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# PORTLAND SEED CO.

"DIAMOND QUALITY"  
TESTED

## SEEDS

ANNUAL

**CATALOG**

# 1918



*Pencil Pod*

BLACK WAX  
THE BEST BEAN FOR  
TABLE OR CANNING

PACKET 10c. POST PAID



TRADE

MARK



**SERVICE**— In our various departments from fifty to one hundred competent men and women are actively engaged in serving our customers. Among these are practical experts, specially fitted by training and experience to confer with you on any subject pertaining to our business. Their suggestions or recommendations incur no obligation on your part and may save you needless expense and disappointment. *You should take advantage of this service.*

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

**OWNING OUR GROUNDS AND BUILDINGS** in the business center of Portland—with our house tracks easily accessible to all railroads—places us in the most advantageous position to render prompt, efficient and economical service.



PORTLAND, OREGON

# PORTLAND SEED COMPANY'S COMPLETE SEED ANNUAL

FOR 1918



**F**OR 1918 we offer the standard varieties that are most satisfactory and profitable to the growers in our territory. We do not speculate in novelties but encourage the selection and improvement of varieties of known commercial value.

**The World-Wide Necessity** for increased food production is imperative and it is our duty to produce everything possible to maintain our home supply and thus release staple foods for our Armies and for export.

**Prices**—It is no longer a question of prices in the seed trade but the problem is to secure reliable stock. This we will continue to supply as long as available, at the lowest prices consistent with quality but the prices will necessarily vary with the supply and demand.

**Home Gardens**—Carefully plan and plant your home garden, choosing varieties that are known for their food value and productiveness. Systematically arrange the rotation to give you the greatest yield throughout the season and not impoverish your soil. A small space will thus produce a big supply of delicious fresh vegetables of a quality that you can seldom buy and will greatly reduce your living expenses.

**Poultry and Bees**—Everyone having a yard where poultry can be kept should raise chickens to keep up the meat supply. **Bees** are easily cared for, are necessary for the pollination of fruit, and honey is the most delicious and satisfactory substitute for sugar. *Keep Bees.*

**We Can Help You**—Our suggestions may save you much unnecessary expense and loss of time and enable you to secure better results—a service that is free to you.

PORTLAND SEED COMPANY

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## WHEN AND HOW TO ORDER

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

**USE OUR ORDER BLANKS**—Fill out the spaces, giving postoffice and shipping point. It is best not to write letters on the same sheet as your order. **Do not forget to sign your name.**

**SEEDS BY MAIL** are postpaid in lots of one pound or less of a variety—unless otherwise stated. See parcel post rates for larger lots.

**LARGE ORDERS**—Any dealer, market gardener, institution or individual wishing seed in large quantities, is requested to mail us a list of what is wanted, and we will promptly return it with the very lowest market prices. A letter of inquiry may save you dollars if you want to buy in quantity.

**USE MONEY-ORDERS, POSTOFFICE OR EXPRESS, Bank Drafts or Registered Letters.** DO NOT send personal checks, as your order may be delayed for their collection or identification. Stamps will be accepted on small orders.

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

**BY FREIGHT OR EXPRESS**—In ordering vegetable or flower seeds to be sent by freight or express at your expense, deduct postage from single pound postpaid prices.

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

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

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




# VEGETABLE SEEDS

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



## General Notes on Planting and Culture

**W**E have marked those varieties that **mature early** with this little Diamond,  our trade-mark. This will aid you in the selections for your home garden.

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

**If you live in the Willamette Valley or Southern Oregon** you can plant almost anything as early as the condition of the soil will permit.

**Do not work the soil when it is wet**, as this has a tendency to make it lump and bake and may put it in such shape that nothing can thrive in it. Wait until it is just dry enough to crumble away nicely when turned over, and if you will press the dirt firmly down on the seeds, getting right in the row and tramping the soil down with your feet—they will germinate quickly even in comparatively dry soil. Any extra work in carefully preparing the soil will more than repay you in the increased results, and always remember that constant and thorough cultivation is almost equal to water and fertilizer both, and will insure a good crop even in a dry season, and on ordinary soil.

**New land must be thoroughly broken up and cultivated** in order to kill out the wild nature, as new ground in the wooded sections of the Pacific Coast rarely produces bountiful crops the first few seasons without careful culture, fertilizing and rotation.

**It pays to fertilize** and cultivate to supply ready plant foods to the growing crops, as many years of accumulation of Fir and Pine needles will sour the ground, and until they rot and decay are detrimental to crop growth, but if properly worked and fertilized, good and profitable crops can be harvested from the beginning.

**Plan your plantings** and keep a garden book or record of some sort, for by so doing you will get the utmost pleasure and profit from your garden and as the seasons pass you will find this record an invaluable aid and reference work. For if you keep a record you will soon learn what varieties are best for your requirements and to know your favorites, and when buying seeds or plants you will know just what to order.

**If you are in doubt** about what you should do, or want any special information, be sure to write to us. We will be pleased to give your inquiries our careful attention, and advise you to the full extent of our knowledge.



# DIAMOND QUALITY SEEDS

## Are Tested Seeds

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

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

### You Can Protect Yourself

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



## REFERENCE TABLES

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

	Quantity per acre.
Artichoke, 1 oz. to 500 plants.....	6 oz.
Artichokes—White French.....	8 bu.
Asparagus, 1 oz. to 800 plants.....	1 lb.
Asparagus Roots.....	7500
Barley.....	2 to 2½ bu.
Beans, dwarf, 1 lb. to 100 ft. of drill 1 bu.	
Pole, 1 lb. to 100 hills.....	½ bu.
Beet, Garden, 1 oz. to 100 ft. drill 6 to 7 lbs.	
Mangel, 1 oz. to 100 ft. of drill.....	5 lbs.
Broccoli, 1 oz. to 2,000 plants.....	4 oz.
Brussel Sprouts, 1 oz. to 2000 plants	4 oz.
Broom Corn, in Drills.....	15 lbs.
Buckwheat.....	½ to 1 bu.
Cabbage, 1 oz. to 2,000 plants.....	4 oz.
Carrot, ½ oz. to 100 ft. drill.....	3 lbs.
Cauliflower, 1 oz. to 3,000 plants. 3 to 4 oz.	
Celery, 1 oz. to 5,000 plants.....	4 oz.
Cheat.....	2 bu.
Chicory.....	4 lbs.
Clover, Alsike and White.....	8 to 10 lbs.
Alfalfa.....	15 to 20 lbs.
Crimson Trefoil.....	10 to 15 lbs.
Red.....	10 to 15 lbs.
Collards, 1 oz. to 2,000 plants.....	4 oz.
Corn, Pop (shelled).....	8 to 10 lbs.
Sweet or Field, hills.....	12 to 15 lbs.
For soiling drills.....	3 bu.
Cress, ¾ oz. to 100 ft. drill.....	1 lb.
Cucumber, 1 oz. to 100 hills.....	2 to 3 lbs.
Egg Plant, 1 oz. to 2,000 plants.....	4 oz.
Emmer.....	100 lbs.
Endive, ¼ oz. to 100 ft. drill.....	4 lbs.
Flax broadcast.....	¾ bu.
Grass—Kentucky Blue, for pasture	
Kentucky Blue for lawns.....	100 lbs.
Meadow Fescue.....	1 bu.
Mixed Lawn.....	5 to 6 bu.
Red Top, Chaff.....	1 to 2 bu.
Red Top, solid seed.....	10 to 15 lbs.

	Quantity per acre.
Grass—Cont'd	
Timothy.....	10 to 15 lbs.
Orchard, Perennial Rye.....	1 to 2 bu.
Wood Meadow.....	1 bu.
Horseshoe Roots.....	15,000 to 25,000
Kale, 1 oz. to 2,000 plants.....	4 oz.
Kafir Corn, in drills.....	6 to 10 lbs.
Kohl Rabi, 1 oz. to 2,000 plants.....	4 oz.
Leek, 1 oz. to 100 ft. of drill.....	4 lbs.
Lettuce, 1 oz. to 150 ft. of drill.....	3 lbs.
Mushroom Spawn.....	1 brick to 10 sq. ft.
Millet—For Seed.....	20 lbs.
For Hay.....	30 lbs.
Melon, Musk, 2 oz. to 100 hills. 2 to 3 lbs.	
Water, 4 oz. to 100 hills.....	3 to 4 lbs.
Oats.....	2 to 3 bu.
Okra, 1 oz. to 100 ft. of drill.....	8 lbs.
Onion Seed, for sets.....	60 to 85 lbs.
1 oz. to 150 ft. drill.....	3 to 4 lbs.
Onion Sets, 1 qt. to 40 ft. drill.....	8 bu.
Parsnips, 1 oz. to 150 ft. drill.....	3 lbs.
Parsley, 1 oz. to 150 ft. drill.....	3 lbs.
Peas, Field.....	2 bu.
Garden, 1 lb. to 100 ft. drill.....	1 to 2 bu.
Pepper, 1 oz. to 1,000 plants.....	2 lbs.
Potatoes.....	10 bu.
Pumpkin, ½ lb. to 100 hills.....	3 to 5 lbs.
Radish, 1 oz. to 100 ft. drill.....	10 lbs.
Rape.....	3 to 5 lbs.
Rye.....	1½ to 2 bu.
Salsify, 1 oz. to 100 ft. drill.....	6 to 8 lbs.
Spinach, 1 oz. to 100 ft. drill.....	8 to 10 lbs.
Sugar Cane, in drills.....	10 lbs.
Sunflower.....	8 lbs.
Squash—Summer, 4 oz. to 100 hills. 3 lbs.	
Winter, 8 oz. to 100 hills.....	4 lbs.
Tomato, 1 oz. to 2,000 plants.....	4 oz.
Tobacco, 1 oz. to 4,000 plants.....	3 oz.
Turnip, 1 oz. to 150 ft. drill.....	2 to 3 lbs.
Vetches.....	1½ to 2 bu.
With Grain.....	1 bu.
Wheat.....	1½ to 2 bu.

### WEIGHTS OF VARIOUS ARTICLES

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

### Number of Plants per acre at various distances

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

DISTANCE APART	Square Method	Triangular	DISTANCE APART	Square Method	Triangular
1 foot apart each way.....	43,560	50,300	15 feet apart each way.....	193	223
2 feet apart each way.....	10,890	12,575	16 feet apart each way.....	170	196
4 feet apart each way.....	2,722	3,143	20 feet apart each way.....	108	125
6 feet apart each way.....	1,210	1,397	25 feet apart each way.....	70	81
9 feet apart each way.....	537	620	30 feet apart each way.....	48	55
10 feet apart each way.....	435	502	40 feet apart each way.....	27	31

## Diamond Fertilizers

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

# ASPARAGUS

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

**CULTURE**—Soak seeds 24 hours in warm water, sow early in drills one foot apart. An ounce of seed will sow about 300 feet of drill. Keep the soil mellow and free from weeds. After one year's growth transplant into permanent beds that have been carefully prepared by working to a depth of 24 inches, manuring deeply, using old manure and bone meal; 5 feet is a convenient width for a bed that will carry three rows, and can be reached without treading upon it. Set the plants about 18 inches apart in the rows and spread the roots out, firming the soil down on them. If your soil is well drained the bed may be level, but if not it must be elevated a little. Give a good dressing of well rotted manure after planting and an occasional application of salt or brine. In the Fall when the foliage turns yellow, cut it off and give a dressing of manure or good commercial fertilizer. A warm, sandy soil is the best, and one which has for some years been cultivated in garden crops and heavily manured is greatly preferred to a fresh soil. But at no period of its growth should the asparagus crop be allowed to lack for manuring. From one to two years' time can be saved by buying roots of us. See plant department. 7260 roots will plant an acre.

You  
GAIN  
A YEAR  
by using  
PLANTS



## ARGENTEUIL

A popular French asparagus of great merit; larger and lighter in color and said to be superior to Palmetto; of vigorous, even growth; very early and free from disease.

Pkt 5c—oz 15c— $\frac{1}{2}$  lb 35c—lb \$1.10

## CONOVER'S COLOSSAL

A large and rapid grower of excellent quality. Makes large uniform stalks of finest quality. This is the famous "Bouldin Island" Asparagus, a superior canning variety, color light green.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb \$1.00

## COLUMBIAN MAMMOTH WHITE

A newer, distinct and valuable variety. The stalks are white, of the largest size; very productive and early.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb \$1.00



## PALMETTO

The favorite green asparagus. Extra early and the uniformly large stalks remain tender longer than other varieties, being in prime condition for some days after coming above the ground. Palmetto is disease resistant, and a heavy, sure cropper.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb \$1.00

## DIAMOND FRUIT FERTILIZER for ASPARAGUS

Ask for Our Free Booklet "Fertilizers"

## ASPARAGUS PLANTS—Four Best Varieties as Above

**ONE-YEAR-OLD PLANTS**—Postpaid, 25c dozen, 75c per 50, \$1.00 per 100. By express or freight, 20c dozen, 50c per 50, 75c per 100, \$6.00 per 1,000.

**TWO-YEAR-OLD PLANTS**—Postpaid, 40c per dozen, \$1.00 per 50, \$1.50 per 100. By express or freight, 25c per dozen, 75c per 50, \$1.00 per 100, \$8.00 per 1,000.

## Artichoke Large Green Globe

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

The buds when in blossom resemble huge thistles and the foliage being highly ornamental, this variety is much used for hedges and display in parkings.

Crop failure. Will supply if stock can be obtained

## Artichoke Jerusalem—White

Distinct from the Globe, belongs to the Sun-flower family. Produces tubers like potato; grown in the same way. A fine vegetable for table and also valuable as hog feed. Price and description under Field Seeds.



Globe  
Artichoke




# BEANS

We offer the following varieties as being best for our western condition as they have given the largest average yield and are most desirable and profitable for home or market gardens.

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

*Plant about 1 lb. of Dwarf or Bush Beans to 100 ft. of drill, 1 bushel per acre. Pole Beans—1 lb. to 100 hills, requiring about 1/2 bushel per acre. When planted in hills, 2 1/2 to 3 ft. apart, small varieties such as "Navy" and "Lady Washington" will require from 16 to 25 lbs. per acre; larger sorts running from 25 to 30 lbs. Owing to their short season of growth, from 60 to 80 days, beans generally make a profitable crop for trucking. After harvesting the beans, always plow the vines under to fertilize the soil.*

 For single lbs. by mail add 10c postage. Larger lots at parcel post rates.

## Wax or Yellow Podded Kinds

### DWARF OR BUSH VARIETIES



#### PENCIL POD BLACK WAX

"Pencil Pod" is the most satisfactory of the early dwarf Wax Beans.

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

Pkt 15c—lb 35c—10 lbs \$3.25

#### GOLDEN WAX

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

Pkt 15c—lb 35c—10 lbs \$3.25

#### DAVIS WAX

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

Pkt 15c—lb 35c—10 lbs \$3.00

#### WARDWELL'S KIDNEY WAX

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

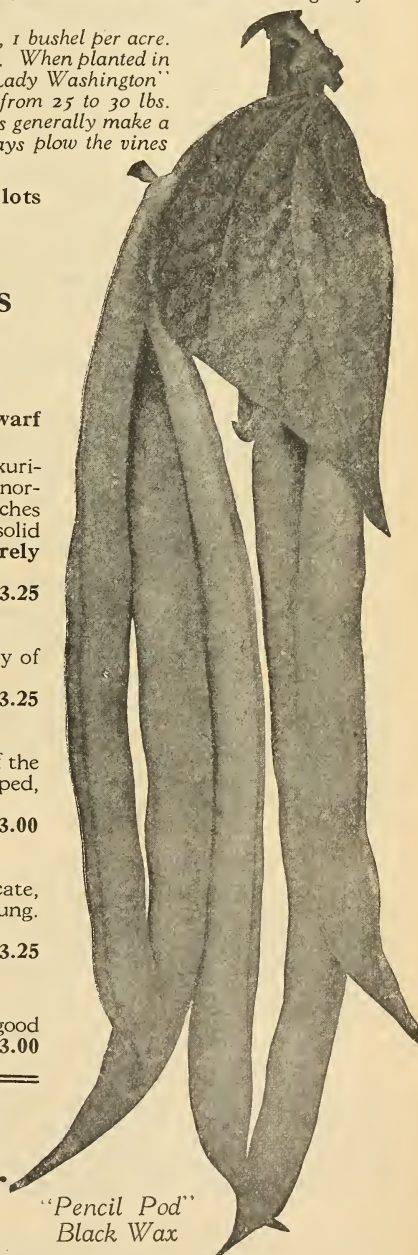
Pkt 15c—lb 35c—10 lbs \$3.25



#### IMPROVED BLACK WAX

The standard early market variety, a sure cropper of good quality.

Pkt 15c—lb 35c—10 lbs \$3.00



For BEANS use 350 lbs. per acre of our

## Diamond Vegetable Fertilizer

Ask for our Free Booklet Fertilizers

"Pencil Pod"  
Black Wax



## DRY BEANS

are a most profitable crop. Lady Washington is the standard commercial variety. Write us before you plant.



## Beans (Continued)

### Dwarf or Bush—Green Podded Kind

For single lbs. by mail add 10c postage. Larger lots at parcel post rates.

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

*In growing Beans commercially, sufficient moisture, freedom from frost from the middle of May to late September, and thorough preparation of the soil with good cultivation, are the requirements for a profitable crop. Closer planting can be practiced where there is plenty of moisture and under dry conditions as too much moisture will not allow the crop to mature properly and close planting will often hasten maturity by absorbing the moisture, growing conditions being favorable.*

*Anthracnose produces large, scabby, dead spots on the pods and the controlling measures are the selection of clean seed and spraying the plants with Bordeaux Mixture.*

*Powdery Mildew, showing a white growth of fungus covering the surface of the leaves, especially in rainy or damp weather, should be treated with powdered sulphur.*

*Cut worms and flea beetles can generally be controlled by the use of "Corona" Arsenate of Lead either sprayed or dusted on the foliage. Ask for booklet "Garden Pests and their Control."*



### STRINGLESS GREEN POD

#### Extra Early

The finely shaped, long green pods are absolutely stringless, and are ready to market two weeks earlier than any other green-podded bean. It is of immense value, not only to the market gardener, but also for those who seek early beans of a rare quality for the home table. A splendid dried brown bean. Pkt 15c—1b 35c—10 lbs \$3.25

### OREGON GREEN POD

An old time favorite with marketmen and for home use, being of splendid quality, very hardy, and we believe the most prolific of the green-podded bush beans; is a second early, with long straight, handsome pods, well filled with large white beans, mottled red; bears through a long season. In response to the insistent demand from those who are familiar with its merits, we have grown a fine stock and restored this splendid bean to its place in our list.

Pkt 15c—1b 30c—10 lbs \$2.50

### LADY WASHINGTON

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

Pkt 15c—1b 25c—10 lbs \$2.25

### ROYAL WHITE KIDNEY

One of the most prolific and hardy green podded bush beans. Of excellent quality as a green bean and later as a shell bean. The large white beans are also superior as a dried bean for baking.

Pkt 15c—1b 30c—10 lbs \$2.50

### WHITE NAVY

Grown extensively for marketing dry shelled. The best known small white bean. Dwarf in growth and very productive.

Pkt 15c—1b 25c—10 lbs \$2.25

### CANADIAN WONDER

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

Pkt 15c—1b 35c—10 lbs \$3.25

### BROAD WINDSOR

#### "Horse Beans"

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

Pkt 15c—1b 25c—10 lbs \$2.00

### DWARF HORTICULTURAL

#### or "Cranberry Bean"

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

Pkt 15c—1b 35c—10 lbs \$3.00

### CASTOR BEAN

(For Ornamental Varieties see flower seed)

Used for medicinal purposes and by some claimed to keep moles away. Castor beans are very ornamental, the plants and foliage being large and tropical in appearance.

Pkt 15c—1b 45c

### REFUGEE, OR THOUSAND TO ONE

Of great value on account of its hardiness, vigorous growth and wonderful productiveness. Is not excelled by any other variety as a snap bean, and is considered the best for pickling or canning. Beans small, dark purple, veined brown. Pods of perfect form, dark green, veined purple. Pkt 15c—1b 35c—10 lbs \$3.00

## Climbing or Pole Beans

For single lbs. by mail add 10c postage  
Larger lots at parcel post rates

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

### ASPARAGUS BEAN

The True Asparagus Bean is superior to Kentucky Wonder in quality and fully equal in productiveness. The long, slender pods are very fleshy, almost round, crisp, tender and delicious, of a beautiful pale green color, attractive form and absolutely stringless. No bean equals them either for market or home use. They grow vigorously and bear heavily, the vines being literally covered with great clusters of shapely pods. Asparagus beans are profitable and heavy producers for market or garden, but owing to their fleshy pods are a difficult seed crop to produce and the demand has always exceeded the supply.

Pkt 15c—1b 35c—10 lbs \$3.25

### KENTUCKY WONDER

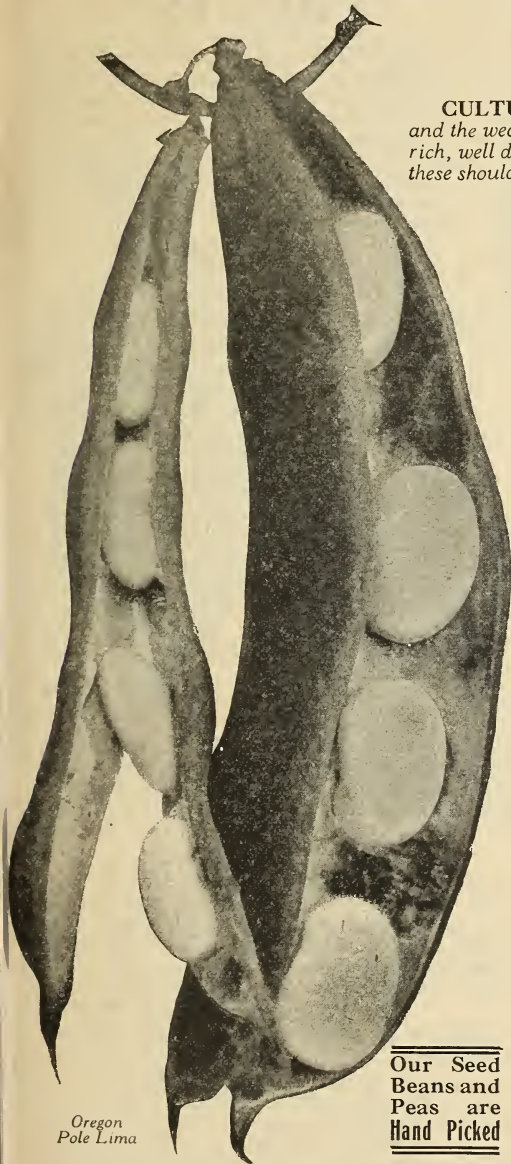
A vigorous climber; very prolific, bearing in clusters extremely long and very fleshy, succulent pods; flat, thick and remarkably tender. A first-class pole variety. Pkt 15c—1b 35c—10 lbs \$3.25

### LAZY WIFE

Pods are from four to five inches in length, produced in large clusters in great abundance. Dark green, thick, fleshy and stringless; of unusually rich flavor. Dry beans, pure white; excellent for winter use. Pkt 15c—1b 45c—10 lbs \$4.25

### SCARLET RUNNER

A favorite as a shell bean and for its flowers, which are bright scarlet; seeds broad and kidney shaped. Pkt 15c—1b 35c—10 lbs \$3.25



Oregon Pole Lima

Our Seed Beans and Peas are Hand Picked

## Oregon Pole Lima

The only Lima Bean that will thrive in our cool climate

Oregon Pole Lima grows a strong, thrifty vine and is very prolific, bearing continuously until frost, the blossoms bursting from the top shoots in long panicles, while the pods can be seen in every stage of development, to the matured beans at the bottom of the vine. Pods are well filled, having three to five large beans of the finest quality. Gather any time after full maturity.

Oregon Pole Lima can be planted in any garden soil as early as April or late as July. Give the same care and culture as other Beans, and they are ready to use when the pods are filled and first begin to ripen. It is not necessary that they should dry on the vines, except for seed.

They are at their best when the full green pods begin to turn yellow.

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

Price per pkt 25c

## BEETS

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

### P. S. CO.'S MARKET GARDENER

This new, extra early Beet is remarkable for its fine quality and rapid growth; it is of deep red color and handsome shape; as an early market sort it is unrivaled. It is to a large extent superseding the Egyptian, being earlier in development, more attractive in appearance and of superior quality for the table. Market gardeners prefer it.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### DETROIT DARK RED TURNIP

A fine Beet for bunching for market; tops exceptionally small and uniformly upright. The roots are perfect turnip shape with small tap-roots. One of the deepest red beets. Quality is of the finest; sweet and tender, best beet for home gardens.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### EARLY ECLIPSE

One of the best early sorts. It possesses all the qualities requisite in a first-class beet, and is of a uniform, globular shape. The roots are a bright, glossy red, fine-grained and delicious.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### HALF LONG BLOOD

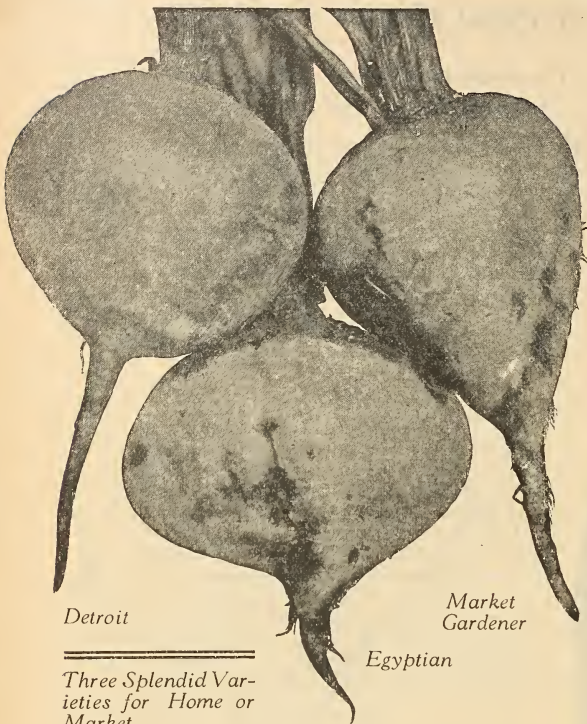
A new variety of excellent quality. One of the very best for Winter use; does not become woody and keeps as well as the long Dark Blood. The root is smooth and handsome, and the flesh is brilliant in color and as good in quality as the best Blood Turnip varieties. Give it a trial.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### EARLY BLOOD TURNIP—IMPROVED

An extra selected stock of blood turnip having larger, coarser tops and roots than the Detroit Dark Red, and requiring a longer time to mature. Excellent for Summer and Autumn use.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50



Detroit

Market Gardener

Egyptian

Three Splendid Varieties for Home or Market

### EXTRA EARLY EGYPTIAN

The best variety for forcing, and for market gardeners, being very early with small tops. Roots very dark red, rounded on top, but flat beneath, with very small tap roots.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### LONG SMOOTH DARK BLOOD

The leading late variety, keeping well all Winter. Should be planted in rich, warm soil to secure rapid growth, which makes them tender. Top small, root long and smooth. Flesh deep purple, fine and sweet.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### DIAMOND VEGETABLE FERTILIZER

600 to 1000 lbs. per acre for Beets—Full information in our free Booklet "Fertilizer."

## Swiss Chard

Or Sea Kale

New Savoyed Leaf "LUCULLUS." An improved variety of "Swiss Chard", growing about two and a half feet high. The heavy stalks are over an inch thick and bare for more than a foot of their length. The leaves make the finest of "greens." Swiss chard is hardy, easily grown and should be in every garden. It is one of the most delicious of all vegetables.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c



Swiss Chard "Sea Kale"

## Beets (Continued) MANGEL WURZEL

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

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

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

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

Like all root crops, they require clean culture. Thin early, giving two thinnings and leaving the plants 10 to 12 inches apart. The medium sized roots have the greatest food value.



Eckendorf



Sludstrup

Forty to sixty tons is a fair yield of Mangels. Sugar Beets, 10 to 13. Beets are easily spoiled even by light freezing and should be cut and stored to protect from frost, covering with a little soil to prevent evaporation.

### YELLOW GIANT, INTERMEDIATE, or Gate Post

Roots very large, growing over one-half out of the ground; flesh white, sweet and tender; tops bright green, comparatively small; neck small, short. Its fine flesh never becomes woody and the crop is easily harvested.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

### NEW MANGEL HALF SUGAR

A new variety, more valuable for feeding purposes than the old sorts, yields as much per acre as the best Mangels, and twice as much per acre (bulk of roots) as the rich sugar beet. Roots large, very smooth, with few rootlets; creamy white in color, with medium sized tops.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

### IMPROVED DANISH INTERMEDIATE— TAAROJE—For Heavy Soils

Large, smooth, oval shaped mangel that grows high above the ground and is easily harvested. For very heavy soils this variety is preferable to the "Sludstrup." The food value is very high, the yield large. Special awards and first-class certificate by the Danish Government.

Pkt. 10c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.65

### DANISH SLUDSTRUP

Long, reddish-yellow, grows well above the ground, and is easy to pull. Has repeatedly been awarded a first class certificate by the Danish Government.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.65

### GIANT RED ECKENDORF

Is of straight, cylindrical form, very blunt, and grows mostly above the surface. Awarded a first-class certificate as a very heavy cropper.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.65

### GOLDEN TANKARD

Dairy farmers state they are able to obtain a higher price for milk when feeding cows on "Golden Tankard." Sheep thrive on it. "Golden Tankard" is of a rich, deep yellow throughout. Early, hardy and a heavy cropper.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

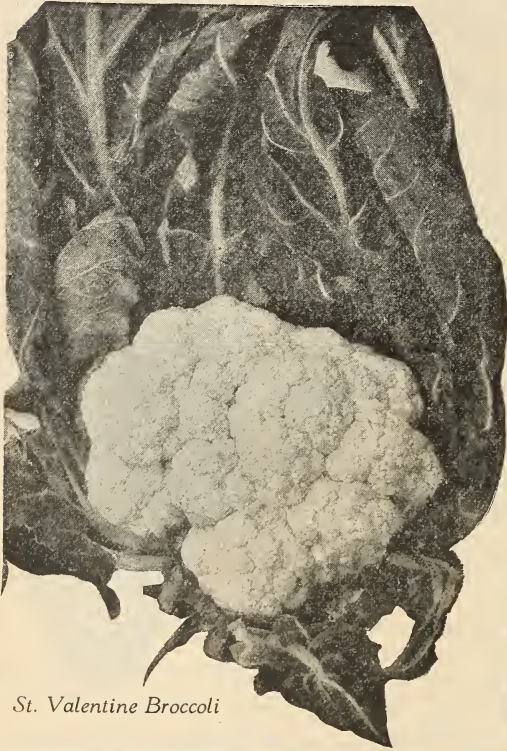
### MAMMOTH LONG RED

An improvement on the Long Red, with ordinary cultivation. If you want a large crop of large Mangels of good quality, don't fail to try this sort. Very uniform, smooth and of good shape. Should be grown in deep loose soil.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25




## BROCCOLI or Winter Cauliflower



*St. Valentine Broccoli*

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

 *The St. Valentine Broccoli, which we introduced some years ago, is the variety extensively grown by commercial planters—many carloads being shipped from Oregon each season.*

### St. Valentine

**The Finest of All Broccoli**

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

Pkt 15c— $\frac{1}{4}$  oz 50c—oz \$1.25

### LARGE WHITE FRENCH

A valuable variety with large, white heads, firm and of good flavor.

Pkt 10c—oz 65c— $\frac{1}{4}$  lb \$1.50

We are the only source of supply of the genuine St. Valentine Broccoli—our seed stock coming direct from the originator, and was introduced by us in 1905.

## BRUSSELS SPROUTS

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

### ODENSE MARKET

An improved Danish variety producing in greatest abundance firm, shapely sprouts, thickly set around the entire stalk; will stand a severe Winter, and is unsurpassed for market or garden.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

### DWARF IMPROVED

A carefully grown strain, very hardy and giving compact, round sprouts of large size and good quality.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c



*Odense Market*

## Vegetable Plants

Thrifty, well grown, true to name standard varieties in any quantity for seasonable delivery. See PLANT DEPARTMENT.

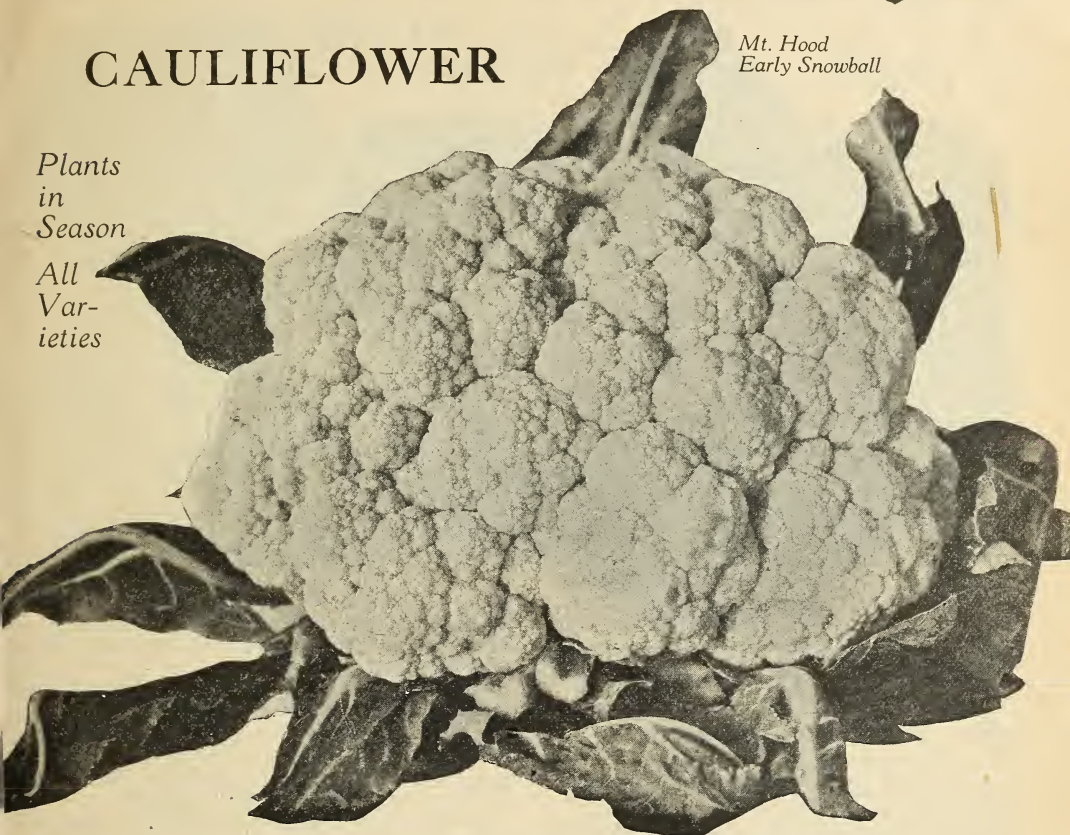
## Commercial FERTILIZERS Profitable

**A 100-lb. Bag of High Grade Commercial Fertilizer** will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and there are no weed seeds to worry over. Our Free Booklet, **FERTILIZERS**, tells what fertilizers are best and how to use them profitably.

# CAULIFLOWER

*Mt. Hood*  
*Early Snowball*

Plants  
in  
Season  
All  
Var-  
ieties



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



## P. S. CO.'S "MT. HOOD" EARLY SNOWBALL

The seed that produces those handsome large white solid heads that bring big profits to the gardener. We offer our "Mt. Hood" Cauliflower seed in sealed packets only, under our own label, it having been carefully selected and grown for us by one of the very few expert Cauliflower growers, and is the best strain of "Early Snowball" obtainable. We especially recommend "Mt. Hood" Snowball for either early or late planting.

Pkt 25c— $\frac{1}{2}$  oz \$2.75—oz \$5.00



## EARLY SNOWBALL

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

Pkt 20c—oz \$4.00

## AUTUMN GIANT

The heads are white, large, compact and thoroughly protected by foliage.

Pkt 10c—oz \$1.50— $\frac{1}{4}$  lb \$5.00

## DANISH GIANT—DRY WEATHER CAULIFLOWER

"Danish Giant" is an early, large, solid white Cauliflower that can successfully withstand a drouth that would prove fatal to other varieties and will thrive splendidly in dry sections, being peculiarly adapted to their growing conditions, but like all cauliflower must have rich soil and cultivation to give best results. "Danish Giant" can also be grown under moist conditions and is a dependable market variety. If your location is subject to drouth or you are "dry farming," be sure to plant "Danish Giant."

Pkt 20c— $\frac{1}{4}$  oz \$1.15—oz \$4.00

## LARGE ALGIERS

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

Pkt 15c—oz \$2.00

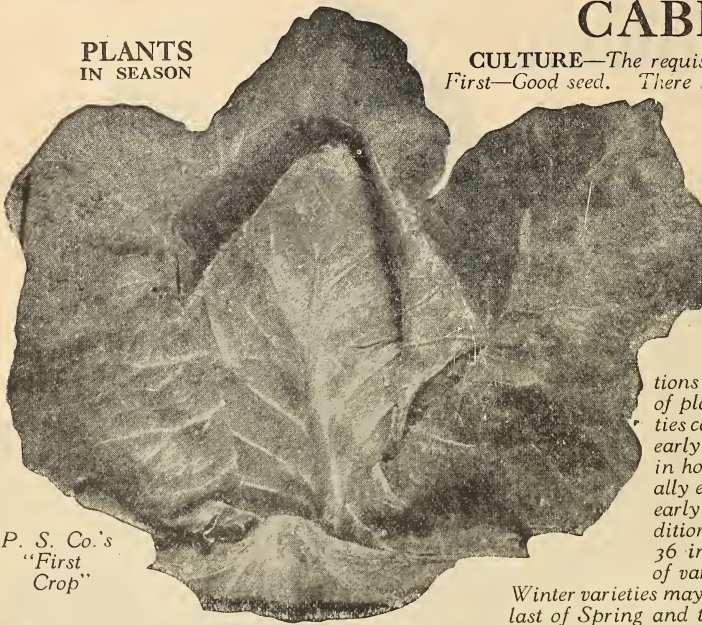
**Don't Buy** cheap strains of Cauliflower Seed. Only the best select strains can be depended upon to produce a big percentage of large, white, solid heads.



# CABBAGE

PLANTS  
IN SEASON

**CULTURE**—The requisites for complete success are:  
*First*—Good seed. There is no other vegetable where the



P. S. Co.'s  
"First  
Crop"

It is important that the plants should not be crowded in the seed bed, or they will run up weak and slender and be likely to make long stems.



## P. S. CO.'S FIRST CROP The Ideal Early Cabbage

The earliest of all pointed varieties and an ideal sort for the private or market gardener.

First crop is ten days ahead of other varieties, takes but little room, and produces fine, solid heads.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25



## COPENHAGEN MARKET

A Splendid Cabbage for Home Gardens

A new extra early globe-shaped Cabbage slightly flattened. The large solid heads are very uniform, with few outer leaves, keeps well and stands handling. **Copenhagen Market** originated in Denmark, where it is the favorite market variety, and we recommend it to our customers as the best early round head.

Pkt 10c—oz 65c

## EARLY WINNIGSTADT

A desirable variety, having conical, solid heads; a sure header under almost any conditions, and keeps better than most early varieties. Fine appearance and of excellent quality.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25—lb \$4.50



## EARLY JERSEY WAKEFIELD

The favorite Early Cabbage with our market gardeners. A sure header. The thick, stout leaves and compact habit make it the best for Wintering over and very early setting.

Grown more extensively for market than any other early cabbage. Is always of good size, very solid, and has but few outside leaves; a reliable header and always gives good satisfaction.

Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50—lb \$5.00

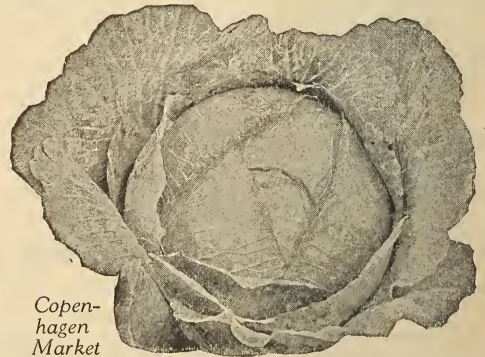
## EARLY DWARF FLAT DUTCH

Grows low on the stem; a sure header; firm, fine grained, tender, and excellent.

