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U.S. Department of Agriculture



*Henderson's*  
*Farmers Manual*

**PETER HENDERSON & CO.**

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CORTLANDT STREET, NEW YORK

**1941**



# HENDERSON'S FARMERS MANUAL 1941

## Read Before Ordering—This Catalogue Cancels All Previous Quotations

The Purchaser Pays Transportation Charges on Farm Seeds Except Where Noted.  
Prices are Subject to Change Without Notice.

**ABOUT FORWARDING AND REMITTING**—Remittances should be made either in the form of a *P. O. Money Order, Express Money Order, Bank Draft, Express Purchasing Order or Registered Letter.*

**WHEN SHIPPED BY FREIGHT WE DELIVER POTATOES** in good condition, into the hands of transportation companies; our responsibility ceases there. Consignee then assumes all risks of heating, freezing and delays.

**WE MAKE NO CHARGE FOR PACKING**, boxes, cases or barrels. Cloth bags we charge for, viz.: 1 peck, 10c., ½ bushel, 15c.; 1 bushel, 20c.; 2 bushels, 35c. Burlap bags, 1 peck, 10c.; ½ bushel, 12c.; 1 bushel, 15c.; 2 bushels, 20c.; 4 bushels, 25c.; 6 bushels, 30c.; 8 bushels, 40c. No charge for bags with lawn grass mixtures. Special packing of seeds for foreign shipments, when necessary, in tin-lined cases or double sacks, we charge for at cost.

**ACCOUNTS**—We will be pleased to open charge accounts for the convenience of our customers. Kindly furnish trade references.

**FARM MANAGERS**—We have always on hand applications by competent men for positions as farm and estate managers, men who have been trained in the business and are well posted on agriculture generally, also the raising and care of live stock. We will be very pleased to enter into correspondence with those who require the services of such. We make no charge for this service, either to employer or employee.

**ALL FARMERS OF EXPERIENCE** know that success depends largely on weather conditions and proper cultivation, so in accordance with the universal custom of the seed trade, PETER HENDERSON & CO., gives no warranty, express or implied, as to description, quality, productiveness, or any other matter, of any Seeds, Bulbs, Roots or Plants they send out, and they will not be in any way responsible for the crop.

### INDEX AND QUANTITIES TO SOW PER ACRE

Page	Sow (if alone) per Acre	Page	Sow (if alone) per Acre	Page	Sow (if alone) per Acre			
Agrostis tenuis.....	5	50 lbs.	Grasses, Hay and Perma- nent Pasture... 3	40 lbs.	Phleum pratense.....	6	25 lbs.	
" stolonifera.....	5	50 lbs.	" Permanent Hay Mixtures..... 4	40 lbs.	Poa annua.....	5	50 lbs.	
" palustris.....	6	30 lbs.	" Permanent Pasture Mixtures... 4	40 lbs.	" compressa.....	5	60 lbs.	
Alfalfa.....	7	30 to 40 lbs.	" Permanent Pasture above..... 3	10 lbs.	" nemoralis.....	6	50 lbs.	
Alsike, Hybrid or Swedish Clover.....	7	8 lbs.	" Renovating Mix- ture..... 4	40 lbs.	" pratensis.....	5	60 lbs.	
Andropogon sorghum var. Anthroxanthum odoratum... 6	12	8 to 10 lbs.	" various..... 5	40 lbs.	" trivialis.....	6	50 lbs.	
Astoria Bent.....	5	30 lbs.	" Woodland Pastu- res..... 4	40 lbs.	Potatoes.....	15	10 to 12 bushels	
Avena elatior.....	6	50 lbs.	Green Manuring Mixture Grimm Alfalfa..... 7	50 lbs. 30 lbs.	Rape, English.....	12	2 to 4 lbs.	
Awnless Brome Grass... 5	5	20 to 25 lbs.	Hard Fescue.....	6	50 lbs.	Reana luxurians.....	13	6 to 8 lbs.
Barley (Sow broadcast, 125 lbs.).....	14	100 lbs. drilled	Herd's Grass of the South, North..... 6	30 lbs. 25 lbs.	Red Clover (Common or June Clover).....	7	12 to 14 lbs.	
Beans, Soja.....	11	50 lbs.	Hungarian Grass.....	12	50 lbs.	Red Fescue.....	5	50 lbs.
Beet, Sugar.....	15	6 to 8 lbs.	Italian Rye Grass.....	6	60 lbs.	Red Top Fancy (Herd's Grass of the South)...	6	30 lbs.
Beggar Weed.....	12	10 to 12 lbs.	June Clover.....	7	12 to 14 lbs.	Rhode Island Bent.....	5	50 lbs.
Bent Grass.....	5	50 lbs.	" Grass.....	6	60 lbs.	Rough Stalked Meadow Grass.....	6	50 lbs.
Bermuda Grass.....	5	10 to 25 lbs.	Kaffir Corn.....	9	8 to 10 lbs.	Ruta Baga.....	15	2 to 3 lbs.
Bokhara Clover.....	7	10 lbs.	Kentucky Blue Grass... 5	60 lbs.	Rye.....	14	1½ bushels	
Brassica Napus.....	12	2 to 4 lbs.	Korean Lespedeza.....	7	15 lbs.	Seaside Bent.....	5	50 lbs.
Bromus Inermis.....	5	20 to 25 lbs.	Ladino Clover.....	7	8 lbs.	Scarlet Clover.....	7	15 lbs.
Broom Corn.....	9	8 to 10 lbs.	Lespedeza Korean.....	7	14 lbs.	Shallu.....	13	5 lbs.
Buckwheat.....	11	40 lbs.	Lolium italicum.....	6	60 lbs.	Sheep's Fescue.....	6	50 lbs.
Canada Blue Grass.....	5	60 lbs.	" perenne.....	6	75 lbs.	Smooth Stalked Meadow Grass.....	5	60 lbs.
Carpet Grass.....	5	15 lbs.	Lucerne.....	7	30 to 40 lbs.	Soja Bean or Soy Bean... 11	50 lbs.	
Carrots.....	15	4 lbs.	Mammoth or Pea Vine Clover.....	7	12 lbs.	Sorghums.....	9	10 to 12 lbs.
Clovers.....	7		Mangels.....	15	6 to 8 lbs.	Sudan Grass.....	6	15 to 20 lbs.
" Permanent (Mixed)...	3	10 lbs.	Meadow Fescue.....	5	70 lbs.	Sugar Beet.....	15	6 to 8 lbs.
Colonial Bent.....	5	50 lbs.	Medicago sativa.....	7	30 to 40 lbs.	Sugar Cane.....	9	10 to 12 lbs.
Corn, Dent.....	8	8 to 10 qts.	Melilotus alba.....	7	10 lbs.	Sunflower.....	13	4 lbs.
" Flint.....	9	8 to 10 qts.	Millet, Golden German and Hungarian... 12	50 lbs.	Swedish Clover.....	7	8 lbs.	
" Fodder.....	9	{ Broadcast, 2 bu. Drilled, 1 bu.	" Japanese (in drills, 10 lbs. per acre)... 12	Broadcast, 15 lbs.	Sweet Clover.....	7	10 lbs.	
Cow Grass.....	7	12 lbs.	" Pearl, Egyptian, Cat-Tail or Horse	12	{ Drills, 5 to 6 lbs. Broadcast, 8 lbs.	Sweet Vernal.....	6	35 lbs.
Cow Peas.....	11	100 lbs.	Milo Maize.....	9	4 to 5 lbs.	Tall Meadow Fescue.... 6	50 lbs.	
Creeping Bent or Florin.. 5	5	50 lbs.	New Zealand Fescue.... 5	50 lbs.	" Oat Grass.....	6	50 lbs.	
Creeping Red Fescue.....	5	50 lbs.	Oats.....	10	3 bushels	Tares.....	13	100 lbs.
Crested Dog's Tail.....	5	30 lbs.	Orchard Grass.....	6	60 lbs.	Teosinte.....	13	6 to 8 lbs.
Crimson or Carnation Clover.....	7	15 lbs.	Pacey's Perennial Rye Grass.....	6	75 lbs.	Timothy or Herd's Grass of the North.....	6	25 to 35 lbs.
Cynodon dactylon.....	5	10 to 25 lbs.	Panicum crus-galli... 12	15 lbs.	Tobacco.....	13		
Cynosurus cristatus.....	5	40 lbs.	Pasture grasses.....	3-4	40 lbs.	Trifolium hybridum... 7	8 lbs.	
Dactylis glomerata.....	6	60 lbs.	Pea Vine Clover.....	7	12 lbs.	" incarnatum... 7	15 lbs.	
Desmodium tortuosum... 12	10 to 12 lbs.		Peas, Cow.....	11	100 lbs.	" pratense... 7	12 to 14 lbs.	
Domestic Rye Grass.....	6	50 lbs.	" Field.....	11	150 lbs.	" repens... 7	8 lbs.	
Doura or Durra.....	9	4 to 5 lbs.	Pennisetum spicatum... 12	8 lbs.	Turnips.....	15	2 to 3 lbs.	
Egyptian Wheat.....	13	5 lbs.	Perennial Red Clover... 7	12 lbs.	" Ruta Baga, Rus- sian or Swedish... 15	2 to 3 lbs.		
English Blue Grass... 6	75 lbs.				Various Leaved Fescue... 6	50 lbs.		
" or Perennial Rye Grass.....	6	75 lbs.			Vetcb, Sand, Winter or Hairy.....	13	60 lbs.	
Fertilizers.....	16				" Spring (Tares).... 13	100 lbs.		
Fescue, Chewings.....	5	50 lbs.			Vicia sativa.....	13	100 lbs.	
Festuca duriuscula.....	5	50 lbs.			Vicia villosa.....	13	60 lbs.	
" elatior.....	6	50 lbs.			Vigna catjang.....	11	100 lbs.	
" heterophylla.....	6	50 lbs.			Wheat.....	14	1½ bushels	
" ovina.....	6	50 lbs.			White or Dutch Clover... 7	8 lbs.		
" tenuifolia.....	5	50 lbs.			Wild White Clover... 7			
" pratensis.....	5	70 lbs.			Wood Meadow Grass... 6	50 lbs.		
Fine Leaved Sheep's Fes- cue.....	5	50 lbs.			Yarrow.....	6	15 lbs.	
Florin.....	5	50 lbs.			Yellow Trefoil.....	7	8 lbs.	
Glycine bispida.....	11	50 lbs.						

PETER HENDERSON & CO., 35 Cortlandt Street, NEW YORK, N. Y.

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HENDERSON'S SPECIAL GRASS SEED MIXTURE FOR **Hay and Permanent Pasture**

PRODUCES WONDERFUL HAY CROPS AND PASTURE, MAINTAINING ITS CROPPING QUALITIES TWENTY YEARS OR MORE

It has been fully demonstrated by the careful trials considered by the Agricultural Experiment Stations in various parts of the country that good pasturage, and good hay crops can be best secured by sowing Grass seeds in mixtures. Pastures seeded naturally are always found to contain many varieties of Grasses growing and flourishing side by side without detriment to each other, and attaining their maximum of growth at different periods of the year. It is to this notable characteristic that such pastures furnish continually an abundant bite, when meadows and pastures composed of but a few varieties are brown and bare.

Another great advantage in sowing Grass seed mixtures is that full use is made of the land. The various Grasses being of different habit, seek the food they require at unequal depths in the soil, some being shallow-rooted in habit and some deep-rooted; thus every strata of soil is utilized, and a far greater number of plants grow and flourish in a given space.

Henderson's Special Grass Seed Mixture for Hay and Permanent Pasture is a well-balanced combination of a number of native and ac-

climated foreign Grasses and Clovers, blended and improved upon during exhaustive trials under widely varied conditions, soils and localities for several years, until practically perfect, our aim being to produce, under the extremes of the American climate of heat, drought and cold, a Permanent dense and deep-rooting turf that would yield year after year the maximum quantity of forage. These Grasses are of superior quality, inviting, sweet and nourishing, whether used as hay or pasture. That we have been successful is attested by the numerous letters of praise for these special Grass Mixtures that we have received from the users, and the tributes to their merits published in many of the agricultural journals.

