectly double, while the artistic colors of some of the newer varieties are almost indescribable.

Paeony-Flowered Dahlias—So called on account of their striking resemblance to a semi-double Paeony. The flowers are generally semi double, the petals being curled and twisted in a pleasing and irregular manner, while the combinations of colorings are most beautiful.

Decorative Dahlias are an intermediate between the Cactus and the ball-shaped types, being more regular than the former, with long broad petals, either flat, cupped, reflexed or incurved. They are much stronger growers and earlier and more profuse bloomers than the Cactus types.

Show Dahlias are of medium to large size, belong to the old bell-shaped type, and are prized for their symmetrical form and regularity. They are of solid color though sometimes edged darker than the ground colors.

Fancy Dahlias are similar to the Show Dahlias in form and habit, but are striped, tipped lighter, mottled, penciled and variegated in every conceivable manner.

Pompon or Boquet Dahlias are miniatures of the Show and Fancy types, being of same regular form. They are from one to two inches in diameter, and extremely profuse bloomers. When cut in sprays, with flowers, buds, and foliage, they make the most attractive bouquets and last a long time. The plants are of dwarf compact growth, and, being continually covered with a mass of flowers, are very effective for budding or borders, where they produce a beautiful effect. This class is especially valuable for growing in pots and on small grounds, as they can be planted closer together than the larger growing varieties.

Herbaceous Perennial Plants

Perennials have never been so popular as they are at the present time. Their permanency appeals to all. They are planted once and are always there; living through the winter with little or no protection; the flowers become better as the plants grow older. Will grow well in any soil, which may be enriched with decomposed manure or bone meal. The varieties we list are all perfectly hardy, the tops dying down in winter, but coming up early in the spring. Our prices are for field grown plants. These plants cannot well be shipped by freight in a box. They should go by parcel post or express, so we give prepaid prices only.

Aquilegia. Columbine

The Columbines have established a place in all old fashioned gardens. Their curious forms and many pleasing shades of color, and the readiness with which they adapt themselves to all localities, have made them prime favorites.

Vulgaris—The well-known garden Columbine, in all shades of pink and mixed. Very free blooming, height 2 feet. Price each 15c; 10 for \$1.25 by parcel post.

Boltonia Asteroides. Starwort

Tall, bushy plants producing an abundance of aster-like white flowers from August to September. Excellent for cut flowers and produces grand effects when planted in masses. The plants grow and bloom very profusely. Price 10c each; 10 for 90c by paid parcel post.

Chrysanthemum

We offer an assortment of the hardy varieties. They flower profusely in October after everything else in the garden has been killed. They are excellent for cut flowers and bouquets. Sure bloomers and satisfactory growers that should be included in all orders. Even after several light falls of snow, in sheltered positions it is sometimes possible to cut uninjured clusters of beautiful flowers. The fine thick foliage makes a good screen or background, and their own blossoms spring into fullest beauty when the earlier flowers are gone.

Tall White—Height 2½ to 3 feet. Fine double.

Large Flowering Pink—Height 2½ feet. Splendid variety.

Price, each 15c; 10 for \$1.25 by parcel post.

Canterbury Bells. Campanula

An old time favorite, growing 2 to 3 feet high and bearing in great profusion very pretty bell shaped flowers. The campanulas give to our gardens exceedingly pretty flowers for almost every situation, moist or dry, sunny or shaded, and flowers are produced even in summer drought. Valued for cut flowers. Shades, blue, white and pink mixed. Price 15c each; 10 for \$1.25 by paid parcel post.

Dianthus. Sweet William

These charming old fashioned hardy plants are great favorites in every garden. Stems grow 13 to 18 inches high. Flowers are borne in greatest profusion, in large round topped clusters. The Sweet William gives to flowery May masses of color as brilliant as any of our perennials. For five weeks or more their splendor lasts, then if the fading branches are persistently cut away, fairly good fresh ones appear at intervals all summer. Price each 15c; 10 for \$1.25 by parcel post.

Digitalis or Foxglove

An old-fashioned flower that should be planted in quantity. Succeeds under all conditions and furnishes a grand display during July and August. The flowers are very showy, thimble shaped and are borne close together on stalks 3 to 4 feet high. For backgrounds and contrast among shrubbery it is a very fine plant. Grows well in a half shady position.

White large flowering. Fine for cutting.

Gloxinlahflora Rosea—Rose colored. Bright and showy. Price 10c each; 10 for \$1.00 by paid parcel post.

German Iris (*Iris Germanica*)

The true "Fleur-de-Lis," the national flower of France. They are perfectly hardy, thrive anywhere, grow and bloom luxuriantly, and more particularly if plentifully supplied with water. Plants well established produce from 50 to 100 spikes of bloom. In beauty the flowers rival the finest orchids. The plant grows 18 to 24 inches high.

Japanese Iris (*Iris Kaemferi*)

Finest of all the Iris family. The flowers are of immense size, from 6 to 8 inches in diameter, and of the most beautiful, delicate shades. Are perfectly hardy, and will flower in profusion during June and July. A well established plant gives a dozen or more flower stalks two to three feet high, each stalk producing two to four enormous blooms. These plants prefer a cool moist situation; but do well in most any good position.