Pkt 10c—oz 45c— $\frac{1}{4}$  lb \$1.35—lb \$4.50

## SUCCESSION

Heads large, slightly flattened; grows low on the stem. Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25—lb \$4.50



Copen-  
hagen  
Market

For Cabbage—

Use 1000 pounds per acre of

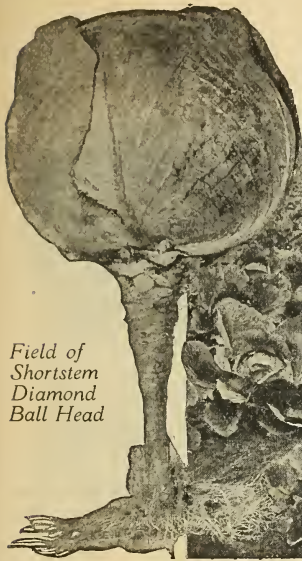
## DIAMOND ONION FERTILIZER

Full information and analyses  
in our Free Book "Fertilizers"

**Cabbage Plants** Well grown stocky plants, properly hardened off—all standard sorts in season. Prompt deliveries at right prices. See Plant Dept.



# Cabbage (Continued)



Field of Shortstem Diamond Ball Head



## DIAMOND BALL HEAD

An Improved Danish Ball Head, reselected for many years by our grower, who has been successful in securing a perfect late market sort of just the right size and finest quality. Heads are solid, crisp, and of remarkable uniformity; market growers will get more perfect salable heads from **Diamond Ball Head** than from other late varieties.

Pkt 10c—oz 55c— $\frac{1}{4}$  lb \$1.75—lb \$6.00

### FROM A GROWER

December 15, 1917

I tried your "Diamond Ball Head" Cabbage Seed last year with very profitable results and enclose my check for \$35.00 for which ship me as soon as possible "Diamond Ball Head" Cabbage Seed.

## DANISH ROUND HEAD

A round ball shaped cabbage of great solidity. Color, rich dark green, has few outer leaves, is very hardy and is a profitable late market variety. Pkt 10c—oz 55c— $\frac{1}{4}$  lb \$1.75—lb \$6.00

## CHARLESTON, or LARGE WAKEFIELD

Large and a little later than the "Early Jersey Wakefield."

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25—lb \$4.00

## RED CABBAGE Odense Market

Used for pickling. The heads are very fine and remarkably sure heading.

Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50—lb \$5.00

## SAVOY CABBAGE Vertus—Late Savoy

Large, compact heads; crisp and tender with a rich flavor. Desirable for cooking or salads.

Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50—lb \$5.00

## PREMIUM LATE FLAT DUTCH

This improved strain possesses all the good qualities of the "Late Flat Dutch," and is a sure header. Pkt 10c—oz 45c— $\frac{1}{4}$  lb \$1.35—lb \$4.50

## DANISH BALL HEAD OR HOLLANDER

This is one of the hardiest cabbages in cultivation and endures both frost and drouth that would destroy other varieties.

Plants rather long-stemmed, but compact; leaves very smooth, but thick; head of medium size, round and very solid, **the hardest heading cabbage we know of, and of the very best quality.** Matures quite late, keeps well, and is considered by many the best cabbage to hold over for Spring markets.

Pkt 10c—oz 55c— $\frac{1}{4}$  lb \$1.75—lb \$6.00



Vertus

**If you grow cabbage, kale, cauliflower, celery, you need a Master's Planter Price \$5.50. Endorsed by the Washington State Experiment Station, Bulletin No. 6.**

# CARROTS



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

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



## EARLIEST SHORT HORN, OR FRENCH

The earliest variety in cultivation, and best suited for forcing. Roots, reddish brown, globular and about two inches in diameter should be used before full grown.

Pkt 5c—oz 30c— $\frac{1}{4}$  lb 90c—lb \$3.00



## EARLY SCARLET HORN

The best early kind for general use. It is larger than the forcing variety, but fully as good in quality, and produces a much larger crop.

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c—lb \$2.50



## CHANTENAY

### The Market Gardener's Favorite

Tops, medium sized; necks, small; roots, tapering slightly, but uniformly stump-rooted and smooth; color, deep orange red; flesh, very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any; is a heavy cropper, and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort.

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c—lb \$2.50

## OXHEART

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

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c—lb \$2.50

## DANVER'S HALF LONG

Grown largely on account of its productiveness and adaptability to all classes of soil. Tops, medium sized, coarsely divided. The smooth, handsome roots are of medium length, tapering uniformly to a blunt point; flesh, sweet, crisp, tender; deep orange in color. Although the roots of this variety are short, they produce as large bulk as the longer field sorts, and are more easily harvested.

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 70c—lb \$2.25

## P. S. CO.'S IMPROVED LONG ORANGE

Popular for farm use on deep, mellow soil. Our stock is an improvement obtained by years of careful selection of the best formed and deepest colored roots, which grow to a large size. Some specimens averaging twelve inches in length. Enormous crops can be grown under fair culture; one of the best varieties for feeding stock.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

### "BETTER RESULTS"

Gentlemen:

Please send me your spring catalog as I am in a hurry to order my seeds and want only yours as I had better results last year from your seeds than have ever had in this country with any other.

March 5, 1917.

MRS. J. C. DENNIS.

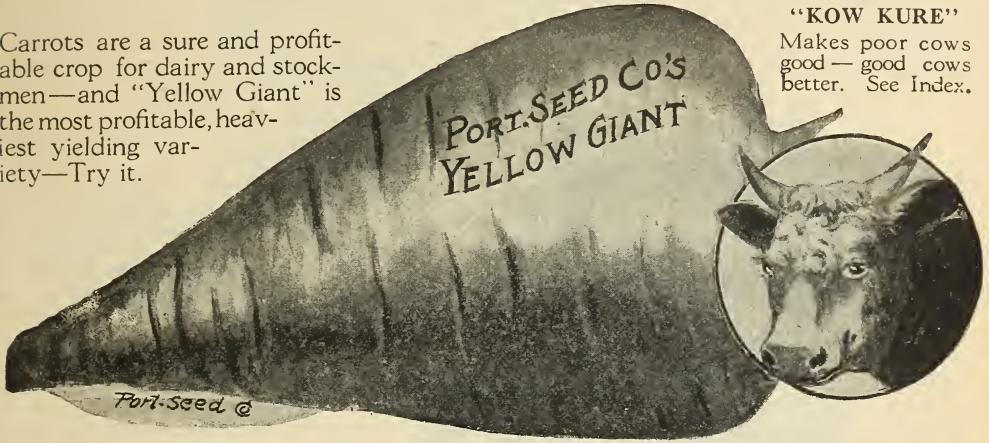
## USE DIAMOND VEGETABLE FERTILIZER FOR CARROTS

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

## Carrots (Continued)

### Good and Productive Stock Carrots

Carrots are a sure and profitable crop for dairy and stockmen—and "Yellow Giant" is the most profitable, heaviest yielding variety—Try it.



**"KOW KURE"**  
 Makes poor cows good—good cows better. See Index.

#### P. S. CO.'S YELLOW GIANT

**Specially Adapted to Moist, Heavy Soils**

This new Carrot originated at the Sydney, Australia, Experimental Station, and has proved itself to be the **earliest and most productive stock carrot offered to date**. It is a half long variety, with an **immense broad shoulder**. The Carrot penetrates less than one-half the depth into the ground, which saves about one-half the expense of harvesting the crop. The color is of bright yellow, and is **perfection itself** for giving the proper color to butter. Every dairyman who wants a big crop of carrots of the right quality and easy of culture should plant our Yellow Giant.

**Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c—lb \$2.50**

**THE NATIONAL SEPARATOR**—Cleaned in 3 minutes—has the *Marvelous "Vortesspoon"* One-Piece Skimming Device—Gets all the Cream.

#### CRESS

**Curled, or Pepper Grass**

This salad is much used with lettuce, to which its warm, pungent taste makes an agreeable addition. The seed should be sown in drills about 16 inches apart, on very rich ground, and the plants well cultivated. It may be planted very early.

**Pkt 5c—oz 15c—lb \$1.50**

#### True Water

One of the most delicious of small salads, and should be planted wherever a suitable place can be found. The seed should be sown and lightly covered in gravelly, mucky lands, along the borders of small, rapid streams. Under favorable conditions they increase very rapidly by self-sown seed and extension of the roots.

**Crop failure**

#### CHIVES

See Vegetable Plant List. See Herbs.  
 We supply all vegetable plants in season.

#### IMPROVED SHORT WHITE—"MASCOTODON"

**Of Excellent Table Quality**

Ranks as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Roots half long, smooth, very heavy at the shoulder, but tapering regularly at the point; color, light green at the crown, white below; flesh, rich, white, solid, crisp and of excellent flavor. **Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50**

#### LARGE WHITE BELGIAN

Extensively grown for stock feeding; very productive. Grows so much above the ground that the entire crop can be pulled by hand.

**Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50**

#### YELLOW BELGIAN

Large root; yellow flesh; good keeper for late feeding. **Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50**

#### CHERVIL—Curled

This plant is used for flavoring soups and salads, and has a strong perfume.

**Crop failure**

#### CORN SALAD

**Fetticus, or Lamb's Lettuce**

A refreshing salad, used extensively in Winter and Spring as a substitute for lettuce. It is often cooked like spinach. Sown in drills one foot apart, in the Spring or Fall. On the approach of cold weather cover over with straw or coarse litter.

**Crop failure**

#### CHICORY

Extensively used to adulterate coffee and as a substitute for it. The culture is the same as for carrots. Dig at about the same time as carrots, washed, slice and dry by artificial heat. The blanch leaves are used by some for salad.

**Large Rooted or Coffee.**—The best kind.

**Crop failure**



# CELERY

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



## WHITE PLUME The Leading White Celery

A handsome, crisp sort, of very easy cultivation. Naturally its stalks and portions of its inner leaves and heart are white, so that by closing the stalks either by tying or by simply drawing soil up against the plant and pressing it together, the work of blanching is completed without the troublesome process of "banking" or "earthing up." It is the earliest celery known.  
Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00—1b \$3.50

## GOLDEN YELLOW SELF-BLANCHING

This is no doubt the best celery for early Spring market use. Plants are of a yellowish green color when young, but as they mature the inner stems and leaves turn a beautiful golden yellow, which adds much to their attractiveness and makes the work of blanching much easier.  
Pkt 10c—oz 75c— $\frac{1}{4}$  lb \$2.50

## GOLDEN HEART, OR GOLDEN DWARF

Grows a compact, crisp, solid stalk of fine, nutty flavor.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c—1b \$2.75

## WINTER QUEEN

This is without doubt the most valuable variety of celery for Winter and Spring use ever introduced. Has double the amount of heart of any known celery. The plant has a fine appearance, of compact growth, and blanches to a beautiful cream-white. Ribs perfectly solid, crisp and a delicious nutty flavor.

Stored for Winter or Spring use, it is an excellent keeper and when taken out the blanched stalks will be firm and crisp; entirely free from strings; brittle and of sweet flavor.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c—1b \$2.75

## GIANT PASCAL

Largest variety grown; of fine, nutty flavor; very easily blanched.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c—1b \$2.75

**CELERY SEED.** For flavoring. Oz 10c— $\frac{1}{4}$  lb 20c—1b 65c

## CELERIAC, Turnip Rooted Celery

Large Smooth Prague Improved form with very few side roots. The largest and best variety.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c



White  
Plume

## CELERY PLANTS

Large  
Healthy  
Transplanted  
Plants in  
Standard  
Varieties  
for  
Delivery in  
Season.  
Any Number  
at  
Right Prices.

See  
Plant  
Department

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



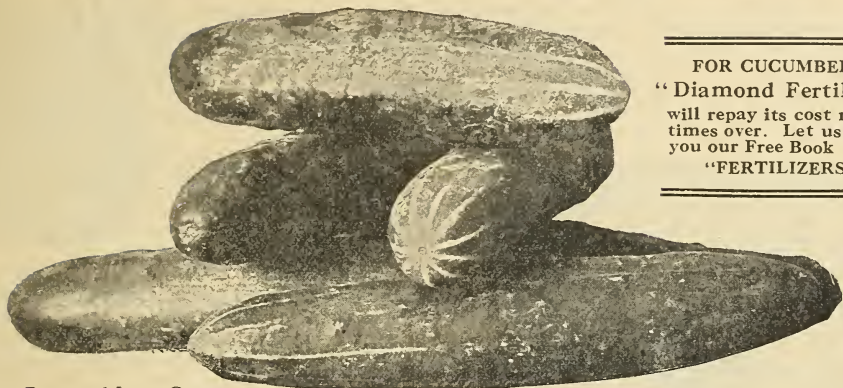
## DIAMOND FERTILIZERS FOR CELERY

Read our Fertilizer Book. Mailed free on request.



Celeriac  
Turnip  
Rooted  
Celery

# CUCUMBERS



*Diamond Long Green*

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

## "DIAMOND" LONG GREEN

The leading large variety. Fruit from ten to twelve inches long, dark green, crisp and tender. A good variety for slicing, and when ripe they are the best for sweet pickles. We offer our "Diamond Strain"—they will grow long and uniform in shape. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 50c—lb \$1.50

## PEERLESS, OR EARLY WHITE SPINE

One of the best sorts for table use, fruiting early and abundantly. Fruit uniformly straight and handsome; light green, with a few white spines. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## GHERKIN FOR PICKLING

A very small, oval, prickly variety, quite distinct from all others. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c

## EARLY RUSSIAN

Earliest and hardiest. Very vigorous and productive. Fruit three to four inches long, thick, oval, pointed at each end, and covered with fine small spines. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## LEMON CUCUMBER

This dainty little cucumber resembles a lemon both in form and color, having a distinctive flavor superior to and not found in any other cucumber. The Lemon Cucumber is so prolific that a single vine will be ample for the needs of the average family. It is also said that the Lemon Cucumber can be eaten without fear of the harmful results that some experience from eating cucumbers.

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c—lb \$2.00

## JAPANESE CLIMBING

A useful variety for growing on a trellis or wire. The cucumbers are long, of a dark green color, white flesh, crisp, and of a good flavor. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c

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FOR CUCUMBERS  
 "Diamond Fertilizer"  
 will repay its cost many  
 times over. Let us send  
 you our Free Book  
 "FERTILIZERS"

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## BOSTON PICKLING, OR GREEN PROLIFIC

Color, bright green, and a great producer. The fruits average four to five inches in length when large enough for slicing, and are of excellent quality, but it is for producing medium sized pickles that this variety is so highly esteemed.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## TELEGRAPH—FORCING

A standard forcing variety, very popular with gardeners. Fruit fourteen to sixteen inches long, of very fine quality. A sure and heavy cropper.

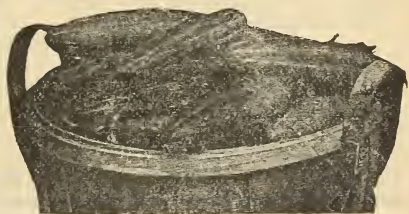
Pkt 25c

## "THE DAVIS PERFECT" CUCUMBER

The "Davis Perfect" is of perfect form, large size and of the finest color; is crisp, delicious and almost seedless. This fine variety comes from the originator of the Davis Wax Bean and is one of the most valuable varieties for home or market.

The "Davis Perfect" is as handsome, grown outside, as any hothouse cucumber.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25



*"Davis Perfect"*

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"CORONA DRY" Powdered Arsenate of Lead will protect Cucumbers and other vegetables from leaf-eating insects. Ask for a free copy of "GARDEN PESTS AND THEIR CONTROL"

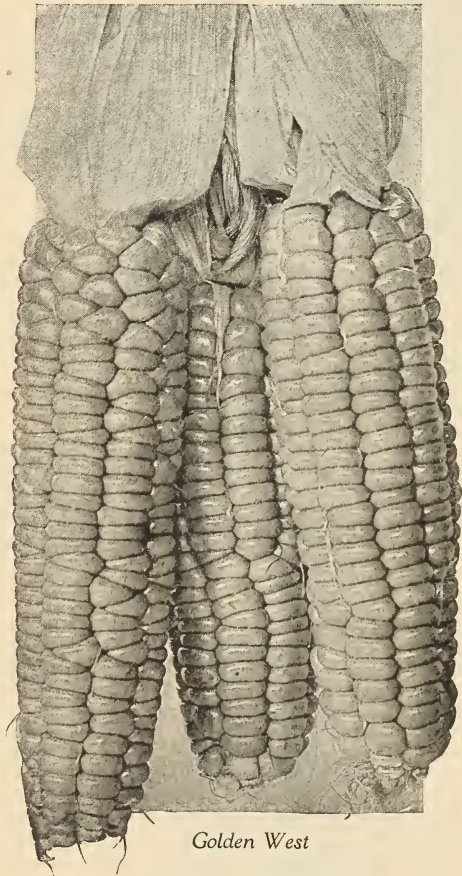


# SWEET OR SUGAR CORN

For single lbs., by mail, add 10c postage; large lots at parcel post rates

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

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



Golden West

## BLACK MEXICAN

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

Pkt 15c; 1b 30c—10 lbs \$2.75

## STOWELL'S EVERGREEN

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

Pkt 15c—1b 35c—10 lbs \$3.25

## FOR THE CORN EAR WORM

Dust "Corona Dry" on new silk as soon as it appears

## GOLDEN WEST—Oregon Grown Seed

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

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

Pkt 15c—1b 50c—10 lbs \$4.00

## GOLDEN BANTAM

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

Pkt 15c—1b 40c—10 lbs \$3.50

## OREGON EVERGREEN

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

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

Pkt 15c—1b 35c—10 lbs \$3.30

## EARLY MINNESOTA

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

Pkt 15c—1b 30c—10 lbs \$2.75

## EARLY WHITE CORY

### Mammoth

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

Pkt 15c—1b 30c—10 lbs \$2.75

**FIELD CORN**—For best varieties for silo, for fodder or for grain see field seeds

## REMEMBER

The rich flavor and sweetness of corn disappears quickly after gathering, and to be at its best state must be used at once

## EGG PLANT

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



*Black Beauty*



### BLACK BEAUTY

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

Pkt 15c—oz 75c— $\frac{1}{4}$  lb \$2.25

### NEW YORK IMPROVED, LARGE PURPLE

The leading market variety. Large, round, dark, excellent and the most productive.

Pkt 15c—oz 70c— $\frac{1}{4}$  lb \$2.00

## GARLIC

**CULTURE**—Garlic is a profitable crop if your soil is right and proper methods of culture are employed. The sets are planted in the same manner as "Multiplier Onions," dividing the little clump, planting each bulblet thick end down, being careful not to bruise them as they will rot if injured. October is the planting month in Western Oregon.

A medium loam soil containing a little sand and well-drained is best and commercial fertilizer should be used. Deep and thorough preparation of the soil is necessary.

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

Price per lb 20c—postpaid 30c.

Write for quotation on large lots.

## ENDIVE

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

### BROAD LEAVED BATAVIAN

(Escarolle)

Has broad, thick leaves, which form a large loose head.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c

### WHITE CURLED

A beautiful variety, with curled, mossy leaves, for early use.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c

### GREEN CURLED

Standard sort for Fall and Winter.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c

### HORSE RADISH ROOTS

For prices and description, see Plant Department

## KOHL RABI

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

### EARLY WHITE VIENNA

Very early; bulb white; best table variety. Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

### EARLY PURPLE VIENNA

Same as above except in color, which is purple.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c



## "CORONA DRY" THE UNIVERSAL INSECTICIDE FOR GARDENS

A safe, inexpensive, easily applied and efficient remedy for chewing garden pests—for use on fruit trees, berry bushes and plants that will insure perfect fruit and clean vegetables. "GARDEN PESTS AND THEIR CONTROL" tells how to use "Corona Dry" profitably in your garden. Free copy sent on request.



# HERB SEEDS--Sweet, Pot and Medicinal

Every garden should contain a collection of Herbs for flavoring and medicinal purposes. They are almost a household necessity; are easily grown, and many of them are very ornamental.

**CULTURE**—Herbs in general delight in rich, mellow soil. Those marked with an (\*) are perennial, and when once obtained in the garden may, with a little attention, be preserved for years. Sow the seeds early in the Spring in shallow drills, one foot apart. We offer some of the most useful and popular. They should be cut on a dry day, just before they come into full bloom, and tied in bunches and hung up or spread thinly on a floor where they can dry quickly. When dry and crisp, rub fine and bottle.

## All the following Herbs, 10c per Packet.

- Anise**—Seeds have useful medicinal properties; also used for flavoring.
- \***Balm**—Used for culinary purposes and for making Balm Tea.
- Basil**—Used for seasoning soups, having a decided flavor of cloves.
- Borage**—Excellent for bees, flowers are also in request for garnishing.
- \***Chive**—Has mild onion flavor; grows in grass-like clumps; much used for flavoring.
- Coriander**—Seeds used in confections; leaves for soups and salads. Very aromatic.
- Caraway**—For flavoring, the seeds being used extensively by bakers and confectioners.
- \***Catnip**—(Cat Mint).
- Dill**—The flower heads and seeds are used in soups, stews and pickles; leaves have same flavor and can be used in like manner.
- \***Fennel**—For garnishing and fish sauce.
- Fenugreek**—For flavoring.
- Hyssop**—Used medicinally.
- \***Horehound**—Used medicinally as a cure for colds.
- \***Lavender**—By distillation produces the well-known Lavender water, the flowers for perfuming wardrobes, etc.
- Marjoram**—The sweet aromatic leaves in either a green or dry state are used for flavoring.
- \***Pennyroyal**—Used medicinally.
- \***Peppermint**—For flavoring.
- \***Rosemary**—Infusions of the leaves are used in medicinal beverages. Produces an aromatic oil.
- \***Rue**—Leaves are used in medicine, also for roup in poultry.
- \***Sage**—The leaves and tender tops are used in stuffings and sauce; also in the beverage known as Sage Tea.
- Saffron**—Used for flavoring.
- Savory**—Summer. Used for flavoring.
- Savory**—Winter.
- Thyme**—Broadleaved, used in soup, stuffing and sauce.
- \***Wormwood**—Taken as a tonic in the form of tea.
- Tansy**—Used medicinally, as tea and bitters.

## Herb Seeds for Flavoring

- Anise**—Anise seed for flavoring.  $\frac{1}{4}$  lb 15c—1b 50c
- Coriander**—Coriander seed for flavoring.  
 $\frac{1}{4}$  lb 15c—1b 40c
- Poppy**—Seed used for flavoring.  $\frac{1}{4}$  lb 25c—1b 80c
- Mustard**—For flavoring and pickling.  
Lb 30c—postpaid 40c—100 lbs market price
- Celery**—For flavoring. Oz 10c— $\frac{1}{4}$  lb 20c—1b 55c

**Caraway**—We keep constantly on hand a large stock of well preserved seed for the use of Druggists, Bakers and Confectioners.

**Dill**—Used to flavor soups, stews and pickles. Leaves possess similar qualities, and can be used in same manner as seeds.  $\frac{1}{4}$  lb 20c—1b 60c

### Market price

## Foreign Names of Herbs

A Stands for Annuals or those generally used for such.		B For Biennials. P For Perennials.	
ENGLISH	FRENCH	GERMAN	ITALIAN
A Anise	Anis	Anis	Anacio
P Balm	Melisse-Citronelle	Citronen-Melisse	Melissa
A Basil	Basilic-grand	Basilikum	Basilice
A Borage	Bourrache	Boretsch	Boragine
A Caraway	Cumin des pres	Feld-kummel	Carvi
A Catnip	Cataire	Katzenmunze	Cataria
A Coriander	Corian re	Koriander	Coriandorio
A-B Dill	Aneth	Dill	Aneto
P Fennel, Sweet	Fenouil	Fenchel	Finocchio
A Fenugreek	Fenugrec	Bockshornsamem	Foenugrasciema
P Horehound	Marrube Blanc	Adorn Kraut	Marrubio
P Hyssop	Hysoppe	Isop	Issopo
P Lavender	Lavende	Lavendel	Lavanda
A-B-P Marjoram Sweet	Marjolaine	Majoran	Maggioran
P Mint, Common	Menthe des Jardins	Munze	Menta
P Rosemary	Romarin	Rosmarin	Rosmarino
A Rue	Rue	Raute	Ruda
P Sage	Sauge	Salbei	Salvia
A Saffron	Safran	Safran	Zafferano
P Sorrel	Oseille	Sauerampfer	Acetosa
A Savory, Summer	Sarriette	Bohnenkraut	Santoregia
P Tansy	Tanaisie	Gemeiner Rainforn	Atanasia
P Thyme	Thym	Thimian	Timo
P Wormwood	Absinthe	Wermuth	Assenzio

WE SUPPLY HERB PLANTS IN MOST VARIETIES IN SEASON. SEE PLANT DEPT.



# KALE

## EMERALD ISLE—Finest in the World

This is really the handsomest Kale that has ever come under our notice; and is entirely distinct from other strains, very hardy, of medium height, and very vigorous, throwing out new shoots as fast as the leaves are used, and will furnish excellent greens all winter. The closely curled, handsome leaves are most attractive and of fine flavor. Fine exhibition plant. Oregon grown seed. Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

## TALL GREEN CURLED SCOTCH

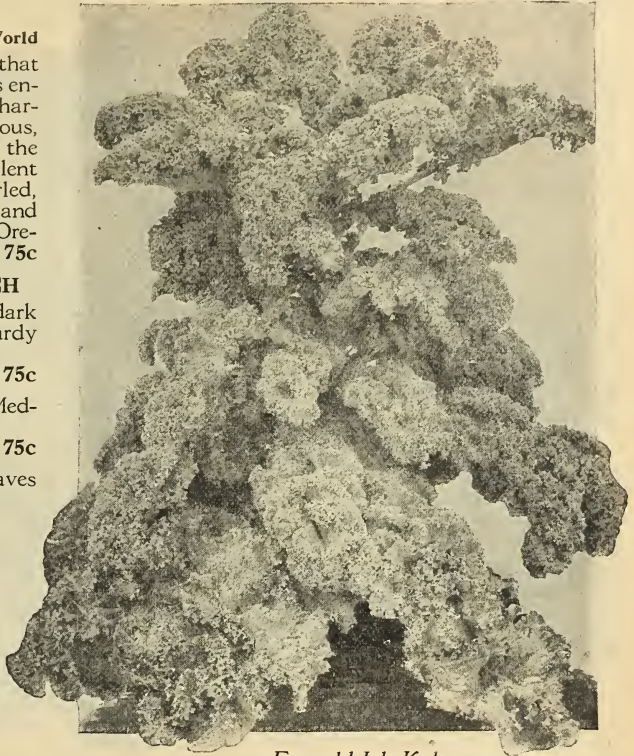
Grows about two feet high; leaves dark green, curled and wrinkled; very hardy and is improved by a slight frost.

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c

**HALF DWARF MOSS CURLED**—Medium sized leaves, nicely curled.

Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c

**DWARF GREEN CURLED**—Leaves beautifully curled and bright green. Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c



*Emerald Isle Kale*

# LEEK

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

## LARGE ROUEN, or American Flag

A large, favorite American sort. Crop failure.

# MUSTARD

Mustard is used alone as "greens," or with cress as salad. Sow any time in the Spring, in rows, and thin out as necessary.

**SOUTHERN GIANT CURLED**—We offer a fine strain of the true curled leaf.

Pkt 5c—oz 15— $\frac{1}{4}$  lb 40c—lb \$1.25

**WHITE ENGLISH**—Leaves mild, tender when young; seeds yellow.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 25c—lb 65c

**FORDHOOK CURLED**—Beautiful dark green, finely curled plum-like leaves that are of distinctive flavor; superior to spinach as greens and is fine for salads. "Fordhook Curled" is vigorous and productive.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

**CHINESE MUSTARD**—Less pungent than other varieties. Chinese Mustard is most delicious, thriving at the same season and under conditions that are favorable to spinach. A splendid addition to our gardens.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

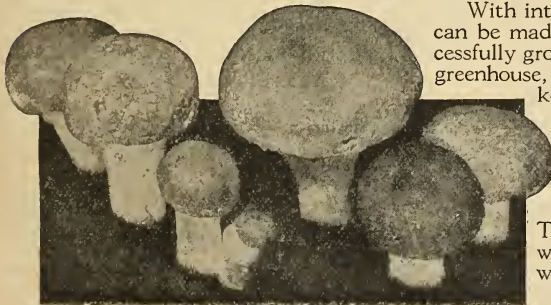
# MUSHROOM SPAWN

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

## LAMBERT'S PURE CULTURE

A new kind of spawn, without a doubt the best; superior to the common English. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed 1 foot apart each way. A brick will plant 10 square feet.

Price per brick 25c—postpaid 40c—by express not prepaid 5 bricks \$1.00



**MUSHROOMS: How to Grow Them.** By Falconer. 162 pages. Postpaid \$1.10  
**MUSHROOM CULTURE and Pure Culture Spawn.** 32 pages Postpaid .35

# LETTUCE

LETTUCE  
PLANTS  
for Gardeners  
in Season



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

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



## P. S. CO.'S CRISPETTE

Our "New Crispette" is a beautiful lettuce, the quality of which is simply perfect. The large, curly leaves, which cover the outside of the solid heads, are of a bright, light green. The unusual solidity of the heads is insured by the large, white main ribs of the leaves, each of which curving strongly toward the center, makes it impossible for the leaves to open outward and expose the center, which will always be found crisp, tender, sweet and melting. It matters not whether grown to head in the early Spring or the hottest days of Summer, the leaves are always **crisp and tender**. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$1.75

## MAY KING

A large growing, smooth leaved, richly flavored sort. Plant, light green, with round leaves, which form into a very solid, compact, round head; stands a long time without running to seed. Inner leaves blanch to a rich golden yellow. **Exceedingly rich, tender and buttery**. Fine for open ground or forcing. For succession plant in spring, then in August and again in September. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

## GRAND RAPIDS—For Early Forcing

As a Lettuce for greenhouse forcing, this variety undoubtedly stands at the head of the list. Of quick growth, and stands for some days after being fit to cut. The plant is upright, and forms a loose head or cluster of large, light yellowish green leaves, slightly crimped and blistered, rather thin, good flavor, crisp and tender. It will stand shipping better than most curled sorts.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

## ALL SEASONS

A valuable new "Butter Head" Lettuce; the best main crop variety, as its large heads continue to grow for two or three weeks after they are ready to use, and are very slow to seed.

"All Seasons" is headed up ready for use in less than ten weeks from planting. Color of outer leaves is a bright green; with inner leaves blanched a rich golden yellow; very crisp and of excellent flavor. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

## LARGE DRUMHEAD

One of the largest heading kinds, but the heads are not so solid as the "Hanson" or "Deacon."

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 30c—lb \$1.00

## Lettuce (Continued)



### NEW YORK OR WONDERFUL

#### The Best Head Lettuce for Market Growers

This is the mammoth head lettuce so popular in California, from whence it is shipped to the Northern markets, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. "New York" is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

### DEACON

Heads very solid and of excellent flavor, remains in condition for use as long as any variety in cultivation. Plant medium sized, with very few outer leaves, which are deep green and very thick, while the inner ones blanch to a bright yellow and are exceedingly well flavored, crisp and tender. This is certainly one of the best varieties for Summer use.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### EARLY PRIZE HEAD

Standard sort; one of the best thin leaved, clustering varieties. The very large leaves are savoyed or crimped, bright green, tinged with red, and are exceedingly tender, crisp and sweet, forming a large, loose head. One of the best for the garden but not good to ship long distances.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### HANSON

#### Improved Hard Heading Stock

One of the very best. Heads green outside and white inside; grow to a remarkable size, very solid, and is deliciously sweet, crisp and tender. It withstands the hot sun well.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50



### SIMPSON'S EARLY CURLED

A leading market variety used for very early planting and forcing. Forms a dense mass of finely curled and wrinkled leaves that are excellent and tender, and do not wilt readily.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### BLACK SEEDED SIMPSON

Forms a close, compact mass of curly leaves of a yellowish green.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### EARLY TENNIS BALL

The plant is small, of rapid growth, and should be used as soon as large enough, as it quickly runs to seed. Leaves dark green, thick and crisp. One of the best for growing under cover, and for forcing.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### BROWN DUTCH

Forms a large, solid head, sweet, tender and of good flavor. Outer leaves are tinged with brown. It is very hardy.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

**DIAMOND FERTILIZERS WILL FORCE LETTUCE EARLY**—Make Big Solid Heads—Tell us whether you are growing under glass or outside and we can tell you what fertilizer is best, and how to use it profitable—Fertilizer Book Free—Ask for it

## MUSKMELONS

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

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

### BURRELL'S RUSTLESS ROCKY FORD CANTALOUPE

This new melon, the highest development of the "Rocky Ford" type, has light green flesh which is very deep, rich and delicious, the quality being unsurpassed. It is solidly netted, thrifty, vigorous, rust resistant and a continuous bearer until frost.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 50c—lb \$1.50

### SMALL GREEN NUTMEG

A variety ripening early. Flesh, green, fine and sweet. Superior for the early market, or family garden, and a favorite for hotels and restaurants.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb \$1.00

### ROCKY FORD OR NETTED GEM

The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh thick, green, very sweet and highly flavored. The fruit is wonderfully uniform in shape and quality. A favorite with market gardeners everywhere.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb \$1.00



### BURRELL GEM

The Perfect Melon for Market or Home Gardens

"Burrell's Gem" has a tough, thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about  $4\frac{1}{2}$  inches in diameter by 6 inches long, flesh of a reddish orange, very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

### LARGE YELLOW CANTALOUPE

Early and productive; flesh salmon color, rich, sweet.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 40c—lb \$1.25

## WATERMELONS

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

### TOM WATSON

This excellent new melon is of elongated form, averaging 18 to 24 inches in length, 10 to 12 inches in diameter, has a thin, dark green rind and deep red flesh; crisp and sugary, with a lusciousness and distinctive flavor that makes it one of the finest melons ever produced; is hardy, early and stands handling and long shipment. We consider it a valuable market or home variety.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.15



### HALBERT HONEY WATERMELON

This superb Melon is a great improvement over the well-known "Kleckley's Sweet," as it fully equals it in delicious flavor and crispness, is more uniform in outline, darker in color, more vigorous and productive, and will ripen perfectly in the cooler sections where other varieties fail. The average length is eighteen to twenty inches, both ends being blunt and fully rounded out. The rich, dark glossy green, the thin rind and the bright crimson flesh make the new "Halbert Honey" the most attractive watermelon.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.15

### SWEET HEART

Good shipper. Vine vigorous and productive, ripening its fruit early. Fruit large, oval, very heavy, uniformly mottled dark and very light green; rind thin, but firm; flesh bright red, firm, solid, but very tender, melting and sweet. Fruit retains its good quality for a long time after ripening.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 25c—lb 60c

### KLECKLEY'S SWEET, or MONTE CRISTO

A splendid sort for home use or near markets. Vine vigorous and productive; fruit of medium size; oval; color dark, mottled green in two shades, forming indistinct stripes. Flesh a beautiful bright rich red; exceedingly sweet and tender.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.15

### CITRON

Grown for preserving and pickling.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.00

# PARSNIPS

A "Planet Jr." Makes Gardening Easy

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



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

## HOLLOW CROWN OR LONG WHITE

Root very long, white, smooth, tender, sugary, and of most excellent flavor. Very hardy; will keep through the Winter without protection.  
**Crop failure.**

## EARLY HALF LONG

Ready in 90 days. Medium sized, easily dug, has a fine rich flavor—good for home gardens.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$1.75

# PARSLEY

## PLAIN

Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring or they may be dried crisp, rubbed to a powder and kept in bottles until needed.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.00



## EXTRA DOUBLE-CURLED

A fine, free growing, but not large variety. The plants bear a great number of leaves, which are so abundant and so finely curled that they resemble a bunch of moss.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.00

## TURNIP-ROOTED OR HAMBURG

The root, which resembles a small turnip, is the edible portion of this variety. Extensively grown and used for flavoring soups, etc.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.15



# PEPPER

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

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

Pkt 15c—oz 75c

**CHINESE GIANT**—Sweet. The mildest and best of the mild red peppers. 4 to 5 inches in diameter; color, brilliant deep red; borne in clusters; bush stocky, well branched; vigorous and about as early as Ruby King.

Pkt 15c—oz 90c

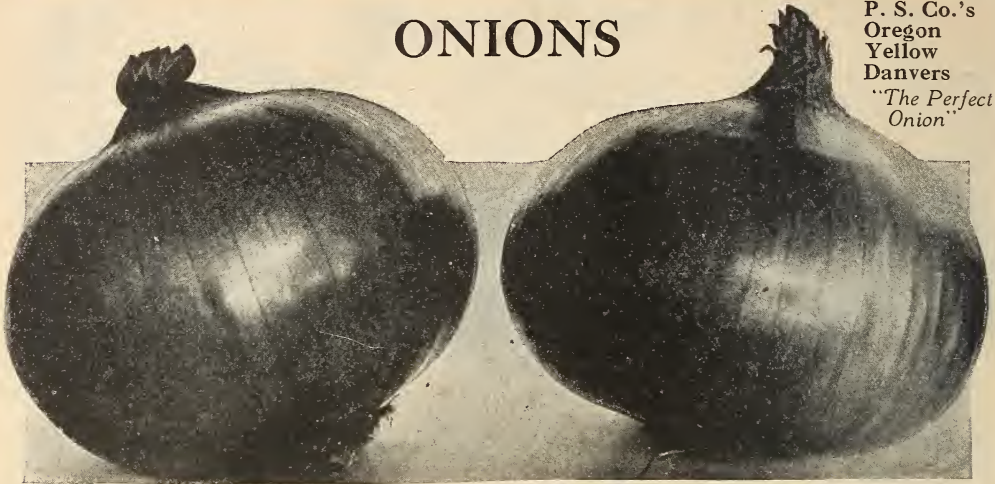
- |   |          |         |
|---|----------|---------|
| <b>RUBY KING</b> —Very large, sweet and mild; bright scarlet.   | Pkt. 15c | Oz. 75c |
| <b>LARGE BELL, or BULL NOSE</b> —Large, mild, thick fleshed variety. One of the best for stuffed pickles. | 15c      | 75c     |
| <b>CAYENNE</b> —Pods long; bright red; very pungent and used very largely with pickles when green.        | 15c      | 75c     |
| <b>CHILI</b> —Pods small and pointed; brilliant scarlet; very pungent when ripe.                          | 15c      | 75c     |





# ONIONS

P. S. Co.'s  
Oregon  
Yellow  
Danvers  
"The Perfect  
Onion"



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

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

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

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

In the Fall the tops of the Onions will naturally fall to the ground and shrivel up and the roots let go their grip on the soil, then the Onions should be lifted and allowed to dry off for a day or two before storing away. If the weather remains too wet to dry off in the fields, the Onions may be put under open sheds for a while where there is a good circulation of air.

In case the tops do not die off naturally, they may be broken down and so cause the bulbs to ripen quicker, but such Onions will not make good keeping bulbs, and should be disposed of as soon as possible.

To be sure of a good crop, sow none but the best of seed—it may cost a little more than a cheaper grade of seed, but it is worth more than the difference in the price.

## Portland Seed Co.'s Oregon Yellow Danvers

This is the variety generally planted in the Northwest. The largest crops of onions and the best keepers, bringing the highest prices on the Pacific Coast markets are the Oregon Yellow Danvers. The bulbs are uniformly large, of a half-globe in shape, with small necks, and as a market or table onion, can not be excelled. Our seed is grown specially for us by the best onion seed growers in Oregon. No onion grower can afford to plant anything inferior when such seed can be obtained.

Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50—1b \$5.00

An ounce of seed should drill 150 feet—3 to 4 lbs. per acre. If you contemplate a large planting, write us.

### AUSTRALIAN BROWN

This onion resembles the Oregon "Yellow Danvers" in general appearance, but has a clear amber-brown skin that attracts buyers. It matures early, ripens uniformly, and will keep in good condition longer than any other onion. For late sowing and when necessary to replant, Australian Brown heads the list.