In preparing these Mixtures the greatest care is exercised in selecting such varieties as are suited to the soil to be sown and are likely to realize the object in view. Therefore a description of the soil whether Light, Medium or Heavy and climate, and if with or without a grain crop, should accompany each order. Sow 40 lbs. per acre.

Price, lb. 50c.; 10 lbs. \$4.00; 25 lbs. \$8.75; 100 lbs. \$30.00; transportation paid.

**Forty-Four Years After**

*A much delayed testimony in regard to some grass seed purchased from you forty-four years ago, known as Hay and Permanent Pasture Grass Seed Mixture. This lot has been in pasture ever since I put in the seed, and is still a No. 1 pasture; in fact the best pasture on the farm. It had always been known that time, as a hard lot to keep seeded.*

AMBEROSE M. CULVER, Amenia, N. Y.



**MIXED PERMANENT CLOVERS**

Do not omit to sow Clovers with the Grasses, as they add to the yield of hay and pasture, and by their ability to collect atmospheric nitrogen, and store it in the root nodules, assist the growth of the Grasses and are of considerable benefit to subsequent crops.

Mixed Permanent Clovers, on account of their greater weight, should be sown separately, but at the same time as the Grasses. This Mixed clover comprises White Mammoth Perennial or Cow Grass, Alsike, etc. Sow 10 pounds per acre.

Price, lb. 60c.; 10 lbs. \$5.00; 25 lbs. \$11.25; 100 lbs. \$40.00; purchaser paying transportation.

DEPENDABLE SEED SERVICE SINCE 1847. The worth of a House whose business has been carried on successfully for three generations is understood by all who plant seeds, because seeds are sold entirely on reputation.



A Pennsylvania Field of HENDERSON'S  
SPECIAL GRASS MIXTURE  
for HAY CROP

Henderson's Special Grass Seed Mixture for

### PERMANENT HAY

Supplies a Good Crop of Hay in Dry Seasons  
When Ordinary Hayfields are Burned Up

Although the most widely cultivated Hay Grass in the United States is Timothy, or a mixture of Timothy and Clover, and while they answer the purposes admirably on farms where the soil is suitable and where the usual three and four years' rotation is carried on, yet there are many other Grasses which will yield more profitable returns.

An acre of Henderson's Special Grass Mixture for Permanent Hay will yield double the quantity of an acre of Timothy and Clover, and the farmer whose land is sown with a proper mixture of Permanent Grasses, requiring only an occasional top-dressing of manure or fertilizer to maintain heavy cropping qualities for twenty years or more, avoids the expense of the yearly plowing, and cultivating necessary in rotation cropping. Sow 40 lbs. per acre.

Price, lb. 50c.; 10 lbs. \$4.00; 25 lbs. \$8.75; 100 lbs. \$30.00; transportation paid.

Henderson's Special Grass Seed Mixture for

### WOODLAND PASTURES

Is composed of a selection of Grasses which will thrive under trees. Orchard Grass is one of the best Grasses for the purpose, but this mixture is much superior, as it will make a closer and more even pasture than Orchard Grass alone. Sow 40 lbs. per acre.

Price, lb. 60c.; 10 lbs. \$5.00; 25 lbs. \$11.25; 100 lbs. \$40.00; transportation paid.

FOR PASTURE

Henderson's Special Grass Seed Mixture for

### PERMANENT PASTURE

There is no more important part of a farm than a good pasture, and that can only be obtained by the use of the proper grasses varieties that have different root formations and different habits and season of growth, in order to maintain a rich, close turf throughout the entire season. These Mixtures contain over a dozen of the best permanent Grasses, both American-grown and imported. All are permanent, and when once established will last indefinitely, if the fertility of the soil is kept up by occasional top-dressing. Sow 40 lbs. per acre.

Price, lb. 50c.; 10 lbs. \$4.00; 25 lbs. \$8.75; 100 lbs. \$30.00; transportation paid.

### RENOVATING MIXTURE

For Impoverished Grass Lands

Sow the grass seed at rate of 40 lbs. to an acre.

Price, lb. 50c.; 10 lbs. \$4.00; 25 lbs. \$8.75; 100 lbs. \$30.00; transportation paid.



# HENDERSON'S SUPERIOR RECLEANED GRASSES

Cleaned at the source of production, and recleaned in our own warehouses with the most modern seed-cleaning machinery in America. They are then analyzed and tested by us, and verified by check tests at State and Government Stations.

Henderson's Individual Recleaned Grasses are therefore Unequaled for Purity and Germination.

Better turf is obtained in most cases if a mixture of grass seed is sown. We will be glad to make special mixtures when desired in accordance with the purchaser's requirements or after his own formulas. Transportation Charges Paid.

## AWNLESS BROME (*Bromus Inermis*)

This luxuriant, drought-resisting hardy perennial grass, introduced by us in 1889, has proven to be a most important and valuable hay and pasture grass, thriving under the trying conditions of the dry regions of the West and Northwest. It is very hardy, living through winters where the temperature falls many degrees below zero. It roots deeply, grows rapidly, in good soils attaining a height of 4 feet, yielding up to 4 tons of cured hay per acre. Sow the seed broadcast (20 to 25 lbs. per acre) in spring or early summer.

Price, lb. 55c.; 10 lbs. \$5.00; 25 lbs. \$11.25; 100 lbs. \$40.00.

## BENT, ASTORIA (*Agrostis Capillaris*)

This variety differs from Rhode Island Bent in that it is an underground creeper, usually by rhizomes. It gives a dense, reinforced sod of a pleasing green color and a fine texture.

Price, lb. \$1.25; 10 lbs. \$10.00; 25 lbs. \$24.00; 100 lbs. \$90.00.

## BENT, COLONIAL (*Agrostis tenuis*)

This grass imported from New Zealand, is identical with Rhode Island Bent. Leaf-blades very narrow and flat; dark green; slightly creeping habit and makes a fine turf for Putting Greens. It succeeds on all well drained soils and unlike some other grasses it thrives on acid soils.

Price, lb. \$1.25; 10 lbs. \$10.00; 25 lbs. \$24.00; 100 lbs. \$90.00.

## BENT, CREEPING (*South German Mixed Bent or Agrostis Species*)

This grass is well adapted for moist situations, and valuable for affording herbage in early spring and late autumn, before other grasses have commenced or have stopped growing and in consequence is advantageously included in permanent pasture mixtures. Sow (if alone) 50 lbs. per acre.

Price, lb. \$2.50; 10 lbs. \$22.50; 25 lbs. \$50.00; 100 lbs. \$175.00.

## BENT, SEASIDE (*Agrostis Maritima*)

This was first identified in Oregon, and has been offered by others under a special trade name. It is a hardy creeping variety, forming a close mat-like sward. Does well in moist situations, making a rapid growth; blades are almost as narrow as true creeping bent. It is a vigorous stoloniferous creeper and the only bent that compares favorably with Creeping or Velvet Bents.

Price, lb. \$1.30; 10 lbs. \$12.50; 25 lbs. \$28.75; 100 lbs. \$100.00.

## BENT, RHODE ISLAND (*Agrostis tenuis*)

Distinguished from Red Top by its dwarfer habit, shorter and narrow leaves and its peculiar open panicle which does not become closed when mature. Thrives well on acid soils. Produces only short stolons or runners; makes a very fine dark green turf. An excellent grass for Putting Greens. Sow (if alone) 50 lbs. per acre.

Price, lb. \$1.25; 10 lbs. \$10.00; 25 lbs. \$24.00; 100 lbs. \$90.00.

## BENT, VELVET (*Agrostis Canina*)

This is one of the finest type of Dwarf Grasses used for Putting Greens and Lawns. It is of light green color and does well on acid soils and in the shade.

Price, lb. \$5.00; 10 lbs. \$45.00.

## BERMUDA (*Cynodon Dactylon*)

Adapted for the Southern States, as it withstands drought and the scorching rays of the sun. This grass is noted for the peculiar habit of its growth; the wiry roots of the grass in running over the surface of the ground form a strong, fibrous matting. For that reason it is sown largely for the purpose of binding banks of creeks and dams, etc. Bermuda Grass seed should be sown in the spring, as it will not germinate until warm weather comes. As a grass for hay or pasture, it matures and gives its first cutting ordinarily in June. It is, however, pre-eminently a pasture grass, does not succeed further north than Virginia. Sow 10 to 25 lbs. per acre.

Price, lb. 55c.; 10 lbs. \$5.00; 25 lbs. \$11.25; 100 lbs. \$40.00.

## BLUE, CANADA (*Poa Compressa*)

A valuable grass for hard, dry soils. It grows on land so poor and thin as to exclude the growth of other grasses. It is especially valuable for dairy pastures. It is an exceedingly valuable pasture grass on dry, rocky knolls and should form a portion of the mixed grasses for such soils. As it shrinks very little in drying, it makes heavy hay in proportion to its bulk. Sow (if alone) 60 lbs. per acre.

Price, lb. 65c.; 10 lbs. \$6.00; 25 lbs. \$13.75; 100 lbs. \$50.00.

## BLUE, ANNUAL (*Poa Annua*)

A dwarf growing variety that spreads rapidly by depositing its own seeds particularly during the early spring.

Price, lb. \$1.00; 10 lbs. \$8.00.

## BLUE, KENTUCKY (*Poa pratensis*)

It furnishes delicious food for all kinds of stock unless there should be a protracted drought, which would cause it to slowly dry up until the fall rains, when it springs forth and grows luxuriantly, furnishing pasturage until frozen. Although slow to establish itself, Kentucky blue grass, once a stand is had on land to which it is adapted, lasts for many years, as the plants spread with their underground roots and will improve year to year, and rarely needs reseeding. Sow (if alone) 50 lbs. per acre. We keep nothing but fancy reclaimed seed, free from chaff, the natural weight of which is 20 to 25 lbs. per measured bushel.

Price, lb. 60c.; 10 lbs. \$5.50; 25 lbs. \$12.50; 100 lbs. \$45.00.

## CARPET GRASS

This type of grass is used only in the South as it will not thrive where the temperature goes lower than 15 degrees. Very valuable for pasture and does well on poor sandy soil. It spreads rapidly and will make favorable hay and has high feeding quality.

Sow 15 lbs. per acre, broadcasted.

Price, lb. 60c.; 10 lbs. \$5.50; 25 lbs. \$12.50; 100 lbs. \$45.00.

## CRESTED DOGSTAIL (*Cynosurus cristatus*)

A fine, short grass, that should enter into all permanent pasture mixtures, especially for dry, hard soils and hills pastured with sheep. Sheep fed in pastures where this abounds are less subject to foot rot. Sow (if alone) 30 lbs. per acre.

Price, lb. 80c.; 10 lbs. \$7.50; 25 lbs. \$17.50; 100 lbs. \$60.00.

## FESCUE, CHEWINGS NEW ZEALAND

(*Festuca Chewings*)

Adapted for pastures and resists extreme drought, thrives on inferior soils, gravelly banks and exposed hills. Its large production of fine root leaves makes it a good bottom grass. Sow (if alone) 50 lbs. per acre.

Price, lb. 70c.; 10 lbs. \$6.50; 25 lbs. \$15.00; 100 lbs. \$55.00.

## FESCUE, FINE-LEAVED SHEEP'S

(*Festuca ovina tenuifolia*)

Cattle are very fond of it, and it grows naturally in many parts of the world. It is very suitable for permanent pasture, especially on uplands and dry soils. Its rich, dark green gives a fine appearance to hay, and renders it also valuable for dry situations. Sow (if alone) 45 lbs. per acre.

Price, lb. \$1.50; 10 lbs. \$12.50; 25 lbs. \$28.75; 100 lbs. \$100.00.

## FESCUE, MEADOW (*Festuca pratensis*)

Very valuable for permanent pastures, highly nutritious, makes excellent hay and succeeds well in almost all soils, especially in moist land. It is robust in habit and never grows in tufts, although it should be sown with other grasses. It is one of the earliest grasses in the spring and one of the latest in autumn, being particularly valuable for fall and winter pastures. In the climate of Virginia it often remains green under the snow through the winter, hence called "Evergreen Grass." Sow (if alone) 70 lbs. per acre.