Angelo—Bluish-purple. Price, 10c each; \$1.00 per dozen.

Siberian Iris (*Iris Sibirica*)

Tall and slender growing, with flowers like those of the German Iris in structure, but smaller and much more numerous. The plant forms clumps and blooms so freely that its deep blue blossoms give solid effects. Hardy and thrives in almost any soil. Each 15c; 10 for \$1.25 by parcel post.

English Ivy

Evergreen Ivy—Each 25c; 10 for \$2.00.

Veronika

Evergreen border plant. These grow 8 to 12 inches high. Each 25c; 10 for \$2.00.

Scots Broome

Yellow and white, pea shaped. Grows up to 6 or 8 feet in height. The white is scarce. Each 25c; 10 for \$2.00.

Myrtle

Green—A handsome trailing plant largely used for cemetery planting. Has beautiful, glossy dark green leaves which form a mat over the surface of the ground. Flowers heavenly blue. Each 10c; dozen 90c; 100 for \$6.00.

Linum

Perenne—A variety of perennial flax with graceful foliage and bearing flowers of light blue. Very attractive. Each 10c; dozen \$1.00.

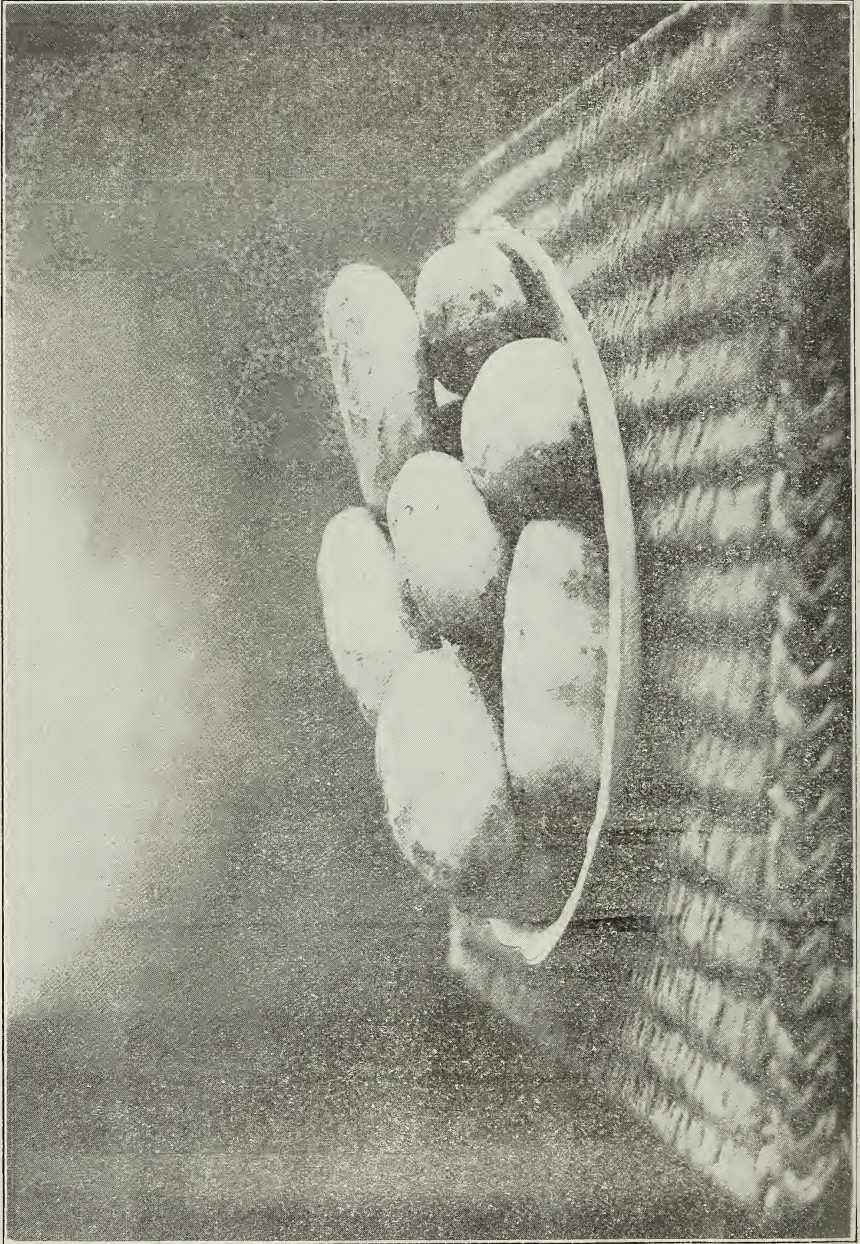
Lychnis

Chalcedonica—(Firefly) An old favorite, bearing large heads of bright scarlet flowers. Each 15c; dozen.