Pkt 5c—oz 30c— $\frac{1}{4}$  lb 85c—1b \$3.00

### PRIZETAKER—The Genuine

### The Handsomest and Largest Yellow Globe Onion

Of fine flavor, handsome shape and enormous size. A perfect globe shape, with a bright straw-colored skin; necks very small and onions ripen up hard. Good variety for transplanting, which is sometimes necessary to secure a crop, especially on upland. Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50—1b \$5.00

## DIAMOND ONION FERTILIZER 1000 Pounds to the Acre

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



# Onions (Continued)

## “BUNCHING” ONION

This variety is especially useful to market gardeners for producing an attractive “green onion.” The young stalks are crisp and mild, attaining a good size before the bulb forms.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.50—lb \$4.00

## LARGE RED WETHERSFIELD

A standard variety; one of the most productive kinds, even in poor soil. Its good keeping qualities render it one of the best for shipping.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.15—lb \$4.00

## YELLOW GLOBE DANVERS

A very handsome, round or globe-shaped variety of large size, with thin, yellowish skin, white flesh, fine grained, mild, very firm, and the best of keepers. It ripens early.

Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50—lb \$5.00

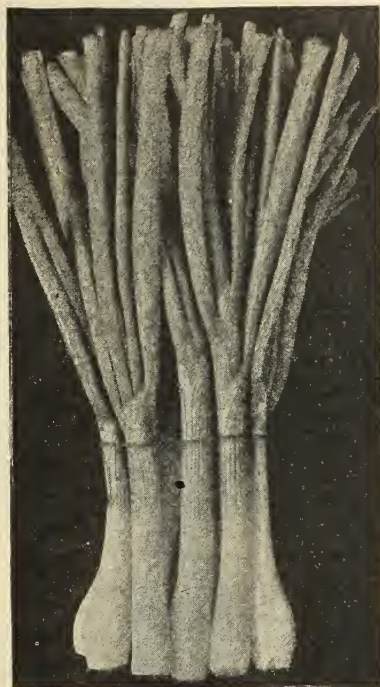
## WHITE PORTUGAL OR SILVER SKIN

Skin and flesh pure white; mild flavor and flat shape; grown largely for sets.

Pkt 5c—oz 30c— $\frac{1}{4}$  lb 75c—lb \$2.50

### Planet Jr. Drills and Cultivators

A Planet Jr. Seeder will soon save enough seed to pay for itself; gives a better stand and makes cultivation easy. *Saves time and money.*



Bunching Onion

## Well Known and Popular Onions

	Pkt.	Oz.	$\frac{1}{4}$ lb.	Lb.
<b>YELLOW FLAT DANVERS.</b> —Largely planted. Flesh fine grained; mild; white; good keeper . . . . .	10c	35c	\$1.15	\$4.00
<b>EXTRA EARLY BARLETTA</b> —A small, pure white, mild onion; fine for pickles . . . . .	10c	35c	1.15	4.00
<b>GIANT ROCCA</b> —Large, globe-shaped; skin reddish-brown; flesh mild, sweet flavored . . . . .	10c	35c	1.15	4.00
<b>MAMMOTH SILVER KING</b> —Very large and attractive; skin white flesh fine grained and mild . . . . .	10c	35c	1.15	4.00
<b>QUEEN</b> —If sown thickly, produces small, very firm bulbs, the best of all for pickling; if given more room, matures an excellent onion, that will keep all Winter . . . . .	10c	35c	1.15	4.00

## Onion Sets—Pound Prices Postpaid

### BOTTOM ONION SETS

Small onions grown from seed that has been sown too thickly to attain a large size. The small onions (about  $\frac{1}{2}$  inch in diameter) thus obtained are planted out and are ready in a short time to pull as green onions for the table or bunched for the market. If left to stand they make ripe onions of the best quality, and come to maturity some six weeks earlier than a crop grown directly from the seed. Per lb 30c

For Garlic see page 19

### TOP SETS

Produced in clusters. Per lb 35c

### SHALLOTS

Valuable for bunching or for an early crop. The smallest sets make fine bulbs of good size, while the larger ones produce a cluster of small to medium-sized bulbs. Light brown skin; mild, white flesh. Per lb 30c

### BOTTOM MULTIPLIER

Potato Onion Sets. Per lb 30c

## OKRA OR GUMBO

### IMPROVED DWARF GREEN

Very early, with long, green, slender pods.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb 90c

### WHITE VELVET

The pods are smooth or very slightly ribbed, large, remain tender a long time.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb 90c

# GARDEN PEAS

"Diamond Quality." Selected Hand Picked

For single lbs. by mail add 10c postage—Larger lots at parcel post rates. Pkts. are postpaid

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

## Extra Early Peas

**RICHARD SEDDON—New**

A dwarf English Pea of the finest quality; very early. Has large shapely pods well filled. Is sweet and delicious. A hardy prolific Pea of the greatest merit. As early as American Wonder and far more prolific. Try it. Pkt 15c—1b 30c—10 lbs \$2.50

## ALASKA OR EARLIEST OF ALL

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

Pkt 15c—1b 30c—10 lbs \$2.50

## AMERICAN WONDER

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

Pkt 15c—1b 30c—10 lbs \$2.75

## GRADUS

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

Pkt 15c—1b 30c—10 lbs \$2.75

## PREMIUM GEM

One of the earliest dwarf varieties, coming in a little later than the "American Wonder;" grows taller, much more productive and continues in bearing longer. The quality of the pea is very superior. Height, 15 inches.

Pkt 15c—1b 30c—10 lbs \$2.50

## Main Crop Varieties

**TELEPHONE—Tall**

A Great Favorite With Our Market Gardeners

Immensely productive, of the finest quality and excellent, sugary flavor; vines strong; pods are of large size, filled with large, luscious peas; height four feet.

Pkt 15c—1b 30c—10 lbs \$2.75

## IMPROVED STRATAGEM

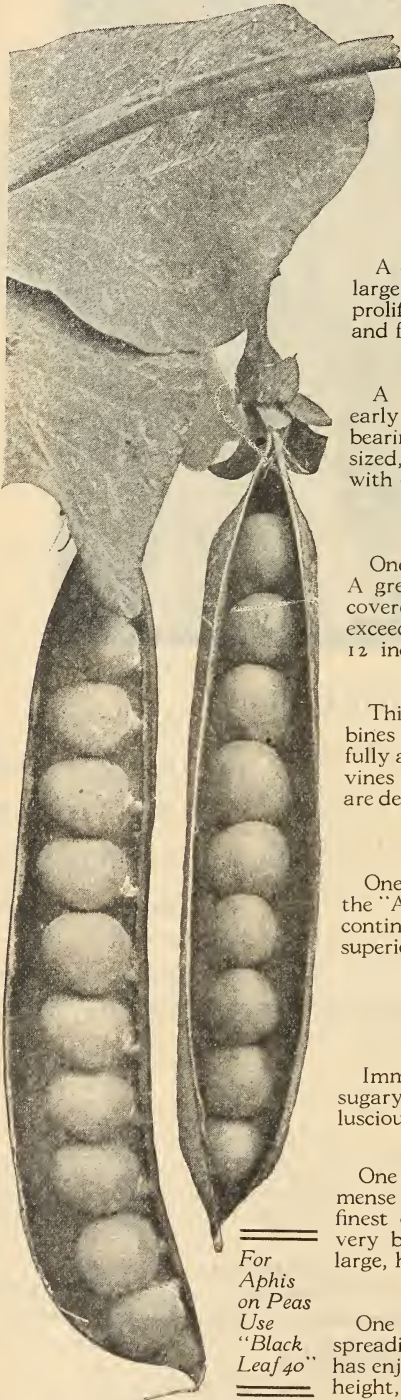
One of the best of the large podded peas; the pods are of immense size filled with large, dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky, with very broad, light green leaves, and bearing an abundance of large, handsome pods.

Pkt 15c—1b 30c—10 lbs \$2.75

## YORKSHIRE HERO

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

Pkt 15c—1b 30c—10 lbs \$2.50



For  
Aphis  
on Peas  
Use  
"Black  
Leaf 40"

It's Easy to Inoculate  
Peas and Beans with

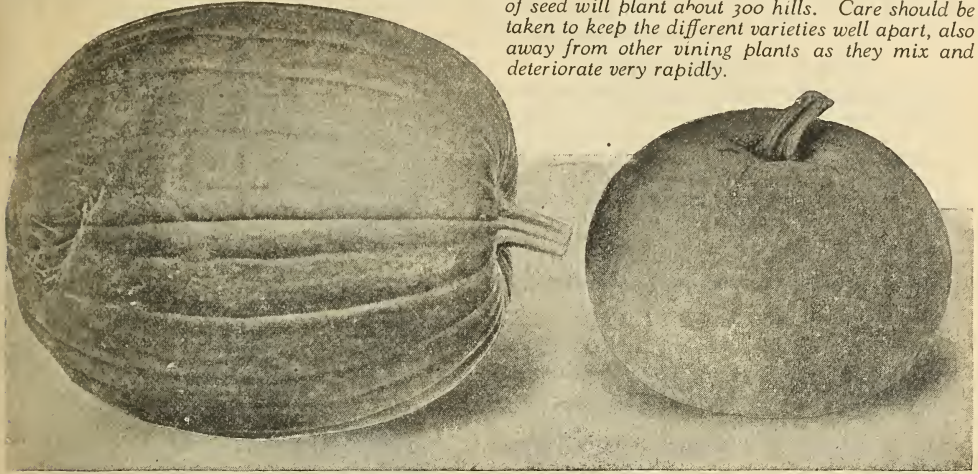
**Farmogerm**

Increases the Yield—Improves the Quality  
Builds Up Your Soil—Garden size 50c.



# PUMPKIN

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



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

## SWEET OR SUGAR

A handsome and productive small pumpkin; skin, orange; flesh, deep yellow, fine grained, very sweet. This is the famous "New England Pie Pumpkin." Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## MAMMOTH TOURS

A productive French variety; grows to an enormous size. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## LARGE YELLOW OR CONNECTICUT FIELD

Large, round; deep, glossy yellow. Vines vigorous and very productive; good keeper. Grown extensively for stock feeding.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c—lb 95c

## WINTER LUXURY

The best flavored pie pumpkin grown; enormously productive; excellent keeper; medium size; color, golden-russet, finely netted; flesh, deep golden, sweet, tender and very thick; none better.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

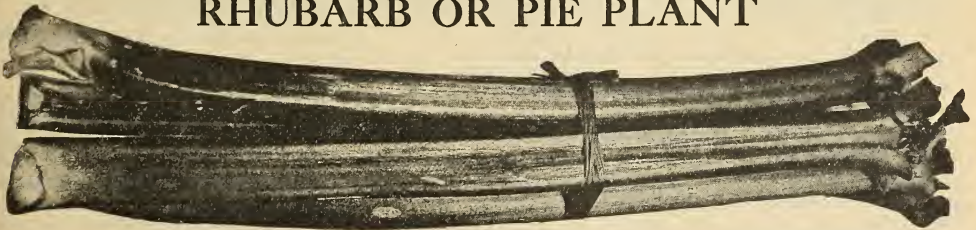
## GIANT OF ALL

"King of Mammoths"

This colossal Pumpkin is almost a globe in shape. The skin is of a beautiful, rich golden yellow, flesh firm, fine grained and deep yellow, sweet flavored, very thick and of excellent quality for so mammoth a variety. These Pumpkins attain an enormous size and will carry away prizes at your county fairs.

Large pkt 10c—oz 15c— $\frac{1}{4}$  lb 50c—lb \$1.50

# RHUBARB OR PIE PLANT



**CULTURE**—Rhubarb succeeds best in deep, rich, somewhat retentive soil. The richer its condition and the deeper it is stirred the better. Sow in drills an inch deep and thin out the plants to six inches apart. In the Fall transplant the young plants into very highly manured and deeply stirred soil, setting them four to six feet apart each way and give a dressing of coarse manure each Spring. The stocks should not be plucked until the second year and the plant never allowed to exhaust itself by running to seed.

## VICTORIA OR MAMMOTH

Very large; finest cooking variety.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## THE NEW "RIVERSIDE GIANT"

Is the finest of all Rhubarbs and the most profitable to grow. See Plant Department.

**RHUBARB ROOTS**—From October to June we can always supply one or two-year-old Rhubarb Roots. Customers wanting only a few dozen roots for home gardens will save much valuable time by ordering roots instead of seed. For prices see Plant Department.

# RADISHES

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

## EARLY CRIMSON GIANT

The Largest Early Scarlet Turnip-Shaped Radish.

A new, early Radish, double the size of any of the turnip-shaped type, but, notwithstanding its immense size, **does not get hollow and pithy.** The flesh is a sparkling white, solid, crisp, juicy and of the mildest flavor. The shape of bulb varies from round to almost oval, but the bright deep crimson color of skin remains quite constant. Excellent for both forcing and open ground. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

## EARLY SCARLET TURNIP

A small, round, red turnip-shaped Radish, with small top and of very quick growth; very early; rich color and crisp, tender flesh.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## EARLY SCARLET TURNIP—White Tipped

A beautiful variety; deep scarlet with white tip. Very early. Has a small top, and may be planted closely. Flesh crisp, tender and sweet. Cannot fail to give satisfaction as a forcing Radish. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## WHITE ICICLE

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

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## EARLY LONG SCARLET, SHORT TOP

This bright scarlet, small topped sort is uniformly straight, smooth, brittle and crisp, and is an excellent sort for private gardens or market use. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## LONG BRIGHTEST SCARLET, WHITE TIPPED

This is the brightest and handsomest colored Scarlet Radish known. The lower third of the root is snow white; very attractive. Extra early and flesh very tender. Valuable for forcing or open ground.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## FRENCH BREAKFAST OR HALF LONG

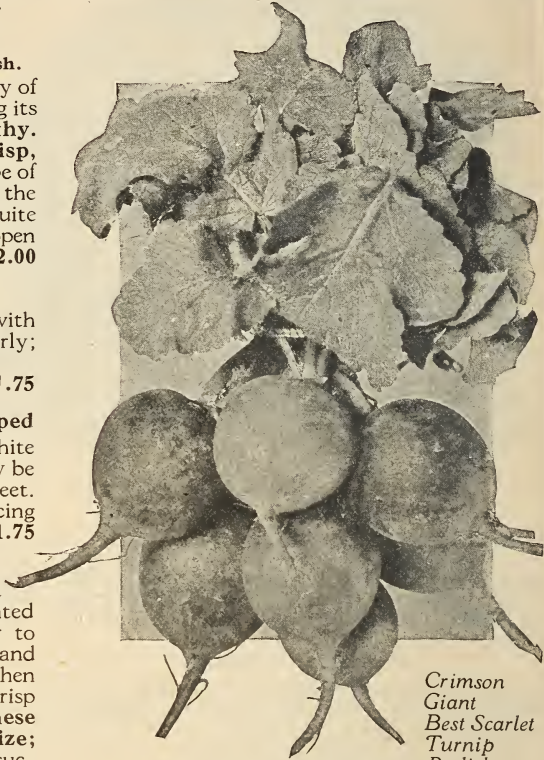
Medium size, quick growth, crisp and tender; lower end and taproot white.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

## LADY FINGER, OR WHITE VIENNA

Of rapid growth and beautiful shape. Skin and flesh snow-white; very juicy, firm, crisp and tender; the finest of Long White Radishes.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75



Crimson  
Giant  
Best Scarlet  
Turnip  
Radish

## EARLY SNOWBALL

Grand improvement on the White Box or White Turnip Radish, so popular for several years. Handsome in shape, very early, and has but few leaves, is of a clear white color, solid, juicy, crisp, tender and unsurpassed in flavor. A good sort for forcing.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## IMPROVED CHARTIER

Roots long, tapering, and attaining a very large size. Of rapid growth; remains crisp and tender till fully grown. Color, scarlet above; shading into white at the tip. Flesh white and mild flavored. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$1.75

## WHITE STRASBURG

One of the best large Summer sorts. It covers a long season, as it is good when quite small. The roots are long, very white, crisp and tender.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## CINCINNATI MARKET

A superior strain of long scarlet, an early, rapid grower of a deep crimson color, so clear and brittle as to be almost transparent. Keeps fresh and stands shipment—a fine market radish.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

# Radishes (Continued)

## Winter Radishes

### CALIFORNIA MAMMOTH WHITE CHINA

This is the largest of all radishes. Roots grow ten to twelve inches long and are solid, tender and crisp. Keeps well through Winter.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

### BLACK SPANISH LONG

Standard Winter sort; has good flavor and keeps well. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### CHINA ROSE WINTER

One of the best Fall and Winter varieties; a favorite with market gardeners, bright rose color; flesh white, firm and of superior quality.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

### BLACK SPANISH ROUND

Same as long, except shape.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## SPINACH

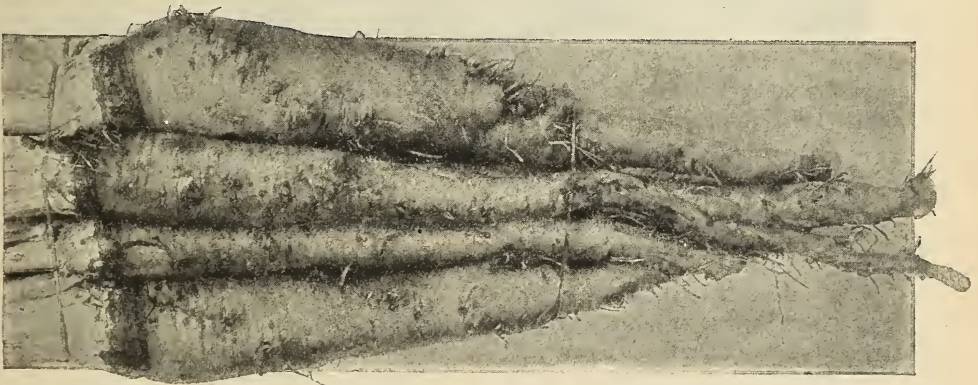
This is an important gardener's crop, of easy culture. For Spring and Summer use, sow either broadcast or in drills one foot apart and one inch deep, as early as the ground can be worked, and every two weeks for a succession.

### SAVOY LEAVED—BLOOMSDALE

Very early; of upright growth; leaves pointed. Plant in the Autumn for Spring use; grows quickly. Pkt 10c—oz 25c— $\frac{1}{4}$  lb 65c—lb \$2.25

### PRICKLY WINTER

Hardest variety; must be sown in the Fall; seed prickly; leaves long, pointed, thick and succulent. **Crop failure**



## SALSIFY or Vegetable Oyster

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

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

**MAMMOTH SANDWICH ISLAND**—The leading variety; produces a large crop of straight, smooth roots. Pkt 10c—oz 30c— $\frac{1}{4}$  lb 85c—lb \$3.00

## TOBACCO

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

### CONNECTICUT SEED LEAF

Hardy, and the best adapted to cool localities. Pkt 10c—oz 35c

### HAVANA

Of fine texture and delicate flavor. Pkt 10c—oz 50c



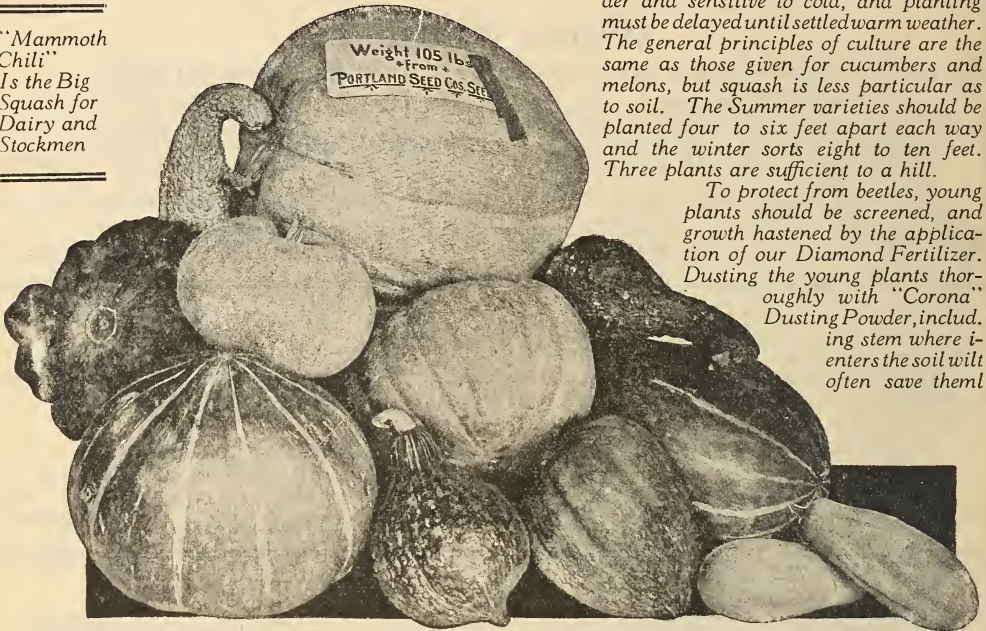
## "Diamond Quality" SQUASH

"Mammoth Chili"  
Is the Big Squash for Dairy and Stockmen

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

To protect from beetles, young plants should be screened, and growth hastened by the application of our Diamond Fertilizer.

Dusting the young plants thoroughly with "Corona" Dusting Powder, including stem where it enters the soil will often save them!



### Summer Varieties

#### MAMMOTH WHITE BUSH SCALLOP

The best Summer sort for the market; very productive and of good size.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 35c—lb \$1.15

#### WHITE SUMMER CROOKNECK

Similar to the Yellow Crookneck, but of a beautiful ivory white and unsurpassed quality.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

#### ENGLISH VEGETABLE MARROW

Oblong, dull yellow skin, very prolific and of finest table quality.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 35c—lb \$1.15

#### EARLY YELLOW MAMMOTH BUSH SCALLOP

An early, flat, scallop-shaped variety; color yellow; flesh pale yellow and well flavored; very productive.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 35c—lb \$1.15

#### MAMMOTH SUMMER CROOKNECK

Early, prolific, solid, curved neck; skin yellow, thin, hard and warty; flesh tender and of good quality. Twice as large as the ordinary Crookneck and several days earlier.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

### Winter Varieties

#### TRUE HUBBARD

The best seller and most popular variety on our list. Rind dark green, warty and very hard. Flesh light orange, very dry, sweet and rich flavored. Has no superior. Keeps perfectly through the Winter.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

#### GOLDEN HUBBARD

The same in size, shape and quality as the well known Hubbard Squash, except that it is a bright red or golden color, and somewhat earlier. It is also a long keeper. One of the very best Fall and Winter sorts yet introduced. Maturing before the frosts; is vigorous and wonderfully productive. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

#### BOSTON MARROW

Skin yellowish, very thin; flesh dry and fine grained; of unsurpassed flavor.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 35c—lb \$1.15

#### MAMMOTH CHILI

The largest of all Squashes, growing to an enormous size, often weighing over 200 pounds, while its rich, fine flavored flesh insures its value for all purposes. Its size makes it valuable for stock feeding. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

#### SIBLEY OR PIKE'S PEAK

Shell smooth, thin and of a pale green color; the flesh is thick, solid, deep orange color; very dry, fine grained with a delicate flavor.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50



## REMEMBER

"PRIDE OF MULTNOMAH" IS THE MOST PROFITABLE MAIN CROP POTATO FOR YOU TO GROW.

# TOMATOES



Early  
Jewel

## CHALK'S EARLY JEWEL

Large, bright red, smooth, round fruits, very deep and colored evenly up to the stem; very solid, almost seedless and of the finest flavor.

Vines are vigorous, not subject to blight, and yield fully equal to or better than Earliana.

We recommend Chalk's Early Jewel as the very best early Tomato for either market or home gardens, as it has given us uniformly better satisfaction under the varying conditions of soil and climate in the Northwest.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25

## BONNY BEST

Bonny Best has given splendid results wherever tried and being early, hardy and very productive can be recommended for outside planting wherever tomatoes can be grown. It is also a good forcing variety. Fruit smooth, round, slightly flattened, solid and of a bright scarlet. Quality excellent. Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25

## NEW—CARTER'S SUNRISE

A very early English variety of fine flavor and healthy, vigorous growth, with solid flesh and few seeds; very even, smooth and shapely. Color, bright, rich scarlet. Is also one of the best forcing varieties. Pkt 25c

## SPARK'S EARLIANA

The Earliest Tomato

Of large, uniform size and beautiful red color. Ripens thoroughly all over, the stem end coloring up perfectly. Almost seedless and very solid. A most vigorous grower and heavy bearer, continuing until frost. Succeeds everywhere, and especially recommended for this Coast.

Spark's Earliana is as near seedless as any tomato, giving but 12 to 15 pounds of seed to the acre. Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00

## EARLY MICHIGAN

An extremely smooth and perfectly shaped tomato; very early; vines strong and vigorous.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00

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

**CULTURE**—Sow early in hotbeds, and as soon as they have four leaves transplant into shallow boxes. Harden off, and set out as soon as danger of frost is past. An ounce of seed will produce 3,000 to 4,000 plants.

If blight appears use "Bordeaux" but it is better to use as a preventative before blight strikes the plant, and as a control measure for flea beetles, spraying the under side of foliage.

## LIVINGSTONE GLOBE

One of the Best Early Tomatoes  
Hardy and Blight Proof

Fruits are of large, even size; very early; ripen clear through and are always smooth, firm and round; with solid meat and few seeds. Color is a beautiful glossy, rose-tinged purple; very productive. Livingston's Globe is of delicious table quality and will keep longer than any other Tomato. Is also an excellent forcing variety.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25

## COMET—FORCING

The very best forcing variety and a general favorite with greenhouse growers. Color is a beautiful scarlet; fruits are of good size, very smooth and uniform. We offer a select strain from inside stock. Pkt 25c

## PONDEROSA

The largest Tomato, fruits are solid and of a purplish red color, sweet and of good quality.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25

## NEW STONE

This new variety has obtained great popularity with canners, growers and market gradeners everywhere. Its solidity and carrying qualities are remarkable. Its color a desirable red. In shape, perfectly smooth and thicker from stem to blossom end than most varieties, making it very handsome and salable.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00

## LIVINGSTON'S NEW CORELESS

The most perfect shape canning variety ever produced. Large size, globe shaped, full at stem end, bright red, a strong grower and big cropper.

It is immensely productive, clusters of four to seven fruits are produced at six to eight inches apart along the stem. All of the fruits are of marketable size, and many of them are quite large, twelve to fifteen ounces. Always free from green core; ripens evenly. A grand, good slicing variety; the seed cells being surrounded by bright red, heavy, meaty and delicious flesh, which is slightly acid. Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.10



## Tomatoes (Continued)

### ATLANTIC PRIZE

In point of earliness, this undoubtedly takes the lead. In size, shape and color it compares favorably with later sorts. Color, bright red.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00

### LIVINGSTON'S PERFECTION

One of the best medium early, round, uniformly smooth; vines very productive; fruit deep scarlet, firm and of excellent quality. Vines continue long in bearing Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00

### QUARTER CENTURY

A grand, new dwarf tomato. The fruit is large and heavy and of superior flavor; color, deep red, fine for home garden.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00

## "TOMATO CULTURE"

By Littooy

40 cents, Postpaid

### WELL KNOWN STANDARD VARIETIES

	Pkt.	Oz.	$\frac{1}{4}$ lb.
DWARF CHAMPION—Dwarf, upright growth; smooth, purple fruit.....	10c	40c	\$1.25
GOLDEN QUEEN—This is a first-class, large, smooth, pure yellow tomato.....	10c	40c	1.25
LIVINGSTON'S BEAUTY—Large; good quality; deep red in color.....	10c	35c	1.00
LIVINGSTON'S FAVORITE—Excellent for general crop; bears heavily.....	10c	35c	1.00

### YELLOW PEAR

A small pear-shaped tomato, borne in great profusion, vine literally covered with large clusters of fine, solid fruits; excellent for preserving, and for use in salads and cooking is superior, as flesh is not watery. Very hardy. To this class belong **Yellow Plum** and **Red Cherry**. All same price.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25

### GROUND CHERRY OR HUSK TOMATO

Grows to great perfection under ordinary culture, yielding abundantly; very much prized for preserving; should be in every garden.

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25

### FERTILIZERS

Are not an expense. They are a safe investment, sure to return many times their cost.

Ask for our free book,

"Fertilizers"



Ground  
Cherry  
or  
Husk  
Tomato

## Tomato Plants

STANDARD VARIETIES FOR SEASONABLE DELIVERY—FINE, HEALTHY TRANSPLANTED AND POT GROWN PLANTS—Safely Packed and Shipped to any point in the Northwest. See Plant Department

## TURNIPS—Ruta Baga or Swede

FOR feeding stock in Fall and Winter there is nothing superior to Turnips or Ruta Bagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We can not too earnestly recommend farmers to increase their sowings largely, for the crop will prove remunerative.

### DANISH PURPLE TOP

#### Bangholm Pajbjerg

This variety was awarded a first-class certificate by the Danish government for heaviest yield, having given 40 tons per acre. In shape is a little more elongated than the Globe types. This variety is recommended as the best of its class.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—1b \$1.95

### MONARCH OR TANKARD

This is a yellow fleshed sort, having very large, tankard-shaped roots; flesh very solid, fine grained, of fine flavor; grows well out of the ground and yields large crops.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—1b \$1.75

### SKIRVING'S

Enormously productive; flesh yellow, solid and sweet. One of the best for field culture.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—1b \$1.75

### WHITE SWEET RUSSIAN

This variety is most excellent, either for table or stock. It grows to a very large size; flesh white, solid, of a firm texture, sweet and rich; an excellent keeper.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—1b \$1.95

### IMPROVED AMERICAN PURPLE TOP

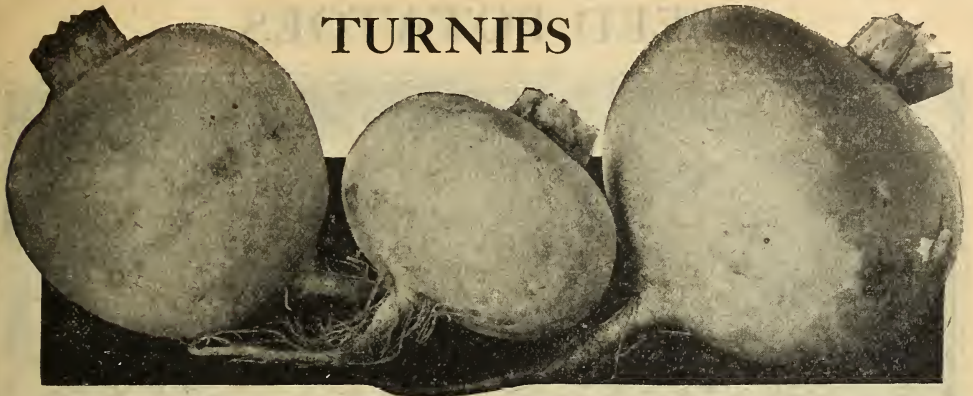
The leading standard variety, being very distinct in type, attaining a wonderfully large size; immense yielder. The flesh is very firm, superior in every way, valuable alike for all purposes.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c—1b \$1.75

## Cut Worm Food

Protect Tomatoes, Cabbage, Melons, Cucumbers and Other Plants—easily applied—inexpensive. Price, 1-lb. pkg., 25c

# TURNIPS



Orange Jelly

White Milan

P. T. White Globe

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

## Early Garden Turnips

### EARLY PURPLE TOP MILAN

This variety is ready for the table sooner after planting than any other yet introduced. Top small, erect, strap-leaved; bulb a deep purple above, white underneath; flesh white, firm and delicate. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

### EARLY WHITE MILAN

Same as Purple Top Milan, but pure white, sweet and tender; best early market variety.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

### PURPLE TOP STRAP LEAF

A leading white-fleshed variety, and one of the best, either for the family, market garden or field crop. It is medium size, and produces a large crop. The flesh is firm, but tender, and of a superior rich buttery flavor. A good keeper.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### EARLY WHITE FLAT DUTCH

One of the very best and most universally grown. Small, erect top, round, flat; flesh, white firm, but very tender and sweet. Of quick growth, it is soon ready for the table and keeps well. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.40

### EARLY SNOWBALL

Early round turnip, maturing in seven weeks, is of perfect form, snowy whiteness, crisp, solid, fine flavor. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### ORANGE JELLY

#### Or Robertson's Golden Ball

Undoubtedly one of the most delicate and sweetest yellow-fleshed turnips yet introduced. Not of large size, but firm, hard and most excellent flavor. Keeps well and is superior as a table variety. It is extensively used by market gardeners. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## Main Crop Turnips

### COWHORN

Sometimes called Long White. Slightly crooked. Pure white except a little shade of green at the top. Grows half out of the ground and is of very rapid growth. Is delicate and well flavored. Has proved itself one of the best stock turnips ever introduced in Oregon; an immense yielder. **Crop failure**

### POMERANIAN WHITE GLOBE

One of the most productive kinds, and in good, rich soil, roots will frequently grow to 12 pounds in weight. It is of perfect globe shape; skin white and smooth; leaves dark green and of strong growth. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### PURPLE TOP WHITE GLOBE

A large, globe-shaped variety; purple above the ground. It is handsome and of excellent quality; recommended both for family garden and field crop. Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

### LARGE WHITE NORFOLK

A white variety, usually attaining a very large size. Extensively grown for stock feeding. The leaves are also used for greens. It is hardy and may remain in the ground all Winter. Yields very large crop. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### WHITE EGG

Is perfectly smooth, of a pure, clear white, growing half out of the ground, and at times to the size of a Ruta Baga, being a very choice kind for table use; of excellent flavor; sweet and mild. Pulls clean from the ground; thin, snow-white skin. Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

### YELLOW ABERDEEN

Round, medium size; light yellow. Produces a large crop; is hardy and keeps well; flesh very firm but tender and sweet. A great favorite with the dairymen.

Pkt 5c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

# SEED POTATOES



**P**OTATOES are of such great economic importance as a food, give quick, sure, cash returns and are so valuable in crop rotations that our experience as growers may be of interest and helpful to others at this critical time when there is a general awakening to the necessity for better cultural methods, standardization of crops and above all a systematic selection of seed.

Unfavorable growing conditions in many sections and the urgent necessity for food conservation have made it plain that some action must be taken to improve the quality and increase the average yield.

## IMPORTANCE OF SELECTION

Two potatoes of equal appearance selected from the bin or pile may not produce the same general results, for the reason that the tendency is to reproduce the characteristics of the hill instead of the individual tuber, hence the selection of one good potato from an otherwise poor hill will not give the results that a potato of the same general appearance from a good heavy yielding hill. Small potatoes as a rule come from poor hills, and if planted tend to produce small potatoes and poor hills.

For many years we have been growing Seed Potatoes by careful re-selection and, comparative tests in various sections, have shown that our select seed will produce larger crops and more uniform, salable tubers with average soil and culture and have proven profitable and satisfactory under the conditions for which they are recommended.

## Choosing the Best Variety

There is no one best potato but there are many excellent sorts some of which will prove more profitable and satisfactory for your purpose than others. In choosing a variety of potatoes consider your soil conditions, market requirements, climate and seasons, and history of available seed stock.

We have much valuable data that will be helpful to you in your selection that is free on request.

**To secure a ready market and increase your profits you should grow only the best standard sorts that are known to be suited to your soil and are in demand in your market.**

**The following descriptions have been carefully written from our own experience, with the addition of notes on origin of varieties from Bulletins of the U. S. Dept. of Agriculture.**

**The illustrations are from our own photographs of average types.**

**P****O**TATOES are as sure and profitable a crop investment, and labor considered, as can be grown. And the varieties we offer (seed stock of our own growing), will produce the maximum yield of shapely salable tubers that will command the highest market prices. *We can tell you the best varieties for your market and soil.*

**THIS IS THE YEAR TO PLANT—ORDER EARLY**





# GROWING POTATOES

**Y**OU can grow potatoes under most average conditions of soil and care, but for the big yields of shapely tubers that pay big profits it requires soil adapted to potato growing, good seed stock properly planted, and plenty of **cultivating at the right time**. You can make your soil fit by proper rotation and use of necessary fertilizers.

**SOIL REQUIREMENTS AND TREATMENT**—Good Potato soils—those that produce big yields of shapely tubers, having good table and keeping qualities—may be of several different types.

Clay loam, sandy or gravelly loam, silt, wet land and soils heavy in organic matter have all produced excellent potatoes. But only where the drainage is good and the soil well aerated and properly worked can best results be obtained. Given a soil of average fertility drainage is of the utmost importance, next in order being the organic content in the form of humus to retain the moisture and in the case of heavy soils to improve their mechanical condition after proper drainage has been secured. A soil rich in organic matter not only conserves the necessary moisture for the growing crop but is less susceptible to the extreme changes of atmospheric temperatures that are often so unfavorable to growth and development.

**SOIL AND DISEASES**—It is generally recognized that certain soil types are favorable to certain of our common potato diseases and where it is possible to do so, advantage should be taken of this knowledge and extreme care used to prevent the introduction of certain diseases to soil conditions that are favorable to their development.

Rhizoctonia and Black Leg, as examples, develop more freely and cause more loss on heavy wet soils. Scab is more prevalent in soils having an alkaline re-action.

Rhizoctonia is favored by an acid or neutral soil, therefore the alkalinity or acidity of the soil influencing certain diseases can become a factor in their control. The use of lime, producing an alkaline re-action may increase the amount of Scab, while the plowing under of a soiling crop will increase the acidity of the soil and lessens Scab but makes conditions more favorable for the development of Rhizoctonia.

Barnyard manure, bone meal, wood ashes and some of the forms of potash salts are all conducive to Scab and if used should be applied the Season or Fall previous to planting.

**SEED TREATMENT**—Dipping either in a solution of Formaldehyde or one of Bi-Chloride of Mercury (Corrosive Sublimate) are the two methods generally recommended for treating seed potatoes, as follows:

Formaldehyde, 40% Commercial Solution.....	1 pint
Water.....	30 gallons

Soak the potatoes in this solution for two hours and spread out to dry. This treatment is effective against Scab but as it is not to be depended upon for Rhizoctonia, the Bi-chloride of Mercury solution is always recommended as it will do all that the Formaldehyde accomplishes and takes care of our most troublesome disease, Rhizoctonia. The Bi-chloride of Mercury solution is prepared as follows:

Bi-chloride of Mercury (Corrosive Sublimate).....	4 ounces
Water.....	30 gallons

Soak the potatoes in this solution from 1½ to 2 hours and dry before planting.

**SPECIAL NOTE**—In dissolving the corrosive sublimate use a small amount of hot water, about a gallon to the ounce, adding it to the cold water when it is dissolved as it will be impossible to get good results by attempting to mix the entire amount in cold water.

**WARNING**—The poisonous nature and corrosive action of this solution makes it necessary to use care in handling and to keep the treated potatoes from stock or poultry. Any that are not used should be burned or buried. Make the solution in a wooden or porcelain container as it will corrode metals and rapidly lose its strength.

Both of these solutions will lose strength through use or standing for any length of time and should be made up fresh and not more than four lots of potatoes dipped without renewing the solution. The dipping can be done in bags or crates but the potatoes should then be spread out to dry, care being taken not to re-infect them by using the same bags or containers or spreading them where they would again be in contact with untreated stock.

**GREENING**—After dipping, the seed should go through the process of greening, leaving them spread in the light and warmth when the light will cause them to assume a greenish color and sprouting will begin. Sprouts brought on in this way will be short and thick and the potato will awaken from its dormant condition and develop much more vigor and vitality than potatoes that are not so treated. The greening also is a big factor in eliminating fungus growth and diseases. Another very valuable result from greening is the time gained as the potatoes thus treated will germinate and develop very much earlier than they would otherwise.

**SPRAYING STORAGE HOUSES**—A storage house, cellar or bin should always be sprayed before putting the crop away. The following formulae being recommended—either one of which is easily prepared and applied by the use of any available sprayer or pump.

1 lb. Copper Sulphate to every 10 gals. of water.

The formaldehyde solution is 1 pt. to each gallon of water—either of these should prove satisfactory if thoroughly applied.

## EARLY VARIETIES

### Portland Seed Company's "Earliest of All"

CAN BE HAD READY FOR BAKING 9 WEEKS FROM PLANTING. FULLY MATURED IN 12 WEEKS

**O**RIGINALLY a selection from Early Eureka introduced by Portland Seed Co., 1908, showing a marked difference in habit and greatly increased yield which years of careful re-selection have firmly fixed and improved. "Earliest of All" is a shallow eyed, white skinned variety of vigorous growth, not subject to blight or disease and does not make a second growth. The tubers are smoother and have fewer eyes than other varieties of this type. The white blossoms also easily distinguish it from Irish Cobbler, which has a purple bloom. Not affected by summer drouths owing to its quick growth and early maturity. Keeps as well as any late potato.