Price, lb. 45c.; 10 lbs. \$4.00; 25 lbs. \$8.50; 100 lbs. \$30.00.

## FESCUE, CREEPING RED

(*Festuca rubra North German grown*)

This is the true creeping variety thriving well on poor soils, and especially adapted for shaded locations. It forms a dense permanent turf which leaves little room for weeds to come through.

Price, lb. \$1.50; 10 lbs. \$12.50; 25 lbs. \$28.75; 100 lbs. \$100.00.

We Pay Transportation Charges on All Grass Seeds.

# GRASSES — HENDERSON'S SUPERIOR RE-CLEANED

## FESCUE, SHEEP'S or HARD

(*Festuca ovina*)

For good upland or dry pastures, a large portion of this grass should be included in the mixture, especially if it is used for sheep grazing, as it is greatly relished by them. Sow (if alone) 30 lbs. per acre.

Price, lb. 80c.; 10 lbs. \$7.50; 25 lbs. \$17.50; 100 lbs. \$65.00.

## FESCUE, TALL MEADOW

(*Festuca elatior*)

Naturally adapted to moist, stiff or clayey soils and shady woods, and is considered by some authorities to be one of the best grasses in cultivation. It is greedily eaten by stock when green, and should be included in all permanent pasture mixtures for moist or strong lands. It also makes a very good quality of hay. Sow (if alone) 50 lbs. per acre.

Price, lb. 80c.; 10 lbs. \$7.50.

## FESCUE, VARIOUS LEAVED

(*Festuca heterophylla*)

A valuable grass for permanent pastures, especially on uplands, well adapted where a heavy swath is wanted. It yields a large bulk of herbage, but produces little feed after mowing. Sow (if alone) 50 lbs. per acre.

Price, lb. \$1.50; 10 lbs. \$14.00; 25 lbs. \$32.50; 100 lbs. \$125.00.

## ORCHARD (*Dactylis glomerata*)

It succeeds on almost any soil, especially in moist, shady places, and in porous subsoils its roots extend to a great depth. It stands drought well, keeping green and growing when other grasses are dried up. It should not be sown in mixture with Timothy, for, being three weeks earlier, it becomes pithy if allowed to stand until the Timothy is ready to cut. Cut at the proper time, however, there is no better or more succulent hay. It is inclined to grow in tufts, and should therefore have other grasses sown with it and be sown very evenly. Sow (if alone) 60 lbs. per acre.

Price, lb. 65c.; 10 lbs. \$6.00; 25 lbs. \$13.75; 100 lbs. \$50.00.

## RED TOP, FANCY (*Agrostis palustris*)

Succeeds almost everywhere, but reaches its highest state of perfection in a moist, rich soil, in which it attains a height of 2 to 2½ feet. If for pasture it should be fed close as it is not relished after it grows up to seed. It is often sown with Timothy and Red Clover; the latter of course soon disappears, the Timothy follows; then the Red Top takes its place. Sow (if alone) 30 lbs. per acre.

Price, lb. 45c.; 10 lbs. \$4.00; 25 lbs. \$8.50; 100 lbs. \$30.00.

## RYE, DOMESTIC

A mixture of Italian and English grown in the United States. Price, lb. 30c.; 10 lbs. \$2.50; 25 lbs. \$5.00; 100 lbs. \$16.00.

## RYE-GRASS, ENGLISH

(*Lolium perenne*)

It produces an abundance of remarkably fine foliage, tillers out close to the ground and soon forms a compact sward. After being cut it grows up in a very short time and remains bright and green throughout the season. It is also a good variety for hay if cut when in blossom, as it is then most nutritious; if cut much later it becomes woody. Sow (if alone) 75 lbs. per acre.

Price, lb. 45c.; 10 lbs. \$4.00; 25 lbs. \$8.50; 100 lbs. \$30.00.

## RYE-GRASS, ITALIAN

(*Lolium italicum*)

A variety unequalled for producing an abundance of nutritious feed in the early spring. It gives quick and successive growths until late in the fall, even if cut several times, providing the land is in good condition and not too dry. As it is not perennial, it is not adapted for permanent pastures, but for one or two years' lay it is unsurpassed. Sow (if alone) 60 lbs. per acre.

Price, lb. 40c.; 10 lbs. \$3.00; 25 lbs. \$7.00; 100 lbs. \$25.00.

Write to our Service Department for any information you may need about grasses.

## RYE-GRASS, PACEY'S PERENNIAL

(*Lolium Perenne Pacey's*)

This variety used in a mixture is an excellent "nurse" grass where a quick turf is desired. It produces a verdant growth four or five weeks after sowing. The leaves are narrow, flat and smooth.

Price, lb. 45c.; 10 lbs. \$4.00; 25 lbs. \$8.50; 100 lbs. \$30.00.

## RYE-GRASS, SVALOF

This is the true improved perennial type of Svalof that is grown in Sweden. It is a low spreading grass.

Price, lb. 50c.; 10 lbs. \$4.00; 25 lbs. \$9.00; 100 lbs. \$35.00.

## ROUGH BLUE GRASS or ROUGH STALKED MEADOW (*Poa trivialis*)

The Lombardy "Queen of Meadow" Grass. An excellent grass for good deep, rich, moist meadows and stiff, heavy clays. It gives a constant supply of highly nutritive herbage.

Price, lb. 90c.; 10 lbs. \$8.50; 25 lbs. \$20.00; 100 lbs. \$75.00.

## SUDAN GRASS (*Sorghum*)

Sudan Grass is strictly an annual, having no underground root-stocks to spread over the ground, which is a point very much in its favor because there is no danger of its getting out of bounds and becoming a pest. It is thoroughly killed by frost each year, and the seed must be sown again. Its great value to the farmer in the eastern part of the country, or in a droughty section is the ease with which it can be grown, and its profitable yields of forage. Sow broadcast for hay or forage using 15 to 20 lbs. per acre.

Price, lb. 30c.; 10 lbs. \$2.25; 25 lbs. \$4.00; 100 lbs. \$15.00.

## SWEET VERNAL (True Perennial)

(*Anthoxanthum odoratum*)

Very valuable on account of its delicious perfume, to which our hay fields and pastures owe their fragrance. The odor is more distinguishable when the grass is drying or dried, and when included in hay its aroma is imparted to the other grasses, making it relished by the stock and enhancing the value of the hay. Sow (if alone) 35 lbs. per acre.

Price, lb. \$2.00.

## TALL MEADOW OAT (*Avena elatior*)

It is a valuable grass in permanent pasture because of the early and rapid growth it makes in the spring; and also because it produces a very thick aftermath after being mown. It is also highly recommended for soiling as it furnishes an abundant and early supply of fodder. It is a hardy grass and will thrive in widely different latitudes. Soils that are sandy in texture, but have enough loam to furnish food for the plants are the best but it also grows well on light, sandy soils. Sow (if alone) 50 lbs. per acre.

Price, lb. 60c.; 10 lbs. \$5.50; 25 lbs. \$12.50; 100 lbs. \$45.00.

## TIMOTHY (*Phleum pratense*)

This luxuriates in moist, loamy soils, and sometimes, in favorable situations, attains a height of 4 feet, and even on light soils it yields fair crops. It is exceedingly nutritious, particularly when ripe, but as it is then very hard and pithy, it is better to cut it soon after flowering. It then makes magnificent hay. Sow (if alone) 25 lbs. per acre.

Price, lb. 25c.; 10 lbs. \$2.00; 25 lbs. \$4.00; 100 lbs. \$12.00.

## WOOD MEADOW (*Poa nemoralis*)

This grass furnishes a fine, succulent and nutritive herbage which is very much relished by cattle. It is splendidly adapted for moist, shady places and should be included in all mixtures for permanent pastures for moist soils. It is particularly valuable for places overshadowed by trees. Sow (if alone) 50 lbs. per acre.

Price, lb. \$1.50; 10 lbs. \$12.50; 25 lbs. \$28.75; 100 lbs. \$100.00.

## YARROW (*Achillea Millefolium*)

It is a deep-rooting perennial and withstands drought. Sow alone, or with grass mixtures.

Price, lb. \$2.50.

Do not omit to sow Clovers with the Grasses, as they add to the yield of hay and pasture, and by their ability to collect nitrogen and store it in the root nodules, are of considerable benefit to subsequent crops.



# CLOVERS Natural Soil Improvers— Unexcelled for Stock Feeding

All Clovers have the power to gather Nitrogen from the air, and store it in the form of nodules on the roots; thereby providing rich food for crops of cereals, etc., which follow. Thus they save the cost of expensive commercial fertilizers, and the labor of loading and spreading farm yard manure. The long roots of Clover penetrate deeply into the soil, improve its drainage, render it more friable, and increase its capacity for holding moisture. When plowed under, Clover crops add humus to the soil, and further improve its mechanical condition.

## Medium Red (Trifolium Pratense) DOMESTIC GROWN

Common or Medium Clover, June Clover

Red Clover according to locality is a biennial or short-lived perennial. It grows one to two feet in height usually makes two crops a year, yielding two to three tons of cured hay per acre. Clover hay is very nutritious; all stock fed on it require less grain; chopped and steamed it is a good substitute for green food for poultry during the winter. As pasturage all animals thrive on it, particularly cattle, sheep and pigs. In Northern States Red Clover seed is usually sown in the spring; the earlier the better. If grown alone, use 12 to 14 pounds of seed per acre if broadcasted and cover not over half an inch deep. Red Clover may be seeded with a number of different grasses as Timothy, Orchard Grass or Tall Oat Grass, but usually it is grown with Timothy, 8 to 10 pounds of Clover and 20 pounds of Timothy seed being sown per acre. A very satisfactory combination is 5 pounds of Red Clover, 5 pounds of Alsike Clover, 20 pounds of Timothy and 5 pounds of Fancy Red Top per acre. This makes a fine quality of merchantable hay and the field does not run out so soon as Clover and Timothy alone.

Price, lb. 60c.; 10 lbs. \$5.50; 25 lbs. \$12.00; 100 lbs. \$40.00.

## Mammoth or PEA VINE (Trifolium RED Pratense perenne) DOMESTIC GROWN

Quite distinct from the common Red Clover, being of larger and coarser growth and valuable for purposes for which the latter is entirely unsuited. It lasts longer and is two or three weeks later than common Red Clover. Of very robust growth, yielding enormous bulk valuable for reclaiming exhausted lands. Sow (if alone) about 12 lbs. per acre.

Price, lb. 65c.; 10 lbs. \$5.75; 25 lbs. \$12.50; 100 lbs. \$45.00.

## Alsike or Hybrid (Trifolium Hybridum) SWEDISH CLOVER

The blossoms are pinkish white. It is a perennial and one of the hardiest of all Clovers, thriving particularly well in cool and cold climates and stands freezing well, but also adapts itself to most climates where Clovers grow, and will grow in moister soil than Red Clover, in fact, has produced splendid crops under irrigation. The plants attain a height of one to two feet; stems and leaves, though smaller than those of Red Clover, are much more numerous, making hay of fine texture.

Alsike frequently produces good crops on soils on which Red Clover will not grow. We strongly advise farmers to add 2 or 3 lbs. per acre to their usual seeding of Red Clover and Timothy. Sow (if alone) 8 lbs. per acre. (See Engraving.)

Price, lb. 60c.; 10 lbs. \$5.50; 25 lbs. \$12.00; 100 lbs. \$35.00.

## Korean (Lespedeza)

This strain is an improvement on the ordinary Japan, ripens earlier, makes a larger growth and a heavy cropper. Sow 15 lbs. per acre.

Price, lb. 35c.; 10 lbs. \$3.00; 25 lbs. \$6.50; 100 lbs. \$22.50.

## Ladino

This type of Clover is used in pasture mixtures with success and is harder than Alfalfa. Can be used as a green feed for poultry.

Sow 8 lbs. per acre.

Price, lb. \$1.75; 10 lbs. \$15.00.



## Crimson or Scarlet (Trifolium Incarnatum)

Plowing under a good crop of Scarlet Clover is equivalent to 20 tons of stable manure per acre and even if the Clover be harvested or pastured, the benefits derived from the wonderful nitrogenous root formation will alone many times repay the cost of seed and labor.