Montbretia

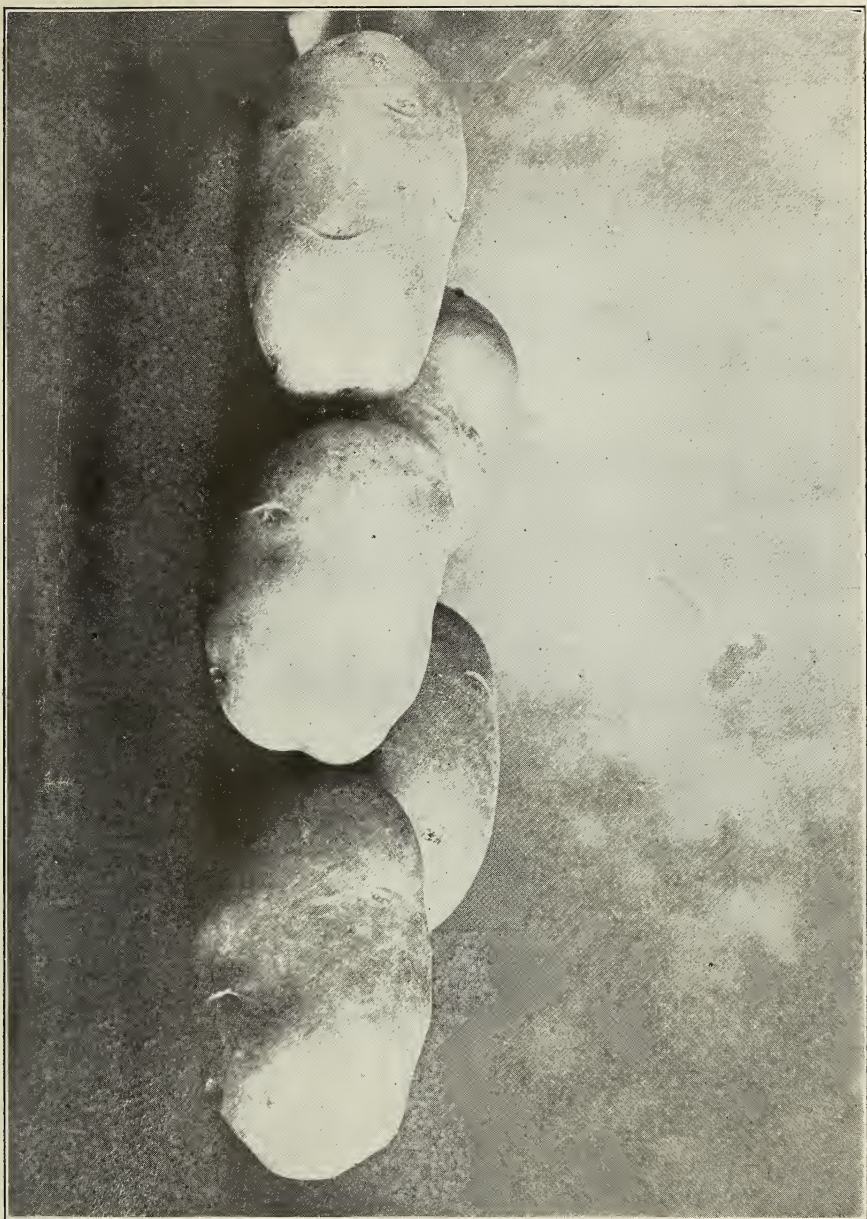
One of the brightest and best summer flowering bulbs. Plant them in clumps of 6 to 12 in May or June. In larger beds they will also make a splendid showing. They greatly resemble the Gladioli in growth, and produce beautiful spikes of star-shaped flowers in various shades of yellow and orange. Hardy, with slight covering over winter, and they will improve in size of flowers when left in the open ground undisturbed year after year. Mixed, varied. Each 10c; 75c per dozen.

RIPENING POTATOES ARTIFICIALLY



Read "EXPERIMENTING" on Page 15. These potatoes were dug 67 days after planting.
See next page showing how they ripened by cutting vines ten days before digging.

RIPENING POTATOES ARTIFICIALLY



Read 'EXPERIMENTING' on pp. 15. These potatoes were dug 10 days after vines were cut, 77 days after planting

INFORMATION

How to Improve Your Potato Crop



*Taken from one of the Bulletins issued to the Growers of
Whitacre's "True to Variety Seeds" for the*

Wesco Seed Company

417 MARITIME, BLDG.

SEATTLE, WASHINGTON

No attempt will be entered into with this article as to details. A simple set of general rules only will be set down. Full details can be secured in publications given at the conclusion of this article.

SOIL First to consider is the soil. Not enough attention is paid to the soil. Soil never wears out. It loses the potato producing elements, however, which are renewed again by cropping with leguminous crops, such as clover, vetch or cow peas. Potatoes should not be grown on the same field oftener than a three year cycle and better five. Soil on which this system has not been used will be rejected as unavailable for our seed crops. New ground, where well prepared, is the best. Two crops may be raised on new ground when the same variety is planted both years, and if Fusarium Wilt was not serious in the first crop—after which, if potatoes are to be grown again within a period of six or seven years, a grain crop will follow, next clover for hay or pasture for two years, one year for seed and hay, then potatoes may be grown again for seed.