**The earliest of all early potatoes.**

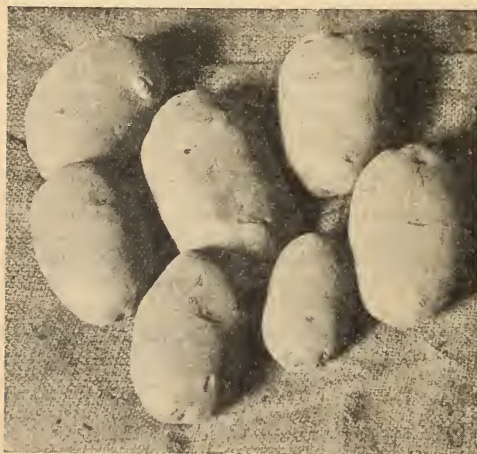
**Prices: 1 doz eyes 30c—4 lbs whole potatoes 60c, prepaid; by freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25—bu \$2.25—100 lbs \$3.50**



"Earliest of All"



Early White Prizetaker



Scotch Rose

**TO BE SURE** of getting the genuine "Earliest of All" buy direct from our Portland store. Beware of substitutions and varieties that are "just the same."

#### Early White Prizetaker:—

One of the finest of the early sorts, oblong in shape, 4 or 5 inches in length. Skin smooth and white with few eyes. Is of superior cooking quality, baked or boiled, cooking up dry and floury. White Prizetaker has important advantages over other early potatoes as its white skin, large size and good keeping qualities make it an ideal main crop variety.

**Price, postpaid: 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25—bu \$2.00—100 lbs \$3.00.**

#### Early Sunrise:—

A hardy early pink variety and one of the best yielders of its type. About the same color as Rose, not so flat, a bit more slender and a smoother potato. Cooks dry and mealy. One of our earliest and best pink skinned potatoes.

**Price, postpaid: 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25—bu \$2.00—100 lbs \$3.00.**

#### Early Rose:—

Strong, vigorous vines of medium height. Flowers white, rather abundant. Tubers quite smooth, elongated or oblong, stem and seed end rather blunt. Eyes shallow, but sharp and strongly marked; skin thin but tough. Flesh creamy white sometimes streaked with red, solid and brittle, rarely hollow. Our strain of this grand "old timer" is exceptionally good.

**Price, postpaid: 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25—bu \$2.00—100 lbs \$3.00.**

#### Scotch Rose:—

Reported to be a seedling of Early Rose, and considered to be superior to the parent stock through sections of New York and the New England states where it has been tried. Color a little deeper than Early Rose. The tubers average larger and of flattened oval to oblong type; of superior cooking quality, cooking up light, white and floury. A hardy, heavy yielding dependable variety that we believe to be superior in every way to Early Rose.

**Price, postpaid: 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25—bu \$2.00—100 lbs \$3.00.**

# MAIN CROP AND LATE VARIETIES

## PRIDE OF MULTNOMAH

*Excels in Yield and Table Quality*

**PRIDE OF MULTNOMAH** Potato was first offered nine years ago and is the best main crop potato for Western Oregon. During these years we have distributed it to many sections of the United States, always receiving splendid reports, and up to the present time have yet to find a variety combining so many desirable qualities. Tubers are uniform in size of the ideal elongated type with smooth thin white skin; eyes shallow; flesh snow white of finest table quality; flowers white; vines medium large of bushy growth; withstands drought; and is blight and disease resistant to a remarkable degree.

Pride of Multnomah is the leader in its class, being superior in yield, uniformity and table quality—holding the record yield for the state of California from our Oregon grown seed—790 bushels of clean uniform stock, the prize acre at P. P. E., San Francisco, 1915.

Prices postpaid 1 doz eyes 30c—4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bushel \$1.25—bushel \$2.00—100 lbs \$3.00

### Producer:—

A large, smooth, oval, white potato with shallow eyes, of finest table quality, does not boil to pieces and has no superior baked. Is a hardy, vigorous grower, producing enormous yields and is especially valuable for dry or light soil, and has shown up better in our trials than any other new variety. Sample hills dug on overflowed river sediment averaged 4 lbs. 3 oz.—416 sacks of 120 lbs, each to the acre—without irrigation. *Producer* is our own introduction and gives promise of becoming the standard of its type in this market.

Prices postpaid 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bushel \$1.25—bushel \$2.00—100 lbs \$3.00.

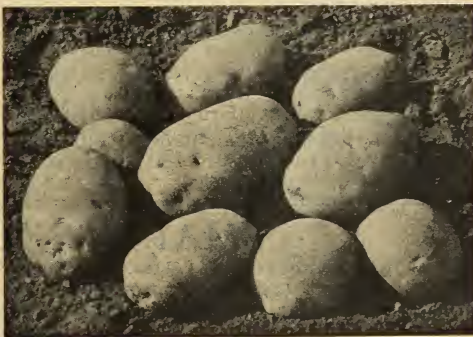


*Producer*

### Snow:—

A splendid early maturing main crop potato that gives a good yield on poor or light soil. Vines are luxuriant and dark green with heavy foliage, stems light green, flowers white, freely produced. Tubers large, oblong and slightly flattened, generally with blunt ends, base usually more or less notched. Skin creamy white more or less netted, flesh fine grained, flaky and of excellent quality; eyes shallow. Potatoes grow close together with few small ones. The seed put out last year was a delight to early planters. One patch cut down by frost three times "came back" and produced a good crop.

Prices postpaid 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bushel \$1.25—bushel \$2.00—100 lbs \$3.00.



*"Snow"*

### White Rose (California):—

A standard market potato in southern California, the shape being a flattened oval rather elongated, having few eyes and a beautiful creamy white skin. Abundant foliage and lavender flower—fading to light. Yields well, and although not an early maturing potato, it makes a vigorous rapid growth and can be used quite early. The strain we have is the best. The one in big demand in California (see note).

**Note.**—The White Rose originating in Aroostook Co. Maine, is a different type of potato from the above, having the physical characteristics of the Early Rose and is a white flowered variety. To avoid confusion California has been added to the name to distinguish this variety.

Prices postpaid 4 lbs whole potatoes 60c—freight or express, peck 75c— $\frac{1}{2}$  bushel \$1.25—bushel \$2.25—100 lbs \$3.50.



*White Rose-California*

**WE GROW MANY VARIETIES OF POTATOES IN OUR TRIALS THAT ARE NOT CATALOGUED,** and are prepared to grow seed potatoes to order, in car lots, from our own select stocks, or from seed stock furnished. *Special terms to Dealers and Commercial Growers.*

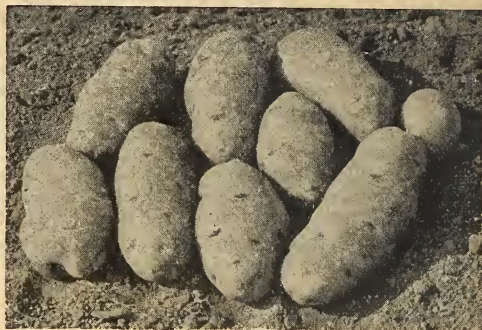


## Main Crop and Late Varieties (Continued)

### Burbank:—

A standard commercial variety. Late and very productive. Skin nearly smooth. Eyes rather shallow. Tubers long and slightly flattened. Under proper selection it thrives equally as well now as at any time since its introduction. We offer a select true heavy yielding strain.

**Prices postpaid: 4 lbs whole potatoes 60c**  
—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.00  
—bu \$1.85—100 lbs \$2.75.



*American Wonder*

### Garnet Chili:—

A heavy yielding medium size late potato of roundish irregular form; deep eyes, blunt ends, skin red, flesh moderately white, vines and leaves light green. Its growth is so vigorous and rapid that the young tubers form very early and stand handling and shipping better than other early varieties, hence its value to California growers for early shipping to distant markets.

**Prices postpaid: 4 lbs whole potatoes 60c**  
—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25  
—bu \$2.00—100 lbs \$3.00.

### American Wonder:—

One of the earliest and best main crop varieties. Strong grower of branching habit and great producer. Tubers white, large and uniform in size; elongated and slightly compressed. Blooms white; foliage rich dark green. Our stock is of exceptional quality.

**Prices postpaid: 4 lbs whole potatoes 60c**  
—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.00  
—bu \$1.85—100 lbs \$2.75.

### Netted Gem:—California Russet, Russelt Burbank, Yakima Gem, Idaho Russet, etc.

A splendid main crop late potato that gives good results in dry sections. Tubers are elongated, medium sized with russet netted skin; flesh white; eyes are flush with surface; good keeper and produces a fine yield. This is the variety grown extensively by irrigation in Washington and Idaho for baking. Our stock is extra choice of the most improved type.

**Prices postpaid: 4 lbs whole potatoes 60c**  
—freight or express, peck 75c— $\frac{1}{2}$  bu \$1.25  
—bu \$2.00—100 lbs \$3.00.



*Netted Gem*

## SMALL SEED POTATOES

THE 1917 potato crop was seriously affected by the late, cold rains delaying the plantings, followed by a hot, dry spell that prevented the normal development of the tubers. This shortened the crop seriously and gave us a nice grade of small potatoes, one to two ounces, not culls or little potatoes such as would be accumulated in a normal season but stock that was dried up and matured before reaching its normal growth, due to abnormal seasonal conditions. The report of the Chief Inspector of this State justifies us in offering it to our customers as seed that will give good results.

Whole potatoes are more convenient to handle, save labor in cutting and for early plantings have an advantage over cut pieces.

We offer a limited amount of this small seed as follows

	100 lbs.
Early Rose . . . . .	\$3.00
White Prize Taker . . . . .	3.00
White Rose . . . . .	3.00
Pride of Multnomah . . . . .	2.50
Burbank . . . . .	2.25
American Wonder . . . . .	2.25

Write for samples and prices on large orders as we can supply a car or more of Burbank and can make up mixed car loads.

### SMALL POTATOES

Corvallis, Ore., Dec. 7, 1917

I have made regular field and bin inspections of the potatoes grown in this state for your seed trade. I have found the stock true to variety and comparatively free from diseases.

The very unfavorable climatic or seasonal conditions have produced a large percentage of small and mis-shaped tubers. Under normal conditions a large part of the plantings would have qualified as certified seed under Oregon standards.

I have every reason to believe that seed of this kind, from good stock, will come back true to type with a favorable season. Its vigor is not impaired. You can safely assure your patrons that this seed will give a good account of itself the coming year.

J. E. LARSON, Chief Inspector.

In a normal season we do not advocate the planting of small potatoes as sorted from an average crop for they contain many degenerate seed and may prove very unprofitable but potatoes that have not reached their normal size on account of late planting, frost killing the vines, dry or unfavorable growing season, often make the best of seed and give better yields than potatoes that have been allowed to make a normal growth.

## Foreign Names of Vegetables, Grains and Fruits

*This list includes only those varieties that are in general cultivation*

ENGLISH	FRENCH	GERMAN	ITALIAN
Artichoke	Atichaud	Artischoke	Carciofo
Asparagus	Asperge	Spargel	Asparago or Sparagio
Beans, dwarf	Haricot, Nain	Bohnen	Fagiuolo
Beans, pole	Haricot a'Rames	Stangen Bohnen	Frihol
Beet	Betterave or Bette Rouge	Rothe Ruebe	Barbabetola
Borecole or Kale; see Kale			
Broccoli	Brocoli	Spargelkohl	Broccolo
Brussels Sprouts	Chou Verts	Rosenkohl	Cavolo di Bruxelles
Cabbage	Chou Pomme	Kopf kohl or Kraut	Cavolo
Cabbage Savoy	Chou de Milan	Wirsing	Cavolo Cappacio
Cauliflower	Chou-fleur	Blumenkohl	Cavolflore
Carrot	Carotte	Gelbe Rübe or Mohre	Carota
Celery	Celeri Mavet	Sellerie	Sedano or Appio
Celeriac	Celeri-rave	Knoll-Sellerie	Appio Marone
Chervil	Cerfeuil	Kerbel	Cerfoglio
Chicory	Chicorice Sauvage	Gemeine Cichorie	Cicoria
Corn, Maize	Mais	Mais	Mais
Corn Salad	Mache	Feldsalat	Valeriana Domestica
Collards	Chow Coba	Blatterkohl	
Cress, Curled	Cresson Alenois	Garden-Kresse	Cresscione
Cress, Water	Cresson de Fontaine	Brünnen-Kresse	Cresscione di Sorgente
Cucumber	Concombre	Gurke	Citriuolo
Egg Plant	Aubergine or Melongence	Eierpflanze	Melanzana
Endive, Curled	Chicoree	Endivie	Indivia
Endive, Batavian	Escarolle	Blat-endive	Escarolle
Garlic	Ail	Knoblauch	Aglio
Horseradish	Raifort	Meerrettig	Ramolaceio
Kale	Chou Frise	Blatter or Grunen Kohl	Cavolo Riccio
Kohl Rabi	Chou-rave	Kohl Rabi	Cavolo Rapi
Leek	Poireau	Gemeiner Lauch	Porre
Lettuce	Laitue	Lattich or Garten-salat	Lattuga
Melon, Musk	Melon Musque	Zucker-Melone	Mellone or Popone
Melon, Water	Melon d'eau	Wasser-melone	Cocomero or Anguria
Mushroom	Champignon	Essbare Blatter-schwamme	Pratajulo bianco, Fungo
Mustard	Moutarde	Senf	Senapa or Mortarda
Okra or Gumbo	Gombaud	Okra	Oera
Onion	Ognon	Zwiebel	Cipolla
Oyster Plant; see Salsify			
Parsley	Persil	Petersilie	Petrosemolo
Parsnip	Panais	Pastinake	Pastinaca
Pea	Pois	Erbse	Pisello
Pepper	Poivre	Pfeffer	Pepe
Potato	Pomme de Terre	Kartoffel	Patata
Pumpkin	Citronille or Potiron	Melonen Kürbis	Zucca
Radish	Rave	Rettig	Ravanello or Radis
Rape	Navette	Repskohl	Rapa Selvatica
Rhubarb	Rhubarbe	Rhabarber	Rabarbaro
Salsify or Oyster Plant	Salsifis	Haferwurzels or Bocksbart	Sassifica
Spinach	Epinards	Spinat	Spinacio
Squash	Courge	Speisie Kürbiss	Zucca
Tomato	Tomate	Liebesapfel	Pomodoro
Turnip	Navet	Rübe	Rapa or Navone

### FRUITS

Almond	Amande	Mandel	Mandorla
Apple	Pomme	Apfel	Mela or Pomo
Apricot	Abricot	Apricose	Albicocca
Cherry	Cerise	Kirsche	Ciriegia
Currant	Groseille	Johannisbeere	Ribes
Fig	Figue	Fege	Fico
Filbert	Noisette	Nussbaum	Avellana or Noccinola
Gooseberry	Groseillier a Maquereau	Stachelbeere	Uva-Spina
Grape	Vigne	Traube	Uva
Lemon	Limon	Limonie	Limone
Mulberry	Mure	Maulbeere	Mora
Nectarine	Brugnon	Nectarpfirsich	Pesche Noci or Nettareine
Olive	Olivie	Qelbaum or Olive	Ulliva
Orange	Orange	Pomeranze	Arancia
Peach	Peche	Pfirsiche	Pesca
Pear	Poire	Birne	Pera
Plum and Prune	Prune	Pflaume	Susina or Prugna
Pomegranate	Grenade	Granatenbaum	Melagrana
Quince	Coinq	Quitte	Melacatogna
Strawberry	Fraise	Erdbeere	Fragola
Blackberry	Murier de Renard	Brombeere	Moro di RoVo
Raspberry	Framboise	Himbeere	Lampone

### GRAINS

ENGLISH	GERMAN	ENGLISH	GERMAN
Wheat	Weizen	Red Clover	Rother Klee
Oats	Hafer	White Clover	Weisser Klee
Rye	Roggen	Alfalfa	Lucerne
Barley	Gerste	Timothy	Timotheus
Buckwheat	Buckweizen	Orchard Grass	Brautgras
Emmer	Emmer	Red Top Grass	Weisen fuchs schwanz
Cheat	Cheat	English Rye Grass	Englises Raygras
Flax	Flachs	Italian Rye Grass	Italienisches Ray Gras
Lentils	Linse	Millet	Hirse
Vetch or Tares	Wicke	Blue Grass	Blaugras


## FIELD AND FARM SEEDS

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

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

### IMPORTANT—Read Carefully

Clover, Grass and Field Seeds are subject to market changes, therefore we cannot print prices good for any length of time. When ready to buy, write us for special prices, stating quantity wanted; or send in your order at catalog prices. **We guarantee that we will give you full value for the money sent,** whether the price at the time you order be higher or lower, or if the difference is very great we will notify you before shipment. **No premiums on Grass and Field Seeds.**

 **Single pound prices include postage. 100 lb. PRICES are F. O. B. PORTLAND, and are SUBJECT to MARKET CHANGES. But—You will always get full value for the money sent us. Write for prices on large quantities.**

#### ARTICHOKES

There is an unlimited market for Hogs and Artichokes are the cheapest and best feed. They never fail. They are also valuable to dairymen, being cheap, and good milk producers.

Artichoke  
Tubers



Planted and cultivated same as potatoes. Of great value for feeding stock. They are the best hog feed known; are remarkable for fattening properties, great productiveness (over one thousand bushels having been raised on one acre) and ease with which they can be grown. They need not be dug. Turn the hogs into the field, and they will help themselves by rooting. One acre will keep from twenty to

thirty hogs in condition from October until April, except when the ground is frozen too hard for them to root. They are said to be a preventive of cholera, and other hog diseases, and are also highly recommended for milch cows, increasing yield of milk and at the same time improving their condition. Plant ten bushels per acre early in the Spring.

Note—Tubers on hand from January to May.  
Per lb postpaid 15c—F. O. B. Portland,  
100 lbs \$2.00.

#### FLAX SEED

We have a splendid lot of selected re-cleaned Western-grown Flax, new crop, large plump seed.

Per lb postpaid 20c—F. O. B. Portland,  
100 lbs \$8.00

#### COW OR THOUSAND HEAD KALE Plants in Season

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

Postpaid oz 10c— $\frac{1}{4}$  lb 30c—lb 90c

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

#### BUCKWHEAT

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

Sow 36 lbs. per acre in drills, 48 lbs. broadcast.  
We recommend the Japanese variety.

Common lb postpaid 20c—F. O. B. Portland, 100 lbs \$6.50.

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

Per lb postpaid 20c—F. O. B. Portland, 100 lbs \$6.50.

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

Per lb postpaid 20c—F. O. B. Portland, 100 lbs \$6.50.



Write for Prices on 100-lb. and Ton Lots

# BARLEY

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



*Trial Plot of Hannchen Barley, Oregon Agricultural College*

## BLUE HULLESS BARLEY

### Beardless

This new Barley originated at the Oregon Agricultural College and is recommended as one of the most satisfactory varieties for this section, being a heavy yielder with strong straw and makes a satisfactory and profitable crop for either hay or grain.

**Price: 1b postpaid 15c—freight or express F. O. B. Portland, 100 lbs \$5.00.**

## NEW—"ODERBRUCKER" BARLEY

This is a Pedigreed strain of 6-row barley, selected and bred by the University of Wisconsin, and is considered the earliest maturing, most prolific of all the barleys. Has a stiff straw, is rust resistant, and owing to its high protein content is a very superior feeding sort. This is the variety that was secured at great expense by the Oregon and Washington Railroad Co. for introduction in their territory. We offer the genuine stock of our own growing.

**Price: 1b postpaid 15c—freight or express, F. O. B. Portland 10 lbs 50c—100 lbs \$4.00**

## BLACK HULLESS BARLEY—Bearded

**Best of grains for feeding or fattening stock. Greater food value than corn.**

Black Hulless Barley will grow on the dry Alkali soil where other grains fail. Sow in the Fall or Spring as late as June 15, 75 to 100 lbs. per acre. Will yield as high as 75 bushels to the acre, weighing about 70 lbs. to the measured bushel; does not shatter or shell out easily.

When planted in the Fall its abnormal stooling habit and wide succulent leaves make it ideal for late Fall pasture yielding a full crop the next season. Stock prefer and thrive on it.

**Per lb postpaid 15c—F. O. B. Portland, 100 lbs \$5.00.**

## COMMON BARLEY

We always aim to have a nice, clean stock of good Seed Barley on hand at all times. This is the common 6-row bearded type.

**Per lb. postpaid 15c—F. O. B. Portland 100 lbs \$3.75.**

## HANNCHEN BARLEY

Hannchen is the earliest and best of the 2-rowed barleys, is drought resistant and a sure and heavy cropper. The seed stock we offer was grown from seed secured from the Oregon Agricultural College. We call special attention to the plumpness of the seed, thinness of the hull and the ease with which the beards break off. It frequently happens that these beards drop in the field before harvest. Although a Spring Barley the United States Department of Agriculture has successfully grown Hannchen Barley from fall seeding where the winters are mild.

**Price: 1b postpaid 15c—freight or express F. O. B. Portland, 100 lbs \$4.50.**

## BEARDLESS BARLEY

Straw is about the height of the Common Barley, but better, and will stand up on any land; our seed crops have averaged 65 bushels per acre in dry unfavorable seasons. Sow as early as you can; frost does not hurt it. Many farmers will not grow Barley on account of the long, harsh beards which are so disagreeable in threshing although it is a profitable crop. This is as nearly beardless as seems possible to obtain, as beardless barleys show a tendency to produce a small percentage of bearded heads; it is about as easy to grow and handle as oats, and is the most Popular Barley grown.

**Per lb postpaid 15c—F. O. B. Portland, 100 lbs \$4.00.**

## WHITE HULLESS OR BALD BARLEY

### Beardless

An early Spring variety—beardless, of high feeding value, said to exceed corn as a pork producer. Can be fed to all live stock—especially valuable used in a mixed ration. Grain plump, heavy and when threshed is hulless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Culture same as Common Barley.

**Per lb postpaid 15c—F. O. B. Portland 100 lbs \$5.00.**



# FIELD CORN

## OREGON GROWN

Corn is a profitable crop for grain,  
silo or fodder



**SEED CORN** in many varieties is very scarce this season, owing to serious damage by frost in the corn producing sections. Our Oregon grown corn being acclimated will give good results for the purposes and under the conditions for which it is recommended but the supply is limited.

**CULTURE**—Thorough preparation of the soil is necessary for best results, methods of culture being determined by the different conditions of soil, climate, moisture and previous crops. The ideal soil is a deep warm one with a little sand, well drained and with sufficient humus to hold the moisture.

Deep plowing is always necessary for best results, and the heavy soils on the West side of the Cascades will give best results from Fall plowing, repeating in the Spring before seeding time. A liberal amount of stable manure and thorough tillage will help to offset the cold nights. For best results when planted for grain, plant in hills 42 inches apart, allowing two stalks to the hill. For fodder or silo, three stalks, if the ground is rich.

For East of the Cascade Mountains—quoting "Farmer Smith"—"Where rainfall exceeds 12 inches and Corn is to follow Wheat, roll the stubble with corrugated roller right after harvest; then after first heavy rains, disc crossways of the rolling. If open weather, plow or disc thirty days later, allowing to lay in the rough until Spring. Ten loads of stable manure put on during the Winter or Fall will prove helpful. In the Spring when ground can be worked, disc and harrow every two weeks until May 1st, then plow deep, discing every day's plowing and harrow, roll or clod-crush to a fine well-packed surface. List 6 inches deep in 42-inch rows, kernels 12 to 14 inches apart in the rows. If Lister is not available, plant at bottom of 6-inch furrow made with a stubble plow. Five days after planting, harrow with slanting spike tooth harrow repeating every week until Corn is 4 to 6 inches high, then continue cultivating until in tassel."

**For single pounds by mail add 10c postage. Larger lots at parcel post rates**

### HARTMAN YELLOW DENT CORN

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

**1 lb 25c—10 lbs \$1.65**

### MINNESOTA KING (DENT)

Smallest cob and largest grain. The ears are uniformly well filled out. Golden yellow and a good yielder, being a safe corn to plant west of the Cascades.

**1 lb 20c—10 lbs \$1.40**

### OREGON GROWN YELLOW DENT

Thoroughly acclimated seed that has given splendid returns in the Willamette Valley. Matures early and gives a good grain yield; is also a very satisfactory corn for silo.

**Price 1b 25c—10 lbs \$1.65**

### WISCONSIN WHITE DENT

"Wisconsin White Dent" is a large handsome White Dent, extremely early and matures perfectly, and is the best White Dent Corn for Oregon and Washington.

**1 lb 20c—10 lbs \$1.35**

### CHAMPION WHITE PEARL

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

**1 lb 20c—10 lbs \$1.35**

### MINNESOTA No. 13 YELLOW DENT

A variety of great promise, being the earliest of the early Yellow Dent corns and reported to be the heaviest yielding. Producing splendid large ears, closely filled from end to end with bright yellow kernels. Has rather a thick cob and the shelled grains have a tendency to irregularity. "Minnesota No. 13" will average 7 feet high and being a rapid, vigorous grower, with heavy foliage, makes a fine fodder corn, and is especially recommended for ensilage west of the Mountains. Will mature in 90 days under favorable conditions.

**1 lb 20c—10 lbs \$1.40**

### PRIDE OF THE NORTH YELLOW DENT

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

**1 lb 20c—10 lbs \$1.40**

### AUSTRALIAN WHITE FLINT

A growing test of three seasons has demonstrated the adaptability of this valuable variety to Northwestern conditions. It is earlier than the well-known "Eight-Row Canada," and is to be preferred on account of its color, productiveness and very early ripening.

**1 lb 20c—10 lbs \$1.25**





## Field Corn (Continued)

	Per lb.	Per 10 lbs.
EARLY CANADA—(Flint) An eight-rowed Yellow Flint Corn; early and very productive.....	20c	\$1.25
KING PHILIP—An early Red Flint Corn; well acclimated and well known	20c	1.25
WHITE RICE—Pop Corn. Best variety for popping corn.....	20c	1.50

All sorts of field corn 10c per package; prices per 100 pounds on request

## THE NON-SACCHARINE SORGHUMS

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

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

### SUDAN GRASS

The greatest drought resisting forage crop

Sudan Grass was introduced from Egypt in 1909 by the U. S. Dept. of Agriculture, and has given great promise of becoming a valuable addition to our forage grasses, especially in some sections. It is believed to be the original type of our cultivated sorghums, and being an annual, will never become a pest like

Johnson Grass, which it somewhat resembles. All stock relish it, and no harmful effects have followed where it has been fed. Under favorable conditions, it grows from 7 to 9 feet, having luxuriant foliage and small stems. While thriving under dry conditions, excessive moisture will not harm it, but like all of the sorghum family, it is easily damaged by frost. The yield will depend upon the length of the season, a single cutting giving about a ton per acre, and the number of cuttings will depend upon the season. Where growing conditions are favorable the stubble makes excellent green pasturage. In the South three or four cuttings are not uncommon.

**CULTURE**—Plant in cultivated rows, in close drills or broadcast. Cultivated rows 36 inches apart require from 1½ to 3 pounds of seed per acre, and in arid regions this is the best method. Where rainfall is ample, and it can be grown for hay, sow in drills 18 inches apart, using 6 pounds of seed per acre; for broadcast, using 15 to 20 pounds. Never sow until danger of frost is past and the ground is warm. Cut for hay as soon as fully headed. If grown for seed, do not cut until the seed is fully matured, the first cutting being best for this purpose. As Sudan Grass crosses readily with all varieties of cultivated sorghums and the seed resembles Johnson Grass



very much, great care should be exercised in securing only pure seed. 1 lb 45c Postpaid—F. O. B. Portland 10 lbs \$2.90 —100 lbs \$27.50

### MILO MAIZE

This is one of the sorghums similar to Kaffir corn. Grows erect, with thick, close-jointed stalk. Height, 4 to 7 feet. Heads are very large, giving a heavy grain yield; is drought resistant, and succeeds on alkali soil. Plant late when ground is warm, 3 to 6 pounds per acre.

Per lb postpaid 20c—100 lbs \$8.00

### BROOM CORN—Dwarf Evergreen

Grows from 4 to 5 feet high and makes straw of finest quality, being almost, if not entirely, free from crooked brush.

Per lb postpaid 20c—100 lbs \$8.50

### FETERITA

This is the most recent of the non-saccharine sorghums to command the attention of "dry farmers" on account of its wonderful yield and drought resistant qualities, being 20 to 40 days earlier than Kaffir corn, and has given immense crops in the driest seasons without having received a drop of rain. Makes splendid fodder as well as giving a good grain yield. Try Feterita.

Per lb postpaid 25c—100 lbs \$8.50

### EGYPTIAN CORN

Also Called Jerusalem Corn or Dhoura

One of the non-saccharine sorghums, requiring the same growing conditions. Succeeds well in dry sections. Produces small heads on side shoots up to eight on a stalk, the seed is larger than Kaffir corn. Yield is heavy. Makes fine chicken feed. Plant three pounds per acre.

WHITE per lb postpaid 20c—100 lbs \$8.50

### KAFFIR CORN

An excellent fodder plant. Grows four to five feet high, upright stalk, with numerous large leaves. Greatly relished by cattle and horses. The seed crop is also heavy, sometimes yielding 60 bushels to the acre. It does best sown in drills three feet apart, six to eight pounds per acre. Per lb postpaid 20c—10 lbs 90c—100 lbs \$8.50.

### SUGAR CANE OR SORGHUM

EARLY AMBER—A valuable crop to grow for fodder or ensilage, as it furnishes an immense tonnage to the acre. When fed down while young it makes a rapid second growth.

Price postpaid per lb 25c—not prepaid 10 lbs \$1.35.

# CLOVER AND ALFALFA SEEDS

Write for prices on 100 lbs. or ton lots. They are always subject to market changes. See page 42



Field of Red Clover

## Alfalfa or Lucerne Clover

**A**LFALFA should be cut just before coming into bloom. The hay is especially valuable for dairy cows. As soon as cut it immediately commences to grow, and during the hottest and driest weather, when other grasses are parched and withered, it remains fresh and green and grows as rapidly as ever. On the low lands it is not an unusual thing to harvest five or six crops of hay from the same field in one season without irrigation, and the same result is obtained on high, dry lands where irrigation is resorted to. It will not succeed on hard clayey soils. Its roots, in seeking moisture, penetrate to incredible depths. The seed should be sown in the Spring, after danger from freezing the young plants is over, or in the Fall, early enough to give it a good stand before frost. **Per lb postpaid 35c—F. O. B. Portland, 100 lbs \$20.75**

### DRY LAND ALFALFA

This new Dry Land Alfalfa will produce large, profitable crops of hay and excellent pasture on the high, dry lands of Eastern Oregon, Washington, Idaho and Utah. Dry Land Alfalfa is especially recommended for the hills and plateaux where irrigation is impossible. It comes from the highest, driest alfalfa sections, and is very superior seed. **Per lb postpaid 40c—100 lbs \$26.00**

### TURKESTAN ALFALFA

Will produce a luxuriant growth in the driest and hottest sections, without irrigation. It is perfectly hardy and will stand extreme cold in Winter without harm. It yields a very heavy and rich crop of hay and makes a permanent pasture. We have the genuine imported seed.

**Per lb postpaid 40c—100 lbs \$26.00**

## Clovers

### WHITE DUTCH CLOVER

(trifolium repens)

Superior for pasture and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. **Per lb postpaid choice seed 65c—fancy 70c—10 lbs F. O. B. Portland, choice \$5.50—fancy \$6.00.**

### RED CLOVER

(trifolium pratense)

The standard Clover for all purposes. Hardy and succeeds well on any good soil. Makes superior hay—especially mixed with Timothy—either for dairy cows or for general use. **Per lb postpaid 40c—100 lbs F. O. B. Portland \$29.00—fancy \$30.00—Diamond fancy \$30.50**

### MAMMOTH RED CLOVER

Grows very large and is used almost exclusively for plowing under for manure. **Per lb 40c postpaid—F. O. B. Portland 100 lbs \$30.50**

### BOKHARA SWEET OR HONEY CLOVER

(melilotus alba)

A rapid-growing, white-flowered sort; excellent for bees. Sow 10 pounds per acre. **Per lb postpaid 40c—F. O. B. Portland, fancy 100 lbs \$29.50—Diamond fancy 100 lbs \$32.00.**

### CRIMSON OR SCARLET CLOVER

(trifolium incarnatum)

Highly recommended for pasture and fertilizing purposes. Is a thrifty annual, growing from twenty to thirty inches high. Germinates quickly, grows rapidly, and stools abundantly. Cut for hay when in full bloom. Planted in the Fall can be plowed under after blooming in the Spring and be followed with barley or potatoes. **Per lb postpaid 30c—F. O. B. Portland 100 lbs \$20.00.**

### ALSIKE OR SWEDISH CLOVER

(trifolium hybridum)

A perfectly hardy perennial. Excellent for hay and pasture. Valuable for bees. Resists both drought and excessive moisture. The hay is preferred to that of Red Clover, being finer, brighter and not so dusty. **Per lb postpaid 35c—F. O. B. Portland, 100 lbs \$29.00—fancy 100 lbs \$30.00.**

### ESPARSETTE OR SAINFOIN


(onobrychis gativa)

A deep rooting, perennial legume, extensively cultivated in dry, calcareous soils too barren for Clover or Alfalfa. Sow 50 lbs per acre. **Per lb postpaid 30c—F. O. B. Portland, 100 lbs \$17.00**

**GRASS SEEDS** Are Sold at Lowest Market Price and No Premiums Can Be Given

# FERTILIZE WITH AIR

RESTORE THE NITROGEN to your worn out soil and inoculate your new ground with fresh, virile, nitrogen-fixing bacteria. YOU CAN DO IT WITH

TRADE  MARK

THE STANDARD INOCULATION  
HIGH BRED NITROGEN GATHERING BACTERIA  
for CLOVERS, ALFALFA, BEANS, and OTHER LEGUMES

*A pure culture of the most active nitrogen gathering bacteria*

**NITROGEN** is the most important and expensive plant food. The air is four-fifths nitrogen—the soil is full of air—but plants cannot absorb it without the aid of nitrogen gathering bacteria.

**FARMOGERM** makes this vast storehouse of nitrogen quickly available. A one-acre packet costing \$2.00 used on a leguminous crop will gather and store nitrogen equivalent to 1000 pounds of nitrate of soda and at the same time greatly increase the growing crop.

Easily applied by sprinkling the seed **Before Planting**.



## SEE THAT AIR TUBE?

*It Supplies Fresh Nitrogen*  
Without which the cultures  
will not live

When put up in sealed bottles they soon lose their vitality, becoming inactive.

**FARMOGERM** is guaranteed to retain its original vitality for two years, and is the only preparation of its kind that is not sealed.

**Look for the Glass Tube**

*"It Keeps Them Alive"*

## TO INSURE A STAND—INCREASE THE YIELD—BUILD UP YOUR SOIL

Always inoculate seeds of

**CLOVERS—ALFALFA—PEAS—BEANS  
VETCH—COW PEAS and SOJA  
BEANS**

with **FARMOGERM**

*An eminent authority states, "I would as soon think of preparing an alfalfa field without seed as to sow the seed without inoculation." (See Farmers' Bulletin No. 257 U. S. Department of Agriculture.)*

**FARMOGERM** is prepared for Alfalfa, all Clovers, Canada Field Peas, Cow Peas, Garden Peas and Beans, Soja Beans, Vetches and Sweet Peas

**PRICES--** Postpaid—Garden Size, ¼ acre 50c—1 acre \$2.00—5 acres \$7.50.

*When ordering Farmogerm be sure to state just what you want to inoculate.*

## (New) ALL CROP FARMOGERM

A Combination of Beneficial Nitrogen Gathering Bacteria for all crops

**ALLCROP FARMOGERM**

FERTILIZING BACTERIA

(PROCESS PATENTED)

For Use on

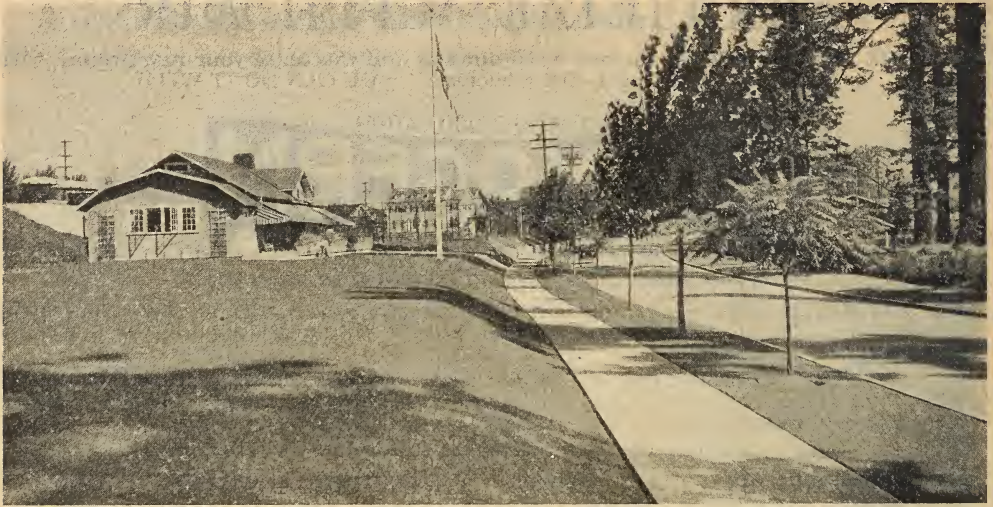
**FIELD CROPS  
FRUIT CROPS  
VEGETABLES  
FLOWERS**

**ALLCROP FARMOGERM** is a new combination of seed and soil bacteria, containing 37 varieties, the combination being beneficial for all crops, and is the most recent bacteriological product offered by the famous scientist, Dr. G. H. Earp-Thomas, who has successfully segregated the good and useful bacteria and developed the cultures which are offered in a dry vehicle that will keep them active and virile for two years.

*Other legume cultures in a dry medium are guaranteed for but six months, and we know of no other culture that is recommended as being directly beneficial to all crops.*

**ALLCROP FARMOGERM**—Increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil improving the quality of the crop. Aids decomposition of soil particles; hastens decayed organic matter, making plant food more available.

Price 1 acre pkg \$2.00—5 acre pkg \$7.50



Laurelhurst Club. The beautiful lawns at Laurelhurst were grown from our Diamond Grass Seeds.

## DIAMOND GRASS SEED MIXTURES



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

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

### "DIAMOND" FANCY LAWN MIXTURE

**T**O have a good lawn the soil must be fine and rich, and well leveled. Then the best seed obtainable should be used. Plant any time from September until late Spring, depending upon the weather and soil conditions. Raking in the seed is advisable, and rolling greatly improves the turf. In watering your lawn soak it deeply and not too often, as light watering every day brings the roots close to the surface, where they quickly burn or dry out. You must not expect to make a fine lawn with cheap seed. The best lawn grass mixture costs more at first than the poorer substitute, but will be found much cheaper and more satisfactory in the end. Our "Diamond Quality" Fancy Mixed Grass Seed is prepared from the choicest re-cleaned Grass Seeds that have been carefully selected for their fineness and deep rooting, close growing habits and seasonable qualities, producing an ideal dense, velvety turf of lasting quality that remains green throughout the year. Sow one pound to 400 square feet, 10 to 15 pounds to a 50-foot lot.

Growing tests have proved our "Diamond Quality" Lawn Grass to be superior to any other mixture for our Western soils and climate; it is also free from chaff and foul seeds, weighing 23 pounds to the measured bushel. This is a guarantee of clean, plump seeds, as cheap chaff seed is very light.

Single lb postpaid 45c—not prepaid lb 35c—10 lbs \$3.35

**SEASIDE LAWN MIXTURE**—A special mixture is required to meet the conditions on or near the coast, and this we call our "Seaside" Mixture. If your ground is very light or sandy, put on three or four inches of top soil to make a seed bed. After the grass is once up, the roots will penetrate the lower soil. Give plenty of water and an occasional dressing of our Lawn Fertilizer.

Single lb postpaid 40c—not prepaid 30c—  
10 lbs \$2.60—100 lbs \$24.00.

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

Single lb postpaid 50c—not prepaid 40c—  
100 lbs \$36.00.

**FINE MIXED LAWN GRASS**—For use where a temporary lawn must be quickly prepared, and if kept closely cut will be lasting and have a handsome appearance. A good, clean mixture.