Crimson Clover cut when coming into bloom makes hay richer in protein than Red Clover, and the yield on average soils is two to three tons per acre. It is especially adapted for green forage and silage and is much relished by dairy stock. Cut green before flowers mature.

Crimson Clover should not be fed after the flowers mature for the hairs of the calyx are apt to form "hair balls" in the stomachs of animals.

Sow at the rate of 15 pounds of seed per acre, either broadcast or drilled. Cover lightly with a harrow. In the latitude of New York City sow from July 15 to September 15, and in the South as late as October. Time of flowering is June; height 2 feet.

Price, lb. 35c.; 10 lbs. \$3.00; 25 lbs. \$7.00; 100 lbs. \$24.00.

## White Bokhara (SWEET CLOVER) (Melilotus alba)

A perennial leguminous plant of tall, shrub-like growth, occasionally grown as a forage plant; and often for bees; the numerous small white flowers possess a sweet, honey-like fragrance. The importance of Bokhara Clover, however, is its value for plowing under for green manuring, particularly to prepare poor soils where it is difficult to get other crops to grow. Sow 10 lbs. to acre.

Price, lb. 30c.; 10 lbs. \$2.50; 25 lbs. \$5.00; 100 lbs. \$18.00.

## White (Trifolium repens) DUTCH or HONEYSUCKLE

White clover is a valuable addition to mixtures for permanent pastures, as it furnishes considerable plant food to the other Grasses composing such mixtures.

In mixtures for lawns White Clover is always used, as there is no plant more suitable for the formation of a dense sward, and also to prevent the washing out of soil during heavy rains.

Price, lb. \$1.25; 10 lbs. \$11.50; 25 lbs. \$25.00; 100 lbs. \$90.00.

## Wild White

A dwarf-growing clover which should be added to pasture, helps the grasses by adding nitrogen to the soil, thrives on all soils and is relished by cattle.

Price, lb. \$3.25; 10 lbs. \$30.00.

## Yellow Trefoil

(Medicago Lupulina)  
BIRD'S FOOT CLOVER

This variety of Clover is recommended by some states in mixtures for pasture mixture. A dwarf growing hardy plant; it is a nourishing and beneficial food for all cattle. Sow 8 lbs. per acre.

Price, lb. 50c.; 10 lbs. \$4.00; 25 lbs. \$8.50; 100 lbs. \$30.00.

# ALFALFA or LUCERNE (Medicago Sativa)

Yields Good Crops in All Sections of the United States. Efficient Soil-Enricher and Hay-Producer.

NORTH WESTERN

DOMESTIC GROWN

It needs one season to become established, after which it yields enormous crops annually for many years. 3 or 4 cuttings per season, aggregating 4 to 6 tons cured hay per acre, are harvested, according to conditions and locality. It does well on all good, rich soils (except heavy clay), if well drained, or overlying a permeable subsoil; on calcareous soil it thrives especially well. Alfalfa is one of the best cover crops for orchards. Our strain of seed is grown in far Northern regions, where plants have to endure extreme cold and still thrive in those high altitudes. Our experience—and that of our customers—has shown that such seed is undoubtedly the best for the North and Eastern States. Before offering this seed to our customers for sale, it is thoroughly re-cleaned by the most modern seed cleaning machinery. By this process we separate the sound, perfect seeds from all rubbish and light, imperfect seeds. Sow in the Northern States during June, July or August, 30 to 40 lbs. of seed per acre if broadcasted, 25 to 30 lbs. if drilled. In the South sow in February or September.

Price, purchaser paying transportation, lb. 65c.; 10 lbs. \$6.00; 25 lbs. \$13.00; 100 lbs. \$50.00.

## GRIMM The Hardest Alfalfa Known DOMESTIC GROWN

The attention of the Minnesota experiment station was called to this Alfalfa in 1901 and by careful experimentation Grimm Alfalfa was found to be far superior to common kinds in withstanding unfavorable winters. This strain of Alfalfa seed not only endures extremely low temperatures, but it can be cut with greater safety in the fall, and will bear more abuse in the way of pasturage than any other forage plant. Grimm Alfalfa has larger crowns, and a more spreading root system than the ordinary Alfalfa. It is also claimed that it will yield from ten to fifteen per cent more than any other variety, and will start and thrive in undrained wet locations, where the ordinary sort was tried unsuccessfully. One of the characteristics of the Grimm Alfalfa is that some of the plants produce peculiar greenish-yellow flowers. The seed is high priced and it is rather hard to get the genuine article. Sow 30 lbs. per acre.

Price, purchaser paying transportation, lb. 80c.; 10 lbs. \$7.50; 25 lbs. \$17.50; 100 lbs. \$60.00.

## "Legume Aid" Pays Big Dividends

Inoculation or nitrogen fixation is crop insurance for larger yields of Alfalfa and Clover. Legume Aid contains billions of bacteria living in a base which has sufficient moisture to insure good seed environment for the preservation of the organisms. Offered in dated containers, insuring fresh stock.

Price, 1/2 bu. size, 30c; 1 bu. size, 50c; 2 1/2 bu. size, \$1.00, postpaid. State when ordering if wanted for Alfalfa or Clover.

# FIELD CORN

## Diamond Jubilee Golden Dent

110 Days. Small Cob. 70 Pounds of Ears Produce  
62 Pounds of Shelled Corn.

The ears average ten to fourteen inches in length, are of a beautiful golden-yellow color, and are produced low down on the stalk, the average distance being three and one-half feet from the base of the ear to the ground. The cob is red, small, and firm, and covered with eighteen to twenty-two rows of deep, heavy grain. Seventy pounds of ears will, when dry, shell sixty to sixty-two pounds of corn. The ears are of surpassing uniformity, which accounts for the extra good yield.

Price, qt. 50c.; peck \$1.35; bushel \$4.25; 10 bushel lots @ \$4.15 per bushel.

## Early Golden Orange Dent

A 90 to 100 Day Variety. Long Desired by the Northern Farmer. Ears 8 to 11 Inches Long. 14 to 18 Rows of Kernels.

For a number of years past there has been an insistent demand in the North and East for a really early variety of Golden Dent Field Corn; one that would mature in from 90 to 100 days of corn growing weather.

Early Golden Orange Dent Corn is the most desirably colored corn we have ever seen, and when shelled it makes the prettiest picture ever presented to the eye of the farmer. It is at least ten to fifteen days earlier than any other dent variety, maturing in about ninety to one hundred normal corn days and specially adapted for short seasons of the northern latitudes.

The stalks are about 10 to 12 feet high, very strong and rank. The ears grow eight to eleven inches long and contain 14 to 18 rows of kernels on a red cob. The grains are deep and solid, making it very heavy in grain and a wonderful sheller. Sow 8 to 10 qts. per acre.

Price, qt. 50c.; peck \$1.35; bushel \$4.50; 10 bushel lots @ \$4.40 per bushel.

## Cornell No. 11 Yellow Dent

Matures in 110 Days

This variety has been recommended by institutions in New York State where it has been grown extensively with the best of results, has a long ear and heavy stalk, which give it a valuable place for ensilage.

This type does well in New York, New Jersey and Connecticut.

Price, qt. 60c.; ½ peck 90c.; 1 peck \$1.75; bushel \$5.50.

## Long's Champion Yellow Dent

20 to 24 uniform rows of long, broad kernels

Will mature in the latitude of New York if planted during the first week of May. Early planting is essential, even though there may be some risk of injury by the frost, which could be overcome on emergency by replanting. This King of Corns is without doubt the finest, the largest and the most productive Yellow Dent Corn ever produced, and will be found to be of great value to the farmer, especially in the Corn belt of the Middle and Eastern States, on account of its immense yield, at least 25% and often 50% more than can be obtained from the average old-type Corns generally planted.

It is a luxuriant grower, about 12 to 15 feet high, and in Lebanon County, Pa., has never failed to mature by September 20th when planted the first week of May. Sow 8 to 10 qts. per acre.

Price, qt. 50c.; peck \$1.35; bushel \$4.25; 10 bushel lots @ \$4.15 per bushel.

## LANCASTER SURE CROP YELLOW DENT

Matures in 110 Days

One of the best varieties for cribbing and also silage. The fodder is very tall leafy and withstands drought, develops the ear early, the kernels are long and narrow fills out to the ends and shells out very satisfactorily.

It is a sure cropper and will mature when other dent varieties fail.

Price, qt. 45c.; peck \$1.25; bushel \$4.00.



Lancaster Sure Crop Yellow Dent

## EARLY NORTHERN WHITE DENT

Extraordinarily prolific, a 105 day variety, ripens thoroughly south of Albany and Buffalo. Large ears 10 to 12 inches long, 7 to 8 inches in circumference. Borne 2 to 2½ feet from the ground. Long kernels, small cob. Leafy, luxuriant plant, making fine fodder.

It will ripen in Connecticut, New York State (except in that portion north of Rochester and Troy), and being vastly superior in every respect to the Flint varieties. Sow 8 to 10 qts. per acre.

Price, qt. 50c.; peck \$1.35; bushel \$4.00.

## SEMESAN JR. IMPROVED

Corn-disinfectant. Protects seed against rotting, increases germination, controls blight.

Price, 4 oz., 30c.; 1b., 75c.; 25 lbs., \$12.50.



# FIELD CORN

## Hybrid Varieties

With the introduction of the Hybrid Strains of Field Corn, there has come a distinct advance in agricultural efficiency. Besides possessing distinct disease resistant qualities, they have proven their superiority in out-yielding other standard sorts by as much as from 15 to 30%. Our tests of the varieties which we are offering here, have proven them to be outstanding.

### CORNELL No. 29-3 HYBRID DENT

This variety was developed for ensilage on high elevations, and husking use on lower elevations. It is from inbreds of Cornell 11, Bloody Butcher, Onondaga White Cap, and Luces Favorite.

The kernels lack uniformity of color and range from white to deep red and ripens in 110 days.

Grows tall and somewhat more leafy; matures as early as Cornell No. 11. Has a stronger root system than the open pollinated varieties and therefore, less trouble with lodging. Can be used both for ensilage and husking. This variety has become popular throughout New York State and vicinity during the past few years.

Price, qt. 60c.; ½ peck \$1.25; peck \$2.00; bushel \$6.75.

### U. S. No. 63 HYBRID DENT

95 to 100 Days

This is the earliest of all Hybrid Dent Corn—10 days earlier than Lancaster Sure Crop.

The stalk is medium tall stiff stalked and low eared. The ears are medium sized 16 to 18 rowed and yields are fair in consideration of short season but in most cases is sure to ripen.

Price, qt. 60c.; ½ peck, \$1.00; 1 peck \$1.80; bushel \$6.50.

### U. S. No. 13 HYBRID DENT

Matures in 115 Days

This type is about 10 days later than Lancaster Sure Crop and it is a high yielding variety, medium tall stalks, grain in deep and good for ensilage. Throughout the East this is recommended for best results according to season.

Price, qt. 60c.; ½ peck \$1.00; 1 peck \$1.80; bushel \$6.50.

## Flint Varieties

### EXTRA EARLY YELLOW

It yields 75 to 85 bushels of shelled Corn per acre and can be shelled and ground earlier than any other variety. It is especially adapted to Northern conditions (cool nights and short summers), and under favorable conditions the yield is immense. The ears are eight-rowed, remarkably long, frequently measuring 15 inches and over, of a rich amber color, thickly set with large, broad kernels. The stalks are medium height. In ordinary seasons it will mature in ninety days, and can be shelled and ground for feed earlier than any other large-yielding variety. It is especially valuable in sections where Corn cannot be planted before the middle of June.

It is the earliest maturing corn for northern states.  
Price, qt. 45c.; peck \$1.25; bushel \$3.75; 10 bushels \$3.65 per bushel.