PREPARATION In preparation for planting the fact should be remembered that the larger part of the cultivation should come before planting. Ground for seed potatoes should be plowed, very shallow in the fall, three or four inches will be deep enough. Disk thoroughly until well cut up. In the spring plow again not less than 9 or 10 in. deep. Harrow well and roll as soon as plowed to conserve the moisture. Before planting disk again, then harrow repeatedly until potatoes are up.

PLANTING The depth of planting varies with the time of planting. Early planting four to five inches; late planting, deeper. Early planting is best for seed. When planting for seed we object to planters using pickers as the stand is not so uniform as where dropped by hand or by a two man machine.

SEED SELECTION We do not wish to minimize the valuable work of our agricultural colleges, but the general grower should pay but little attention to "hill selection." Leave that to the scientist or to the man who is working up new varieties. There is no question that hill selection is theoretically correct, but it has not been proven to us to be practical for the large grower, as our seed exchange system has proven far the best from the commercial standpoint. Tuber Unit or Bin Selection will be found sufficient for the commercial grower. Select the smoothest and truest to type, of medium size sorted from the pit or bin, unless using our seed exchange system. We use a third year exchange system among our growers. The first year, two to six ounce size are planted; the second year the large, smooth potatoes of over twelve ounces; the third year, new small seed again, from some dis-

trict where the climate, altitude and soil are right to make a strong production. This plan beats any we have tried, to keep up productiveness, and helps to procure strong, virile seed, the very virility of which assists materially in keeping down disease.

As to hill selection, we are open to conviction, and certain government offer we will accept.

The seed should be cut in large pieces. Don't fear the increased cost instructors have offered to give us demonstrations of its practicability which of the seed. It will be made back in the increased crop. Before cutting, the seed must be dipped in a solution of Corrosive Sublimate (Bi-chloride of Mercury) one part to 1,000 of water, for not less than one hour to one and one-half hours. This kills the germs of Rhizoctonia, Black Leg and common scab. This is known for a fact, while it is probably beneficial in killing other diseases as well. After dipping, and when cutting the seed, cut the potato back to at least the first eye from the stem end. If any of these diseases are seated in the seed, this will dispose of a large percentage of them. Burn this end or cook it and use it for stock food and thus avoid any chance of contaminating your soil. Then cut one or two eyes, but be sure to have plenty of mother potato to support the sprouts until well rooted. The so-called seed end may be cut off and planted by itself, as the first sprout to come is from that end. If these seeds are planted by themselves the crop will mature more evenly, as potatoes from the end seed will mature at least two weeks earlier than the balance of the seed. Not enough seed is used as a rule. Of course the amount used depends on the strength of the soil to a large degree. A general rule can be made of 30-inch rows and eight inches apart in the row, for very rich soil, graduated further apart for weaker soil. And good potato ground should support seed at least 12 inches in the row and 36-inch rows.

CULTIVATING We believe in flat cultivation where possible. To begin with, when the potatoes begin to show, and before weeds are showing, harrow the ground. In a few days cross harrow. Then throw the dirt away from the potato and in three or four days throw it back. No more deep cultivation is needed. Follow with a fourteen-tooth cultivator, with weeder attached if necessary. Follow closely with a clod-masher to level the ground and provide a dust mulch, after which go through the potatoes with the tool for several times, at periods of at least ten days until the crop is made.

This later work should be kept up especially if a drouth is on, and if persisted in, the vines will keep green until rain sets in, or the crop matures.

Knotty potatoes are caused by the vines being injured, checking their growth, so keep your horses off the vines and give shallow cultivation, and drop calcium carbide in the mole and gopher runs. This will smother them or chase them to the tall timber. Follow this and get a 95% commercial crop.

DISEASES The diseases working the most injury on the Pacific Coast are: The Wilts, Rhizoctonia, Black Leg and Dry Rot.

Our inspector will show the grower how to diagnose these diseases, and every state publishes exhaustive treatises on them. In a general way all that the observant grower need know is to dig out and destroy every plant that is showing unnatural features, such as too early "ripening" of the leaves, stalks turning black, or leaves turning a gray green or brown. This will prevent any diseased potatoes getting in the bin, that would prevent your crop being accepted for seed.

SPRAYING There is no certainty that spraying for disease is beneficial enough to pay the cost. However, spraying with a 10 per cent solution of Bordeaux Mixture used before blight will act as a preventative. Spraying for insect pest is absolutely necessary. The Pacific Coast is not troubled as seriously as other sections. We have a worm however that frequently causes disaster untold. It is called the variegated cut worm. This worm is found in many other crops besides potatoes, and while it may become migratory, is usually local.

This year we inspected nine crops of potatoes in one locality and found only one affected. This crop, however, was almost a total loss. The worm is hatched from the egg of the Noctuidae Moth. Spraying with Bug Death will kill this moth and broadcasting ground with poisoned mash, the formula for which will be given on application, will kill the worm and prevent a new crop of worms.

EXPERIMENTING New methods of crop cultivation and disease treatments are being experimented with constantly, many of which are not proven fully enough to bear mention. Perhaps one of the best is a process we use to mature the potatoes and force a hardening of the potato skin. The best seed is that harvested before it is fully matured. When dug at this stage the skin slips, making a bad appearance and often rot sets in quickly, causing serious loss. This can be prevented by cutting the green vines off to the ground, at least ten days before digging. This process can be used to mature new potatoes for market and will add materially to the price.