1 lb postpaid 40c  
Not prepaid 10 lbs \$2.90


### DIAMOND LAWN FERTILIZER

Easily Applied, Has No Odor, and Gives Quick Results

For New Lawns use 1 oz. to the square foot, worked into the soil before seeding. Repeat as a surface dressing when the grass shows a little growth.

Old Lawns require one to two ounces per square foot as a top dressing, applied early—December to March. This produces a vigorous early growth.

"FERTILIZERS" is the name of our little booklet that tells about fertilizers—what they are and how to apply them. Free on request. See page 58.

 The wonderful lawn under the trees of Holladay Park was grown from "Diamond" Grass Seeds



"DIAMOND QUALITY"

# Grass Seed (Continued)

Grass Seed Prices subject to change without notice. See note top of page 42

## SPECIAL PASTURE MIXTURES

### No. 1. FOR GOOD LOAMY SOIL

A mixture of Grasses and Clovers, prepared especially for good, loamy soils, that will give satisfaction as a permanent pasture, or for mowing for mixed hay. For pasture, sow 20 pounds per acre.

Price postpaid 40c per lb. By freight or express 10 lbs 28c per lb—100 lbs \$27.50.

### No. 3. FOR LIGHT SANDY SOIL

An extra fine mixture for sandy or light soils. This will make a good, strong turf, that under ordinary circumstances should last for many years. Sow 20 pounds per acre.

Price postpaid 45c per lb. By freight or express 10 lbs 30c per lb—100 lbs \$28.00.

### No. 4. FOR DRY LAND

Mixed especially for the regions between the Cascades and Rocky Mountains, and on good, common wheat land. Try this mixture, as we believe that it will give you best possible results. Sow 20 pounds per acre.

Price postpaid 40c per lb. By freight or express 10 lbs 28c per lb—100 lbs \$27.50.

### No. 8. FOR ARID OR ALKALI LAND

Particularly for arid alkali lands. This mixture is composed of varieties that have proven to be the best for the soils mentioned. Sow 20 pounds per acre.

Price postpaid 45c per lb. By freight or express 10 lbs 30c per lb—100 lbs \$28.00.

### No. 10. HAY AND PASTURE MIXTURE FOR DRY HILL LAND

Especially suited to the dry sections, such as parts of Southern Oregon, Eastern Oregon, Eastern Washington and Idaho. This mixture is made up of varieties that can endure a great change of temperature from heat to cold, and at the same time will make a splendid mixed hay.

Price 1b 40c postpaid—by freight or express 10 lbs 28c per lb—100 lbs 27.00.

### No. 11. FOR GRAZING PURPOSES

This is a mixture of grasses only, being made up for the benefit of those who wish a mixture without Clover, and will make a fine permanent pasture, but is not intended for hay.

Price 1b 40c postpaid—by freight or express 10 lbs 28c per lb—100 lbs \$27.00.

### No. 12. FOR BURNED-OVER BOTTOM LAND, OR LAND INCLINED TO BE RATHER DAMP

This is a mixture that will do well either for hay or for permanent pasture on land that is too wet for many of the grasses and clovers.

Price 1b 35c postpaid—by freight or express 10 lbs 22c per lb—100 lbs \$20.00.

### SAVES SEED CAHOON SEEDER SAVES TIME

The Standard Broadcast Seed Sower

Gives an even stand and will last a lifetime.

See page 57

**MIXTURES FOR BURNED-OVER LAND**—In grading and cleaning grasses and clovers, we frequently find combinations that are difficult of separation, and while the seeds are often of excellent germination and quality, they cannot profitably be separated and cleaned, so we blend them to produce pasture mixtures suitable for sowing on burns and logged-off land, which at the price are splendid values and very economical for such purposes. **Price 100 lbs \$11.00**

### CANADIAN BLUE GRASS (poa compressa)

Recommended in all pasture mixtures on dry soil; thrives well on clay or hard trodden and poor soil. Sow 28 pounds per acre.

Per lb 35c postpaid—100 lbs \$23.00

### CRESTED DOG'S TAIL (cynosurus cristatus)

A perennial grass with short, narrow leaves; valuable for lawns or pastures on dry, light land; makes excellent sheep pasturage. Use 20 pounds per acre if sown alone.

Per lb 50c postpaid—10 lbs \$4.00

### RED OR CREEPING FESCUE (festuca rubra)

Forms a close turf and is valuable for lawn and golf mixtures; thrives in sandy soils and along the Coast. (14 lbs. to the bushel.)

Per lb 50c postpaid—10 lbs \$4.00

### ENGLISH RYE GRASS (lolium perenne)

A strong-growing, hardy perennial grass, noted for its nutritive qualities. It is equally valuable for both grazing and hay. Forty pounds per acre.

For Lawns this is used and recommended by many gardeners. If sown thickly, it makes a fine lawn, and for large grounds and parks it is very successful.

Per lb 25c postpaid—10 lbs \$1.70—100 lbs \$15.00.

### KENTUCKY BLUE GRASS (poa pratensis)

One of the best grasses for permanent pasture furnishing a constant supply of the most nutritious feed during the greater part of the year. Sow 28 pounds per acre.

For Lawns—Blue Grass is used very extensively for lawns and is found in all lawn grass mixtures. Sow 1 lb. to 400 sq. ft. if used alone.

Fancy per lb 40c postpaid—100 lbs \$28.00  
**DIAMOND FANCY, per 100 lbs \$29.00**

Write Us for Special Mixtures for Terraces, Shady Places, Dry or Wet Land



## Grass Seed (Continued)

Grass Seed prices subject to change without notice. See page 42. Single pound prices postpaid, for larger lots add postage at zone rate.

### BERMUDA GRASS (cynodon dactylon)

Suitable only for climates where the Winters are not below the freezing point. It stands the hottest and driest season. Sow 6 pounds per acre. Per lb 80c postpaid—10 lbs \$6.50

### CREEPING BENT GRASS (agrostis stolonifera)

Well adapted for sandy pastures near the Coast, and good for pasture on low lands. If sown alone, use 25 pounds per acre. Excellent for lawns. Use 12 to 15 pounds per 50-foot lot. Per lb 75c postpaid—10 lbs \$6.00

### RHODE ISLAND BENT (agrostis canina)

Resembles Red Top. Makes a close sod: valuable for permanent pastures and meadows. Twenty-eight pounds per acre. For lawns, use 12 to 15 pounds per 50-foot lot. Gives good results. Per lb 65c postpaid—10 lbs \$5.00

### ITALIAN RYE (lolium italicum)

A quick-growing grass, attaining a height of 2½ to 4 feet; very desirable for temporary meadows or pastures (will last from two to six years). Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. Sow 40 pounds per acre. Per lb 30c postpaid—10 lbs \$1.80—100 lbs \$16.00.

### TALL FESCUE (festuca elatior)

Succeeds best in moist alluvial and strong clayey soils; is very productive and lasting; valuable for permanent pasture, is relished by stock and on rich land makes fine hay—height 3 to 4 feet; wt. 22 pounds per bushel. Per lb 60c postpaid—10 lbs \$4.75

### SWEET VERNAL (anthoxanthum odoratum)

Valuable to put in pasture mixtures and lawn grass on account of its earliness and its delightful fragrance when in bloom. Thrives under all growing conditions, but is only recommended for use in mixtures. If alone use 28 lbs. per acre. ANNUAL per lb 45c postpaid—100 lbs \$33.00

### ROUGH-STALKED MEADOW GRASS (poa trivialis)

A most valuable grass which flourishes in moist, rich soils. Roots are perennial, but soft; foliage freezes down. Per lb 85c postpaid. Write for prices

### TIMOTHY (phleum pratense)

This is the most valuable of all grasses for hay. Thrives best on moist, loamy soil. Sow early in the Spring or Fall. Sow 15 to 20 pounds per acre. Choice per lb 25c postpaid—100 lbs \$11.25  
Dia. fancy lb 25c postpaid—100 lbs \$12.00

### ORCHARD GRASS (dactylis glomerata)

One of the most valuable of all the cultivated grasses, blooming with Red Clover, and making with it admirable hay. As a pasture grass it is more productive than any other, and does best under close feeding. Sow 28 pounds per acre. Fancy Eastern per lb 40c postpaid—100 lbs \$29.00

Imported lb 40c postpaid—100 lbs \$29.50

### RED TOP (agrostis vulgaris)

A good perennial grass. Generally sown for permanent pastures. Does best on moist or even marshy land. If the ground is not overflow land it is advisable to mix it with Meadow Fescue, Orchard Grass or Alsike Clover. Sow 28 pounds per acre chaff seed; 14 pounds hulled.

CHOICE UNHULLED per lb 25c postpaid—100 lbs \$15.50.

DIAMOND FANCY HULLED—A very superior grade of Red Top that is free from chaff and light seed.

Per lb 30c postpaid—100 lbs \$21.50

### HARD FESCUE (festuca duriuscula)

Fine, rather dwarf, justly noted for its drouth resisting qualities. Valuable as a pasture for sheep. Sow 20 pounds per acre.

Per lb 50c postpaid—10 lbs \$3.50

### MEADOW FESCUE (festuca pratensis)


Perennial; grows three to four feet high. Roots deep, thus resisting drouth. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pastures, being valuable to mix with other kinds. Sown alone, use 40 pounds per acre.

Per lb 40c postpaid—100 lbs \$24.00

### SHEEP'S FESCUE (festuca ovina)

Grows freely in high, dry and open pastures. Its chief merit is for sheep pasture. Thirty-five pounds to the acre. Per lb 50c postpaid

For SPECIAL MIXTURES for BURNS, DRY or WET LANDS—Temporary or Permanent Plantings for Hay or Pasture—WRITE US

 A "CLIPPER" Grain Cleaner improves the quality and increases the yield of any grain crop. When you buy a fanning mill BE SURE YOU GET A "CLIPPER." The mill with the "VERTICAL BLAST." Special Catalog and Full Information on Request.

# Grain and Field Seeds (Continued)

Prices Subject to Market Changes—See Page 42

## TALL MEADOW OAT GRASS

(avena elatior)

Often attains a height of three to four feet by the middle of June. Makes splendid hay and thrives on sandy loam, but makes its best growth where there is some clay. Can be fed as a pasture grass, and will generally bear cutting three times. For mixing with Perennial Rye and Alfalfa for sandy soils it is excellent. Sow about 30 to 40 pounds per acre alone or half that amount if mixed with the above varieties.

Per lb postpaid 35c—100 lbs \$23.50

## MESQUITE

(holcus lanatus)

It is usually sown on virgin soil, without cultivation, after the ground has been burned over. Sow about 35 pounds to the acre chaff seed; hulled 15 pounds per acre.

FANCY HULLED Seed per lb 30c postpaid—  
100 lbs \$18.00.

## CHEAT SEED

(bromus secalinus)

Cheat yields a good crop of hay, especially on low or moist soil and will stand considerable overflood without harm. It makes an excellent hay for cows or horses, but should be cut before it gets too ripe. Sow in the Fall or early Spring same as oats, and about 100 pounds per acre.

Per lb 15c postpaid—100 lbs \$4.50

## SALT BUSH

This wonderful forage plant will grow freely in arid and alkali lands that will produce no other vegetation, yielding a marvelously liberal foliage, which is eagerly eaten by all kinds of stock. One pound of seed will plant an acre if evenly scattered over the surface. The seed should be mixed with ten times its weight of sand or ashes to facilitate its distribution. Sow the seed in the Fall or Spring before a rain, if possible, on well pulverized soil, and cover it lightly. If desired, plants may be grown and transplanted when two or three inches high six to seven feet apart.

Pkt 5c—oz 10c— $\frac{1}{4}$  lb 40c—lb \$1.35 postpaid

Special price in quantity.

## WILD RICE—Zizania Aquatica

For planting in duck ponds and around hunting grounds to furnish food for wild fowl, ducks, geese, etc. Fresh seed supplied in season.

Write for information and prices.

## LENTILS—French

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

Lentils can be grown wherever peas or beans can be grown and are in big demand for export.

Lb postpaid 30c—F. O. B. Portland 10 lbs \$1.90

## RAPE, DWARF ESSEX

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

Price lb 25c postpaid. Freight or express  
10 lbs \$1.60—100 lbs \$14.00.

## EMMER—TRITICUM DICOCCUM

Often Mistakenly Listed as Speltz

Similar to barley in growth, but produces two grains in a spikelet. A comparatively new and profitable crop, yielding 50 to 100 bushels of grain, or four to six tons good hay per acre. Thrives well on poor soil, and dry weather seems not to affect it. After threshing, the straw makes good feed. Sow in Spring at rate of 75 to 100 pounds per acre. Emmer is often listed and referred to as "Speltz." We offer choice, re-cleaned seed of the true variety.

Price lb 15c postpaid—100 lbs \$4.50

## SEED RYE

SPRING—This splendid variety is extremely hardy, yields heavily.

Per lb postpaid 15c—100 lbs \$4.75

COMMON RYE—Planted extensively in both Spring and Fall.

Per lb 15c postpaid—100 lbs \$4.75

Write for prices in larger lots.

## SUNFLOWER

MAMMOTH RUSSIAN—The largest and most productive variety. It makes one of the very best of foods for poultry; a great egg producer.

Per  $\frac{1}{4}$  lb 10c—lb 25c postpaid—10 lbs 80c

## "DIAMOND QUALITY" HIGH GRADE FERTILIZERS

It is established beyond question that different crops remove from the soil definite amounts of different Fertilizing elements, and it is the aim in manufacturing our "Diamond Quality" Fertilizers to supply these elements in the proportion which the crops require.

We do not make a fertilizer for every crop, as many plants require nearly the same proportion of foods, and though we have named our "mixed fertilizers" after the most important crop for which they are used, they can also be applied equally as well to others, as recommended in our booklet "Fertilizers."

## Farm and Field Seeds (Continued)

Prices Subject to Change Without Notice. See Page 42  
Single Pound Prices Postpaid, for Larger Lots Add Postage at Zone Rates

### VETCHES OR TARES

#### Oregon's Greatest Forage Plant

**SAND, or Winter Vetches**—(*Vicia Villosa*)—This variety thrives on poor, arid, sandy soils. It is sown either in the Fall or early Spring, and is generally mixed with rye, which serves to support the plants. It grows to a height of three or four feet, and can be cut twice; first, as soon as the bloom appears, and afterward for seed. The plant is perfectly hardy and makes a very nutritious food. **Per lb postpaid 35c—F. O. B. Portland, 10 lbs \$2.30—100 lbs \$21.00.**

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

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

Our seed crop yielded 56 bushels to the acre sown with  $\frac{1}{4}$  oats. **Per lb postpaid 20c—F. O. B. Portland 100 lbs \$9.00.**

**COMMON VETCH**—(*Vicia Sativa*)—One of the best forage plants that can be grown on the Pacific Coast. Often called Fall Vetches. It furnishes an abundance of excellent feed, either green or cut and cured for hay. The seed should be mixed with an equal weight of some variety of wheat, oats or rye having a stiff straw, and the mixture sown at the rate of two bushels per acre. Vetches weigh 70 pounds per bushel. Sow in the Fall or early Spring.

**Per lb postpaid 15c—F. O. B. Portland 100 lbs \$4.75.**

### FIELD PEAS

Field Peas are a very profitable crop and are grown here very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for enriching the soil if plowed under. The dry peas make excellent hog-feed and are quite fattening. Sow, if alone, 120 pounds to the acre; if with other grain, 60 pounds.

**WHITE CANADIAN**—A leading kind; seed almost white; a heavy cropper.

**Per lb postpaid 20c—F. O. B. Portland 100 lbs \$8.50.**

**BLUE PRUSSIAN**—Very much like the above, except in color. This variety is largely sold dried for soup peas. **Per lb postpaid 20c**

**Write for market price.**

### COW PEAS

Are really small beans of vigorous vining habit and heavy foliage of great nutritious value, yields five to nine tons of green feed per acre, or can be cut and cured like clover. They are great nitrogen gatherers and one of the best fertilizers when turned under. Sow two bushels per acre.

**WHIP-POOR-WILL**—Upright, or bush growth, earliest maturing, easily harvested. **Per lb postpaid 25c—F. O. B. Portland 10 lbs \$1.40**

## USE FARMOGERM

on PEAS and VETCHES—Insures maximum yield and improves the soil. See page 47.

### MILLETS

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

**GERMAN OR GOLDEN**—An improved variety, yielding a larger crop of seed than the Common Millet. It is also taller than the Common and yields a heavier crop of hay. **Single lb 20c postpaid—100 lbs \$8.00.**

**HUNGARIAN**—A dwarf annual Millet. It is finer than the Common or German Millets, but produces a closer stand and yields almost as much per acre as the taller varieties. Superior for hay.

**Single lb 20c postpaid—100 lbs \$8.50**

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

**Single lb 20c postpaid—100 lbs \$8.50**

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

**Single lb 20c postpaid—100 lbs \$8.00**

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

**Single lb 20c postpaid—100 lbs \$8.50**

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

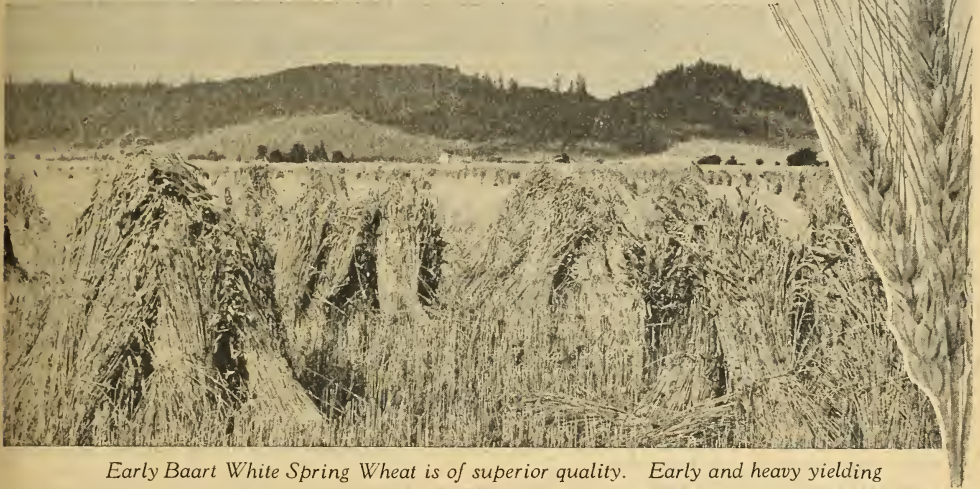
**Single lb 20c postpaid—100 lbs \$8.00**

A "CLIPPER" Grain Cleaner improves the quality and increases the yield of any grain crop. When you buy a fanning mill be sure you get a "CLIPPER". Special catalog FREE.



# SEED WHEAT

WHEN ready to buy any variety of Seed Wheat, write us for quotations on quantity wanted or send in your order and we will give full value at lowest market price. The following are standard market varieties that are known as the most profitable and best yielding.



*Early Baart White Spring Wheat is of superior quality. Early and heavy yielding*

## EARLY BAART—Bearded—Spring

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

Price 1b 15c postpaid—100 lbs \$4.75

## BLUE STEM—Spring

The best known and one of the most profitable Spring varieties for the Northwest. Heads are large and well-filled, stools freely. Grain very hard. Although a Spring variety, can be planted as a Fall Wheat in sections where Winters are mild. The Blue Stem of the Pacific Coast has a white grain and smooth chaff, quite unlike the Velvet Chaff and Red grains of the states East of the Rockies. Better results are had with this Wheat East of the Cascade Mountains, as it has a tendency to lodge in the moist sections on the Coast. Price 1b 15c postpaid—100 lbs \$4.75

## RED RUSSIAN—Winter

This is extensively grown in the Palouse country of Eastern Washington, where conditions are favorable. It grows vigorously, maturing late, and gives a heavy yield of both grain and foliage. It is a superior variety for choking out weeds, growing close and luxuriantly.

Price 1b 15c postpaid—100 lbs \$4.75

## TURKEY RED—Winter

A medium hard Red bearded variety; a heavy yielder and does not shatter out easily. Is very hardy, doing well in cold climates, but in moist sections has a tendency to lodge badly. The grain is hard and of good quality. A good Wheat for the dry sections East of the Cascades.

Price 1b 15c postpaid—100 lbs \$4.75

## MARQUIS—Spring

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

Marquis was awarded the prize at the New York Agricultural Show, as the best wheat grown on the continents of North or South America. It is early heavy yielding, and of splendid milling and baking quality.

Price 1b 15c postpaid—100 lbs \$4.75

## LITTLE CLUB—Spring

This well-known variety has stiff, strong, typical club head and does not shatter easily. Is a good grower and yields well. Our stock is exceptionally fine, the seed crop averaging 64 bushels per acre from Spring planting.

Price 1b 15c postpaid—100 lbs \$4.75

## FORTY FOLD—Winter

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

Price 1b 15c postpaid—100 lbs \$4.75

## AULEATA—Italian Wheat—Winter

A fine, large hard Winter wheat from Tascana, Italy. Said by the Italians to be ideal for making their delicious Italian bread. Also a superior macaroni wheat. Gluten content about 7.50%. Has given heaviest yield in Willamette Valley from February planting. This wheat should prove a valuable variety for the northwest.

Price 1b 15c postpaid—100 lbs \$4.75

## SEED OATS

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

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

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

Of what other grain crop can so much be said, and what other crop is more necessary and valuable to the dairy and stockman?

We offer select, re-cleaned, well-matured seed oats of standard varieties, suitable for this section and our own varieties, "**SHADELAND ECLIPSE**" and "**SHADELAND CLIMAX**," the earliest and most vigorous, heaviest yielding oats ever grown anywhere. (See next page.)

### SHADELAND SEED OATS

**SHADELAND OATS** are grown especially for planting purposes, and each year typical heads are selected in the field by hand, and from these new seed is grown for revitalizing and perpetuating the type, and maintaining the standard. The latest selection from the splendid strain of "**Shadeland**" Side Oats is "**Eclipse**," an improvement over "**Challenge**," which in turn took the place of the original type, "**Shadeland Wonder**," from which famous parent the marvelous "**Shadeland Side Oat Eclipse**" is the third generation by reselection.

#### (New) HULLESS OATS

Many Varieties of Hulless Oats have been tried by the Department of Agriculture, but very few yield well enough to pay the grower.

"**SHADELAND**" HULLESS like all "**Shadeland**" Oats yields heavily. Mr. Nairn reports that from 300 pounds of seed, 7560 pounds of oats were harvested, and a single pound planted in a test row, 100 yards long, gave 100 pounds of cleaned oats.

HULLESS OATS grow like ordinary oats with a branching head but thresh out clean, the grain being larger than the kernel of common oats and ready for rolling or milling just as they come from the cleaner, retaining all of their richness and flavor—and on "**Shadeland Farm**" where everybody is Scotch and expert judges of oat porridge Hulless Oats are served twice daily. You can make your own oatmeal on any gristmill and it will also cook quicker than other oatmeals.

**NEW HULLESS OATS** stool freely, stand up well and will thrive wherever oats can be grown. They are drouth resistant and ripen in about 100 days from seeding and have given 50 bushels per acre, weighing about 54 pounds to the measured bushel. Sow at the rate of 40 to 50 pounds to the acre. Give "**Shadeland**" Hulless a trial.

Price 1b postpaid 25c—10 lbs f. o. b. Portland \$1.35—100 lbs \$12.00

"**SENATOR—A New Garton Side Oat—**Senator is highly recommended by the originators for its extreme earliness and great fertility—and is especially adapted to heavy land.

"Seeded on good land this oat will do well, and where oats are liable to lodge **SENATOR** will stand up—has stiff straw—large grains and fine color."—C. D. Nairn.

For exhibitions the large grains and big heads of **SENATOR** make a fine showing.

Postpaid 3 lbs 50c—by freight or express ½ bushel \$1.00—bushel \$1.75—100 lbs \$4.35.

#### WHICH IS YOUR CHOICE?

The difference in the cost of planting and harvesting an acre of common oats yielding 20 to 50 bushels, and of growing our record-breaking "**Shadeland**" oats that give from 80 to 135 bushels per acre is about \$1.50; in other words, it costs about as much to plant, care for and harvest oats that yield only half a crop as it does to reap a real harvest.

—THINK THIS OVER—



"**CLIMAX**" always a winner.



# SHADELAND SEED OATS

*Have won FIRST wherever exhibited  
every year since their introduction 1902*



*Special Medal and Diploma, Panama-Pacific Exposition, San Francisco, 1915*

FOR 15 years "Shadeland Oats" have never failed to produce a record crop, not small patches under favorable conditions, but big average yields throughout large fields, such as the Polk County record of 135 bushels and 10 pounds per acre of "Climax," Clackamas County, 126½ bushels of "Eclipse" per acre over a 14 acre field, Lincoln County 135 bushels over a 41 acre field; weighing 41 pounds to the bushel and a field near Coquille that ran 135 bushels per acre.

## Shadeland ECLIPSE

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

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

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

Price 3 lbs 50c postpaid. Freight or Express, Half Bushel \$1.00—Bushel \$1.75—100 lbs \$4.35.

**DON'T FORGET** "Shadeland Oats" have won firsts every year for 15 years at the Oregon State Fair and at every North Pacific Land Show—an unbroken record.

"SHADELAND OATS" will win for you and add to your profits.

## Shadeland CLIMAX

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

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

If you live West of the Cascade Mountains you can plant "Climax" Fall or Spring, any time the ground is fit, but where the climate is severe, Spring plantings are best.

Price postpaid 1 lb 20c—3 lbs 50c—Freight or express ½ bushel \$1.00—bushel \$1.75—100 lbs \$4.35.

**To Know** that you are getting the genuine "SHADELAND" Oats from the originator, always buy direct from our store. We are SOLE distributors and the vitality and true type are maintained by intelligent, scientific care and selection. Prices are so low that you cannot afford to risk any other seed oat.



Sheaf of Prize Winning Shadeland Oats



Seed Field of "Shadeland Oats," and Mr. C. D. Nairn, the Grower

## STANDARD SEED OATS

Choice Re-cleaned Stock of the following varieties can always be supplied

### SWEDISH RED

A comparatively new tree Oat from Sweden having a soft hull and fine soft straw which is ideal for hay. This is the Oat grown so extensively in Northern California and along the Southern Oregon Coast. Sow in Fall or Winter. Red Oats always bring a good price in the market.

Price postpaid 1 lb 15c

### BLACK OATS

Black Oats are very hardy and almost rust proof, thriving on wet land as well as being drouth resistant on light soils—are much used as a hay oat from Spring plantings but are best Fall seeded for grain.

Price per lb postpaid 15c

### WHITE SEED OATS

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

Price postpaid 1 lb 15c—100 lbs \$3.75

### CHALLENGE SIDE OAT

We have a choice lot of this splendid heavy yielding variety suitable for Spring or Fall planting, where the Winters are not severe. A vigorous, early maturing oat that will stand up under most any growing condition and give a good yield wherever oats will grow.

Price per lb postpaid 15c—100 lbs \$4.00 f. o. b. Portland.

### WHITE "SIDE OATS"

For those who prefer a side oat we offer a fine grade of re-cleaned white "Side" Spring oats. Samples and prices on request, as the market is very uncertain and prices cannot be guaranteed to remain the same as when this catalog is printed.

Price 1 lb postpaid 15c—100 lbs \$3.75

### GRAY WINTER

This Oat is planted extensively throughout the Northwest as a Fall or Winter Oat. Is well and favorably known, being a good yielder, and the Oats are large and plump.

Price postpaid 1 lb 15c—freight or express 100 lbs \$3.75.

## Treat Your Seed with Formaldehyde

A Preventive for Smut in Grain—Scab and Fungus Diseases of Potatoes

Formaldehyde is a clear chemical, resembling water, but has a peculiar odor. It is sold by the pound (pint). One pound is sufficient to treat 40 to 50 bushels of oats.

The following method is in general use: To treat 20 bushels of oats requires  $\frac{1}{4}$  pint of Formaldehyde diluted with 5 gallons of water. Spread the oats on a floor and sprinkle with the diluted solution. Then turn them twice with a scoop shovel. Allow to stand for 12 hours. Then spread to dry. Any quantity can be treated by using the same proportions. Oats thus treated will be entirely free from smut.

Prices, pint 50c—Quart 90c—gallon jug \$3.50—Express or freight at purchaser's expense—cannot be mailed.

**OATS ARE A PROFITABLE CROP**, easily grown and seldom fail. Prices are high and indications are that they will remain high for some time. Their value as a food makes them in big demand and our "Shadeland" seed will yield you a profitable crop

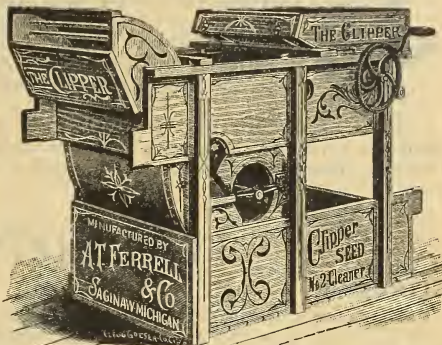
# The Clipper Grain and Seed Cleaner

Recommended and used by all State Agricultural Colleges  
 and by the U. S. Department of Agriculture

No work done on the farm brings such large returns as thoroughly preparing the grain and seed by recleaning and grading for planting. This insures an even stand of strong, healthy plants, and a larger yield of a higher grade. The "Clipper" cleaner is especially adapted to this kind of work on account of its ability to separate the small, also the light, dead seed or grain from the perfect seed or grain.

Other mills depend entirely upon screens for this work, and with unsatisfactory results. The "Clipper" screens all straw and foreign matter from the grain before it enters the air shaft, and the "Vertical Blast" does the rest.

Screens are so arranged as to be in plain view and of easy access to the operator while machine is in operation, and a set of 10 being furnished with either the No. 1B or No. 2B. These are ample for general work—but special screens can be furnished for any cleaning operation.



Guaranteed to do the most perfect work of any Hand Seed Cleaner manufactured

The "Clipper" is a first-class, inexpensive and durable mill for general use.

PRICES. No. 1B—Capacity 40 bu. wheat or 12 bu. of clover per hour. Wt. packed, 200 lbs., \$31.00.  
 No. 2B—Capacity 20 bu. clover seed per hour, Wt., packed, 250 lbs., \$40.00.

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

## Broadcast Seed Sowers

### CAHOON

The standard broadcast seed sower of the world, made of steel, iron and brass and with ordinary care will last a lifetime. This is the most popular and best built seed sower; has a force feed and does excellent work. Instructions with each machine. Weight 9 lbs. Price \$4.50

### TIN HORN SEEDER

Adjustable. A good serviceable seeder at a very low price. Weight 1 lb. Each 90c



Cahoon

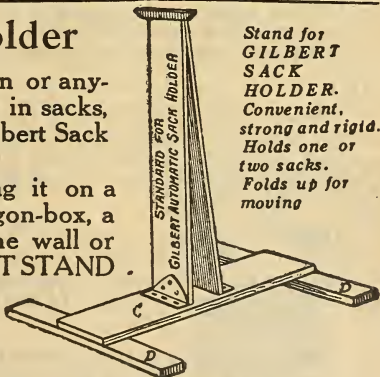
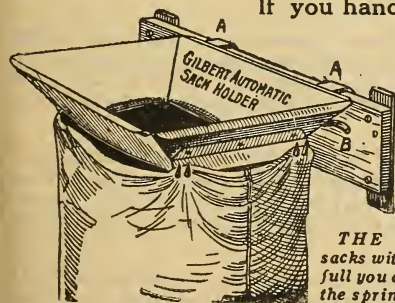
## Gilbert Automatic Sack Holder

If you handle potatoes, grain or anything that goes in sacks, you need a Gilbert Sack Holder.

YOU can hang it on a fence, a wagon-box, a grain bin, on the wall or use the GILBERT STAND.

THE GILBERT holds the sacks without tearing, and when full you do not have to lift them, the spring latch will dropthem.

PRICE, without stand, \$3.00. STAND (for one or two sacks) \$1.50



Stand for GILBERT SACK HOLDER. Convenient, strong and rigid. Holds one or two sacks. Folds up for moving

POTATOES are as sure and profitable a crop investment, and labor considered, as can be grown. And the varieties we offer (seed stock of our own growing), will produce the maximum yield of shapely salable tubers that will command the highest market prices. We can tell you the best varieties for your market and soil. See page 36.

THIS IS THE YEAR TO PLANT—ORDER EARLY

# DIAMOND FERTILIZERS

*The Base is Bone Meal and Tankage—No Cheap Filler. Every Pound Is Good Fertilizer*



**DIAMOND QUALITY Fertilizers** are complete fertilizers of the highest grade and concentration, no inferior ingredients or cheap fillers are used in their preparation. Bone Meal and Tankage forming the base to which is added the necessary Potash, Nitrogen and Phosphoric Acid. Each package is marked plainly, showing the percentage of available plant food.

**SPECIAL FERTILIZER BOOKLET** giving complete details and prices of the different fertilizers which we can supply, together with full information for their application, will be sent on request. This booklet is instructive, reliable and of great value to all interested in fertilizers.

## FERTILIZING ELEMENTS

### NITROGEN

**Nitrogen** is necessary for the production of plant life, and without it there can be no plant growth; it is a powerful stimulant, and, when present in excess, causes a rapid and excessive, but watery and unnatural growth, which is made at the expense of fruitfulness. Too much nitrogen on wheat shows its ill-effects in such a rank growth of the plant, and later, of straw, as to be unable to sustain its own weight until the grain is matured; on hops, by great growth of plant and but few blossoms, which mature fewer burrs; on fruit trees by a rapid and sappy growth which produces little fruit.

**Leguminous crops** (such as clover, beans, peas, etc.) draw their supply of nitrogen principally from the air, and, therefore, an artificial application of nitrogen fertilizer to this class of plants is rarely needed.

### PHOSPHORIC ACID

**Phosphorous** in the form of phosphoric acid is necessary for the healthy growth of plants, and is essential to the best production of straw and seed. Its deficiency in a soil is shown by the want of vigor in its plant life. To produce its full effect, however, it must be used on a soil already rich in nitrogen, or to be associated with nitrogen in the fertilizer; otherwise it will produce a tall, pale and spindling growth of straw with very small increase of grain or fruit. **It has a marked effect in hastening maturity and should be used freely on all crops which should be ripened early and is especially useful for increasing all crops of seed grain.**

**Acid Phosphate** contains lime, which is valuable on such soils as would be improved by the use of land plaster, and if prepared from bone also contains nitrogen, which gives it an additional value.

### POTASH

**Potash** is found in greater or less quantity in all soils. It is essential to the development and growth of the plant. In combination with Nitrogen and Phosphoric Acid, Potash contributes to the full and perfect development of plants. Excess of Potash does not show any special effect on the plant, but a weakened growth, a lack of fruitfulness, and especially a slow and unsatisfactory development of starch and woody fiber, **follows its deficiency in the soil.**

### LIME

**Lime** is not a direct fertilizer but improves the condition of swampy and peaty soils, which consists largely of organic matter and are consequently rich in nitrogen, but this nitrogen is unavailable, owing to the slow decay of the organic matter in some of these soils, so lime furnishes the conditions necessary for a more rapid decay. Such soils sometimes need phosphoric acid and potash as well as lime.

**Lime** also performs a valuable office in the sweetening of soils. When a soil betrays excess of acid, lime is needed. It also makes heavy clays light and more porous, and renders the plant food in them, as well as in muck soil more available. Quick-lime, marl and ground oyster shells are the more common sources of lime. To produce the results above noted lime from stone or oyster shells is more effective.

**A 100-pound Bag of High Grade Commercial Fertilizer** will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and there are no weed seeds to worry over. Always remember that the commercial value depends upon the available or soluble contents of a mixed fertilizer, and the price is governed thereby. The figures giving the soluble, insoluble, totals, etc., unless understood, are often misleading, apparently giving a greater percentage of the various elements than are actually available.

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**Note** AS FERTILIZERS ARE SOLD ON A SMALL MARGIN, PRICES ARE SUBJECT TO MARKET CHANGES, but you will always get FULL VALUE for your money



# Diamond Fertilizers (Continued)

Applied in quantities of 1,000 lbs. to a ton per acre, our fertilizers, with intelligent culture will sustain and gradually improve the soil and increase the yield and quality of the product, even though the crop be entirely removed and no other manuring done. The roots, vines, stubble and whatever of weeds or waste there is, all assist in providing the necessary humus. A greater amount is often used to advantage by market gardeners. Complete instructions will be found in our Fertilizer Booklet, sent free. If there is any special information you require, write us; your inquiries will have our prompt and careful attention and our experience may help you.

Being the largest dealers, we carry the most complete stock of fertilizers and fertilizing materials in the Northwest, and having installed modern machinery for regrinding and mixing our "Diamond Quality" Fertilizers, we can make immediate delivery in any quantity, ground to a fineness and blended to a mechanical perfection that make them of superior excellence. Fertilizers that are machine mixed and fined are more thoroughly and evenly blended, are more readily available and give uniformly better results than when mixed by hand.

## GENERAL AND VEGETABLE FERTILIZER

An all-round fertilizer, which can be used on any crop, but is especially adapted for grain and general farm crops. Analysis: Nitrogen, 2 per cent; phosphoric acid, 7.25 per cent; potash, .60 per cent.

10 lbs 50c—100 lbs \$3.15—per ton \$60.00

## FRUIT AND ONION FERTILIZER

This fertilizer is also used for blackberries, raspberries, etc. We sell large quantities for growing the famous Hood River strawberries. Analysis: Nitrogen, 2½ per cent; phosphoric acid, 10 per cent; potash .60 per cent.

10 lbs 50c—100 lbs \$3.35—ton \$65.00

## ODORLESS LAWN AND ROSE FERTILIZER

Our Diamond Lawn Fertilizer promotes a vigorous, healthy growth, giving the desired dark rich green appearance; can be used at the time the seed is planted and later as a top dressing. One hundred pounds is sufficient for an ordinary city lot, and is far more effective and less objectionable than stable manure. Remember, it contains no weed seeds. When used as a top dressing it is best to make several light applications about two weeks apart.

10 lbs 50c—25 lbs \$1.00—50-lb sack \$1.85—100 lbs \$3.25—ton \$63.00.

## SHEEP GUANO

The best natural manure, dried and ground. Concentrated, soluble; quick in action, and free from weed seed. Splendid for vegetables; fine for roses and flowers. Excellent for lawns.

10 lbs 40c—25 lbs 60c—50 lbs \$1.00—100 lbs \$1.75—ton \$33.00.

## LAND PLASTER, OR GYPSUM

Made from pure gypsum, free from clay or other foreign matter. This is especially valuable for clover crops.

10 lbs 25c—100-lb sack 90c—ton \$13.50

## LIME

**Lime Rock—Fine Ground.** This is the form of lime recommended by the Agricultural Department. Use ½ to 1 ton per acre.

100 lbs \$1.00—ton \$11.50

**Oyster Shell Lime.** 100 lbs \$1.00—ton \$11.50

## SUPERPHOSPHATE

This is a concentrated form of phosphoric acid, and it is actually the cheapest form in which to buy phosphoric acid. Our present stock contains 17 to 18 per cent available phosphoric acid.

Per lb 5c—100 lbs \$1.80—ton \$32.00

## BONE MEAL

Fine ground, is one of the best fertilizers. This is the only grade of Bone Meal, and is reduced by improved machinery to an even fineness—nothing is added. This is a very valuable enricher of the soil, and one of the most economical at present prices. 5 lbs 30c—10 lbs 50c—100 lbs \$3.25—ton \$63.00.

## TANKAGE

Ground meat scraps and bone, desiccated in a vacuum, is very rich in phosphoric acid and nitrogen. Per 100-lb sack \$3.25—ton \$63.00

## NITRATE OF SODA

For immediate results Nitrate of Soda is the very best for stimulating and forcing the growth of plants or any other crop.

1 lb 10c—100 lbs \$5.80 ton \$110.00

# DIAMOND PLANT FOOD

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated

A complete, highly concentrated, powerful fertilizer, clean and odorless, wonderfully invigorating to all plants; producing luxuriant foliage and larger and more brilliant flowers. A 25c package will feed a dozen large plants a whole year. Special instructions on each package.