### KING PHILIP

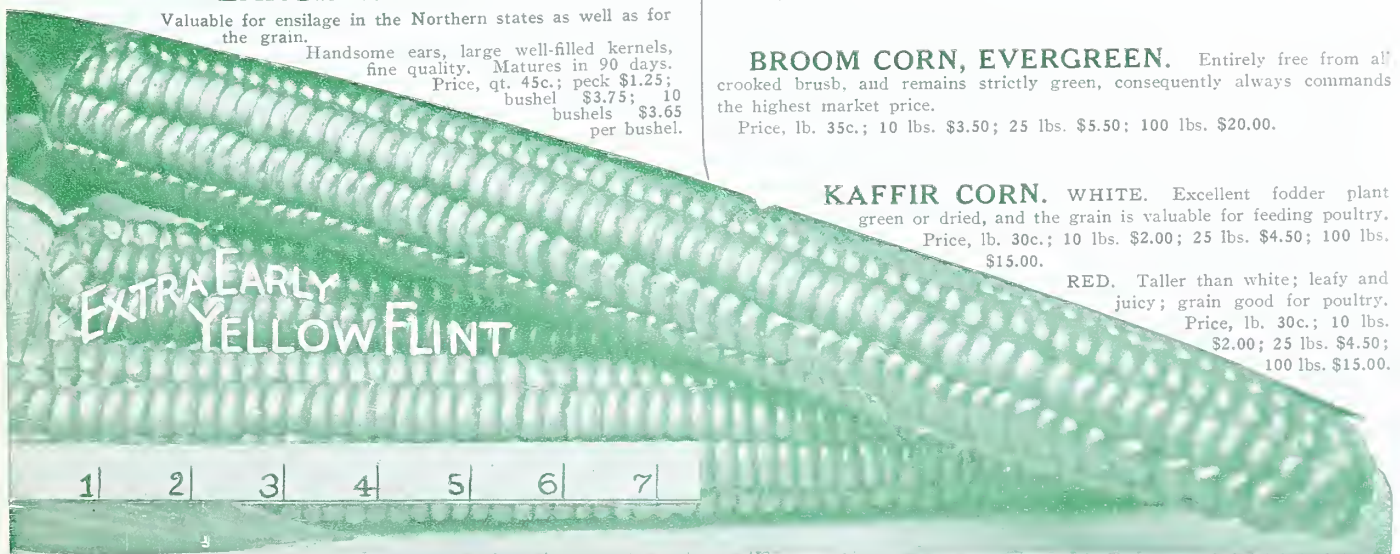
Coppery-red. Very early. Usually matures three months after planting. Ears large sized and handsome. 10 to 12 inches long. Matures in 90 days.  
Price, qt. 45c.; peck \$1.25; bushel \$3.75.

### LARGE WHITE

Valuable for ensilage in the Northern states as well as for the grain.

Handsome ears, large well-filled kernels, fine quality. Matures in 90 days.

Price, qt. 45c.; peck \$1.25; bushel \$3.75; 10 bushels \$3.65 per bushel.



## CORN for FODDER and ENSILAGE

Plant 8 to 10 qts. per acre if in hills.

**SOUTHERN HORSE TOOTH.** Grows to a large size, is very leafy and well adapted for ensilage. Large quantities of this corn are sold by feed and other stores which usually result in disappointment to the farmer. There is no corn seed more difficult to cure or keep properly, and much of it is kiln-dried, while large quantities have been stored in elevators and gone through a sweating process which has destroyed the germ. The stock we offer is carefully selected, sun-dried and of high germination.

Price, qt. 45c.; peck, \$1.25; bushel \$3.75.

**IMPROVED EARLY HORSE TOOTH.** Being nearly two weeks earlier, this variety is better adapted for fodder and ensilage in the Northern States than the ordinary Southern Horse Tooth.

Price, qt. 45c.; peck, \$1.25; bushel \$3.75.

**EVERGREEN SWEET FODDER.** Fodder grown from the Evergreen Sweet Corn is superior in quality to that of the ordinary field varieties, being richer, sweeter and more digestible. The best plan is to sow in rows 24 to 30 inches apart, using one bushel of Corn per acre.

Price, qt. 40c.; peck \$1.10; bushel \$3.50.

## SORGHUMS &c. FOR FEED

**DOURA YELLOW BRANCHING.** (*Yellow Milo Maize*) Earlier than the Rural Branching and of taller growth, often attaining a height of 9 to 12 feet, but it does not stool out quite as much from the ground, although it branches out from the joints.

Price, lb. 30c.; 10 lbs. \$2.00; 25 lbs. \$4.00; 100 lbs. \$15.00.

**SORGHUM or SUGAR CANE.** Of great value for cutting green and feeding green during hot weather in summer, when pastures are apt to be burned up. Being a tropical plant, it makes its best growth during just such weather, and cattle, horses and sheep relish it, and it may be fed to them with safety. Sow in drills, 10 to 12 lbs. per acre; broadcast 20 to 25 lbs. per acre. Should be cut when about 2 feet high, and will yield several such cuttings. Earlier than the Orange and may be grown even in Northern States. Cured in the same way as a heavy crop of Clover, it makes an excellent quality of hay.

**EARLY AMBER.**

Price, lb. 30c.; 10 lbs. \$2.50; 25 lbs. \$5.00; 100 lbs. \$15.00.

**EARLY ORANGE.** Produces a larger and heavier growth than the Amber but is later.

Price, lb. 30c.; 10 lbs. \$2.50; 25 lbs. \$5.00; 100 lbs. \$15.00.

**BROOM CORN, EVERGREEN.** Entirely free from all crooked brush, and remains strictly green, consequently always commands the highest market price.

Price, lb. 35c.; 10 lbs. \$3.50; 25 lbs. \$5.50; 100 lbs. \$20.00.

**KAFFIR CORN. WHITE.** Excellent fodder plant green or dried, and the grain is valuable for feeding poultry.  
Price, lb. 30c.; 10 lbs. \$2.00; 25 lbs. \$4.50; 100 lbs. \$15.00.

**RED.** Taller than white; leafy and juicy; grain good for poultry.  
Price, lb. 30c.; 10 lbs. \$2.00; 25 lbs. \$4.50; 100 lbs. \$15.00.



## OATS SELECTED VARIETIES OF SUPREME QUALITY

*IMPORTANT. A change of Seed Oats is necessary and the seed should be renewed at least every second or third year. Oats grown on the same soil or in the same neighborhood year after year deteriorate rapidly and soon become light, chaffy and unprofitable.*

### CLYDESDALE

#### The Most Popular High-Grade White Oat

Since we introduced this Grand Oat it has steadily and deservedly gained in popularity, until today it is the most popular High-Grade White Oat in the United States. The ultimate financial benefit accruing to the American farmers by the annual distribution of several thousand bushels of Clydesdale Oat cannot be overestimated. These Oats weigh considerably more per measured bushel than any other variety, so that the produce is worth for seed purposes at least double the market value of ordinary Oats. No other Oat can show such a record—75 to 100 bushels per acre, and double the usual quantity of straw. Another most important advantage of Clydesdale Oat to the farmer is the fact that they have been thoroughly cleaned by the latest and most improved machinery, and are absolutely free from weed seeds. (See illustration.) Sow 3 bushels per acre.

Price, purchaser paying transportation charges, per peck, 80c.; per Standard bushel of 32 lbs., \$2.00; 10-bushel lots and upward, per bushel, \$1.90; 100-bushel lots, per bushel, \$1.80.

### LONG'S WHITE TARTAR

#### Vigorous Constitution Immense Yields Very Early

The earliest, heaviest and most prolific domestic-grown Side Oat in cultivation. It is suitable for all soils; of robust and vigorous constitution, is remarkably early and an immense cropper; the straw is long and stout, stands up well and does not readily lodge or twist. The heads measure from 8 to 10½ inches, and the kernels are of immense size, thick, plump and heavy; it is undoubtedly the heaviest cropping domestic white Oat ever offered.

Planted alongside some of the older varieties, it usually yields more than double the number of bushels per acre of any of the other sorts; 100 bushels per acre may be expected of it under good conditions.

Its extreme earliness, great length and strength of straw, thick, plump grains and the heavy yields it is capable of producing give Long's White Tartar all the necessary qualifications which go to make an ideal Oat. Sow 3 bushels per acre. (See illustration.)

Price, peck, 90c.; bushel of 32 lbs. \$2.50; 10-bushel lots, per bushel, \$2.40; 100-bushel lots, per bushel, \$2.30.

#### For Greater Yields Treat All Cereal Seed With New Improved "Ceresan"

To control destructive smuts; improve your yield of OATS, WHEAT and BARLEY. Recommended by N. Y. STATE Colleges.

1 pound treats 32 Bushels. Price, 1 lb., 75c.; 5 lbs., \$3.25.

### STORM KING

This is a side oat. The true white tartarian. The average weight of the grain is 40 lbs. Sow 3 bus. per acre. Price, peck, 90c.; bushel of 32 lbs., \$2.50; 10-bushel lots, per bushel, \$2.40; 100 bushel lots, per bushel, \$2.30.

### CORNELLIAN

Small Gray Oat with a very thin hull which gives a high feeding value. A heavy yielder, especially in New York State. We have a true stock free from impurities. Sow 3 bushels per acre.

Price, peck, 80c; bushel of 32 lbs., \$2.25; 10 bushel lots, per bushel, \$2.20; 100 bushel lots, per bushel, \$2.15.



The Purchaser Pays Transportation Charges on Farm Seeds, Except Where Noted.

## BUCKWHEAT, Japanese

Yields Double Very Early, Makes the Finest Flour

The seed we offer is grown from the largest type imported from Japan and is much larger in grain than that usually offered. The kernels are at least twice the size of any other variety and of a shape peculiar and distinct from all others. The color is also most distinct, being of a rich dark shade of brown. There is always a good market for the grain as it is in demand for all purposes. For bees it is of the greatest value and for this purpose has displaced all other varieties.

An excellent plan is to sow Crimson Clover along with Buckwheat, especially when put in late from middle of July to first of August. They come up together, but the Buckwheat is the stronger grower and the Crimson Clover makes but little showing until the Buckwheat is removed. If frost should kill the Buckwheat before ripe, it may be left as a protection, the dead Buckwheat being just the sort of mulching and protection needed by the Clover. (See engraving.)

Price, lb. 25c.; 10 lbs. \$2.00; 50 lbs. \$3.25; 100 lbs. \$6.00.

## COW PEAS (VIGNA CATIANG)

The Great Leguminous Crop of Our Southern States

Cow Peas are more tender than Canada or Field Peas and should not be sown until Corn-planting time. Cow Peas, being of very rapid growth during the warm weather, can be sown as late as the middle of July with reasonable assurance of a profitable crop, either for harvesting or plowing under.

The early varieties are quite extensively and successfully grown for forage and soiling as far north as Massachusetts, but so far north the crop may not ripen seeds. As a soil renovator and enricher Cow Peas are very valuable, as they collect nitrogen from the air in large quantities and fix it in the soil, thus adding this expensive element of fertilizer to the land without cost, and leaving it richer and in better condition for the future crop. Cow Peas grow on all soils from the stiffest clays to porous sands, barren uplands and alluvial bottoms. The feeding value is high, whether as green forage, cured hay or silage, being especially rich in blood, bone and muscle forming material. Hogs do well pastured on Cow Peas; an acre of ripening Peas will feed and fatten 15 to 20 young hogs; sheep and cattle may also be fed on the green fodder cut and wilted a little, otherwise they eat it so ravenously, they are liable to bloat. For green-manuring clay land, the crop should be turned under green. On sandy soil, already too light, the vines should decay on the surface and then be turned under. Sow 100 lbs. per acre.

**BLACK EYE COW PEAS.** A popular and productive early sort. Very much in demand.

Price, lb. 40c.; 10 lbs. \$2.50; 50 lbs. \$7.50; 100 lbs. \$10.00.

**NEW ERA COW PEAS.** A new, extra-early variety, earlier than the Black Eye, maturing in about 60 days, specially adapted for planting north.

Price, lb. 30c.; 10 lbs. \$2.00; 50 lbs. \$4.50; 100 lbs. \$8.00.

## SOY or SOJA BEANS

A great Soil Enricher, gathering nitrogen from the air. Especially Valuable (in combination with Japanese Millet and Fodder Corn) for Ensilage, supplying the albuminoids or flesh-forming food.

Planted in rows 2½ feet apart, 6 to 8 plants to the foot of row, requiring 50 pounds per acre, they yield 15 to 20 tons per acre of fodder, very rich in flesh formers. For green feed, use from time of blossoming till pods are well filled; for the silo, cut as soon as most of the pods are well filled, and cut into ½-inch to 2½-inch lengths. The Soja Bean is also valuable as a soil enricher, gathering nitrogen from the air same as Clover the roots being crowded with nodules which give them this power. (See engraving.)