PRUNING About blossoming time cut the vine back about one-third with a grass hook or scythe. Result—the potatoes will be even in size and from 10 to 25% greater yield.

Reference Publications:

Horticultural Reports, 1913-1914, Oregon Agricultural College, Corvallis, Oregon; Monthly Bulletins No. 6 and 7 of the Washington Agricultural College, Pullman, Wash. For practical and useful information compiled for the farmer, consult Encyclopedia of Practical Horticulture.

Compiling Office, 407 Miller Bldg., North Yakima, Wash.
E. F. Miller, Gen. Sales Agt., 4041 Arcade Bldg., Seattle, Wash.

WHITACRE'S True to Variety Seeds and Plants are grown under a co-operative or club plan by selected growers in Washington, Oregon and California.

Mr. H. W. Whitacre began organizing this service in the year 1909. He found that little or no attention was given by dealers or growers to use scientific methods in growing and perfecting seeds and plants in a wholesale way except where certain seed houses grew a few of their own seeds under a system that appeared to him very uncertain and expensive, in that in order to get the best seeds, the Seed Companies had to each employ a horticulturist on high salary to act as field manager, on account of which expense only the very largest houses could afford such service. Because of this expense smaller seed companies were seriously handicapped, or entirely placed at the mercy of inexperienced or unreliable seed growers. While because of climatic soil or other conditions even the largest houses could not raise all the seeds needed to supply their trade.

Mr. Whitacre believed that all responsible dealers in seeds would quickly grasp the opportunity to accept the service of some reliable company, whose operations would cover a large enough territory to embody conditions that would overcome all of these serious difficulties and enable these houses to secure seeds at a minimum expense which would be grown under careful inspection and which would be as true to variety as seeds could be grown.

He found that his surmise was correct, as several of the largest and most reliable seed houses on the Pacific Coast at once placed contracts with him to superintend the growing of seeds for their trade.

As potatoes are one of the principal crops and had deteriorated more than any other field crop, the attention of Mr. Whitacre was given to this line exclusively at first. The Burbank was the variety at first selected, later followed by a sport potato which he called the Russet Burbank. Then the White Rose and Improved Netted Gem. He now has under special cultivation and selection the American Wonder, Burpee's Early and the Prizetaker, which will soon be ready in marketable quantities.

A system of exchange from one locality to another was adopted, in which soil, climate and altitude were carefully considered. Experiments were made to find the proper localities from which their exchanges could be made, and his theories were speedily proven to be correct. At this time it has been fully proven that seed grown from 1000 to 1500 ft. above the altitude that was to receive it for planting or reversely, would make an increase in production of better than 25 per cent, especially where this system of cultivation is adopted. Experiments were also made toward disease control in which he was greatly assisted by the State Agricultural experiments. The value of these experiments has been demonstrated by the fact that in three years not a car of potato seed raised under his system has been rejected, when shipped under the most rigid inspection to other states. Perhaps one of, if not the best, demonstration of the value of following this system to the letter, is found in the crop raised by Morford Bros., on the first National Bank farm at Moxee, near North Yakima, Wn., this season (1915). The careful attention given to this crop by these gen-

tlemen, even in the face of severe criticism of other growers, is responsible for the 95 per cent seed crop raised on the ranch. While one of the gentlemen made the statement that he would "Use Whitacre's seed potatoes if they cost him \$100.00 per ton," it is certain that the success of this crop lies largely in the fact that they so closely followed Mr. Whitacre's system of cultivation. This crop is conservatively estimated to yield 12 tons per acre.

Another valuable demonstration was made on the A. H. Bair ranch in the Natches near North Yakima, where it was clearly shown that seed taken from the Yakima valley to a 1600 foot higher altitude and raised a year or two, then brought back to the valley would more than double the yield of No. 1 seed potatoes, while on the ranch of Mr. Frank Gillespie about two miles from the Blair ranch, where the crop was planted to produce table potatoes the yield will be enormous, many hills producing 15 to 20 large fine commercial potatoes, while potatoes from native seed that had been grown for years in the valley under the same conditions on a nearby ranch did not show one half the crop of that produced by the new seed. These facts are becoming rapidly known to the growers who are beginning to buy Whitacre's "True to Variety Seeds" regardless of their increased price, as they have found that the increased price of the seed is quickly made back in the value of the crop, both in production and quality. Also they are finding that production is not the only thing to look for. One illustration of this was found in a field of potatoes growing from Eastern seed. The potatoes had set for a 12 ton crop but on examination the field was found to run worse than 20 per cent to disease, a fact which will prevent the potatoes from being used outside of the State of Washington, at a price that will pay to ship them. While the worst crop found of Whitacre's Seeds was 10 per cent and a large number of crops showed less than four per cent disease.