Price ½ lb pkg 25c—by mail 35c—1 lb pkg 40c—by mail 50c

Our fertilizers contain generous supplies of vital plant food. Being highly concentrated and readily available, small quantities only are needed for the production of the finest crops. **THEY ARE QUICK IN ACTION, RELIABLE AND ECONOMICAL.**



**Farmogerm** is a practical success. A \$2.00 package used on a leguminous crop will produce as much nitrogen as 8 tons of manure. See Page 47



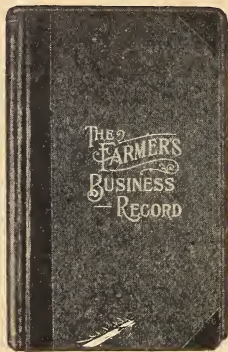
## BOOKS


*Books are the inspiration, the authoritative guide, that enable you to command success, and you should have the standard references on the subjects in which you are interested.*

### FARMERS' BUSINESS RECORD

*A simple complete system of business accounting in one convenient book.*

Arranged by special rulings and headings so that only the figures need be recorded. Gives a complete record of every transaction. Requires no knowledge of bookkeeping—so simple that any one who can make figures and read can keep this perfect record and know to a cent how much the profit or loss is for the year, and can compare this year's records with last or any previous year or month. This wonderful book will hold your records for twenty years; also contains a fund of priceless information, valuable tables, weights and measures, formulas for stock remedies and foods, forms for contracts and business and legal agreements.



 *The most simple, complete, systematic method for placing yourself and farm on a business basis.*

**PRICE.** The regular price of this valuable book is \$3.75. By special arrangement, we are able to introduce it to our customers for \$2.50 or \$2.75, postpaid, or will give this complete system as a premium with a \$25.00 order.

*Note: C indicates cloth; P, paper cover. All books postpaid at following prices:*

	Binding Price		Binding Price
<b>Agriculture, The Principles Of, Bailey,</b> 336 pages, 5x7½ in. . . . .	C \$1.45	<b>Farm Appliances, Martin,</b> 192 pages, 5x7 in. . . . .	C \$0.60
<b>Agriculture, Principles Of, through the school and home gardens, Stebbin. . . . .</b>	C 1.25	<b>Farm Book, New American, Allen,</b> 540 pages, 5x7½ in. . . . .	C 2.10
<b>Alfalfa, The Book Of, Coburn,</b> 324 pages, 6x9 in. . . . .	C 2.10	<b>Farmstead, The, Roberts,</b> 350 pages, 5x7½ in. . . . .	C 1.60
<b>Alfalfa, Practical Information on, Co- burn,</b> 161 pages, 5x7½ in. . . . .	C .70	<b>Farm Conveniences,</b> 256 pages, 5x7½ in. . . . .	C 1.10
<b>Alfalfa Farming in America, Wing,</b> 480 pages, 5x8 in. . . . .	C 2.10	<b>Farm Gardening and Seed Growing,</b> Brill, 166 pages, 5x7½ in. . . . .	C 1.10
<b>Apple Culture, Field Notes on, Bailey,</b> 88 pages, 5x7½ in. . . . .	C .85	<b>Farm Grasses of the United States,</b> Spillman, 248 pages, 5x7½ in. . . . .	C 1.10
<b>Apple Orchard, The American, Waugh,</b> 214 pages, 5x7½ in. . . . .	C 1.15	<b>Fences, Gates and Bridges, Martin,</b> 192 pages, 5x7 in. . . . .	C .60
<b>Asparagus, Hexamer,</b> 166 pages, 5x7½ in. . . . .	C .65	<b>Ferns and How to Grow Them, Wool- son,</b> 156 pages, 5x7½ in. . . . .	C 1.35
<b>Basket Making With Raffia, Morse,</b> 30 pages, 5x7 in. . . . .	P .25	<b>Fertilizers, Gregory,</b> 137 pages, 5½x7½ in. . . . .	P .55
<b>Belgian Hare Guide. . . . .</b>	P .25	<b>Fertilizers, Voorhees,</b> 335 pages, 5x8 in. . . . .	C 1.65
<b>Blackberry and Raspberry Culture,</b> Littooy, 48 pages, 3½x6 in., new edi- tion. . . . .	P .40	<b>First Book of Farming, The, Goodrich,</b> 250 pages, 5x7½ in. . . . .	C 1.10
<b>Bulbs and Tuberos-Rooted Plants,</b> Allen, 312 pages, 5x7 in. . . . .	C 1.60	<b>First Principles of Soil Fertility,</b> Vivian, 265 pages, 5x7½ in. . . . .	C 1.10
<b>Bush Fruits, Card,</b> 537 pages, 5x7½ in. . . . .	C 1.60	<b>Floriculture, Practical, Henderson,</b> 325 pages, 5x7½ in. . . . .	C 1.60
<b>Cabbages and Cauliflowers, Broccoli, Etc., Gregory,</b> 93 pages, 5x7½ in. . . . .	P .40	<b>Flower Garden, The, Ida D. Bennett,</b> 282 pages, 5x7½ in. . . . .	C 1.35
<b>Cabbages and Cauliflower, Etc., Allen,</b> 125 pages, 5x7 in. . . . .	C .65	<b>Forestry, Practical, Fuller,</b> 290 pages . . . . .	C 1.60
<b>Carnation Culture, American, Lam- born,</b> 175 pages, 5x8½ in. . . . .	C 2.00	<b>Fruit Garden, Barry's,</b> 516 pages, 5x7½ in. . . . .	C 1.60
<b>Celery Culture, Beattie,</b> 143 pages, 5x7½ in. . . . .	C .65	<b>Fruit Grower, The Practical, May- nard,</b> 128 pages, 5x7 in. . . . .	C .70
<b>Clovers and How to Grow Them,</b> Shaw, 349 pages, 5x7½ in. . . . .	C 1.35	<b>Fruit Growing, The Principles of,</b> Bailey, 516 pages, 5x7½ in., new edi- tion. . . . .	C 1.85
<b>Corn Crops, The, A Discussion of Maize, Kaffirs and Sorghums,</b> Montgomery, 347 pages, 5x7½ in. . . . .	C 1.90	<b>Forcing Book, The, Bailey,</b> 266 pages, 5x8 in. . . . .	C 1.40
<b>Cranberry Culture, White,</b> 131 pages, 5x7½ in. . . . .	C 1.10	<b>Fruit Harvesting, Storing, Marketing,</b> Waugh, 224 pages, 5x7½ in. . . . .	C 1.10
<b>Daffodils-Narcissus, Kirby,</b> 235 pages, 5x7½ in. . . . .	C 1.35	<b>Fungi and Fungicides, Weed,</b> 228 pages, 5x7½ in. . . . .	C 1.10
<b>Draining for Profit and Health, War- ing,</b> 252 pages, 5x7½ in. . . . .	C 1.10	<b>Gardening for Pleasure, Henderson,</b> 404 pages, 5x7½ in. . . . .	C 1.60
<b>Dwarf Fruit Trees, Waugh,</b> 125 pages, 5x7½ in. . . . .	C .70	<b>Gardening for Profit, Henderson,</b> 376 pages, 5x7½ in. . . . .	C 1.60
		<b>Gardening for Young and Old, Harris,</b> 191 pages, 5x7½ in. . . . .	C 1.10





# New Books (Continued)

Note: C indicates cloth; P, paper cover. All books postpaid at following prices:

	Binding Price		Binding Price
Garden Making, Bailey, 417 pp., 5x7 1/2 in.	C \$1.70	Peach Culture, Fulton, 204 pp., 5x7 1/2 in.	C \$1.10
Ginseng, Kains, 144 pages, 5x7 1/2 in.	C .70	Play and Profit in My Garden, Roe, 349 pages, 5x7 1/2 in.	C 1.10
Grape Culturist, The, Fuller, 282 pages, 5x7 1/2 in.	C 1.60	Potato Culture, A B C of, Terry, 318 pages, 4 1/2 x 6 in., new edition.	P .55
Grasses and How to Grow Them, Shaw, 453 pages, 5x7 1/2 in.	C 1.60	Potato, The, Frazer, 185 pages, 5x7 1/2 in.	C .85
Grasses and Forage Plants, Flint, 398 pages, 5 1/2 x 8 in.	C 2.10	Propagation of Plants, Fuller, 349 pages, 5x7 1/2 in.	C 1.60
Greenhouse Construction, Taft, 210 pages, 5x7 1/2 in.	C 1.60	Pruning Book, The, Bailey, 545 pages, 5x7 1/2 in.	C 1.65
Greenhouse Management, Taft, 382 pages, 5x7 1/2 in.	C 1.60	Rhubarb Culture, The New, Morse, 130 pages, 5x7 1/2 in.	C .65
Hedges, Windbreaks, Etc., Powell, 140 pages, 5x7 1/2 in.	C .70	Rose, The Book of the, Foster-Mellair, 356 pages, 5x7 1/2 in.	C 2.10
Home Floriculture, 300 pages, 5x7 in.	C 1.10	THE ROSE BOOK, by H. H. Thomas and Walter Easlea.	
Homes for Home Builders, King, 251 pages, 5x7 1/2 in.	C 1.10	A complete guide for amateur rose-growers, is the latest, most beautiful and complete work that the English have given us; 64 beautiful half-tone engravings, 8 pages of superb color plates; if you love roses, you should have this book.—An ideal gift book, 278 pages, 5 1/2 x 8 1/4. \$2.10, postpaid	
How to Choose a Farm, Hunt, 412 pages, 5 1/2 x 7 1/2 in.	C 1.85	Roses and How to Grow Them, 189 pages, 5x7 1/2 in.	C 1.35
How to Plan the Home Grounds, Parsons, 249 pages, 5x8 in.	C 1.10	Rose Growing, Practical and Pictorial, Wright.	P .75
Injurious Insects of the Farm and Garden, Treat, 296 pages, 5x7 1/2 in.	C 1.60	Roses and Rose Growing, Kingsley, 163 pages, 6x9 in.	C 2.10
Insects Injurious to Fruits, Saunders, 436 pages, 5x8 in.	C 2.10	Small Fruit Culturist, Fuller, 298 pages, 5x7 1/2 in.	C 1.10
Insects and Insecticides, Weed, 334 pages, 5x7 1/2 in.	C 1.60	Strawberry Culture, The A B C of, Terry & Root, 235 pages, 5x6 in.	P .55
Land Draining, Miles, 199 pp., 5x7 1/2 in.	C 1.10	Strawberry Culturist, The Illustrated, Fuller, 59 pages, 5x7 in.	C .35
Landscape Beautiful, The, Waugh, 336 pages, 6x8 1/2 in.	C 2.10	Sweet Potato Culture, Fitz, 86 pages, 5x7 1/2 in.	C .65
Landscape Gardening, Maynard, 338 pages, 5x7 1/2 in.	C 1.60	Tomato Culture, Littooy, 24 pages, 5x7 3/4 in.	P .25
Landscape Gardening, Waugh, 152 pages, 5x7 1/2 in., new edition.	C .85	Tomato Culture, Tracy, 150 pages, 5x7 1/2 in.	C .65
Lawns and How to Make Them, Barron, 174 pages, 5x7 1/2 in.	C 1.30	Vegetable Gardening, Principles of, Bailey, 458 pages, 5x7 1/2 in.	C 1.70
Manure, The Bonner Method of Making, 86 pages, 6x9 in.	P .30	Vegetable Gardening, Green, 252 pages, 5x7 1/2 in.	C 1.25
Market Gardening and Farm Notes, Landreth, 215 pages, 5x7 1/2 in.	C 1.10	Violet Culture, Commercial, Gallo-way, 239 pages, 5x7 in.	C 1.55
Money in the Garden, Quinn, 268 pages, 5x7 1/2 in.	C 1.10	Violets, How to Make Money Growing, Saltford, 45 pages, 6x6 1/2 in.	P .30
Mushroom Culture and Pure Culture, Spawn, 33 pages, 5x8 in.	P .35	Water Lilies and How to Grow Them, Conard & Hus, 228 pages, 5x7 1/2 in.	C 1.35
Mushrooms, How to Grow Them, Falconer, 169 pages, 5x7 1/2 in.	C 1.10	Window Flower Garden, The, Heinrich, 123 pages, 5x7 1/2 in.	C .60
Nursery Book, The, Bailey, 365 pages, 5x7 1/2 in.	C 1.60		
Nut Culturist, The, Fuller, 289 pages, 5x7 1/2 in.	C 1.60		
Onions, 95 pages, 5x8 in.	C .55		
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Onion Culture, New, Greiner, 115 pages, 5x7 1/2 in.	C .65		

## DAIRY AND STOCK BOOKS

Barn Plans and Out Buildings, 385 pages, 5x7 1/2 in.	C 1.35	Farm Stock, Burkett, 358 pages 5x8 in.	C 1.60
Dairying, The Business of, Lane, 234 pages, 5x7 1/2 in.	C 1.35	Feeding and Management Of Live Stock, Shaw, 99 pages, 5 1/2 x 8 1/2 in.	C 1.10
Dairy Chemistry, Snyder, 190 pages, 5x7 1/2 in.	C 1.25	Forage Crops Other Than Grasses, Shaw, 287 pages, 5 1/2 x 7 1/4 in.	C 1.35
Dairying, Profitable, Peck, 174 pages, 5x7 1/2 in.	C .85	Goats, Money In, by W. S. Bull, 24 pages, 5 1/2 x 8 1/2 in.	P .55
Farm and Dairy, Sheldon, 158 pages, 5x7 1/2 in.	C 1.10	Soiling Crops And the Silo, Shaw, 366 pages, 5x7 1/2 in.	C 1.60

For complete information about Books listed—Write us

## POULTRY AND PIGEON BOOKS

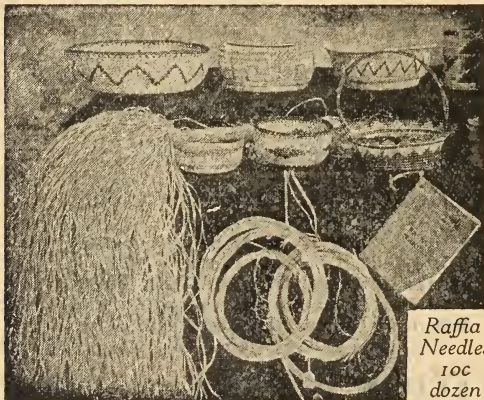
Note. C, indicates cloth; P, paper cover. All books postpaid at following prices;

	Binding Price		Binding Price
American Standard of Perfection, 331 pages, 5½x8 in. . . . .	C \$2.00	Orpington, The . . . . .	P \$0.75
Artificial Incubating and Brooding, 96 pages, 9x11½ in. . . . .	P .50	Plymouth Rocks, All Varieties, new edition . . . . .	P 1.00
Asiatics, The, 96 pages, 9x11½ in. . . . .	P .50	Poultry Craft, Robinson, 271 pages, 6x9½ in. . . . .	C 1.50
Bantam Fowl, The, McGrew, 68 pages, 9x11½ in. . . . .	P .50	Poultry Houses and Fixtures, new edition . . . . .	P .75
The Call of the Hen, The, Walter Hogan, 138 pages . . . . .	C 2.00	Poultry Remedies, Reliable, 93 pages, 5½x8½ in. . . . .	P .25
Chick Book, The, 80 pages, 9x11½ in. . . . .	P .50	Rhode Island Reds . . . . .	P .75
Duck Culture, Rankin, new edition . . . . .	P .75	Successful Poultry Keeping, 176 pages, 9x11¼ in. . . . .	P 1.00
Ducks and Geese, 104 pages, 9x11½ in. . . . .	P .75	Two Hundred Eggs a Year Per Hen And How to Get Them, Warren, 96 pages, 6x9 in. . . . .	P .55
Egg Farm, The New, Stoddard, 332 pages, 5x7½ in. . . . .	C 1.10	Turkeys, All Varieties, 80 pages, 9x11½ in. . . . .	P .75
Eggs and Egg Farms, 96 pages, 9x11½ in. . . . .	P .50	Wyandottes, All Varieties, new edition . . . . .	P 1.00
Egg Record and Account Book . . . . .	P .25	Pigeon Book. The Feather's Practical, Long, 168 pages, 5x7½ in. . . . .	P .50
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Incubating and Brooding, Artificial, 96 pages, 9x11½ in. . . . .	P .50	Squabs, Money in, Long & Brinton, 85 pages, 5x7½ in. . . . .	P .55
Leghorns, The, All Varieties, new edition, 9x11½ in. . . . .	P 1.00		
Money in Broilers and Squabs, Boyer, 148 pages, 6x9 in. . . . .	P .50		

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New Edition A B C and X Y Z of Bee Culture, 750 pages 7½x9½ in., postpaid . . . . .	C 2.65
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How to Produce Extracted Honey, Root, 29 pages, 4x6 in. . . . .	P .20
Modern Queen Rearing, Root, 33 pages, 4x6 in. . . . .	P .20
A Thousand Answers to Bee-Keeping Questions, Miller, 276 pages, 5½x8 in. . . . .	C 1.25



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10c  
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## RAFFIA

### For Basket Making

Raffia weaving has become very popular. Baskets, jewel boxes, shopping bags, mats, cushions, slippers and hats are but a part of the many useful articles woven.

In ordering Raffia by mail, be sure to add postage on 1 lb. or more.

RAFFIA—Natural color. Price ¼ lb 10c—postpaid 15c—per lb 30c, not postpaid.

COLORED RAFFIA—Any shade, the popular colors being red, green, yellow, orange, brown, black, blue and purple. Per pkg 15c—per lb \$1.00

SAMPLES showing colors of Raffia sent for 2c to cover postage.

### BASKET MAKING

Tells how to use Raffia and Reeds. 25c postp'd



## REEDS—For Weaving and Baskets

REEDS are used in the weaving of Baskets, covering Flower Bowls, Vases, etc., and are also useful as a foundation for Raffia work baskets and handles.

We have been fortunate in securing a fine stock and offer the five most useful sizes.

	Pkg.	¼ lb.	lb.
No. 1	.15	.50	\$1.40
No. 2	.15	.45	1.30
No. 3	.15	.45	1.25
No. 4	.10	.35	1.00
No. 5	.10	.35	.95

Schools and Teachers write for Special Prices on Reeds and Raffia.

## "DIAMOND QUALITY" FLOWER SEEDS

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

**CULTURE**—Cultural directions are printed on the back of nearly all packets. Flowers usually succeed best in a sandy loam, made rich with well-rotted manure, which should be made fine and thoroughly mixed with the soil. A soil thus prepared will remain moist and loose, so that flower seeds, which are generally small and delicate, will germinate and grow with vigor.

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

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

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

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

### INFORMATION THAT WILL AID IN SELECTION OF FLOWERS


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

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

**Perennials** flower several years in succession.

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

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


 For the convenience of our customers we have grouped annuals together—separating them from the biennials and perennials, and have arranged a classified list giving color and habit of flowers and plants to aid in selections for special effects. See Page 81.

## "Diamond Quality" SWEET PEAS

Sweet Peas Head the list as our most beautiful and popular annual

**O**UR Famous "Diamond Quality" Sweet Peas are selected with critical care and we offer the best productions of the foremost growers, including the latest, most valuable novelties. We conduct careful trials, and, for quality and assortment of varieties, our stocks are unsurpassed. Although we list only those we consider best, we can supply any variety in commerce, and special orders will receive careful attention.

**CULTURE**—First and most important, plant as early in the Spring as the conditions will permit. Seeds should be sown at the rate of one ounce to fifteen feet. Make a trench about three to four inches deep, planting the seeds in the bottom about two inches deep, pressing the soil down firmly. After the plants are well up, thin to four or five inches apart, and draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and water if needed, an occasional thorough soaking being better than a daily sprinkling. Keep the flowers cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insuring better flowers.

 **FARMOGERM FOR SWEET PEAS**—Makes earlier, better flowers. See page 47.

## Sweet Peas (Continued)

### NEW—EARLY FLOWERING

#### LONG-SEASON SPENCER SWEET PEAS

A Cross of Early GRANDIFLORA and SPENCERS—of fixed color and type

**S**SIX WEEKS EARLIER than the Spencers, these new early-flowering varieties begin to bloom 106 days from planting in the open ground and flower through a long season—about 4 months.

New Early-Flowering Spencers are said by the originator to be perfectly fixed as to type and color and should not be confused with the Christmas or Winter-Flowering varieties generally listed. We give originator's descriptions of the 5 varieties we offer:

#### EARLY MORNING STAR

The most distinct and beautiful of its color and class—a deep orange scarlet or flame color standard, with orange pink wings—having about the same shades and brilliancy as "Thomas Stevenson;" is resistant to sunburn and the magnificent flowers are borne 3 and 4 on a stem in the greatest profusion. A profitable florist's variety; is especially attractive under artificial light.

Pkts only—each 25c

#### EARLY MELODY

A lovely rose pink on white having the dainty coloring and general appearance of "Countess Spencer," very floriferous, the blooms being mostly fours on fine stems.

Pkts only—each 25c

#### EARLY SPRING MAID

Color a light pink on a cream ground; a flower of great beauty and refinement; the large blossoms, 4 on a stem, make this a most attractive and desirable variety. Pkts only—each 25c

#### EARLY SNOW FLAKE

The best of the "Early White Seeded Spencers"—a beautiful white for commercial growers. The flowers are very large, beautifully waved and borne in greatest profusion on long stems.

Pkts only—each 25c

#### EARLY HEATHER BELL

Very large graceful flower of finet Spencers form, borne 3 and 4 on long, strong stems. Color is a lovely, rich mauve—changing when cut to a beautiful mauve lavender. Valuable as a cut flower and profitable variety for florists.


Pkts only—each 25c

### USE FARMOGERM for Sweet Peas

Makes vigorous vines, larger flower and prolongs the blooming period. Easily and quickly applied to the seed before planting.

25c and 50c packages, postpaid.

**JOIN THE OREGON SWEET PEA SOCIETY.** You may win our beautiful Solid Silver Trophy Cup—value \$60.00—for the best eight Spencer varieties in vases of ten or more stems each. Only amateurs who are members can compete, so every member has a chance to win. The Society's Exhibitions are one of the big annual events in Portland, and every lover of Sweet Peas should be a member. Your inquiries addressed to us will be promptly referred to the secretary.

 Fifty cents will pay all dues for one year. Send us your application



## SWEET PEAS—Spencer Varieties

A splendid collection, including the best of the recent novelties

THE new "Spencer" type has lovely waved and fluted flowers of gigantic size, and in exquisite colorings, length of stem, and lasting qualities are much superior to the older types. "Spencers," however, are very shy seeders and require much careful selection to develop fixed types. The seed is therefore scarce, and cannot be cheaply produced. For culture see page 63.

### RED AND MAROON

**Geo. Herbert**—A bright rosy-carmine, open form, beautifully waved; a magnificent, vigorous Sweet Pea of giant size. **Pkt 10c—oz 35c**

**King Edward**—Bright crimson scarlet, largest size, wavy standard; drooping wings, long stems; one of the finest reds. **Pkt 10c—oz 35c**

**King Manoel**—Large, full, wavy blossoms of dark brilliant maroon. A bold and attractive flower of great beauty. **Pkt 10c**

**Marjorie Willis**—A brilliant rose carmine of the finest Spencer form, the long stems carry four well-placed flowers; one of the best. **Pkt 10c—oz 35c**

**Maude Holmes**—A brilliant sunproof crimson of the largest size. Of true Spencer form, wavy and fluted. **Pkt 10c—oz 35c**

**Othello**—Very deep maroon of largest Spencer type; wings very wavy, large graceful flower; best of its color. **Pkt 10c—oz 35c**

**Queen Alexandra**—An extra fine intense scarlet, sunproof Sweet Pea. Of large, full, waved form. Free-flowering and vigorous. **Pkt 10c—oz 35c**

**Vermillion Brilliant**—An intense pure scarlet self-color of rare beauty and substance. Absolutely sunproof. A stocky, vigorous grower, profuse bloomer, the long, strong stems carry four perfect flowers. **Pkt 10c—oz 65c**

### LAVENDER AND BLUE

**Asta Ohn**—Lavender, suffused with mauve; of perfect form, largest size, 4 blossoms on long, strong stems; very vigorous. **Pkt 10c—oz 35c**

**Captain of Blues**—A Spencer type of the Captain of Blues Grandiflora. Standard of flowers bright violet-purple, wings lavender blue. **Pkt 10c—oz 35c**

**Flora Norton**—Bright blue with just a tinge of purple. Fine Spencer form. **Pkt 10c—oz 35c**

**Florence Nightingale**—Immense, bold erect flowers of soft, rich lavender with very delicate suffusion of rose; a beautiful, self-colored flower, frilled and waved. Bears four blooms on extra long stems. **Pkt 10c—oz 35c**

**Mrs. Walter Wright**—A distinct bright shade of rosy mauve, extra large, waved and ruffled, vigorous and free-flowering. **Pkt 10c—oz 35c**

**Orchid**—Extra large flowers borne 3 and 4 on long strong stems; color a true deep Orchid lavender, a new color in sweet peas. Vigorous and free blooming. **Pkt 10c**

**Royal Purple**—A rare new shade in Sweet Peas, a rich purple, almost a true royal, a color that does not exist in the Grandiflora type. **Pkt 10c**

**Wedgewood**—A true self—being a beautiful Wedgewood blue; is larger, more vigorous, blooms more freely and is entirely free from purple shading found in other blue Spencers. **Pkt 10c**

### ORANGE AND SALMON

**Barbara**—A beautiful shade of orange salmon, the brilliancy and delicacy of the coloring being enhanced by planting in partial shade. A true Spencer of lovely form, very valuable as a cut flower. **Pkt 10c**

**Helen Lewis**—A giant flower of perfect form; standard rich crimson orange, wings orange rose; open form, full, wavy. **Pkt 10c—oz 35c**

**Illuminator**—A brilliant orange-salmon ground, illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. First class certificate. **Pkt 10c**

**Stirling Stent**—Color, a deep salmon suffused with orange. The flowers are of superb Spencer form, particularly effective by artificial light. First class certificate and silver medal from the National Sweet Pea Society of England. **Pkt 10c—oz 50c**

**Thomas Stevenson**—The most brilliant orange scarlet, standard of deeper color than the wings. The flowers are of the finest Spencer form and generally come four to the stem. **Pkt 10c—oz 65c**

### WHITE

**King White**—The newest and most magnificent white; of perfect Spencer type; the immense petals gracefully frilled—are a pure white of wonderful substance. **King White** has the most enthusiastic endorsement ever accorded a sweet pea. **Pkt 10c—oz 35c**

**Paradise Ivory**—A grand ivory white Spencer of the finest form. Large flower of good substance on long stems. A vigorous, tall grower. **Pkt 10c—oz 35c**

**White Spencer**—A pure white flower of enormous size, beautifully crinkled and fluted, of splendid substance. **Pkt 10c—oz 50c**

### VARIEGATED

**America**—The largest and finest of its class. Pure satiny white, striped and splashed brilliant crimson; 4 flowers of perfect form borne on long stems. **Pkt 10c—oz 35c**

**Apple Blossom**—A truly giant flower; color standard rose with deeper veining, wings light carmine, ground color primrose. **Pkt 10c—oz 35c**

**Dainty**—A pure, glistening white with distinct margining of bright rose-pink; comes four blossoms on long stems. Dainty is all its name implies and is the best picotee edge yet produced; very large and wavy. **Pkt 10c—oz 35c**

**Senator**—A combination of deep claret and chocolate, striped and flaked on a light heliotrope ground. The coloring, though dark, is brilliant and attractive. A free-flowering, vigorous grower of finest form and largest size. **Pkt 10c—oz 35c**

## SPENCER SWEET PEAS (Continued)

Don't Forget

FARMOGERM

Page 47



Duplex Type of Sweet Pea

See

"Margaret Atlee" and "Duplex"

### PINK AND CREAM

**Constance Oliver**—Clear, rich pink on cream ground; true Spencer type; best of its color.

Pkt 10c—oz 35c

**Countess Spencer**—*Pink*—The first Sweet Pea of the Spencer type. Flowers extremely large, beautifully expanded, crumpled and waved. Color silvery white, suffused and tinted with soft shell pink, deeper at the outer edges.

Pkt 10c—oz 35c

**"Duplex Cream"**—The standards are large, bold and beautifully curved. A vigorous grower and produces many fours. Color a deep rich cream.

Pkt 10c—oz 35c

**Elfrida Pearson**—Pale pink on white ground, a rare beauty; vigorous and very free blooming; classed as the best pink Spencer by National Sweet Pea society of England.

Pkt 10c—oz 35c

**"Margaret Atlee"**—The most perfect of the Duplex type yet produced. Color is a warm salmon pink suffused over a cream ground. The cream deepens into a bright buff at base of standard and wings. Flowers are of very large size and are borne almost uniformly four on a stem. Certificate of merit.

Pkt 10c—oz 35c

**Mrs. Routzahn**—Color, soft straw tinted with blush pink, shading to rose and apricot at edges, with distinct rose margin; of immense size; one of finest Spencers.

Pkt 10c—oz 35c

**Primrose Spencer**—Color, a true primrose. Very vigorous, free-flowering, excels in beauty of form, length of stem and keeping qualities.

Pkt 10c—oz 35c

To produce a luxuriant dark green velvety lawn, sow **DIAMOND FANCY MIXED LAWN GRASS** and fertilize with **DIAMOND LAWN** and **ROSE FERTILIZER**

## SWEET PEAS IN MIXTURE

### NEW 1918 OREGON GROWN SPENCERS


Oregon grown seed leads the world in vigor, hardiness and flowering qualities and our mixture of the finest named sorts include the most brilliant and lovely shades and colors. Our grower reports this seed-field as the best balanced, most harmonious and beautiful field of Sweet Peas he ever saw. Try them.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00—1b \$3.25

**Diamond Mixture**—The most perfect blend of the finest named varieties it is possible to produce. This mixture contains many famous novelties and standard Spencer types, and will delight the most critical; if you are undecided as to the varieties or colors you want, buy the "Diamond Mixture."

Sold in 1-oz sealed pkts only at 15c each—2 for 25c—12 for \$1.25—not sold in bulk.

**Superb Mixture—True Spencers Only**—A splendid mixture, carefully proportioned and blended to produce pleasing and harmonious combinations of color, containing the most beautiful shades and variations of the wonderful Spencer type. These are not seedlings, but carefully selected named varieties that retain all their purity and brilliance of color. Pkt 10c—oz 30c— $\frac{1}{4}$  lb 85c—1b \$2.50

 For Perennial Peas, see Perennial Flower Seeds

## DIAMOND PLANT FOOD

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated

Produces Luxuriant Foliage—Brilliant and Lasting Flowers. A 40-cent package will feed a dozen large house plants a whole year. Price,  $\frac{1}{2}$ -lb pkg 25c—postpaid 35c; 1-lb pkg 40c—postpaid 50c

## Sweet Peas (Continued)

### "UNWINS"

THE "UNWINS" resemble the Spencer type, although being of entirely different origin. They are not quite so large as the Spencers, but of fine form and substance, very vigorous and free-flowering, and always come true. In this respect they are superior and more dependable than Spencers, which often "sport" in the most unaccountable manner. For substance, color and bloom, Unwins are unsurpassed.

Price Pkt 5c—oz 25c— $\frac{1}{4}$  lb 75c

**Nora Unwin**—A grand pure white of the same beauty of form, waved and fluted standard and wings as Gladys Unwin. Award of merit at the trials of the N. S. P. S., Reading, England; one of the finest whites.

**St George**—Brilliant orange standard, the large wings a distinct orange carmine; does not burn in the sun; one of the best orange shades.

**Frank Dolby**—Color, delicate light lavender of great beauty, bold, wavy standard with widely spreading fluted wings.

**Gladys Unwin**—A large, bold flower, not hooded, but with standard and broad wings, of the new orchid-flower type, this is similar to Countess Spencer, but several shades lighter in its lovely pink color.

### GRANDIFLORA TYPE

Select List of Finest Large Flowering Sweet Peas, The Best of Their Color and Type

Prices 5c per pkt—15c per oz—40c per  $\frac{1}{4}$  lb—\$1.25 per lb postpaid

#### RED, SCARLET AND MAROON

**Queen Alexandra**—An intense bright scarlet of grand substance; a bold, robust flower of giant size and finest form, is sunproof, very vigorous and free-flowering.

**King Edward VII**—A lovely, intense crimson. A truly giant flowered variety. The finest crimson to date. Strong stems and growth.

**Prince of Wales**—Rose crimson. Fine sort.

**Black Knight**—Large size; a rich, dark claret; almost black; somewhat veined.

#### PINK—Deep Shades

**Janet Scott**—A large, grand flower; deep, rich pink.

#### PINK—Light Shades

**Dainty**—Large flowers, white with pink edge.

**Prima Donna**—A most beautiful bright shade of blush-pink. Flowers of a large size, and finest form.

#### BLUE AND WHITE

**Helen Pierce**—The most beautiful bright shade of true blue mottled on a brilliant pure white ground; 3 or 4 blossoms on a long stem. A grand flower of the largest size; very free and vigorous.

#### CREAM OR LIGHT YELLOW

**Mrs. Collier**—A true primrose of fine form.

**EXTRA MIXED—Grandiflora**—Select standard varieties of the finest colors, best form and substance and largest flowers of their type. Price pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c— $\frac{1}{2}$  lb 70c—lb \$1.25



"Unwins"

#### WHITE

**Dorothy Eckford**—Pronounced by Sweet Pea experts to be the grandest pure white yet seen of the grandiflora type. Grows an enormous mass of bloom.

#### ORANGE AND SALMON

**Miss Willmott**—Described as an "orange pink" delicately shaded rose. Enormous flowers, borne erect on long, stiff stems.

**Rose Du Barri**—Deep carmine rose and orange. While of the grandiflora type, Rose Du Barri is large, full and slightly waved.

#### LAVENDER

**Lady Grisel Hamilton**—Most attractive light lavender shading; flowers of large size.

#### BLUE AND PURPLE

**Lord Nelson, or "Brilliant Blue"**—A brilliant dark navy blue with tips of wings a lighter blue. Giant flowers, slightly hooded.



*Oregon Aster Field—Where Some of Our Stocks Are Grown*

## ANNUAL FLOWER SEEDS

And Those Generally Used as Such

**C**HARMING effects for every planting purpose can be had at very little expense by the proper planting of Annual Flowers, Vines and Foliage Plants. For classified list showing what is best for various purposes, see page 81.

Annuals bloom the first year, and many of our most popular flowers come in this class—under favorable conditions a few varieties will continue to live longer than one season, but as a rule they perish, and in planting for permanent effects the perennial plants are generally selected, the annuals being used for the first one or two seasons until the perennials become established.

### ASTERS—Oregon Grown Seed

**A**STERS grow to perfection in our mild, cool climate and splendid strains of the best-known sorts have been developed by careful selection. As Fall bloomers for garden or cut flowers, asters are most satisfactory, and the varieties we offer being acclimated can be depended on for best results, rivaling the chrysanthemum in size and beauty. Asters require a rich, moist soil. Seed should be sown inside in March, and plants transplanted to the open ground when the weather is settled.

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

White, Shell Pink, Rose, Purple, Lavender  
Pkt 15c— $\frac{1}{8}$  oz \$1.00

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

Pkt 15c

**GIANT CRIMSON**—A new velvety crimson of branching habit, upright grower. Excellent for garden decoration and cutting. Shows up well under artificial light.

Pkt 10c

**ASTER-MUM**—A selection from "Giant Comet." Of immense size, resembling Chrysanthemums in form, hence the name "Aster-mum." Plants are about two feet high with good stems. A little earlier than "Crego." Three colors. White, Pink, Lavender.

Pkt 10c—three, one of each color 25c

**QUEEN OF THE MARKET**—Best early Aster, Of graceful spreading habit.

Rose, White, Dark Blue, Light Blue, Mixed.  
Pkt 10c— $\frac{1}{4}$  oz \$1.00

**"MIKADO" OR ROCHESTER**—A favorite with florists. Has very long, narrow petals, toward the center they cross and recross in splendid confusion, strong branching habit, producing a blossom on every shoot.

Lavender—Pink. Pkt 15c— $\frac{1}{8}$  oz \$1.00

**SEMPLER'S LATE BRANCHING**—Flowers large, beautiful, double and borne on long stems.

White, Rose, Shell Pink, Lavender, Purple, Mixed. Pkt 10c— $\frac{1}{4}$  oz \$1.00

**LAVENDER GEM**—An exquisite shade of true lavender, of the comet type; free flowering, erect habit.

Pkt 15c— $\frac{1}{8}$  oz \$1.00

**DAYBREAK**—Flowers are full, large and round, borne freely on long stems. Color a dainty shell pink. Very early. Height, 18 inches.

Pkt 10c— $\frac{1}{8}$  oz 75c

**PURITY**—Same as "Daybreak," excepting color, which is a pure, glistening white.

Pkt 15c— $\frac{1}{8}$  oz 75c

**GIANT COMET**—Flowers large and beautiful; petals long and twisted.

Rose, Crimson, Dark Blue, Light Blue, White, Mixed. Pkt 10c— $\frac{1}{4}$  oz \$1.00

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



**TOTAL AMOUNT OF ORDER.**

**CATALOG**

Seed  
Nursery  
Poultry  
Bee  
Dairy

If you will fill in the spaces below with the names and addresses of ten of your neighbors who buy Seeds, Plants, Bee or Poultry Supplies, Fertilizers, Sprays or Spray Pumps, you may, with your first order of 25 cents or over, select free of charge any two 5 cent papers of seeds that we list. We rely upon your honesty to send us good reliable names. Please put **X** in the left hand column under the name of the catalog you think will interest them most.

Names	Post Office	Rural Route Number	State

State what premium you want, otherwise none will be sent.



Quantity

Name of Articles Wanted

Price

Amount Brought Forward,

TOTAL AMOUNT OF ORDER.

**CATALOG**

If you will fill in the spaces below with the names and addresses of ten of your neighbors who buy **Seeds, Plants, Bee or Poultry Supplies, Fertilizers, Sprays or Spray Pumps**, you may, with your first order of 25 cents or over, select free of charge any two 5 cent papers of seeds that we list. We rely upon your honesty to send us good reliable names. Please put **X** in the left hand column under the name of the catalog you think will interest them most.

Seed	Nursery	Poultry	Bee	Dairy	Names	Post Office	Rural Route Number	State

—State what premium you want, otherwise none will be sent.—



From .....

P. O. ....

PORTLAND SEED CO.