**EARLY WILSON BLACK.** This variety has proved its earliness and value in the Northern States by not only producing large fodder crops, but ripening the seed as far north as Massachusetts. The grain is the richest vegetable substance known, and when ground and fed to cattle gives a milk richer and better than if fed other meal.

Price, lb. 30c.; 10 lbs. \$1.75; 50 lbs. \$4.50; 100 lbs. \$7.50.

**MAMMOTH YELLOW.** This variety was developed and has been tested in the East and South with very satisfactory results. Grows well on very poor soils, easily reaching a height of three feet in eight weeks after sowing, in the latitude of New York. This is an excellent variety for green manuring, and will also make good hay and ensilage. Under ordinary growing conditions, the beans will mature well before frost sets in. Plant 50 pounds to the acre.

Price, lb. 30c.; 10 lbs. \$1.75; 50 lbs. \$4.50; 100 lbs. \$7.50.

**MANCHU.** A variety used in the West and South, medium early, seed is yellow with dark eye.

Price, lb. 30c.; 10 lbs. \$2.00; 50 lbs. \$4.50; 100 lbs. \$7.50.

**EDIBLE SOY BEAN EASY COOK.** Edible Soy Beans that can be cooked in half the time of other varieties, used for human consumption in the green stage as well as dried beans.

A heavy yielder and the dried beans are of a straw yellow color.

Price, 1 lb., 40c.; 2 lbs., 75c.; 10 lbs., \$2.50; 50 lbs., \$11.50; 100 lbs., \$20.00.



BUCKWHEAT

## FIELD PEA, Canada White

Peas may be grown for grain, green forage, cured hay or pasture and their feeding value, whichever way used. Ranks high for all farm animals, being rich in muscle, blood and bone forming constituents, therefore of special value for feeding, growing and working animals. Peas are also great soil improvers, putting the land in better mechanical condition and enriching it with nitrogen—the expensive element in fertilizers—which the pea crop gathers from the air and fixes in the soil. For these reasons Field Peas should have a place in the system of crop rotation, particularly on farms where stock is raised, and if the peas can precede some crop that requires an abundance of nitrogen, such as oats, wheat or other grain crop, the most subsequent good will be realized.

In the cool northern belt they may be sown at any time during spring or early summer, but in warmer climates they should be gotten in as early as possible in the spring.

**Quantity Per Acre:** Sow if alone 150 lbs. per acre; if with oats or barley 100 lbs. of Peas and 1 bushel of the other chosen grain.

Price, lb. 30c.; 10 lbs. \$2.00; 50 lbs. \$4.50; 100 lbs. \$8.00.



EARLY WILSON BLACK SOJA BEAN

The Purchaser Pays Transportation Charges on Farm Seeds, Except Where Noted.

## MILLET Selected Varieties

Millets deserve greater recognition on account of their adaptability to various soils. Their chief importance is as dry weather, summer catch crops, and are of great value to succeed crops that fail, such as Corn, etc., or for planting on newly broken land. Also for the Silo and Cutting Green in the Northern and New England States.

### JAPANESE (*Panicum Crus-Galli Major*)

Entirely distinct from any other Millet, grows tall and produces an enormous crop. It grows 6 to 8 feet high, stands remarkably well notwithstanding its great height, and yields from 10 to 12 tons green fodder per acre. When cured it makes an excellent quality of hay, and its feeding value is far superior to Corn fodder, and it is much relished by all kinds of stock, whether green or cured. If to be made into hay, cure as you would a heavy crop of Clover.

This Millet does not endure drought well, except it be sown early in retentive soil, and it is not adapted to the Southern States; but north of Washington, D. C., and especially for good, rich soils, we confidently recommend its general cultivation. It will produce a fair second cutting, if sown early in May, and cut when in blossom. It may be sown from the middle of May to the 1st of July, broadcast, at the rate of 15 lbs. per acre, but it is better to sow in drills, 12 to 18 inches apart, using 10 to 12 lbs. per acre, and hoed between the rows to keep down all weeds until the plant attains a height of 12 to 18 inches, when its rapid growth will smother all weeds.

Price, lb. 25c.; 10 lbs. \$2.00; 25 lbs. \$3.00; 50 lbs. \$4.50; 100 lbs. \$8.00.

### GOLDEN (*Northern Grown*)

This variety is considerably larger than Hungarian and yields a much heavier crop, but is later and not so quick growing, consequently cannot be sown much after the fourth of July in this latitude. To maintain its heavy cropping character, seed of this variety needs to be specially cultivated.

Our seed is specially grown and selected, and will produce nearly double the crop obtained from seed not so grown. Sow 50 lbs. per acre. (See *Illustration*.)

Price, lb. 25c.; 10 lbs. \$2.00; 25 lbs. \$3.00; 50 lbs. \$4.50; 100 lbs. \$8.00.

### HUNGARIAN

Is the quickest of catch crops for hay, and as it may be sown any time during the summer months up to the middle of August, it is invaluable for overcoming a shortage of the regular hay crop, being fairly drought resistant. Sow 50 lbs. per acre.

Price, lb. 25c.; 10 lbs. \$2.00; 25 lbs. \$3.00; 50 lbs. \$4.50; 100 lbs. \$8.00.

### PEARL (*Pennisetum Spicatum*)

This has been cultivated in the Southern States, under the names of African Cane, Egyptian Millet, Cattail Millet and Horse Millet. It grows with tropical luxuriance in strong, loamy soil. Is not so hardy as the other varieties, and succeeds best in latitudes south of New York. Sow in drills, 5 to 6 lbs. per acre; if broadcast, 8 lbs. per acre.

Price, lb. 30c.; 10 lbs. \$2.50; 25 lbs. \$5.50; 50 lbs. \$10.00; 100 lbs. \$18.00.

### BEGGAR WEED (*Desmodium tortuosum*)

A leguminous annual plant growing, according to soils and conditions, 3 to 7 feet high. It is highly esteemed where known in our Southern States as a forage and soil renovating crop.

Price, lb. \$1.25; 10 lbs. \$10.00.



### TRUE DWARF ESSEX RAPE

Provides Perfect Pasture and is greatly Relished by all stock

There are several varieties of Rape, but care should be taken to procure the Dwarf Essex, or English, as it is sometimes called. In Northern states it should be sown from April to end of August for fall pasturing, but as it thrives best in cool weather, it should not be sown in the Southern states until September or October for winter pasture. In the latitude of New York it should be sown in drills or broadcast in April, or in July or August. Its fattening properties are probably twice as good as those of Clover, and for sheep the feeding value of Rape excels all other plants we know of. Sow 4 lbs. per acre broadcast, or 2 to 3 lbs. in drills.

Price, lb. 35c.; 10 lbs. \$3.00; 25 lbs. \$7.00; 100 lbs. \$25.00.

### THE VALUE OF GREEN MANURE CROPS

They make your soil more fertile, and check soil erosion

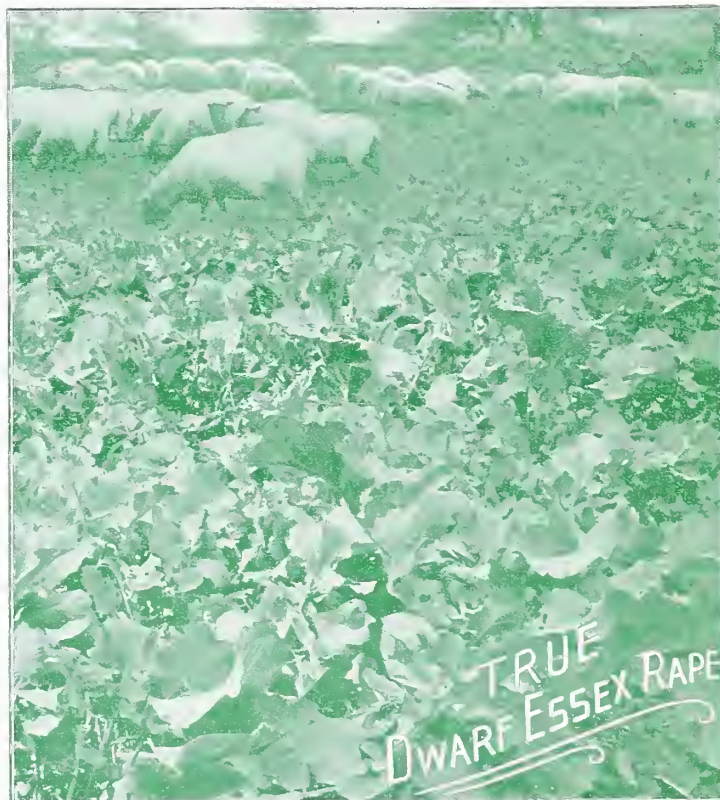
The two most important characteristics of a fertile soil are: An abundance of organic matter or humus, and an abundance of plant food. The latter may be easily supplied from the fertilizer bag, but the former is a much more troublesome problem. Our dairy farms, on which liberal supplies of manure are produced, and on which sods and crop residues are turned under, should have little difficulty in keeping up the organic matter supply of the soil; with the judicious use of fertilizer and lime it would be a comparatively easy matter to maintain crop yields. With other types of farms, however, particularly vegetable and fruit farms, the problem of keeping the soil adequately supplied with organic matter is one which requires considerably more ingenuity and expense.

The most economical and one of the most satisfactory means of maintaining soil fertility, is the use of a green manuring mixture of seed.

### GREEN MANURE, SEED MIXTURE

A combination of various rapid-growing legumes which will add humus and nitrogen to the soil. Plant early in the fall for turning under in the spring. Mixture may be broadcast, or sow at the rate of 1 lb. per 1,000 square feet.

Price, lb. 50c.; 2 lbs. 90c.; 5 lbs. \$2.00; 10 lbs. \$3.75; 25 lbs. \$8.00; 50 lbs. \$16.00; 100 lbs. \$30.00; transportation paid.



The Purchaser Pays Transportation Charges on Farm Seeds, Except Where Noted.



**MAMMOTH RUSSIAN SUNFLOWER**

Highly valued as an excellent and cheap food for fowl. It is the best Egg-Producing Food known. It can be raised cheaper than Corn. Four pounds of seed will plant one acre.

Price, lb. 30c.; 10 lbs. \$2.50; 25 lbs. \$4.50; 100 lbs. \$16.00.

**SHALLU or EGYPTIAN WHEAT**

Heads are similar to Broom Corn, very large yields of grain and fodder. Excellent feed for Cattle, Chickens, etc. Sow 5 lbs. per acre.

Price, lb. 30c.; 10 lbs. \$2.75; 25 lbs. \$5.00; 100 lbs. \$18.00.

**TEOSINTE**

(*Reana Luxurians*)

The plant resembles Corn, but is more leafy and tillers enormously. After cutting it grows again with remarkable rapidity. Those having only a small amount of land on which it is desired to produce the maximum amount of forage should sow Teosinte. Plant in drills, 6 to 8 lbs. per acre.

Price, lb. \$1.25; 10 lbs. \$10.00.

**SEED OF HIGH GRADE TOBACCO**

One Ounce Will Sow 50 Square Yards

Tobacco is an annual in the United States although perennial in the tropics. Botanically it is related to the Tomato and Eggplant, and therefore sensitive to frost. Still it is successfully cultivated as far north as Canada, as it requires but a short season to grow to maturity. The quality of the product depends almost entirely upon the nature of the soil and climate, and highly congenial soils may exist in any section. The suitability of soils in Connecticut, now a great center of Tobacco production, was only discovered by experimentation.

Below we offer some of the new and improved varieties as well as standard sorts.

Primus. The earliest of all; succeeds well even as far north as Canada. Pkt. 15c.; oz. 75c.

Zimmer's Spanish. The earliest and best American-Spanish, and a favorite cigar variety. Pkt. 15c.; oz. 90c.

Havana, Imported.....	Pkt. 15c.; oz. \$1.50
Havana, Domestic.....	Pkt. 15c.; oz. 75c.
Connecticut .....	Pkt. 15c.; oz. 75c.
Kentucky .....	Pkt. 15c.; oz. 75c.
Virginia .....	Pkt. 15c.; oz. 75c.