Now a table showing the increased value to the grower who raises crops from pedigreed seed:

Cost of Native Seed per acre.	Average market price.
Common seed \$15.00 per ton.....	15 bushels, 900 lbs..... \$ 6.75
Average crop, six tons per acre	90.00
Pedigreed Seed \$50.00 per ton.....	1,000 lbs. per acre..... 25.00
Average crop 9 tons per aere	135.00

In other words, the grower by using pedigreed seed will get a profit of \$20.00 per ton and pay for his seed besides in his increased marketable crop. "A word to the wise is sufficient." See our general agents, Morgan-McKaig Co., at North Yakima, Wash., or one of the other agents as follows, and place your order for 1916 planting as the supply of improved seed is limited:

Toppenish Trading Co., Toppenish, Wn.
 E. T. Blew, Grandview, Wash.
 E. W. Fry, Prosser, Wash.
 Livingston Bros., Mabton, Wash.
 Ennis-Brown Co., Sacramento, Calif.

Hub Mercantile Co., Wapato, Wash.
 Geo. Michels & Co., Ellensburg, Wash.
 Bird Rickard, Junction City, Ore.
 Germain Seed & Plant Co., Los Angeles,
 G. A. Ide & Sons, Outlook, Wash.

Wesco Seed Co., E. E. Morrison, Mgr., Springfield, Oregon.
 Corvallis Flouring Mills, August W. Fisher, Mgr., Corvallis, Ore.
 Wesco Seed Co., 417 Maritime Bldg., Seattle, Wash.

Symptoms and Control of Principal Diseases

BLACK LEG. An inky black discoloration of the stem. The blackened area starts at the seed and works up to the surface, and often several inches above. The stem rots at the surface and the plant often falls over.

CONTROL. Dip the seed from one to one and one-half hours in corrosive sublimate, one part to 1,000 water. This will usually kill the bacterial organisms in the seed. As the disease is now believed by many authorities to live over the winter, it will appear in the crop if soil is contaminated, and it can only be kept from the crop by digging out the diseased plants and tubers to the last small one and destroy them by burning.

DRY ROT. Does not show in stem or tuber and appears to affect mature tubers only.

CONTROL. After storing in pit or cellar it can be controlled by exposing to a vapor composed of:

23 oz. of Potassium Permanganate placed in three pints of a 40 per cent solution of formalin (formic aldehyde) to each 1000 cubic feet of space.

DRY ROT WILT is both field and storage trouble, especially bad in the Willamette Valley of Oregon. It shows first on the stalk and roots below ground. It shows by the leaves losing their glistening appearance, finally turning pale green and rolling up during the heat of the day. It is caused by a soil fungus, so fields must be kept free from it.

CONTROL. Dig up all diseased plants as for Black Leg and cut the end of the potato away to the first eye before planting as for Wilt diseases

LATE BLIGHT symptoms are well known.

CONTROL. Spray with Bordeaux Mixture. First time 4-4-50 about blossoming time. Every ten days for several times spray using 6-6-50 mixture, cover both sides of the leaves thoroughly. This is only a preventative, and if the disease begins to spread cut off the vines and burn them to prevent rain washing the fungus down onto the tubers, thus saving as much of the crop as possible.

POTATO SCAB. Symptoms known. Caused by a superabundance of potash or alkali.

CONTROL. Dip the seed with corrosive sublimate as for Black Leg.

RHIZOCTONIA or LITTLE POTATO. This disease is found in all soil that has grown leguminous crops, as vetch, peas, clover, etc. It shows in the top by an unusually strong top with abnormal branches; in the hills will be found many very small potatoes, and frequently small or ariel potatoes will form close to the surface or on the stalk above ground. However damage to the roots by gophers or too late deep cultivation will cause the latter symptom.

It is caused by a fungus of a mushroom nature, which collects in spots or groups on the surface of the tuber, and which will require severe washing to remove. These spots turn black when wet.

Easily controlled by dipping in corrosive sublimate as for Black Leg or Scab. See government Bulletins for other diseases or write this office.

FUSARIUM and VERTICILLIUM WILTS: Symptoms similar to Dry Rot Wilts. It can be found in the potato by cutting a thin slice from the stem end of the potato. If a brown line is found around the potato near the surface it can in a rough way be called Fusarium Wilt.

I have been very successful in improving my seed by cutting away the potato from the stem end until I cut this discoloration away. In a general way to cut back to the first eye will usually get under the disease.

As this disease does not appear to live in the soil, it is possible by continuing this treatment from year to year finally to eradicate it.

REFERENCES:

Mr. H. W. WHITACRE,
Seattle, Wash.

Watsonville, Calif., June, 1915.

Dear Sir:— * * “The Russet Burbank Potato I planted fairly outclassed any other potato planted, under the same conditions. In fact it will make a crop where lots of varieties will fail altogether. * * * My only trouble is that I did not plant more. Will want to get seed from you from Washington again next year.”

WM. H. LAWRENCE.

MR. H. W. WHITACRE,
Seattle, Wash.

North Yakima, Wash., July 19, 1915.

Dear Sir:—All parties who bought your seed potatoes through us last spring are immensely pleased with their prospects. * * Messrs. Sharkey and Loudon of the First National Bank say they do not think they had a miss in their entire field of potatoes which they planted from your see, and that they are looking just as good as they could. In fact all are highly pleased with their investments. You can rest assured that we will move all of your seed that we can next spring. * * I feel at this time that there will be a considerable demand for your pedigreed seed potatoes in this valley next spring. We do not believe it will be necessary for you to do more here than to assist in placing agents up and down the Valley.”