PORTLAND,

OREGON



Quantity

**POULTRY AND BEE  
SUPPLIES**

**Trees  
Plants  
Roses**

**Tools  
and Spray  
Pumps**

**MANUFACTURERS  
OF  
FERTILIZERS**

ward,

Price



# Annual Flower Seeds (Continued)

**ACROCLINIUM—Everlasting**  
Growing about 15 in. high, bearing white or rosy pink flowers, when cut in bud'state, can be dried and used for winter bouquets. Pkt 5c—oz 75c

**AGERATUM**  
**Mexicanum Nanum**—Adapted for borders and bedding; covered with feathery blossoms all Summer; sow seed in early Spring in boxes to transplant or sow out of doors and thin to 4 to 6 inches.  
**Dark Blue, White or mixed.** Pkt 5c— $\frac{1}{4}$  oz 25c

**ALYSSUM**  
Fine for borders, edging and rockwork; a dainty little flower. In borders, sow thickly so as to form masses. Sow in Spring or late in August.  
**Maritimum**—Sweet. Pkt 5c—oz 50c  
**Maritimum—Little Gem.** Pkt 5c—oz 75c  
**Procumbens**—Of trailing habit; profuse bloomer. Pkt 10c—oz 75c

**AMARANTHUS**  
Handsome foliage and interesting flowers, making a striking effect in borders and beds.  
**Salicifolius**—Willow leaved. Pkt 10c—oz \$1.50  
**Caudatus**—Graceful, drooping flowers. Pkt 5c—oz 75c  
**Tri-color, or Joseph's Coat**—Foliage scarlet, yellow and green. Pkt 5c—oz 75c

**BACHELOR'S BUTTON**  
**Centaurea Cyanus** or *Corn Flower*—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome.  
**Cyanus**—Fine single mixed. Pkt 5c—oz 35c  
**Cyanus**—Fine double mixed. Pkt 10c—oz 75c  
**Cyanus**—Single white. Pkt 5c—oz 50c  
**Cyanus**—Single blue. Pkt 5c—oz 50c  
**Cyanus**—Double blue. Pkt 10c—oz 75c  
**Cyanus**—Double pink. Pkt 10c—oz \$4.00

**BALLOON VINE**  
A rapid growing climber, 10 ft. high, inflated seed pods, flowers white. Pkt 5c—oz 75c

**BALSAM—"Lady Slipper"**  
Handsome plants, producing masses of various colored flowers, half hardy.  
**Double Camellia Flowered mixed.** Pkt 5c— $\frac{1}{4}$  oz 25c

**BRACHYCOME—Swan River Daisy**  
A charming flower in white and blue varieties. The plants grow about 12 inches in height and bloom freely. They make elegant border plants. Mixed. Pkt 10c—oz \$1.00

**BROWALLIA—Lavatera**  
Handsome and free flowering. Covered all summer with rich blue and white flowers. 18 inches high. Mixed. Pkt 10c—oz \$1.50

**CALENDULA—Pot Marigold**  
The well-known Pot Marigold, valued by Europeans for flavoring soups and stews. Flowers are dried in Fall and kept in paper bags for use. In mild climates this plant will bloom nearly all the year round. Plant in early Spring in open ground.  
**Orange King**—Double. Pkt 5c—oz 35c  
**Meteor**—Double. Pkt 5c—oz 20c  
**Double Sulphur.** Pkt 5c—oz 20c  
**Double Mixed.** Pkt 5c—oz 20c

**CATCHFLY—Silene**  
A hardy annual yielding for a long time a profusion of umbels of bright colored flowers. The plant is covered with glutinous moisture, to which flies adhere; hence its name.  
**Fine Mixed**—All Colors. Pkt 5c—oz 35c

**CALLIOPSIS**  
Very showy and attractive, always covered with a mass of bright flowers, fine cut flowers.  
**Crimson King.** Pkt 5c—oz 50c  
**Golden Wave (Drummondii)** Pkt 5c—oz 50c  
**Coronata Maxima** Pkt 5c—oz 50c  
**Tall Single Mixed.** Pkt 5c—oz 40c  
**Tall Double Mixed.** Pkt 5c—oz 40c  
**Dwarf Mixed.** Pkt 5c—oz 50c

**CANDYTUFT—Iberis**  
One of the most highly prized annuals for beds or masses, very useful for cutting.  
**Giant Hyacinth Flowered**—White. Pkt 5c—oz 65c  
**Carmine, Crimson, Lavender, Mixed.** Pkt 5c—oz 40c

**GELOSIA CRISTATA—Cockscomb**  
Very attractive and showy, producing massive heads of deeply colored flowers.  
**Cockscomb Tall.** Pkt 10c—oz \$1.00  
**Dwarf Empress.** Pkt 10c—oz \$3.00  
**Dwarf Fine Mixed.** Pkt 10c—oz \$3.00

**GELOSIA PLUMOSA—(Feathered)**  
Splendid new class, for pots or open ground, especially fine for market.  
**Thompsoni Magnifica**—Yellow. Pkt 10c—oz \$1.75  
**Thompsoni Magnifica**—Crimson. Pkt 10c—oz \$1.75  
**Childsil (Chinese Wool Flower)** Pkt 15c

**GENTAUREA IMPERIALIS**  
**White, Purple or Rose.** Pkt 10c—oz \$1.50  
**Suaevolens.** Pkt 10c—oz \$1.25  
**Moschata**—Mixed. Pkt 10c—oz \$1.25  
**Gymnarcapa.** Pkt 10c—oz \$1.25  
**Candidissima.** Pkt 15c—oz \$3.00

**CASTOR BEAN—Ricinus**  
Highly ornamental, of stately growth and having large leaves of bronze or glossy green.  
**Sanguineus**—Brilliant scarlet stems and fruit. Pkt 5c—oz 15c  
**Zanzibariensis**—Surpasses all in size and beauty of colors. Mixed. Pkt 5c—oz 20c  
**Mixed**—Best varieties. Pk 5c—oz 15c

**CHRYSANTHEMUM**  
Very showy, effective and desirable as Summer flowering plants. Hardy annuals.  
**Inodorum—Bridal Robe.** Pkt 10c  
**Segetum—Morning Star**—Pale primrose. Pkt 10c—oz 60c  
**Carinatum**—Northern Star—Giant white black center. Pkt 10c—oz 50c  
**Carinatum**—Sgl. finest mxd. Pkt 10c—oz 40c  
**Corinarium**—Dbl. finest mxd. Pkt 5c—oz 40c

**CLARKIA**  
Hardy annual of easy growth, produce a fine effect massed in beds, bright and attractive.  
**Elegans—Salmon Queen**—Double. Pkt 10c—oz \$3.00  
**Elegans—Scarlet Queen**—Double. Pkt 10c—oz \$3.00  
**Elegans—White**—Double. Pkt 5c—oz 75c  
**Elegans—Double mixed.** Pkt 5c—oz 75c

# Annual Flower Seeds (Continued)

## COBAEA SCANDENS—(Plants in Season)

A handsome, rapid-growing, climbing plant, having large, bell-shaped flowers, beautiful foliage and peculiarly delicate and curious tendrils.

**Purple.**

**Pkt 10c—oz \$1.25**

**White.**

**Pkt 10c—oz \$1.25**

## COSMOS

Seed sown in March or April and transplanted to open ground will produce plants three to five feet high by September, which thereafter and until November, will yield hundreds of blossoms three inches across; they are of various shades, from pure white to purplish crimson. Both foliage and flowers are unsurpassed for bouquets and vases. Annual. (Plants in season.)

**Lady Lenox**—A magnificent type of extraordinary size and rare beauty. Color, a delightful pink. Beautiful under artificial light.

**Pkt 10c—oz 50c**

**Lady Lenox.** White.

**Pkt 10c—oz 50c**

**Klondyke**—Blooms very early and continuously; three to four feet high; flowers large, golden yellow and borne on long stems.

**Pkt 10c—oz \$1.50**

**Mammoth Flowering**—White, pink, crimson or mixed.

**Pkt 10c—oz 75c**

**Marguerite**—New and odd; very pretty, petals fringed. Mixed.

**Pkt 10c—oz \$1.50**

**Early Dawn**—White, flushed pink; very early.

**Pkt 10c—oz \$1.50**



Gaillardia

Perennial  
Gaillardia  
Page 80.

PLANTS  
in Season

## CYPRESS VINE—*Ipomoea Quamoclit*

Climber with rapid growth, handsome foliage and bright attractive flowers.

**White, Scarlet or Mixed.** **Pkt 5c—oz \$1.25**

## DELPHINIUM—(*Larkspur*)

The annual Delphiniums are quite hardy and bloom in the later Summer months, furnishing flowers of striking beauty in form and color. Tall varieties are suitable for shrubberies and borders, while the dwarf sorts produce charming effects in beds.

**Dwarf Rocket**—Finest colors. Double mixed. Hardy annual.

**Pkt 5c—oz 50c**

**Tall Double Stock Flowered**—Lustrous Carmine, Dark Blue, Purple, Rose, White or finest mixed.

**Pkt 10c—oz \$1.25**

## EUPHORBIA

Suitable for beds of tall growing plants; foliage very ornamental.

**Variegata**—Snow on the Mountain. Variegated foliage. 2 feet.

**Pkt 5c—oz \$1.00**

**Heterophylla**—Painted leaf. Annual poinsettia. 3 feet.

**Pkt 10c—oz \$2.25**

## ESCHSCHOLTZIA—*California Poppy*

These are generally classed and grown as annuals, but are true hardy perennials. See description under perennials.

## ECHINOCYSTIS, LOBATA—*Wild Cucumber*

A rapid-growing climber. Very good for covering old fences or trellises. Hardy annual.

**Pkt 5c—oz 35c**

## FOUR O'CLOCK—*Mirabilis Jalapa*

**Marvel of Peru**—Easy culture, bearing a profusion of bright flowers of various shades. Flowers open at four o'clock, close in morning. **Choice Mixed.**

**Pkt 5c—oz 35c**

## GAILLARDIA—*Blanket Flower*

Very showy garden plant, with brilliant flowers; free blooming from early Summer until Autumn; especially effective in masses.

**Picta Lorenziana**—Double; finest mixed; annual. **Pkt 5c—oz \$1.00**

## GILIA

A hardy annual, growing 12 inches high, small delicate flowers valuable for rock work or borders.

**Tall sorts Mixed.** **Pkt 5c—oz 30c**

## GODETIA

Profuse and constant bloomers, compact and bushy in growth, flowers of exquisite shades and colors.

**Semi-dwarf.** Fine Mixed. **Pkt 5c—oz \$1.00**

**Gloriosa.** Dark Red, **Pkt 10c—oz \$1.25**

**Duchess of Albany.** **Pkt 10c—oz 75c**

## GOURDS

For covering verandas and trellis work, rapid growth, bearing fruits of curious sizes.

**Calabash.** **Pkt 5c—oz 35c**

**Bottle and Egg Shaped.** **Pkt 5c—oz 35c**

**Large Varieties Mixed.** **Pkt 5c—oz 35c**

**Small Varieties Mixed.** **Pkt 5c—oz 35c**

## GYPSOPHILA—(Annual)

**Grandiflora Elegans**—Easily raised from seed. Grows from 18 to 24 inches, bearing beautiful large star-shaped flowers in great profusion. **Pkt 5c—oz 35c**

## HELICHRYSUM—*Straw Flower*

**Monstrosum**—Everlasting. One of the best for Winter bouquets. Hardy annual. Double mixed. **Pkt 5c—oz \$1.00**





# Annual Flower Seeds (Continued)

## HIBISCUS—*Marshmallow*

Of easy culture and exceedingly showy; has large cup-shaped flowers.

**Extra Mixed. Pkt 5c—oz \$1.25**

## HYACINTH BEAN—*Dolichos Lablab*

Rapid growing, ornamental, climbing annuals, bearing clusters of beautiful purple and white flowers, followed by highly ornamental seed pods. Mixed.

**Pkt 5c—oz 15c**

## HOLLYHOCKS—*New Annual*

**Hybrida Semperflorens**—This splendid variety will bloom in August, from Spring planting, continuing until frost. This is a great advantage, as other varieties do not bloom until the second year. Try them.

**Finest New Single Mixed. Pkt 10c—oz \$1.25**

## HUNNEMANNIA—*Giant Yellow Tulip Poppy*

**Fumariaefolia**—Best of the poppy family for cutting, remaining in good condition for several days. Seed sown early in May will, by the middle of July, produce plants covered with their large, buttercup yellow, poppy-like blossoms, and never out of flower until a hard frost.

**Pkt 10c—oz 75c**

## ICE PLANT

**Mesembrianthemum Crystallinum**—Pretty Summer trailing annual for vases and rock work; leaves covered with ice-like drops.

**Pkt 5c—oz \$1.00**

## KOCHIA TRICHOPHYLLA—*Fire Bush or*

*Summer Cyprus*

Forms symmetrical highly decorative bushes, foliage green, turning to fiery red in Autumn.

**Pkt 10c—oz 25c**

## LINUM—*Crimson Flax*

**Annual**—Beautiful and effective; hardy, about 18 inches high; covered with bright scarlet flowers.

**Pkt 5c—oz 50c**

## LOBELIA

Delicate, low-growing, annual plants of the greatest value for borders, ribbons, edgings, rock work and hanging baskets.

**Hybrid Hamburgia**—New; light blue with white eye, long, drooping flower stalks; fine for hanging baskets or boxes; grows rapidly.

**Pkt 10c—oz \$8.00**

**Gracilis**—Blue, trailing; beautiful for baskets.

**Pkt 5c—oz \$2.50**

**Crystal Palace Compacta**—Dwarf flowers very fine and rich, deep blue; finest for bedding and edging.

**Pkt 10c—oz \$3.00**

**Compacta Emperor William**

**Pkt 10c—oz \$4.00**

## MARIGOLD—*Tagetes*

A hardy plant in dwarf and tall varieties; foliage bright green and deeply cut. Flowers are various shades of yellow and brown. French or dwarf varieties good for borders. African or tall varieties good for background.

**African.** Tall or Dwarf, Double Mixed.

**Pkt 5c—oz 50c**

**French.** Dwarf, Double Mixed.

**Pkt 5c—oz 50c**

**French.** Tall Striped Double. Extra select.

**Pkt 10c—oz \$1.25**

**Golden Ball.** New Dwarf, Very compact.

**Pkt 15c**

**Legion d'Honneur.** Dwarf Single.

**Pkt 5c—oz 75c**

## MIMOSA—*Sensitive Plant*

**Pudica**—Very curious and interesting plant; leaves close if touched or shaken; annual. **Pkt 5c**

## MOON FLOWER—*Ipomoea Mexicana Grandiflora*

Rapid growing climber belonging to the "Morning Glory" family. Flowers are large, waxy white, and very showy.

**Pkt 10c**

## MIGNONETTE—*Reseda*

A quick-growing annual, highly esteemed for its delicate fragrance. It grows most rapidly and produces the largest and finest spikes of blossoms during cool, moist weather of early Spring and late Fall months, but will flower freely throughout the Summer from seed sown early in Spring. A second planting should be made about the first of August to furnish large, fine spikes of flowers during the cool Fall months.

**Odorata Grandiflora**—Large, well-formed, fragrant flowers. **Pkt 5c—oz 25c**

**Machet—White.** White with reddish tinge. Best white, dwarf variety. **Pkt 15c—oz \$1.25**

**Golden Queen**—Dense, dwarf growth; flower golden yellow; very fragrant. **Pkt 10c—oz 50c**

**Machet—Red, Victoria**—Dwarf, compact flowers red; fine. **Pkt 10c—oz 75c**

## MORNING GLORY

The tall varieties are popular, well known, rapid growing climbers of the easiest cultivation. Very fine for covering arbors, trellises, porches, etc. The Minor, or Dwarf varieties flower very freely and do not require support.

**Convolvulus Major**—Tall, choice single, mixed, all colors. **Pkt 5c—oz 25c**

**Double Mixed**—Tall. **Pkt 10c—oz 50c**

**Convolvulus Minor**—Dwarf blue.

**Pkt 5c—oz 25c**

**Imperial Japanese Fringed**—These have very large fringed flowers in a great variety of the most exquisite colorings; handsome, variegated foliage. Mixed. **Pkt 10c—oz 25c**

## NICOTIANA

A very showy plant, producing star-shaped flowers of delicious perfume. Taken up in the Fall, cut back and potted, will bloom freely all Winter. Half hardy annual; three feet high.

**Affinis**—White. **Pkt 5c—oz 75c**

**Hybrida**—Splendid mixed. **Pkt 10c—oz 75c**

**Sanderæ**—Resembles the "Affinis," but unlike that variety, does not close up in the daytime. The plants are covered with carmine-red, fragrant flowers. **Pkt 10c—oz \$1.25**

**Sylvestris**—Pure white, fragrant, drooping flowers; deep green foliage. **Pkt 5c—oz 75c**

## NIGELLA

**Love-in-a-Mist, or Devil-in-the-Bush**—Compact growing, free flowering plants with curious looking, showy flowers and finely cut foliage. Hardy annuals. Mixed.

**Pkt 5c—oz 35c**

**Miss Jekyll**—Cornflower Blue.

**Pkt 10c—oz 75c**

## OENOTHERA—*Evening Primrose*

Elegant for growing in an exposed position, in border or on rockery; constant bloomer all summer. Fine mixed. **Pkt 5c—oz 60c**



## Nasturtiums

**N**ASTURTIUMS are hardy annuals, of easy cultivation and flower best where the soil is not too rich. The new hybrids include various shades of rose, salmon, bright red, pale yellow, etc., either self-colored or spotted, mottled, striped and margined.

For covering trellises, fences, arbors, piazzas, trailing from vases, over rockwork, for bedding, etc., nothing can equal the gorgeous effect produced by their marvelous wealth of bloom, borne in uninterrupted splendor from early Summer until cut down by frost. The seeds, picked green and pickled in vinegar have a piquant, appetizing flavor that is a valuable addition to relishes or pickles.

### DWARF NASTURTIUMS

**CHAMELEON**—Variable colorings in bronze, crimson and yellow, rich markings.

**CLOTH OF GOLD**—Brilliant scarlet, golden yellow leaves.

**EMPRESS OF INDIA**—Intense scarlet, purplish green leaves.

**PRINCE HENRY**—Lemon yellow, with carmine blotches.

**VESUVIUS**—A rich salmon orange, dark foliage.

#### — PRICES —

**NAMED VARIETIES** Pkt 5c—oz 15c— $\frac{1}{4}$  lb 40c

**MIXTURE**—Standard varieties. Pkt 5c—oz 10c— $\frac{1}{4}$  lb 30c

### TALL NASTURTIUMS

**CHAMELEON**—Variable flowers marked and blotched in many brilliant colors.

**KING THEODORE**—Large velvety crimson flowers, very attractive dark green leaves.

**MOONLIGHT-PEARL**—Soft primrose.

**DUNNETTS ORANGE**—Large, bright pure orange flowers.

**PRINCE HENRY**—Fine lemon yellow, clear carmine blotches.

**SALMON QUEEN**—Extra large light salmon, suffused rosy salmon.

**RUBY**—Beautiful ruby red. Fine open flowers.

#### — PRICES —

**NAMED VARIETIES** Pkt 5c—oz 15c— $\frac{1}{4}$  lb 30c—lb \$1.00

**MIXTURE**—Standard tall varieties. Pkt 5c—oz 10c— $\frac{1}{4}$  lb 25c—lb 75c

### IVY LEAF

**TALL MIXED**—Climbing habit with pointed leaves of rich ivy green veined white, resembling English Ivy. Flowers have narrow petals and are quite distinct and pleasing.

Pkt 5c—oz 20c— $\frac{1}{4}$  lb 50c

**DWARF MIXED**—Pkt 5c—oz 20c— $\frac{1}{4}$  lb 60c

### VARIEGATED

**TALL MIXED**—Foliage beautifully marked and marbled yellow and cream on the green ground, some leaves appearing almost white. Flowers come in all colors and markings.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

**DWARF MIXED**—Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

## Pansies

### Fancy Strains of Mixed Pansies

**TRIMARDEAU GIANTS**—Of remarkably large size and robust growth; very fine.

Pkt 10c— $\frac{1}{4}$  oz 60c—oz \$2.00

**FINE MIXED**—A fine assortment of colors.

Pkt 5c— $\frac{1}{8}$  oz 25c

### LARGE FLOWERING DIAMOND MIXED

—No pains are spared by our grower to make this strain absolute perfection in form, firmness of texture, size, freedom of bloom, and elegance and variety of markings and colorings.

Pkt 25c— $\frac{1}{8}$  oz 75c

### — MASTODON PANSY PLANTS —

From February to June we offer our famous Mastodon Pansy Plants in full bloom, packed in baskets of 1 dozen each. See Plant Department.

**SPECIAL**—Transplanted Seedling Plants just turning into buds can be furnished at \$3.00 per hundred. Florists and gardeners should write for prices on these plants, as large orders can be quoted at very low prices.

*Mastodon  
Pansies  
At the  
Panama  
Pacific  
Exposition*

*See  
Specials  
Below*

*Plants  
in  
Season  
See  
Plant  
Dept.*



## MASTODON PANSIES

FOR years the Steel Pansy Gardens have grown our Giant Pansies and co-operated in securing the finest strains from the world's most celebrated growers. These have been carefully reselcted and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered.

**PANAMA-PACIFIC**—A magnificent deep yellow, some with dark centers, some clear yellow. 200,000 of these wonderful yellow were massed at the Panama Pacific Exposition. **Pkt 25c**

**MADAME STEELE**—"Elks' purple"—a deep rich true royal purple pansy of great substance and giant size. **Pkt 25c**

**MASTODON BRONZE**—A giant strain of bronze pansies in all the different shades from burnished brass to gold. Nearly every color known to pansies. **Pkt 25c**

**MASTODON WHITE**—Dark center. Magnificent new white of great beauty and substance and of true Mastodon form. **Pkt 25c**

**Mastodon Pansy Seed, Diamond Mixed, Pkt 25c—Trade pkt \$1.00**

## LARGE FLOWERING PANSIES

**ADONIS**—A distinct and beautiful shade of light blue with white center and dark blotch, a most pleasing and attractive variety. **Pkt 10c**

**GOLDEN QUEEN**—A rich, pure yellow of the grandest form and size. A valuable addition to the yellows, which are very hard to produce in the Giant strains. **Pkt 10c**

**GIANT DARK BLUE**—A splendid blue black, very elegant, and of good substance; should be grown by everyone. **Pkt 10c**

**GIANT STRIPED**—A superior strain of truly giant pansies, with the most beautiful striped markings in the richest dark shades. Very popular in Europe. **Pkt 10c**

**PRINCE HENRY**—A new giant variety of a brilliant, dark indigo blue, with violet luster, each petal having a large, dark brown, veined blotch. Edges of petals slightly ruffled. **Pkt 15c**

**KING OF THE BLACKS (Giant)**—Immense velvety black flowers of the finest quality; the largest and best black pansy. **Pkt 10c**

**MADAME PERRET**—A beautiful and distinct type with edges of petals frilled—bordered white, colors are dark wine—pink and red, beautifully veined. The earliest of the Giants, has sweetest perfume and keeps up its size of flower longer than any other. We offer the best strain. **Pkt 15c**

**SNOW FLAKE**—A grand, pure white, of extra fine quality. **Pkt 10c**

**VULCAN**—A magnificent new dark, glowing red with five large, black spots; blooms of perfect form and great substance; but its chief value lies in the superb coloring which has never been attained before. Be sure to try "Vulcan." **Pkt 25c**

**EMPEROR WILLIAM**—A dainty cornflower blue, very showy; a splendid variety of large size and good substance. **Pkt 10c**

**MASTERPIECE—GIANT RUFFLED**—The mammoth size, richness and beauty of colorings and frilled or ruffled character of the petals, make "Masterpiece" one of the most distinct and interesting Pansies ever developed. **Pkt 25c**

# Annual Flower Seeds (Continued)

## PETUNIA—*Hybrida*

Too much cannot be said in praise of the Petunia as a bedding plant. Our clear, bright Summers seem to bring out its best qualities. During the whole season it is covered with large, showy blossoms, which are always bright and fresh, in spite of heat and drought. The flowers are of an almost infinite variety of colors and markings, and quite as varied in form; large and small, fringed and plain, double and single. Hardy annual. Large assortment.

**Single Fine Mixed.** Pkt 5c— $\frac{1}{8}$  oz 25c

**Single Choicest Mixed—**Saved from the best flowers. Pkt 10c— $\frac{1}{8}$  oz 50c

**Single Fringed Mixed—**Large flowered; very desirable. Pkt 25c

**Double Choicest Mixed—**Full and handsome Pkt 25c

**Double Fringed Mixed—*Extra Select*—**Blotched and striped. Mixed Pkt 25c

## PHLOX DRUMMONDI

The blooms of Phlox Drummondii are unrivaled for richness and beauty of color, ranging from white to the deepest scarlet and purple. They are abundant, almost covering the foliage and of long duration. Very desirable and easily grown. For cutting, for bouquets or for bedding in masses they are unsurpassed. Hardy annual, one foot high

**Large Flowering Choice Mixed—**Flowers large and brilliant. Pkt 5c— $\frac{1}{4}$  oz 75c

**Large Flowering—**Scarlet or white. Pkt 5c— $\frac{1}{4}$  oz 75c

**Star Phlox—(*Cuspidata*)** Flowers have a distinctive star-like appearance, with white margins, excellent for bouquets.

Pkt 10c— $\frac{1}{4}$  oz 75c

**Dwarf Mixed.**—Finest flowering sorts. Pkt 10c— $\frac{1}{4}$  oz \$1.25

## POPPY—*Papaver*

The Poppy is well known and really a magnificent flower which is borne separately on tall stalks. Poppies are very showy and come in many bright and charming colors. Some are hardy annuals, others are perennials, and may be sown as the ground can be prepared.

**Double Carnation Flowered—**Fringed; as sorted colors. Pkt 5c—oz 25c

**Shirley—**The range of color, extending from white through delicate shades of pink, rose and carmine, to the deepest crimson; fine for cutting. Pkt 10c—oz 50c

**Miss Sherwood—**Petals satiny white, shading to chamois rose. Very beautiful and distinct. Pkt 10c— $\frac{1}{8}$  oz 25c

**Double American Flag—**White bordered with scarlet. Pkt 5c—oz 50c

**King Edward—**Large flowers produced with great freedom. Deep scarlet, shaded crimson, red, with large black blotch. Height 2 $\frac{1}{2}$  ft. Pkt 10c— $\frac{1}{4}$  oz 25c

**Glaucum—(*Tulip Poppy*)—**Brilliant scarlet flowers, 3 inches across. Pkt 10c—oz 75c

## PORTULACA—*Rose Moss*

Brilliant dwarf annuals, only six inches high, luxuriating in warm situations, and blooming profusely from early Summer to Autumn. For low beds and masses of color from Spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, white, striped, etc.

**Single Mixed.** Pkt 5c— $\frac{1}{4}$  oz 20c

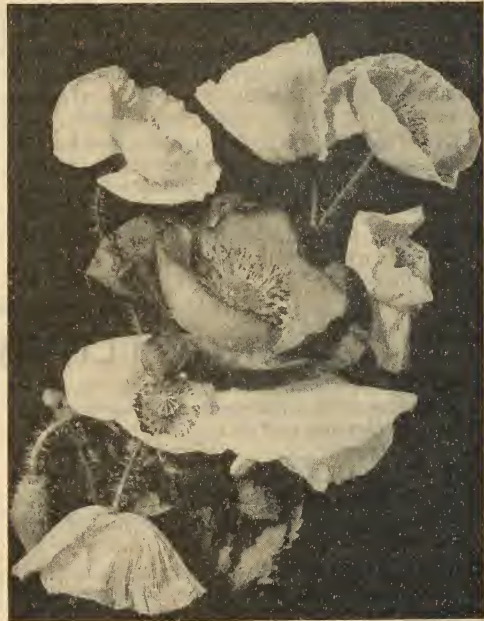
**Double Mixed.** Pkt 10c— $\frac{1}{8}$  oz 25c

## RHODANTHE—*Swan River Everlasting*

A beautiful everlasting annual for garden or pot culture; height, 1 foot.

**Mixed colors.** Pkt 5c

For ANNUAL and PERENNIAL Border and Bedding Plants. A select list of the most desirable varieties. See Plant Department



*Shirley Poppies*

## SCABIOSA

**Sweet Scabious, Or Mourning Bride—**Free flowering annuals; white, carmine, lilac, maroon, etc.; effective for garden decoration and valuable for cutting. **Dwarf or Tall Double—**Mixed. Pkt 5c— $\frac{1}{4}$  oz 25c

A 100-lb bag of **DIAMOND LAWN and ROSE FERTILIZER** is sufficient for the average city lot for one season, is easily applied, costs less than manure, is clean and odorless and is a complete fertilizer that will not only stimulate a quick, luxuriant growth, but will remain in the soil until used and not leach away and be lost. Ask for our Free Booklet, "FERTILIZERS."

# Annual Flower Seeds (Continued)



*Salpiglossis*

**SALPIGLOSSIS—Painted Tongue**  
 Produces very showy, funnel-shaped flowers of large size. Fine for beds. Half-hardy annuals.

**Emperor Strain**—Crimson and gold, dark scarlet, rose and gold, violet and gold, yellow and finest mixed. **Pkt 10c— $\frac{1}{4}$  oz 60c**

**SALVIA—Flowering Sage**  
 Very ornamental; flowers borne in spikes of fiery red or crimson, and continue in bloom in open ground until after severe frosts. Start in heat and transplant into light soil, one to two feet apart. Excellent for bedding in masses or single planting. Hardy annuals.

**Salvia Zurich**—New Dwarf Early. The finest of all Dwarf Salvias. Very floriferous. **Pkt 15c— $\frac{1}{2}$  oz \$1.00**

**Salvia Splendens**—Brilliant scarlet. **Pkt 10c— $\frac{1}{2}$  oz \$1.00**

**Bonfire—(Clara Bedman)**—One of the finest Salvias ever introduced; compact bush about two feet in height and diameter. Its erect spikes of flowers of brilliant scarlet stand clear above the dark green foliage and completely cover the plant. **Pkt 10c— $\frac{1}{2}$  oz \$1.00**

**SAPONARIA**  
 Pretty, dwarf bedding plant. Hardy annual.  
**Pink.** **Pkt 5c— $\frac{1}{2}$  oz 25c**

**SCHIZANTHUS—Butterfly Flower**  
 Beautiful, garden annuals; flowers charmingly fringed and delicately colored; one to two feet.  
**Mixed Colors.** **Pkt 5c— $\frac{1}{4}$  oz 25c**

**STATICE—See Lavender**  
 Beautiful for Winter bouquets; flowers very pretty.  
**Annual Varieties—Mixed.** **Pkt 5c**

**STOCKS—Double Ten Weeks**  
 These popular flowers are easily grown, and are so highly fragrant and of such beauty that they deserve a place in every garden. They are great improvements over the Gilliflowers of the olden times, being much larger and more densely double and of a great variety of colors.

**Dwarf Large Flowering**—White, crimson rose, light blue, or mixed. **Pkt 10c— $\frac{1}{8}$  oz 60c**

**Virginian Stock**—A fine, early flowering plant. Hardy annual. **Pkt 5c— $\frac{1}{4}$  oz 15c**

**STOCKS—Winter or Brompton**  
**Beauty of Nice**—Very large flowers of a delicate flesh pink. Extra fine. **Pkt 15c— $\frac{1}{8}$  oz 60c**  
**Crimson King**—Rich blood crimson. **Pkt 15c**  
**Mont Blanc**—Purest white. **Pkt 15c**  
**Monte Carlo**—Canary yellow. **Pkt 15c**  
**Queen Alexandra**—Soft rosy lilac. **Pkt 15c**  
**Mixed.** **Pkt 10c— $\frac{1}{8}$  oz 60c**

**SUNFLOWER—Helianthus**  
 Stately growing annuals with immense golden yellow flowers; effective for garden decoration.  
**Double Dwarf**—Bright golden yellow flowers three inches across. **Pkt 5c—oz 50c**  
**Globosus Fistulosus**—Saffron, very large, double and handsome. **Pkt 5c—oz 25c**  
**Multiflora**—Beautiful, double yellow flowers. **Pkt 5c—oz 25c**

**THUNBERGIA—Black Eyed Susan**  
 Rapid-growing annual climbers; splendid for trailing over trellises, fences, etc., beautiful flowers borne in profusion; buff, white, orange, etc., four to six feet high.  
**Mixed Colors.** **Pkt 5c— $\frac{1}{4}$  oz 25c**

**VERBENA**  
 Very few annuals will make such a gorgeous display during the Summer months, or furnish more flowers for cutting. Start seed in the house or under glass early in the Spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost.

**Mammoth Mixed**—Selected; extra large, fine. **Pkt 15c— $\frac{1}{4}$  oz 75c**

**Fine Mixed** **Pkt 5c— $\frac{1}{4}$  oz 35c**

**Candidissima**—Pure white. **Pkt 10c— $\frac{1}{4}$  oz 50c**

**Scarlet Defiance**—Fiery scarlet. **Pkt 10c— $\frac{1}{8}$  oz 50c**

**Pink Shades.** **Pkt 10c— $\frac{1}{4}$  oz 75c**

**Blue Shades.** **Pkt 10c— $\frac{1}{4}$  oz 75c**

**VISCARIA—Rose of Heaven**  
 Their profuseness of bloom will always rank them among general favorites.  
**Fine Mixed.** **Pkt 5c— $\frac{1}{4}$  oz 15c**

**ZINNIA ELEGANS—Youth and Old Age**  
 Of the easiest cultivation and should be in every collection. Half hardy annuals.  
**Dwarf Double Mixed.** **Pkt 5c— $\frac{1}{4}$  oz 25c**  
**Crispa, Crested Mixed.** **Pkt 10c— $\frac{1}{4}$  oz 35c**  
**Double Giants**—Crimson, blush pink, golden yellow, scarlet, white and special mixed. **Pkt 10c—oz \$2.00**

# PERENNIAL FLOWER SEEDS

*Biennials are listed herewith as they are in their perfection the second year*

**HARDY PERENNIALS** are used for permanent garden and landscape effects, and many of them also produce choice cut flowers. The old fashioned perennials are in high favor now for Beds and Borders and the new and improved varieties are wonderful advancements over the older types. Most Perennial and Biennial Plants do not flower until the second year and for immediate results one year old plants of all the most desirable sorts can be furnished. See Plant Department.

## AGROSTEMMA

**Coronaria**—Strikingly beautiful for beds, ribbons and borders. Its graceful flowers remain fresh a long time after being cut, and are very handsome in bouquets. Thrives in any soil.

**Perennial.** Pkt 5c—oz \$1.00

## ALYSSUM

**Saxatile**—Showy, bright yellow flowers, blooms the first season if sown early indoors.

Pkt 5c— $\frac{1}{4}$  oz 35c

## ANCHUSA—*Italica*

**Dropmore**—A splendid plant for hardy borders, growing to a height of about 5 feet. Remarkable for its free and continuous flowering habit. Flowers are of a beautiful gentian-blue color.

Pkt 15c—oz \$2.00

## ANTIRRHINUM—*Snapdragon*

One of the most useful and showy of border plants of almost every color, and striped as beautifully as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial.

**Firefly**—Scarlet and white. Tall.

Pkt 10c— $\frac{1}{4}$  oz 50c

**Queen Victoria**—New large; pure white. Tall.

Pkt 10c— $\frac{1}{4}$  oz 50c

**Venus**—Pink, on white ground; white throat. Tall.

Pkt 10c— $\frac{1}{8}$  oz 25c

**Luteum**—Yellow. Tall.

Pkt 10c— $\frac{1}{8}$  oz 35c

**Tall, Finest Mixed** Pkt 10c— $\frac{1}{8}$  oz 25c

**Dwarf, Finest Mixed** Pkt 10c— $\frac{1}{8}$  oz 25c

## ARABIS—*Rock Cress*

One of the earliest and prettiest Spring flowers unequalled for rockeries or edging, withstands the drought, pure white flowers.

**Alpina.** Pkt 5c— $\frac{1}{4}$  oz 35c

## ASPARAGUS SPRENGERI—*Emerald Feather*

One of the best of the new so-called ferns. Feathered foliage; useful for bouquets, wreaths or sprays, remaining perfect for weeks after cutting. Grows freely the whole year round. (For plants see Plant Department.)

Pkt 10c—50 seeds 25c

## ASPARAGUS PLUMOSUS—*Asparagus Fern*

One of the prettiest house plants. The leaves are bright green, gracefully arched, surpassing Maidenhair Ferns in grace, delicacy of texture and richness of color. (For plants see Plant Department.)

Pkt 25c—50 seeds 50c

## ASTERS—Hardy Perennial—*Michaelmas Daisy*

Handsome flowers of easy culture, that appear at a time when flowers are scarce. Make an attractive garden display and are very useful as cut flowers.

**Large flowering mixed.** Pkt 10c— $\frac{1}{4}$  oz 50c

## BEGONIA

Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Try our select seed; the finest in the world.

**Gracilis**—Pink. Pkt 25c

**Gracilis**—White. Pkt 25c

**Gracilis**—Bonfire. Pkt 25c

**Gracilis**—Luminous. Pkt 25c

**Salmon Queen.** Pkt 25c

**Rex** (*Diadema Polyphylla*)—Ornamental leaved varieties.

**Mixed.** Pkt 25c



*Calceolaria*

## CALCEOLARIA

Very handsome and much admired. Produces a profusion of beautiful flowers of unique form and colorings. Fine for pot culture.

**Hybrida**—Finest mixed Pkt 50c

## CANDYTUFT—*Iberis*

**Sempervirens**—Perennial. White. Pkt 10c— $\frac{1}{4}$  oz 35c

## CANNA—*Indian Shot*

Ornamental, tropical looking plants of easy culture; large and beautiful flowers. For Canna Bulbs, see Plant Department.

**Crozy's New Large Flowering Mixed.** Pkt 10c—oz 40c

## CANTERBURY BELLS—*Campanula*

Very ornamental garden plants of the easiest culture; hardy biennial, two and a half feet high, producing large, nodding and charming bell-shaped flowers of many exquisite shades.

**Media Single**—Blue, rose, white or mixed. Pkt 10c— $\frac{1}{4}$  oz 35c

**Calycanthema**—(*Cup and Saucer*) White, rose, light blue or mixed.

Pkt 10c— $\frac{1}{4}$  oz \$1.00

**Persicifolia**—Very fine, blooms in June. Blue or White. Pkt 15c— $\frac{1}{8}$  oz \$1.00

**Pyramidalis**—Stately hardy plant for pot culture or garden. Blue or white.

Pkt 10c— $\frac{1}{4}$  oz 35c

# Perennial Flower Seeds (Continued)

## CARNATION—*Dianthus Caryophyllus*

Carnations are Tender Perennials, being easily Winter killed

Universally admired, deliciously fragrant. There is no more satisfactory flower to grow and few that are as lasting. The seed we offer is the finest obtainable and our new strains of perpetual flowering carnations will bloom the first year. **Fine Plants in Season. See Plant Department.**

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

**Margaret Carnations**—Bloom in four months from seed. Finest double mixed.

**Pkt 10c— $\frac{1}{4}$  oz 50c**

**Giant or Malmaison**—Mixed. **Pkt 25c**

## CHRYSANTHEMUM

**Frutescens** (*Marguerite, or Paris Daisy*)—Beautiful for cutting and pot culture, long stemmed single white flower with golden center. **Pkt 10c— $\frac{1}{4}$  oz 25c**

## CINERARIA

Magnificent and indispensable flowering plants for the window garden. The flowers of white, blue, violet and crimson shades, covering the plant with a sheet of bloom.

**Hybrida**—Grandiflora, prize mixed. Extra choice. **Pkt 50c**

**Hybrida**—Fine mixed. **Pkt 15c**

**Dusty Miller** (*Maritima Candidissima*)—Beautiful silvery-leaved border plant; half hardy perennial. **Pkt 5c— $\frac{1}{4}$  oz 35c**

## COIX LACHRYMAE—*Job's Tears*

A broad-leaved, ornamental grass, having large tear-shaped, hard, shining, pearl-gray seeds. **Pkt 5c—oz 25c**

## COLEUS

Probably the best known and most popular of ornamental foliage plants. Leaves of all shades and colors. Tender perennial.

**Hybrid Mixed. Pkt 15c**

**Extra Choice Mixed. Pkt 25c**

## COLUMBINE—*Aquilegia*

Universal favorite for hardy borders and beds.

**Candidissima**—Large snowy white. **Pkt 10c— $\frac{1}{16}$  oz \$1.00**

**Coerulea**—Hybrid Mixed. **Pkt 10c— $\frac{1}{8}$  oz 75c**

**Coerulea Hybrid**—Blue shades.

**Rose Queen. Pkt 15c— $\frac{1}{16}$  oz \$1.00**

**Chrysantha**—Golden yellow. **Pkt 10c— $\frac{1}{16}$  oz 75c**

**Chrysantha**—Grandiflora Alba. Beautiful pure white. Good for forcing. **Pkt 10c— $\frac{1}{16}$  oz 75c**

**Skinneri**—Orange, red. Splendid cut-flower variety. **Pkt 10c— $\frac{1}{16}$  oz 75c**

## COREOPSIS

**Lanceolata**—Large, showy, bright yellow flowers produced in great abundance from June till frost, fine for cut flowers. **Pkt 10c— $\frac{1}{4}$  oz 25c**

## CYCLAMEN

Beautiful Winter and Spring flowering plants for the window and greenhouse. Not only are the flowers of striking beauty, but the foliage is also highly ornamental. The colors range through shades of pink, crimson, white, spotted, etc. Delicately fragrant. Bulbs in season.

**Giganteum Hybridum**—White, dark red, salmon, pink. **Pkt 25c**



Coreopsis

## DAISY—*Bellis Perennis*

A well-known and popular low-growing plant bearing beautiful flowers. Hardy perennial.

**Longfellow**—Double pink. **Pkt 15c— $\frac{1}{16}$  oz 50c**

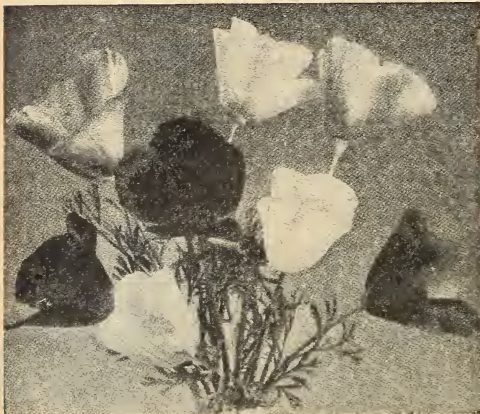
**Giant Double Monstrosa**—Red, white, pink or mixed. **Pkt 15c— $\frac{1}{16}$  oz 60c**

**Double Quilled**—Dark red. **Pkt 15c— $\frac{1}{16}$  oz \$1.00**

**Shasta Alaska**—Very hardy; profuse bloomers; flowers very large and borne on long stems, single; petals pure glistening white, dark center. **Pkt 15c**



## Perennial Flower Seeds (Continued)



*Eschscholtzia—California Poppy*

### DAHLIA

A magnificent, Fall-blooming tuberous-rooted plant, which can be readily started from seed.