**FARMERS ARE URGED TO PLANT COVER CROPS TO PREVENT SOIL EROSION**

During a recent interview given to a representative of the New York Herald Tribune, Dr. Linwood L. Lee, State Coordinator of the Federal Soil Conservation Service, urged farmers to get their fields under vegetative cover before the end of the growing season, explaining that winter winds rank with insects and disease as among the farmers' worst enemies. Dr. Lee emphasized his warning by referring to a severe gale that swept South Jersey last winter, carrying off as much as sixty tons of topsoil per acre from unprotected fields.

Although wind erosion is more common on the light, sandy coastal plain, farms in rolling country must be protected from erosion by rain and melting snow, which constantly are at work carrying off valuable soil and plant food from sloping fields.

Close-growing crops planted after harvest and left until spring are known as winter cover crop, Dr. Lee explained, calling them the best protection against erosion. Their roots serve to bind the soil while their tops prevent the direct action of these erosive agents upon the soil. Cover crops also enrich the soil when they are plowed under in the spring, he added.

"The use of winter cover crops is spreading rapidly among progressive farmers, but many still leave their fields exposed through the winter, while others plant cover crops only to plow them under in December or January," Dr. Lee said.

The report noted that severe blowing of soil was observed from Monmouth County south during the February 28 storm and motorists near Deerfield, in Salem County, were compelled to turn on headlights in midday as they drove through the dust-laden air. Wind velocities up to fifty-seven miles an hour were reported.

Among crops which may be planted for winter protection, Dr. Lee said, were wheat and rye. Wheat, he said, is preferable on heavier soils and rye on lighter. Both may be planted in mixture with hairy vetch, a legume which will add nitrogen to the soil when plowed under in spring.

**VETCH, SAND or WINTER (*Vicia villosa*)**

The Best Legume for Sandy Soils

It is the earliest crop for cutting, and a full crop can be taken off the land in time for planting spring crops. Being much harder than Scarlet Clover, this is the forage plant to sow in the Northern States, where Scarlet Clover winter kills, though it is equally valuable in the South. Every dairyman and stock breeder in the United States should have a field of Winter Vetch.

Although Sand Vetch succeeds, and even produces good crops on poor, sandy soils, it is, naturally, more vigorous on better land. Under such conditions the plant produces numerous branches 3 to 6 feet long. Both leaves and branches are covered with fine hairs, hence it is sometimes called "Hairy Vetch." Sand Vetch is hardy all over the United States, and in most places remains green all winter. The crop may be sowed, either from the middle of August to the middle of September, or in the spring from the middle of April to the middle of May.

Sown in the fall it should be mixed with Mammoth Red Clover or Rye to serve as a support for the vines, thus keeping the forage off the ground.

If sown in the spring it may be mixed with Oats or Barley. Fall sown crops furnish some forage before winter comes, and as growth starts very early in the spring it can be pastured, cut for hay, or turned under to renovate the soil.

The foremost orchardists highly recommend Sand Vetch as a cover crop. Soluble plant food in porous soils leaches away in considerable amounts during the late fall and the early spring, when the roots of trees are not actively foraging for it. (*See engraving.*)

Sow 60 pounds per acre, with one-half bushel of Rye or Wheat.  
Price, lb. 35c.; 10 lbs. \$3.00; 25 lbs. \$7.00; 100 lbs. \$20.00.

**SPRING VETCHES or TARES (*Vicia sativa*)**

A species of the Pea, grown for stock, and often mixed with Oats for soiling. Sown broadcast at the rate of 100 to 150 pounds per acre.  
Price, lb. 35c.; 10 lbs. \$3.00; 25 lbs. \$5.00; 100 lbs. \$18.00.



**SUPERIOR SEED WHEAT.** *It is grown especially for seed purposes from the choicest selected cross-bred and pedigreed strains, and re-cleaned at our warehouses (750,000 bushels capacity) which are equipped with modern seed-cleaning machinery. This enables us to supply direct to the farmer plump and heavy seed, at lowest possible prices, when quality is considered. The variety offered is the best of the Spring Wheats, yield well, and the milling qualities of the grain surpasses even the best of the Winter varieties. Spring Wheat is also a satisfactory crop to sow along with Grass seed.*

*The prices herein named are those ruling at this date (March, 1941) for the crop of 1940, but they are subject to market fluctuations. Delivery, f. o. b. New York, bags extra. Special quotations to large buyers.*

*Sow 1½ Bushels per acre*

## MARQUIS—Spring Wheat

*The Earliest                      The Most Productive*  
*The Highest in Quality*

This famous variety is of Canadian origin and was bred by crossing, Red Fife and Hard Calcutta, and acclimated Wheat from India. It retains the frost-resisting qualities of Red Fife and also the extreme earliness of Hard Calcutta. Marquis Wheat is almost ten days earlier than any other variety and matures—as several farmers put it—in time to avoid rust, smut, or drought. As to productiveness many growers report 52 and more bushels per acre, but a five year average at Brandon Experiment Station was found to be 44 bushels per acre. Milling tests show that this Wheat contains a greater quantity of gluten, is a better color, shows greater absorption, and is heavier in weight per bushel than any other Spring Wheat. Our stock was raised in the far north, and is early, hardy and productive. We strongly recommend our customers to try Marquis Wheat this year. (See engraving.)

Price, peck \$1.25; bushel (60 lbs.) \$4.00; 10 bushel lots, \$3.90.

## RYE—WINTER

*Sow 1½ bushels per acre*

### ROSEN

A remarkably heavy cropping Rye, having in fair tests outyielded many other varieties both in straw and grain. The heads average six inches in length and are filled from end to end with plump medium-sized grains. Price, qt. 30c.; ½ peck 60c.; peck \$1.00; bushel \$3.50.

### GIANT WINTER

The variety most commonly cultivated, whether sown for grain, straw or cutting green is a good yielder. Price, qt. 30c.; ½ peck 50c.; peck 90c.; bushel \$2.50.

### WINTER

Grown for green manuring and putting the soil in a loamy condition, also for green early fodder. Price, qt. 30c.; ½ peck 50c.; peck 80c.; bushel \$2.50.

### SELECTED SPRING RYE

A variety produced by planting Winter Rye in the spring for several years, and selecting the seed until the type is fixed. It is an excellent "catch-crop" where full-sown grain has been winter-killed, and also for fodder.

Price, peck \$1.10; bushel (56 lbs.) \$3.50; 10 bushel lots \$3.40 per bu.

## BARLEY—BEARDED

Should be grown more than it is. The straw makes excellent rough feed for all kinds of stock. It is also one of the best grains with which to sow down to grass in spring. Barley meal is also a good food for all domestic animals and nearly equals Corn in feeding value. To produce large crops of Barley, the soil should be well prepared to receive the seed. It should be made fine, firm and fertile.

Barley is a good crop to follow Corn grown on Clover sod, as the land is then in prime condition. Harrow and roll well after seeding. The crop should be harvested before it is too ripe, if a bright white berry is wanted. Sow 2½ bushels per acre broadcast and 1½ to 2 bushels per acre if drilled.

**ALPHA.** A two-rowed variety heavy cropper, used extensively in Eastern States with success.

Price, peck \$1.00; bushel (48 lbs.) \$3.25; 10 bushels \$3.15 per bushel.

**ODERBRUCKER.** This is a stiff-strawed, heavy yielding, six-rowed, bearded variety, plump kernels.

It has nearly double the amount of protein found in many other varieties; this makes it a valuable feeding Barley, which is an important consideration with the leading farmers who are now appreciating more and more the value of Barley as a feed for all kinds of stock, horses as well as cattle. (See engraving.)

Price, peck \$1.00; bushel (48 lbs.) \$3.25; 10 bushel lots per bushel \$3.15.

## 2% CERESAN IMPROVED

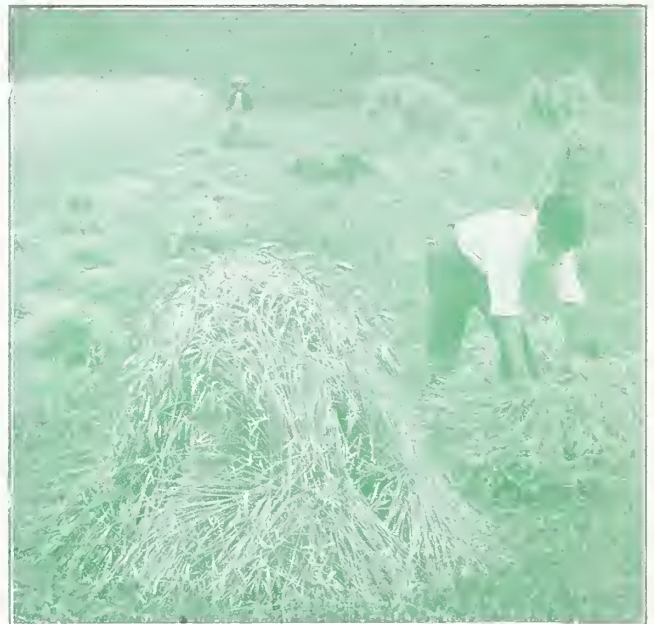
Cereal disinfectant. Controls smut and seed-borne scab. Price, lb., 70c.; 5 lbs., \$3.00; 25 lbs., \$13.25.



## SUPERIOR WINTER SEED WHEATS

For illustrations and descriptions of varieties of Winter Wheat see "Henderson's Fall Wheat Circular" issued in July. We offer the leading varieties.

We can also take orders now for delivery from the harvest of 1941 at prices ruling at time of shipment.



Harvesting a Field of Odebrucker Barley

# ROOT CROPS

## MANGEL WURZEL or STOCK BEETS

Mangels are the most important of all root crops for feeding and form the best winter feed for cattle and hogs. They increase the flow of milk when fed to milch cows and yield enormous crops, as much as 50 tons having been grown on one acre. They may be grown in any part of the American continent on fairly good farm land; all that is necessary is good cultivation. The best soil for Mangels is loose, friable loam and deep plowing. Follow the plow with a subsoil plow, and the crop will more than repay the extra trouble. The soil should be well enriched, and the seed sown in May in drills 24 inches apart in light soils, and 30 inches apart in strong, rich land; thin out the plants with a hoe to 9 inches apart in the former and 12 inches apart in the latter. 6 to 8 lbs. of seed are used per acre if sown with a drill, or double that quantity by hand. Cultivate with a horse hoe.

**COLOSSAL LONG RED.** This is a distinctly fine breed of this popular Mangel. The roots are smooth and regular, of the largest size and blood-red color. The quality is exceedingly nutritious, and in all respects this variety is most distinct and valuable. (See engraving.)

Price,  $\frac{1}{4}$  lb. 45c.; lb. \$1.00; 10 lbs. \$9.50.

**GOLDEN TANKARD.** The roots are handsome in shape with deep orange colored skin. The flesh is bright golden-yellow, and in this respect differs from most other varieties, which cut white. Sheep have a preference for this sort over other Mangels; it is said that they will pick out every piece of Golden Tankard before touching others. It yields under the best cultivation 75 tons per acre.

Price,  $\frac{1}{4}$  lb. 45c.; lb. \$1.00; 10 lbs. \$9.50.

**DANISH SLUDSTRUP.** Highly recommended by the Danish Government. Awarded first-class certificate. Color reddish-yellow of Giant Intermediate type. It has great feeding value.

Price,  $\frac{1}{4}$  lb. 45c.; lb. \$1.00; 10 lbs. \$9.50.

**NEW HALF SUGAR MANGEL.** This is distinctly a new variety of Mangel, and is the result of careful interbreeding between White Sugar Beet and Colossal Long Red Mangel. It certainly approaches nearer to a Sugar Beet than any other known variety of Mangel, and by analysis it has been shown that it is very rich in saccharine matter.

Half Sugar Red, Price,  $\frac{1}{4}$  lb. 45c.; lb. \$1.00; 10 lbs. \$9.50.