MORGAN & McKAIG, CO.,
Seeds and Fruit Growers' Supplies.

W. B. CUSHNEY, of Sunnyside, Wash., says: “Your seed potatoes have given better satisfaction than any other seed from which we have grown crops since we located in this Valley, and the price you have returned for our stock has been satisfactory.”

E. E. MORRISON of Springfield, Oregon, says: “I have sold out a good business to go into the handling of your seeds and to give my exclusive time to it, and am more satisfied as time goes on that I have done the right thing.”

Dodds Brothers, Harrisburg, Oregon, say: “We are certainly delighted with your seed potatoes. They have given us a magnificent crop, which is now made and could be dug at any time. Our potatoes are ahead of all others in this vicinity, excepting crops raised from your seed; which are equally as good.”

Bird Rickard, Harrisburg, Oregon, says: “I am pleased with the potatoes bought of you for seed. My crop is one of the finest ever grown in this vicinity.”

Excerpt from Harrisburg Bulletin, under date of June 24, 1915: “H. W. Whitacre, representing Whitacre's True to Variety Seeds, is inspecting the crops raised under contract for him in this district. This company has done more to promote the potato industry than any foreign company has done in recent years and they deserve the encouragement of our citizens. We note with pleasure that our prediction that this seed would make good is being verified in the crops.”

F. M. RHODES, District Horticultural Inspector for the Port of Seattle says: “Your two cars of potatoes shipped from California (raised from Whitacre's True to Variety Seeds) are the finest that have arrived here.”

Information and Stipulations

Regarding the Raising of Potatoes for Seed

I have received at this office a large number of orders from various growers in Washington, Oregon and California for pure varieties of seed potatoes, and I have arranged to handle the crop on a share profit basis, at a guarantee of \$3.00 per ton over the market price for table stock. In this circular letter we wish to set down a few rules, following which will enable us to handle the crop on these terms. Any variation from these rules will cut the price of the potato to the grower.

We must have potatoes from 2 to 6 oz. in one size, and 6 to 12 oz. in another, which are smooth and must pass government inspection. These potatoes must be handled exactly upon our order and instructions. To do this we are providing warehouse arrangements in different localities where the potatoes may be taken in the fall and graded out at shipping time. We can accept no potatoes on this basis from the pit unless special arrangements are made where localities might be favorable to handling in this manner. The following suggestions to the growers will enable them to come nearer to securing this price for their stock.

Where potatoes are not well matured when they have the size required it will be necessary to mow the green vines, allowing them to harden, at least two weeks before digging.

In sorting it will be necessary to sort all bad potatoes; such as under-size and knotty, deformed stock from the potatoes at digging time, only taking to the warehouse such stock as may be valuable either for table stock or seed. All seed stock will be packed in new, even-weight sacks and sewed with a special colored string, all sacks with printed slip endorsed with guarantee of the Wesco Seed Co., showing locality where grown.

—◆—
For further information write

H. W. WHITACRE

417 Maritime Building

Seattle, Washington

BERRY ROOTS

Strawberry

Lake Washington—A fine market berry, large firm, dark red, a little earlier than the Marshall. Price \$4.50 1,000; \$1.00 per doz. selected.

Wesco Special — This is the best of new varieties. Similar to the Magoon, but larger and a little later in ripening, with a remarkably fine flavor. This berry will become a popular shipper or for the home garden. Price, \$6 00 per 1,000; \$1.00 per dozen selected.

Oregon Champion—Price \$4.00 per 1,000.

Price List of Berry Roots

P. E. F. means Parcel Post, Express or Freight

	P. 1 Each	E. 10 to 100 Each	F. 100 to 1000 Each
Strawberry—Lake Washington	\$0.10	\$0.06	\$0.04
Wesco Special .....	.15	.08	.06
Oregon Champion .....	.10	.06	.04
Logan Berry, 1 year .....	.10	.06	.04½
Phenomenal, 1 year .....	.15	.08	.06
Australian Giant Blackberry, 1 year .....	.15	.08	.06
Cuthbert Raspberry, 1 year .....	.10	.05	.04
Black Prince Raspberry. 1 year .....	.15	.08	.06
Gooseberry, Oregon Champion, 1 year .....	.20	.17½	.10
Currants, Cherry .....	.20	.17½	.10
Horse Radish, Wesco Fancy Cuttings .....	.10	.05	.04
Rhubarb, Banwine, divisions .....	.15	.08	.05½

Dahlias

Kremihilda—Pink Cactus .....	.15	.08	.06
White Star—Pure White Cactus .....	.25	.20	.15
Standard Bearer—Rich Fiery Red Cactus .....	.25	.20	.15
Salmon—Cactus .....	.10	.06	.04½
Emperor—Orange .....	.15	.08	.06
John Thorp—Light Pink—Show .....	.15	.08	.06
Wesco—Yellow—Show .....	.10	.06	.04½
Wesco—Scarlet Peony .....	.15	.08	.06
Wesco—Deep red, Pom Pom .....	.15	.08	.06
Mixed varieties, not wrapped or named .....			.05
Mixed varieties, wrapped and named .....			.07½

(See assortment Bargain offer on page 23)

Field Seeds

We have added to our "True to Variety Seeds" this year the following Grain Seeds, all new or recent importations. As *market changes prices will be made on application*. We advise trying some of these seeds as they are clean seeds and high producers,

OATS--Bonny White

A heavy feed oats that yields over 100 bushels per acre after cleaning.

CANADIAN WHITE

A milling oat, producing 108 bushels per acre, machine measure, hull very thin, first year in U.S. Both of these oats have proven to have high rust resisting properties.

Russian Vetch

The heaviest yielder and highest in nitrogen we have so far found.

Field Corn--Minnesota 13

Oregon raised, where it took first premium at every fair shown.

This is a yellow dent and ripened by Oct. 1st, as dry as any Eastern corn on its native soil.

We have also a good stock of Oregon raised Wheat, Alsike and Red Clover



BARGAIN OFFER

To Introduce our Fancy Roots, Seeds and Bulbs, we offer the following:

Select any plants or seeds in this catalogue, the list value of which amounts to \$1.50 and send \$1.00 Money Order and they will be promptly shipped. All for \$1.00 as long as they last, to be delivered parcel post, orders to take precedence as booked for delivery. All orders received this month will have included without extra expense two fine Purple Lilacs. Subject to prior sale. In which case the money will be returned or the best substitute offered as preferred.

If order is placed this month for Spring delivery, we will add free two pounds of either variety of my new potatoes, Russet or Wesco Burbank, as long as they last. These potatoes are both earlier than the old fashioned Burbank and very productive.

We will contract with reliable growers to raise these potatoes for us to supply our growing seed orders. Special price for the seed to start you and a guarantee of \$3.00 per ton over the market price for other varieties.

Write for full particulars by return mail, as stock of seed is limited.

Lilacs

Purple, 10 to 16 inches, per hundred \$5.00

At this price you can put in a Lilac hedge or division fence. 2 to 3 feet each 25c; 3 to 4 ft., each 40c; 4 to 6 ft., each 50c; 10 to 16 in., \$1.00 dozen.



Germain

Established 1871

SEED & PLANT CO.

326-328-330 SO. MAIN ST.

LOS ANGELES. CALIFORNIA

Distributors for Whitacre's Wesco Burbank Seed Potatoes and the
Banwine Rhubarb

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Linum
Lychnis
Montbretia

Gold and Silver Medals



SEED POTATOES

We are the largest growers of pure seed potatoes in Washington and Oregon. We are specializing on four varieties on the ground that growers lose money by raising so many different varieties that a district cannot ship its crop to the last, in car lots.

"One Exclusive Variety, and That the Best Variety for Each District"

is our motto. Two of our varieties are controlled by ourselves. One other variety—a valuable one, is grown beyond our control, but we are the only people keeping this variety pure. This latter variety we class Nos. 1 and 2. No. 1 for new districts. No. 2 for our growing California winter planting trade, where seed must be bought new every year.

These varieties are of the best for marketing: very productive, and excellent table quality.

Price-- Fancy Selected

Per 100 pounds	\$3.00 F	Per 10 pounds	\$1.00
Per 50 pounds	1.65 E or F	Per 5 pounds	.75
True to type, per cwt.	4.00 F	Less quantities per lb.	.10

Your choice of either Russet Burbank, Wesco Burbank or Improved Netted Gem. Special price in car lots quoted on application. Get a new start and improve your crop. Subject to prior sale. Money will be returned if out of stock.

AN EXCHANGE OF POTATO SEED

upon the following plan will be adopted and will be carried out as follows:

The first year's seed may be planted again the second year, using a larger sized potato for the second planting than was used in the original seed, all the small size being carried to another district. No exchange of seed from one locality to another in the same district will be accepted for the reason that not enough extra vitality is gained by this exchange to make it pay, over the bringing in of new seed from a distance, where both climate and altitude are changed.

All seed grown in fields where there are volunteers will be classed and sold as No. 2 seed. All seed grown in ground absolutely clear of other varieties and separated from other fields so they will not pollenize with other varieties will be classed as pedigreed seed, and a premium will be paid for such stock.

Varieties: "Russet Burbank," "Wesco Burbank," "White Rose," "Improved Netted Gem"

These simple rules, if followed closely, will evidence to you that it will pay well to follow in comparison with raising potatoes by the old plan of cultivation.

Letters requesting information will be carefully answered if addressed to

H. W. WHITACRE,
417 Maritime Building,
Seattle, Wash.

DISTRIBUTORS:—

GERMAIN SEED & PLANT CO., Los Angeles, Calif.
ENNIS-BROWN CO., Sacramento, Calif.
MORGAN-McKAIG SEED CO., North Yakima, Wash.
WESCO SEED CO., Springfield Ore.
WESCO SEED CO., 417 Maritime Bldg., Seattle, Wash.

WESCO SEED CO., 417 Maritime Building, Seattle, Wash.



The **RUSSET BURBANK**, the greatest Potato for tonnage as well as table purposes grown. Does well in any soil in which potatoes will grow.