## SUGAR BEETS

**VILMORIN'S IMPROVED WHITE.** A greatly improved variety of Sugar Beet, obtained by over 20 years' continued and systematic selection. The proportion of sugar in the roots, under ordinary circumstances, amounts to 18 to 20 per cent, while in other varieties the usual average is 12 to 15 per cent. Has yielded 30 tons and over per acre, and is unequalled for feeding cows and young stock.

Price,  $\frac{1}{4}$  lb. 45c.; lb. \$1.00; 10 lbs. \$9.50.

## SEED POTATOES

### NORTHERN GROWN ESPECIALLY FOR SEEDING

Prices of potatoes are subject to change without notice—(1 peck will plant about 125 hills; 10 to 12 bushels per acre, in drills 3 feet apart.) Purchaser pays freight or express charges and assumes risk from freezing or heating. The sack is 165 lbs. net weight or 2 $\frac{3}{4}$  bushels.

**BOVEE.** The popular extra-early. Delicious, appetizing new potatoes can be produced earlier with BOVEE than any other. It is not only early, but produces its crop in great abundance and yields a very large percentage of perfectly formed tubers.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**CHIPPEWA.** A new variety and it is a heavy yielder of medium size, very uniform round to oblong, eyes shallow, skin smooth.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**IRISH COBBLER.** A fine early variety, producing large handsome tubers, uniform in shape and size. The flesh is white, and of excellent quality, the skin very light brown with whitish netting. It is a heavy cropper.

Price, peck 90c.; bushel \$2.75; sack \$5.50.

**EARLY OHIO.** Very early, almost round; flesh solid, cooks dry and mealy.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**SPAULDING ROSE NO. 4.** Handsome red tuber, somewhat flat, a little later than the regular Early Rose but usually a better yielder. Fit to cook when large enough to dig.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**EARLY ROSE.** The popular standard early, noted for earliness, productiveness and fine quality.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**SIR WALTER RALEIGH.** A grand, main crop Potato, shape very uniform, large and oval; flesh fine-grained, snow-white, cooking dry and floury, splendid keeper.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**UNCLE SAM.** On a loam or sandy soil it is a wonder in yield and quality. Its handsome appearance and perfect form always ensure a fancy price on the market.

Price, peck \$1.00; bushel \$3.25; sack \$6.50.

**IMPROVED GREEN MOUNTAIN.** A reliable medium late Potato which is rapidly increasing in popularity—in fact, in some sections it has superseded all other main crop varieties. It yields big crops of large, smooth, white skinned tubers of handsome flattish oval form. It keeps well, and is not liable to scab or decay.

Price, peck 90c.; bushel \$2.75; sack \$5.50.

## FIELD CARROTS

### for Stock Feeding

#### LONG ORANGE IMPROVED

Of large size, fair specimens averaging 12 inches in length, with a diameter of 3 inches at the top. Color, orange-red. Fed to milch cows it imparts to the butter a delicious flavor and rich golden color. Price,  $\frac{1}{4}$  lb. 60c.; lb. \$1.50.

**DANVERS.** A handsome, cylindrical-shaped Carrot of good size and stump-rooted. Under the best cultivation it has yielded from 25 to 30 tons per acre. Price,  $\frac{1}{4}$  lb. 80c.; lb. \$2.25.

## RUTA BAGA Swedish or Russian Turnip

These grow very rapidly, and yield from twenty to twenty-five tons per acre, in good, rich, deep soil, with proper cultivation. The Ruta Bagas proper should be sown in this latitude from May 25th to June 25th. Sow 2 to 3 lbs. per acre.

**LONG ISLAND IMPROVED PURPLE-TOP.** This is undoubtedly the finest variety of purple-top Ruta Baga, and originated with one of our Long Island growers. It is twice the size of ordinary American stocks, and although size is usually gotten at the expense of quality, the quality is superior to any that we have tested. It is perfectly hardy. In a fair test on several Long Island farms, alongside some of the best European and American varieties, it produced almost twice the weight per acre of any other variety. As a winter food for live stock the Ruta Baga has a wide range of adaptation, and is found at its best where the weather is moist and cool.

Price, lb. \$1.25.

**IMPROVED AMERICAN (PURPLE-TOP).** An old leading variety; very hardy and productive; flesh yellow, solid, sweet and fine-flavored, equally good for stock or table use.

Price, lb. \$1.25.

## TURNIP—White Fleshed

### Specially Adapted for Stock Feeding

**PURPLE-TOP WHITE GLOBE.** One of the best varieties grown; thick globe-shape, of large size, rapid growth, fine quality and a heavy cropper. It keeps well, and is unequalled for stock feeding.

Price,  $\frac{1}{4}$  lb. 45c.; lb. \$1.00.



# Sow The "Henderson" Lawn Grass Seed

and Obtain a Grassy Carpet of Unrivalled Emerald Green

IN FOUR WEEKS FROM SOWING IT IS READY FOR MOWING

The "Henderson" lawn grass seed mixture has been thoroughly tested by country-wide use for more than half a century. It is the fruit of years of experience and close study of American conditions and is undoubtedly the best for the American climate. By its use a deep green, velvety sward, free from clumps, can be produced in from four to six weeks' time.

The "Henderson" LAWN GRASS SEED is a carefully arranged combination of fine-leaved, dwarf Grasses, which are at their best during different months of the year, thus keeping a lawn constantly covered with enduring green. It is impossible to make an enduring lawn by sowing seed of a single variety, which will only grow vigorously for a portion of the year. Kentucky Blue Grass, for instance, which is sometimes

exclusively recommended for lawns, requires two years to form a close sward, and also loses color in hot weather.

## AMOUNT OF SEED REQUIRED FOR LAWNS

Size of Plot	Square Feet	Quantity
10 x 20	200	1 lb.
20 x 50	1,000	5 lbs.
20 x 100	2,000	10 lbs.
40 x 100	5,000	25 lbs.
200 x 200	40,000	100 to 150 lbs.

For renovating Old Lawns use Half the Above Quantities

## PRICE OF THE "HENDERSON" LAWN SEED

Half-lb., 30c.; lb., 55c.; 3 lbs., \$1.60; 5 lbs., \$2.60; 10 lbs., \$5.00; 25 lbs., \$12.00; 100 lbs., \$45.00.

## Our Special Mixtures for Special Purposes—There is

**Special Bent Mixture**—Lawns made with this mixture will rival the finest golf course putting greens. Sow one pound to 200 square feet.

Prices: Half-lb., 50c.; lb., 90c.; 5 lbs., \$4.25; 10 lbs., \$8.25; 25 lbs., \$20.00; 100 lbs., \$75.00.

**Terrace Sod**—A mixture best suited for terraces, embankments and hillsides. It produces long spreading roots.

Prices: Half-lb., 40c.; lb., 75c.; 3 lbs., \$2.20; 5 lbs., \$3.50; 10 lbs., \$6.50; 25 lbs., \$16.00; 100 lbs., \$60.00.

**Sunny South**—For use in the South or any hot, dry situation, where grasses do not usually thrive.

Prices: Half-lb., 40c.; lb., 75c.; 3 lbs., \$2.20; 5 lbs., \$3.50; 10 lbs., \$6.50; 25 lbs., \$16.00; 100 lbs., \$60.00.

We Pay Transportation Charges on All Grass Seeds

# Henderson's Superior Fertilizers

(Prices are subject to change without notice.)

**SPECIAL NOTICE**—Items offered transportation paid are prepaid by us within first and second zones (150 miles of New York City), mail, express or freight, at our option. Beyond these zones, purchaser pays transportation charges.

**ADCO**—Dry leaves mixed with Adco and kept moist, turn into excellent manure. So do flower stalks, vines, and almost any other kind of non-woody vegetable waste.

25 lb. bag enough for 12 wheelbarrow loads of garden waste, making ½ ton of manure. 150-lb. bag, enough for a heap 10 ft x 10 ft x 6 ft., making about 3 tons of manure.

See special notice above regarding prepayment.

Price, 7½ lbs., \$1.00; 25 lb. bag, \$2.25; 150 lb. bag, \$10.50.

**BLOOD AND BONE**—Henderson's Formula for Grasslands. The high nitrogenous and phosphoric content of this absolutely safe fertilizer gives it exceptional value for garden crops, root crops, corn, grain, small fruits, grape vines, etc., and all grasslands.

Quantity required. When broadcasted and harrowed in, use from ½ to 1 ton per acre. For garden crops drill in 300 to 500 lbs. per acre.

Price, per 100 lb. bag, \$5.00. Larger quantities, price on application. See special notice above regarding prepayment.

**BONE MEAL**—Henderson's. This is ground fine, decomposes more rapidly in the soil than the coarser grades, and is therefore more quickly beneficial.

Quantity required. For pasture and mowing lands, 10 lbs. to 200 sq. ft. or ½ to 1 ton per acre. For field and garden crops, ½ to 1 ton broadcast and harrowed in.

Price, 5 lbs., 55c.; 10 lbs., \$1.00; 25 lb. bag \$1.65; 50 lb. bag \$2.75; 100 lb. bag \$4.50; per ton \$70.00. See special notice above regarding prepayment.

**GARDEN FERTILIZER**—Henderson's.

Easily applied, either before or after planting, by sprinkling over the surface of the soil and raking in; or it can be mixed with water (stirring well) and applied as a liquid manure. Apply 1000 to 1500 lbs. per acre.

Price, 5 lb. package, 55c.; 10 lb. package, \$1.00; 25 lb. bag, \$1.75; 50 lb. bag, \$3.00; 100 lb. bag, \$4.50; per ton, \$70.00. See special notice above regarding prepayment.

**PULVERIZED HUMUS**. This Humus is not a chemical fertilizer and can be used in any quantity. It is sold as Nature produced it.

Price, 100 lbs., \$2.50; per ton 2,000 lbs., \$30.00. Larger quantities, price on application. See special notice above regarding prepayment.

**LIME HYDRATED**—Finely Pulverized. It is indispensable for correcting acid soils, improving the mechanical condition of the soil, for grass, farm crops, etc.

Broadcast 10 lbs. to 100 square feet or 1 ton to the acre.

Price, 5 lbs., 35c.; 10 lbs., 60c.; 25 lbs., \$1.25; 50 lbs., \$2.00; 100 lbs., \$2.75; 500 lbs., \$9.50. See special notice above regarding prepayment. Larger quantities, price on application.

**SULPHATE OF AMMONIA (Dry)**. Is particularly desirable for grasslands, or pasture grasses. It is also freely used for grains and market crops. Orchardists use it for stimulating fruit crops. Being readily soluble, it is quickly available.

Price, 5 lbs., 60c.; 10 lbs., \$1.00; 25 lbs., \$2.00; 50 lbs., \$3.50; 100 lbs., \$6.00. See special notice above regarding prepayment. Prices on larger quantities quoted on request.

**SHEEP MANURE—PULVERIZED**. Wizard Brand. Convenient, compact, high-grade natural manure dried and ground or pulverized, immediate and lasting effect. Makes rich Liquid Manure.

Price, Pulverized Sheep Manure, in packages, 5 lbs., 50c.; 10 lbs., 90c.; 25 lb. bag, \$1.50; 50 lb. bag, \$2.75; 100 lb. bag, \$4.00. Larger quantities, price on application. See special notice above regarding prepayment.

Quantity required. For gardens and field crops, 1 to 2 tons per acre—½ before plowing, the balance before harrowing. For top dressing grass, use 1 ton per acre, applied in fall or early spring.

**LEGUME CULTURE**—High-Bred Nitrogen Gathering Bacteria for Seed Inoculation.

Insures quicker catch, better crops, better soils.

You cannot afford NOT to inoculate your legume seed at these low prices:

**INOCULATE Lupins, Clovers, Alfalfa, with LEGUME CULTURE.**

The inexpensive crop insurance. Prices, ½ bu. size, 30c.; 1 bu., 50c.; 2½ bu., \$1.00.

Also supplied for Soybeans, Cowpeas, Vetch, Field Peas and Beans. Prices, bu. size, 30c.; 2 bu., 50c.; 5 bu., \$1.00.

**SPECIAL GARDEN SIZE** for Peas, Beans and Sweet Peas, 25c. Simple to use; full directions with each package. Transportation paid.

PETER HENDERSON & CO., 35 Cortlandt Street, NEW YORK, N. Y.