**Double Mixed.** Pkt 10c— $\frac{1}{4}$  oz 60c

**Single Mixed.** Pkt 10c— $\frac{1}{4}$  oz 50c

**Cactus**—Flowers odd and fantastic in shape; all colors.

**Finest Mixed.** Pkt 20c— $\frac{1}{8}$  oz 50c

### DATURA

Large, strong-growing plants, trumpet-shaped flowers, white, sometimes tinted with blue. Roots can be preserved in the cellar, like Dahlias.

**Fastuosa Huberiana**—Double mixed.

Pkt 5c—oz \$1.00

**Cornucopia**—Very fragrant. Pkt 5c—oz \$2.00

### DELPHINIUM—*Larkspur*

A very ornamental class of profuse blooming plants. Their tall spikes of many-colored flowers produce a striking effect when planted in groups.

**Chinese Azureum**—Blue; fine for cutting. Pkt 10c— $\frac{1}{4}$  oz 35c

**Chinese Blue Butterfly.** Pkt 10c— $\frac{1}{4}$  oz 50c

**Chinese Album White.** Pkt 10c— $\frac{1}{4}$  oz 50c

**Belladonna**—Light blue. Pkt 10c— $\frac{1}{4}$  oz \$1.25

**Formosum**—Dark blue. Pkt 10c— $\frac{1}{4}$  oz \$1.00

**Cardinale**—Brilliant scarlet. Pkt 10c— $\frac{1}{4}$  oz \$1.00

### DRACAENA

Ornamental greenhouse plant. Very desirable.

**Indivisa Lineata**—Narrow, dark foliage. Pkt 10c

### DIGITALIS—*Fox Glove*

A tall growing biennial, with large leaves and spikes of vari-colored and spotted flowers. A magnificent plant. Fine for borders or background. Easily grown.

**Gloxiniflora**—Mixed. Pkt 5c— $\frac{1}{4}$  oz 35c

### EDELWEISS—*Leontopodium Alpinum*

The true white-leaved Edelweiss of the Alps, 6 inches tall. Pkt 25c

### ESCHSCHOLTZIA—*California Poppy*

These are among our most beautiful and popular perennials, although often grown as annuals; being of the easiest culture and giving great satisfaction. They commence to bloom within a few weeks' time from Spring-sown seed and continue to flower profusely until late in the Autumn, forming nice, bushy plants, one foot high.

**Single White or Mixed.** Pkt 5c—oz 40c

**Geisha.** Pkt 10c—oz \$1.00

**Golden West**—Yellow with orange center—flowers large. Pkt 10c—oz 50c

**Carmine King.** Pkt 10c—oz \$1.00

**Mandarin**—Inner side of petals rich orange, outer side brilliant scarlet; very striking; single. Pkt 5c—oz 25c

**Vesuvius.** Pkt 5c—oz 75c

**Double Mixed.** Pkt 10c— $\frac{1}{4}$  oz 50c

(For other sorts see Poppies.)

### FOR-GET-ME-NOT—*Myosotis*

Beautiful Spring favorites, of easy growth, bearing clusters of lovely, small flowers. They are hardy enough to remain in the open ground except in very cold latitudes. Fine for borders and shady situations.

**Alpestris**—Of trailing habit, with pretty flowers. Blue or mixed. Pkt 5c— $\frac{1}{4}$  oz 35c

**Victoria**—Flowers large, bright azure blue; fine for borders and pots. Pkt 10c— $\frac{1}{8}$  oz 50c

**Semperflorens**—Dwarf; continuous bloomer; blue. Pkt 10c— $\frac{1}{8}$  oz 50c

### GENTIANA

Fine, showy flowers. Should be in every flower garden. Hardy.

**Acaulis.** Pkt 5c

### GERANIUM

A half-hardy perennial, easily and quickly grown from seed.

**Zonale**—Extra choice, single mixed, large flowering. This is the well-known bedding Geranium. Pkt 10c

**Lady Washington**—(*Pelargonium*) Foliage green; flowers large, handsome, oddly marked; fine for pot culture. Finest mixed Pkt 25c

### GERBERA HYBRIDS—*Jamesonii—Transvaal Daisy*

The plants are hardy and as vigorous growing as the original type, producing flowers which include a wonderful range of brilliant colors.

Pkt 25c

### GEUM—*Chiloense*

Hardy perennial. Free-blooming plants. Fine for bouquets.

**Scarlet Semi-Double** Pkt 5c

### GAILLARDIA—*Blanket Flower*

Exceedingly beautiful, showy plants, one to two feet high. Grown in masses they are especially effective; large flowers, two or three inches across, produced from early Summer until frost; unrivaled for cutting. Also see Annuals.

**Grandiflora Maxima**—Perennial. Mixed. Pkt 10c— $\frac{1}{4}$  oz 25c

### GREVILLEA ROBUSTA—*Silk Oak*

Very beautiful and graceful foliage plant with fern-like foliage—a splendid pot plant.

Pkt 10c—oz \$1.25





# Perennial Flower Seeds (Continued)

**GYPSOPHILA**—*Baby's Breath*  
A pretty, free-flowering plant. Fine for bouquets.

**Paniculata**—Foliage fine; covered with tiny pure white flowers. Hardy, perennial.  
Pkt 5c— $\frac{1}{4}$  oz 25c

**HOLLYHOCK**, or *Althaea*  
The modern Hollyhock is quite different and much more beautiful than the plant of twenty years ago, being much more compact in growth; the flowers are larger, richer colored, and the double varieties are fuller and of better form. For a background to a flower garden there can be nothing better. Hardy perennials; five feet high.

**Chaters**—Superb strains. Double varieties of greatest perfection.  
**Scarlet, Rose-Pink, Maroon, Yellow, White, Mixed.**  
Pkt 10c— $\frac{1}{4}$  oz 75c

**HELIOTROPE**—*Cherry Pie*  
Delightfully fragrant, free-blooming, tender, perennial plants. Splendid for bedding or pot culture. One foot high; of spreading habit. The fragrance of its flowers cannot be excelled in exquisite delicacy. Invaluable for bouquets.

**Choice Mixed.** Pkt 10c— $\frac{1}{8}$  oz 40c  
**Mammoth Flowered**—Mixed, very fine.  
Pkt 15c— $\frac{1}{8}$  oz 50c

**KUDZU VINE**—*Pueraria Thunbergiana*  
Beautiful Japan climber, hardy perennial with fragrant purplish-violet, wisteria-like flowers.  
Pkt 10c— $\frac{1}{4}$  oz 50c

**LANTANA**  
A free-flowering shrubby plant, suitable for out-door or pot culture. The flowers emit an agreeable odor and are of many shades of purple, orange and white. Half-hardy perennial.  
**Hybrida Fine Mixed.** Pkt 10c— $\frac{1}{4}$  oz 35c

**LEMON VERBENA**  
Every garden should have a few plants of this fragrant favorite. Its pale green foliage goes well with any flower.  
Pkt 10c

**LOBELIA**  
**Cardinalis**—Flowers rich red; dark green foliage. Especially valuable for border decoration.  
Pkt 10c— $\frac{1}{8}$  oz 75c

**LUPINUS**  
Shrubby plants, bearing long spikes of various colored flowers.  
**Perennial—Mixed.** Pkt 5c—oz 40c

**LINUM**—*Crimson Flax*  
**Grandiflorum Rubrum.** Pkt 5c—oz 35c

**LYCHNIS**  
**Rose Champion--Jerusalem Cross**—There are few plants that produce more brilliantly colored blossoms than Lychnis. Are borne in clusters and continue fresh and brilliant for a long time. Hardy perennials, 1 to 3 feet high.  
**Haageana Hybrida**—Mixed.  
Pkt 10c— $\frac{1}{8}$  oz 35c

**MIMULUS**  
**Moschatus or Musk Plant**—Cultivated for its rich musky odor. Should have a rich soil and ample moisture. Hardy perennial.  
Pkt 10c— $\frac{1}{8}$  oz \$1.00  
**Tigrinus Nanus, or Monkey Flower**—Beautifully spotted. Mixed, all colors.  
Pkt 10c— $\frac{1}{8}$  oz \$1.00

**PAMPAS GRASS**—*Cynerium Argenteum*  
A noble ornamental grass, easily grown from seed, producing majestic plumes that are invaluable for Winter decorations. See Plant Department. Pkt 10c

**PASSIFLORA**—*Passion Flower*  
Most interesting and well-known climbers, bearing singularly beautiful flowers.  
**Blue.** Pkt 10c— $\frac{1}{4}$  oz \$1.00

**POPPIES**—*Perennial*  
**Bracteatum**—Hardy perennial; very showy red. Pkt 5c— $\frac{1}{4}$  oz 35c  
**Iceland, or Nudicaule**—These are of a very graceful, neat habit, with bright green, fern-like foliage, formed in tufts, from which issue slender stalks about 12 in. high, bearing yellow, white or orange-scarlet flowers in endless profusion and most useful for cutting; hardy perennial. Mixed colors. Pkt 10c— $\frac{1}{4}$  oz 35c  
**Oriental**—Hybrida mixed. Very hardy and early flowering. Pkt 15c— $\frac{1}{4}$  oz 50c

**PENTSTEMON**—*Beard Tongue*  
Beautiful, hardy, perennial, herbaceous plant with extremely brilliant blooms. Their bell shaped flowers are borne on long spikes, and are produced abundantly all Summer.  
**Mixed.** Pkt 10c— $\frac{1}{4}$  oz \$1.00

**PHLOX DECUSSATA**—*Perennial*  
Hardy, perennial; mixed Pkt 10c— $\frac{1}{8}$  oz 50c

**PEAS**—*Perennial—Lathyrus Latifolius*  
In general appearance these are the same as Sweet Peas, but the flowers are not so fragrant; they bloom through a long season, are perfectly hardy, and will live for years.  
**Mixed.** Pkt 10c—oz 35c

## PINK—*Dianthus*

The *Dianthus* family embraces some of the finest of all flowering plants. The blooms are of the richest and most pleasing colors, and nothing can surpass the exquisite fragrance of some varieties. They are hardy, and become perennial in warm climates.

**Chinensis**—Single mixed. Pkt 5c— $\frac{1}{4}$  oz 15c  
**Chinensis**—Double mixed. Pkt 5c— $\frac{1}{4}$  oz 25c  
**Heddewigii**—Single mixed. Color varies from richest velvety crimson to delicate rose.  
Pkt 5c— $\frac{1}{4}$  oz 25c  
**Heddewigii**—Double mixed. Large Flowering splendid. Pkt 10c— $\frac{1}{4}$  oz 50c

**Heddewigii Diadematus Fireball**—Extra double brilliant dark scarlet. Very beautiful. Pkt 10c— $\frac{1}{4}$  oz 50c  
**Heddewigii Dwarf Snowball**—Double white. Pkt 10c— $\frac{1}{4}$  oz 50c  
**Heddewigii Laciniatus**—Fine single fringed, finest assorted colors. Pkt 10c— $\frac{1}{4}$  oz 50c

# Perennial Flower Seeds (Continued)

## PRIMULA—*Primrose*

The first three varieties named below are hardy, early blooming garden plants, and the others, beautiful winter blooming house plants. Their various forms and blending of colors are exceedingly pleasing and effective. They thrive best in a sandy loam and leaf mold.

**Polyanthus**—Early blooming, dwarf growing plants. Valuable for outdoor bedding. Mixed colors. Pkt 10c— $\frac{1}{8}$  oz \$1.00

**Vulgaris**—Yellow, common, English Primrose. Pkt 10c— $\frac{1}{4}$  oz \$1.00

**Japonica, or Japanese Primrose**—The beautiful, large, various colored flowers stand in whorls, pyramidically arranged on short flower stems one foot high; though perennial, new plants flower more freely, and seeds should be sown every year. Mixed varieties. Pkt 15c— $\frac{1}{8}$  oz \$1.00

**Sinensis, or Chinese Primrose**—The beautiful, large fringed flowers stand in pyramids arranged on short flower stems. Blossoms of every shade of color, from pure white to deep crimson, and even deep blue; especially fine for Winter and Spring flowers in the house; easily grown; free bloomers. Finest mixed. Pkt 25c— $\frac{1}{2}$  oz \$2.00

**Sinensis**—Double finest mixed. Pkt 50c

**Obconica Grandiflora**—A lovely profuse bloomer, bearing beautiful single flowers. This is really an ever-blooming plant, producing elegant clusters of flowers continuously throughout the year. Fine mixed. Pkt 15c— $\frac{1}{8}$  oz \$1.50

## PYRETHRUM

Very ornamental plants, for both foliage and flowers.

**Parthenum Aureum, or Golden Feather.** Beautiful, gold leaved, flower white. Pkt 10c— $\frac{1}{4}$  oz 35c

## RUDBECKIA—*Golden Glow*

**Newman**—Brilliant orange yellow petals around a large dark center. A beautiful and useful perennial for borders or as a single group. Pkt 15c

**Fulgida**—Orange yellow. Perennial. Pkt 15c

**Lacinata**—Double. Golden yellow. Pkt 25c

## SMILAX—*Medeola Asparagoides*

Charming, tender, perennial climber for greenhouse or window gardens. The foliage and stems are of pleasing light green; very graceful; excellent for decoration. (See Plants.) Pkt 10c— $\frac{1}{4}$  oz 25c

## SNAPDRAGON—*See Antirrhinum*

## STATICE—*Sea Lavender*

Splendid for border or rockery, producing panicles of minute flowers, can be dried and used for Winter bouquets. Mixed. Pkt 10c

## STOCKS—*Dresden Perpetual or Branching.*

These 10 weeks everblooming are popularly called, "Cut and Come Again." Sown in March they flower profusely from July until frost; their best period being late Autumn. Very fragrant.

**Princess Alice**—White. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**La France**—Blush pink. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**Brilliant**—Blood red. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**Sapphire**—Violet. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**Creole**—Canary yellow. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**May Queen**—Pale blue. Pkt 15c— $\frac{1}{4}$  oz \$1.00

## SWEET ROCKET—*Hesperis*

An old, hardy garden favorite. Fragrant white flowers; 2 to 3 feet. Pkt 5c— $\frac{1}{4}$  oz 15c  
Sweet Sultan—See Centaurea.

## SWEET WILLIAM—*Dianthus Barbatus*

A well-known, remarkably free-flowering plant of brilliant colors, ranging from snow white to darkest crimson and purple. They emit a very delicate and refreshing fragrance. Hardy perennial.

**Single Mixed**—Very beautiful.

Pkt 5c— $\frac{1}{2}$  oz 60c

**Dunnetti**—Dark crimson, single.

Pkt 5c— $\frac{1}{2}$  oz 60c

**Pure White**—Single Pkt 5c— $\frac{1}{2}$  oz 60c

**Double Mixed.** Pkt 10c— $\frac{1}{2}$  oz \$1.00

## TRITOMA—*Red Hot Poker*

This is a fine, handsome plant. It is hardy, though requiring some protection through the Winter. The flowers are produced in large spikes of brilliant rich colors. Cut flowers keep a long time. Half-hardy perennial.

**Uvaria**—Dazzling orange red.

Pkt 15c—oz 75c

## VALERIANA—*Garden Heliotrope*

Fine border plants; sweet scented flowers.

**Rubra.** Pkt 5c— $\frac{1}{4}$  oz 25c

## VINCA—*Old Maid*

Tender perennial. Fine for pot culture. Flowers white and pink.

**Mixed.** Pkt 10c— $\frac{1}{4}$  oz 50c

## VIOLET

**Viola Odorata** is the well-known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating, succeeds best in partially-shaded moist places

**Blue**—Very fragrant. Pkt 10c— $\frac{1}{8}$  oz 50c

**The Czar**—Finest forcing Violet. Very large. Dark blue. Pkt 15c

## WALL FLOWER—*Cheiranthus Cheri*

Produces spikes of beautiful, exceedingly fragrant flowers. Half hardy perennials.

**Goliath**—Single, extra large: fine dark brown, very early; fine for forcing. Pkt 10c— $\frac{1}{4}$  oz 50c

**Mixed, Single**—Large flowering. Pkt 5c— $\frac{1}{4}$  oz 25c

**Finest Tall Double Mixed—Branching.** Pkt 10c— $\frac{1}{4}$  oz 75c



## CLASSIFICATION OF FLOWERS

This will enable you to tell at a glance what flowers are suitable for any position

### Annual Bedding Plants or Tall Border Plants

	1 to 2 feet	
Ageratum, Tall.....	blue, white or mixed	
Asters.....	various colors	
Balsam.....	various colors	
Brachycome.....	blue, white, rose	
Browallia.....	blue and white	
Calendula.....	mixed	
Candytuft.....	various colors	
Celosia.....	crimson	
Centauria.....	yellow, rose	
Chrysanthemum.....	yellow, white, gold	
Clarkia.....	pink, scarlet	
Eschscholtzia (California poppy).....	crimson, white, yellow	
Four O'Clock.....	various colors	
Gaillardia.....	orange scarlet	
Gilia.....	white, lilac rose	
Godetia.....	variegated rose and white	
Gypsophila (for bouquets).....	white	
Linum (scarlet flax).....	scarlet	
Marigold.....	yellow, red, brown and variegated	
Mignonette.....	white, yellow, red	
Nasturtium, dwarf.....	various colors	
Nigella (Love in a mist).....		
Petunia.....	various colors	
Poppy.....	various colors	
Phlox.....	various colors	
Scabiosa.....	white, lilac, carmine and maroon	
Schizanthus.....	various colors	
Salvia.....	scarlet	
Stocks (10 weeks).....	all colors	
Viscaria.....	various colors	
Zinnia.....	various colors	

### Everlasting Flowers

Acroclinum.....	all colors
Globe Amaranth, Gompherena.....	various colors
Helichrysum.....	various shades
Rhodanthe.....	pink, white
Statice.....	white, blue and yellow

### Tall Growing Plants for Grouping—Annual From 2 1/2 feet up

Amaranthus.....	scarlet
Calliopsis.....	yellow, brown, maroon
Castor Bean.....	
Cosmos.....	white, red pink
Euphorbia.....	
Kochia.....	
Larkspur.....	various colors
Nicotiana.....	white
Rudbeckia.....	yellow
Salpiglossis.....	various colors
Scabiosa Grandiflora.....	all colors
Sunflower.....	yellow

### Low Edging Plants—Annual

Ageratum Dwarf.....	blue, white or mixed
Alyssum.....	white
Bulbs.....	all colors
Calliopsis, Tiger Star.....	reddish brown
Candytuft.....	various colors
Celosia, Dwarf.....	
Centauria, Dusty Miller.....	
Dianthus.....	various colors
Lobelia Compacta.....	blue
Mignonette.....	white, yellow, red
Nemophila.....	blue
Pansy.....	all colors
Portulaca.....	yellow, pink, white, scarlet
Verbena.....	various colors

### Climbing Vines—Annual

Balloon Vine.....	white
Scarlet Runner Bean.....	scarlet
Canary Bird Vine.....	yellow
Cypress Vine.....	
Gourds.....	
Moonflower.....	white
Morning Glory.....	
Nasturtium, Tall.....	various colors
Sweet Peas.....	all colors
Wild Cucumber.....	

### Bedding Plants—Perennial—1 to 2 feet high

Agrostema.....	pink
Aster.....	various colors
Begonia.....	various colors
Calceolaria.....	various shades and colors
Calla.....	
Candytuft.....	all colors
Camation.....	yellow, white, red, pink and variegated
Cineraria.....	various colors
Coleus.....	
Columbine.....	yellow, violet, rose
Daisy (Shasta).....	white
Gaillardia.....	yellow, orange, scarlet
Geum.....	scarlet
Linum.....	various colors
Lychnis.....	scarlet
Pentstemon.....	various colors
Salvia.....	scarlet
Statice.....	white, blue, yellow
Stocks (perpetual).....	all colors
Sweet William.....	various colors
Tritoma.....	orange, red
Vinca.....	white, rose
Wallflower.....	various colors

### Low Edging Plants—Perennial, 6 to 12 inches high

Alyssum Saxatile.....	yellow
Anemone.....	various colors
Pinks.....	various colors
Daisy, English.....	various colors
Edelweiss.....	
For-get-me-not.....	blue
Oxalis.....	yellow, pink, lavender, white
Poppy, Iceland.....	white, orange, yellow
Primula.....	various colors
Pyrethrum.....	various colors
Viola.....	yellow, white and blue

### Tall Growing Shrub Plants—Perennial For Grouping from 2 1/2 feet up

Abutilon.....	
Anchusia.....	blue
Aster.....	various colors
Canna.....	various colors
Canterbury Bells.....	various colors
Chrysanthemum.....	various colors
Columbine.....	yellow, violet, rose
Dahlia.....	all colors
Delphinium.....	various colors
Digitalis.....	
Fuchsia.....	
Geranium.....	scarlet, white, pink
Gladiolus.....	various colors
Goldenrod.....	yellow
Hollyhock.....	various colors
Lantana.....	red, white, yellow
Lavender.....	
Lobelia Cardinalis.....	scarlet
Lupin.....	shades of blue
Poppy, Oriental.....	various colors
Phlox, Perennial.....	various colors
Scabiosa.....	
Snaptadragon, Tall.....	various colors
Wallflower.....	various colors

### Climbing Vines—Perennial

Ampelopsis, Boston Ivy and Virginia Creeper.....	
Clematis.....	white, lavender, red
Cobea Scandens.....	
Kudzu Vine.....	violet

### For Rockeries, Hanging Baskets or Window Boxes

Asparagus Fern.....	
Edelweiss.....	
For-get-me-not.....	blue
Ice Plant.....	
Lobelia Trailing.....	blue
Mimulus.....	yellow
Nasturtium.....	various colors
Oxalis.....	yellow, white, pink, lavender
Portulaca.....	
Thunbergia.....	buff, orange and white
Verbena.....	various colors
Petunia.....	various colors

# GARDEN TOOLS, IMPLEMENTS, Etc.

## LAWN MOWERS

HIGHEST GRADE. FULLY GUARANTEED

**CYCLE LAWN MOWERS**—Stationary, draw-cut blade, self sharpening, protected from rocks, nails, etc., keeps the mower close to the turf on uneven ground—*cuts all the grass right the first time over.*

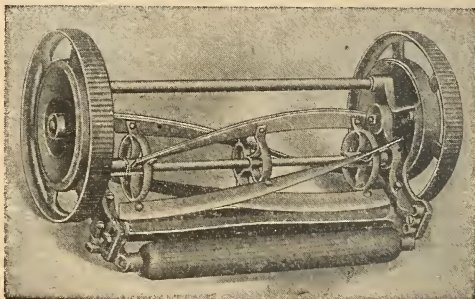
### Prices and Sizes

16 in. cut, 8 in. wheel, 4 blades.....	\$5.95
16 in. cut, 9 in. wheel, 4 blades.....	6.90
18 in. cut, 8 in. wheel, 3 blades.....	5.00

**ECLIPSE—Self Sharpening**—This is one of the best built, most durable and satisfactory Lawn Mowers. The thumb-screws for bringing the revolving and stationary blades into position are easily adjusted—as is also the arrangement for sharpening all blades to fit so they cut like shears. The bearings are bronze.

### Price

14 in. cut, 10 in. wheel.....	\$12.00
16 in. cut, 10 in. wheel.....	13.50



"Cyclemowers" are made of Crucible Steel

## DUNHAM'S ROLLER BEARING LAWN ROLLERS

The only Lawn Roller with Automobile Roller Bearing Axles

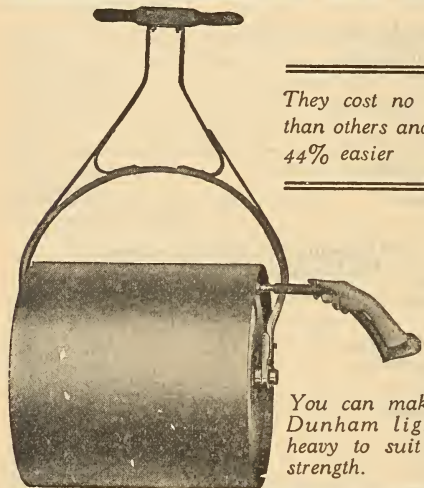
PRICES—F. O. B. PORTLAND

	Sec.	Wgt.	
LR404.....20X20	2	250	\$18.00
LR407.....20X24	2	300	21.00
LR410.....24X24	2	450	27.00

### One and Two-Section "Water-Weight" Rollers

These can be filled with water or sand, and when empty are easily transported, adjusting the weight to suit.

	Sec.	Empty	Water	Sand	
WB5.....18X24	1	75	300	500	\$16.75
WB7.....24X24	1	125	500	800	21.50
WB11.....18X24	2	100	300	500	22.75
WB13...24X32	2	170	650	1000	30.00
WB15...24X24	2	145	500	800	26.50



They cost no more than others and run 44% easier

You can make the Dunham light or heavy to suit your strength.

## Miscellaneous Florists' and Nurserymen's Supplies

**PLANT STAKES**—Round cedar, painted green, white tops.

3 ft., 85c doz.; 3½ ft., \$1.00; 4 ft., \$1.25; 5 ft., \$1.75; 6 ft., \$2.50.

**PENCILS**—Indelible, nickle tip, for marking labels. Each 15c

**OREGON MOSS**—We have this gathered, dried and put up in bales of about 100 lbs. each for florists' and nurserymen's use. Write for price by ton or carload. Per lb. 5c; 100 lbs. \$3.25

**WIRE DESIGNS**—Every description. List on request.

**WIRE HANGING BASKETS**—8 in. 20c; 10 in. 25c; 12 in. 30c; 14 in. 50c.

**VITAPLASTIC—Glazing Compound**—The best, most dependable glazing material. Never hardens or cracks. Write for circular.

Price, gal. \$2.00; 5 gal. \$9.50; 30 gal. \$52.50

**VITAPLASTIC MACHINE** \$3.50

**TIN FOIL—Florist**—Regular stock. Per lb. 25c

### Wooden Labels

**TREE LABELS**—Painted iron wire.

Per 100 20c; per 1,000 \$1.65

Unpainted iron wire. Pr 100 15c; pr 1,000 \$1.35

Painted copper wire. Per 100 25c; per 1,000 \$2.00

Unpainted copper wire. Weight pkd., 4 lbs. per 1,000. Per 100 20c; per 1,000 \$1.75

**POT LABELS**—

4-inch. Plain, per 100 15c; 1,000 \$1.05

Painted, 1,000 \$1.35. Wt. pkd., 4 lbs. per 1,000.

5-inch. Plain, per 100 20c; 1,000, \$1.30

Painted, 1,000, \$1.55. Wt. pkd., 6 lbs. per 1,000

6-inch. Plain, per 100, 20c; 1,000, \$1.75

Painted, 1,000, \$2.10. Wt. pkd., 9 lbs. per 1,000

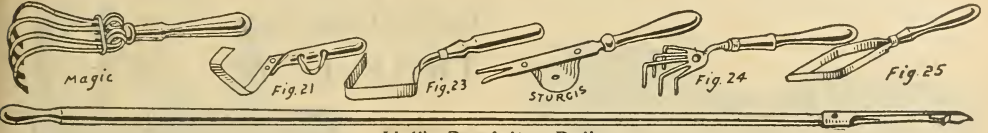
8-inch. Plain, per 100, 30c; 1,000, \$2.35

Painted, 1,000, \$3.00. Wt. pkd., 11 lbs. per 1,000

**GLAZING POINTS**—Peerless—Best point made. No raising up when driven—no rights, no lefts, no sliding, no trouble to apply; cheap, indestructible. Once used always used. 1,000 in box. Wt., 2 lbs. Price, 75c

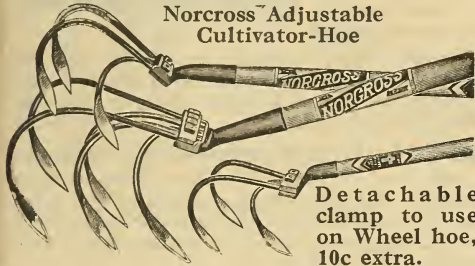
☛ Add Postage at zone rate if ordering by mail

# Garden Tools, Implements, Etc. (Continued)



Hall's Dandelion Puller

## Norcross Adjustable Cultivator-Hoe



Detachable clamp to use on Wheel hoe, 10c extra.

Like a human hand, the fingers of the "Norcross" work closely around the plants without injury. Keeps down weeds, saves moisture, leaves the ground level

**FIVE PRONG** for regular garden work; 4-ft. handle, weight 4 lbs. . . . . \$1.10

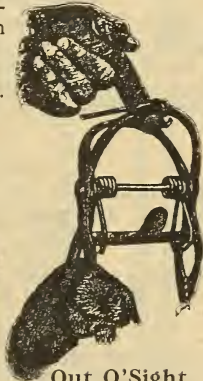
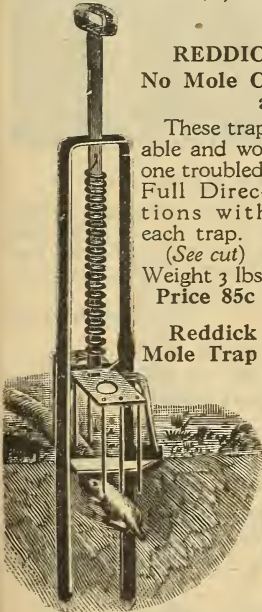
**THREE PRONG** lighter in weight, for narrow rows and close work, 4-ft handle, weight 3 lbs. Price 85c

## REDDICK MOLE TRAP

No Mole Can Pass under It and Live

These traps are strong and durable and worth the price to anyone troubled by moles. Full Directions with each trap. (See cut) Weight 3 lbs. Price 85c

### Reddick Mole Trap



Out O'Sight Mole Trap

### OUT O'SIGHT MOLE TRAP

One of the best. Sure to "get them." Weight 2 lbs. Price 90c

## GOPHER TRAP

**California Box**—Similar to "Out O'Sight," except this trap has sides boxed up; never fails. Weight, 1 lb. Price, each, 25c

## HAND WEEDERS

**Magic Weeders**—Made of best quality hard steel wire, an ideal tool for fining the surface soil. We offer three sizes, illustrated above:

- Magic No. 0, 3 tines, short handle, weight 1 lb. Price 15c
- Magic No. 4, long handle, 4 tines. . . . Price 50c
- Magic No. 5, long handle, 4 tines, heavy wire, wt. 3 lbs., Price 60c
- Fig. 21. Lang's. Weight, 1 lb. Price 25c
- Fig. 25. Noyes'. Weight 1 lb. Price 25c

## DANDELION PULLERS

**Sturgis** (see cut)—A most convenient tool for digging these troublesome weeds. Weight 1 lb. Each 40c

**Halls** (see cut)—Pulls the root without tearing up the lawn; long handle; polished steel blade. Weight, 2 lbs. Price 60c

## DIAMOND Lawn Grass

Makes an Evergreen, Velvety Turf. SEE PAGE 48

## GARDEN TROWELS



No. 213



No. 217

See descriptions of numbers on cuts.

Don't class these tools with the cheap stock offered by the department stores.

**No. 213**—Six inch; good steel trowel, with malleable iron shank, firmly riveted. Wt., 1 lb. Price 15c

**No. 217**—Six inch; steel transplanting trowel. Weight, 1 lb. Price 25c

**No. 217**—Eight inch; steel transplanting trowel. Weight, 1 lb. Price 30c

**No. 217A**—Transplanting hoe trowel, used by gardeners in setting out plants. Weight, 1 lb. Price 50c

**No. 216**—Ladies' flower trowel. Weight, 1 lb. Price 10c

## WOODLARK

### SQUIRREL AND GOPHER POISON

Guaranteed to exterminate Squirrels, Sage Rats, Pocket Gophers, Field Mice, Prairie Dogs, Crows. Should be used early in the season when green food is scarce. Price 1 lb package 40c

Add postage at zone rate if ordering by mail



# Garden Tools, Implements, Etc. (Continued)



## THE OFFICIAL RAT TRAP

The Government selected this trap from among thousands of models submitted. Spring releases with either upward or downward pressure—Rats Nibble Upward. The "Official" always gets them.

Official Rat Trap, weight 1 lb. . . . . Each 20c  
 Official Mouse Trap, weight 4 oz. . . Each 5c

## Portland Seed Co.'s TRAP GUN



A "Sure Cure" for Moles and Gophers

Breech loader, 16 gauge; can be set for coyotes coons, hawks, etc., and is the most effective way of getting moles and gophers. Safe, simple, durable. Weight, 4 lbs. Price \$1.50

### READ!

*Mr. Chas. H. Davidson writes: These 3 Coyote guns are all O. K. I got 9 coyotes, 1 fox, 2 bob cats, 1 cougar, 3 dogs and gadd only knows how many Magpies that got blowed to atoms by pecking the baits on these guns.*

## KNIVES

Will send any of the following knives postpaid at these prices. See numbers on cut.

### BUDDING KNIVES

Prices Postpaid

- No. 8—Ebony handle, stationary ivory bark opener. Price \$1.00
- No. 8½—Same as above, only size larger. Price \$1.25
- No. 12—Brown handle; very light and fine. Price 85c
- No. 5—Budding and pruning knife combined. Price \$1.00

### PRUNNING KNIVES

Note—See numbers in descriptions

- No. 2—Plain wood handle, stationary blade. Price 75c
- No. 3½—Large horn handle, very strong. Price \$1.50
- No. 4—Polished wood handle. Price 80c



### GRAFTING KNIVES

- No. 7—Plain wood handle, stationary blade; smaller. Price 25c
- No. 9—Special Henckels Grafting Knife—has extra heavy brass lining, brass rivets, blade set deep in handle, giving great strength. Price each \$1.00

### GRAFTING WAX

- Lion Brand—¼ lb 15c—½ lb 25c—1 lb 45c
- Add postage at zone rate

### RAFFIA

- For tying plants and buds. . . . . Pound 30c
- For colored Raffia, see page 62

### CORN KNIFE

- Best style broad tapered blade. Length, including handle, 22½ in. Weight, packed 2 lbs. Price 50c

### GRASS HOOKS or SICKLES

- These are the latest style and shape
- Village Blacksmith—Hand forged, weight 1 lb. Price 65c
- King of Grass—No. 1065. Wt. 1 lb. Price 25c

### GRASS SHEARS

- Fine for trimming borders and edges; 6-in blade.
- "Razor Edge"—No. 1162. 1 lb. 50c
- Village Blacksmith—No. V 51. 1 lb. \$1.00

## BARNET FRUIT PICKING PAIL

Built for Service

Galv. Iron with strong canvas open bottom. A great labor saver. Wt. 3¼ lbs. Price, each, \$1.75



## NORTHWEST FRUIT PICKING LADDER

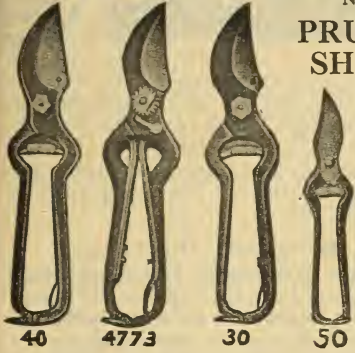
6, 8, 10 and 12 ft. lengths. Strong, light and serviceable. Price 40c per foot



# Garden Tools, Implements, Etc. (Continued)

NOTE—Compare Numbers on cut to those in descriptions

## PRUNING SHEARS



No. 4773—9-inch; full polish, with double brass springs; best American make. Weight 1 lb. Price \$1.85

No. 40—9-inch; bright finished, polished blade, spiral steel spring; made for hard service. Weight 1 lb. Price \$1.25

No. 41—Same as No. 40, except with ratchet nut. Weight, 1 lb. Price \$1.45

No. 30—7-inch; German make; black finish; polished blade; very good. Weight, 1 lb. Price 90c

No. 31—Same as No. 30, only 9-inch ratchet nut; an American make. Wt., 1 lb. Price \$1.00

No. 50—Five and a half-inch, nickle-plated; small, but of best material; fine for ladies. Weight, 1 lb. Price \$1.00

No. 51—Same as No. 50, except that it is 6½ inches long. Weight, 1 lb. Price \$1.25

## New Bastian Pruner

Makes a Clean, Sharp cut

THE POWERFUL LEVER of the new Bastian Pruner enables you to do the same work in half the time and with half the labor that would be required with old-style Pruners.

Blades are of finished Damascus steel, very strong, and hold their cutting edge. Simple in construction, light, strong and durable. We recommend the Bastian to every fruit grower.

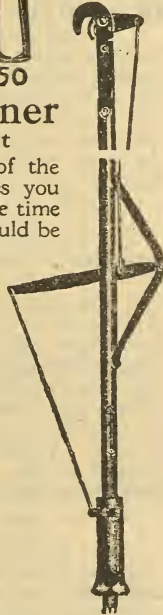
Prices f. o. b. Portland

6-ft., \$1.25	12-ft., \$1.75
8-ft., 1.35	14-ft., 2.00
10-ft., 1.50	16-ft., 2.25

FOR WOOLLY APHIS

## Use Scalecide

Ask for Special Booklet Free



## BRANCH SHEARS

We offer a splendid value in a special design. The blade being so arranged as to firmly hold the limb and make a clean cut without bruising—strong handles are securely set in steel sockets—a strong and durable shear built for service.

No. 777—30 inch with lock nut. Weight 5 lbs. Each \$1.65

No. 707—30-inch plain, wt. 5 lbs. Each \$1.25

Fig. 35—Standard pattern. Satisfactory for light work; a good value.

26-inch handle, weight 2½ lbs 75c—41-inch handle, weight 3 lbs 90c.

## HAND PLANTERS

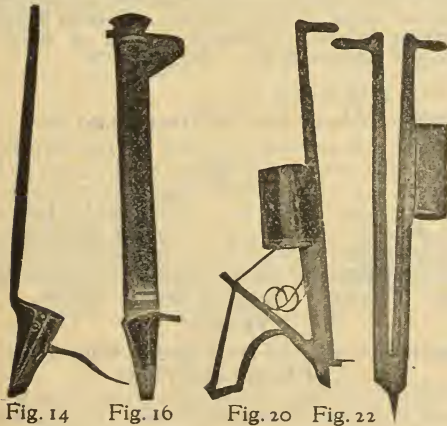
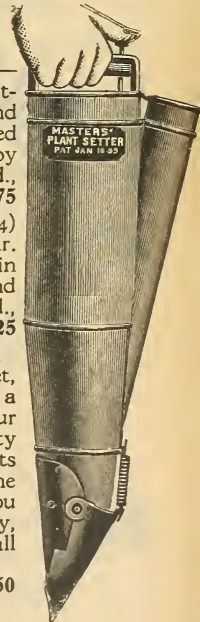
Potato Planters

PEERLESS—Tubular (Fig. 16)—This light tubular planter locks itself as it is lifted out of the ground and the next potato may be dropped in at once. Opens automatically by forward movement. Weight, pkd., 5 lbs. Price \$1.75

PINGREE or ACME—(Fig. 14)—Similar in action to the tubular. You lift the planter up to drop in the potato. A strong, light and serviceable planter. Weight pkd., 4 lbs. Price \$1.25

MASTER'S PLANT SETTER

With a "Masters" you can set, water and fertilize 10,000 plants a day and do better work and your plants will make a more thrifty growth than if set by hand. Sets the plant firm, puts the water in the right place, works as fast as you walk. Sets cabbage, kale, celery, tomatoes and vegetable plants of all kinds. Weight packed, 5 lbs. Price each \$5.50



## CORN PLANTERS

GORDON AUTOMATIC—One Hand (Fig. 20)—Puts the right number of kernels just where you want them, and at the proper depth. Is light, easily worked, requiring only one hand, either right or left. Is strong and durable. Weight, packed, 6 lbs. Price \$2.25

ACME—(Fig. 22)—A two-hand planter. Light, well made, and especially adapted to heavy, cloddy or stony soils. Adjustable—from pop corn to large kidney beans. Has spring brass cut-off and steel blades. Weight, packed, 4 lbs. Price \$1.25

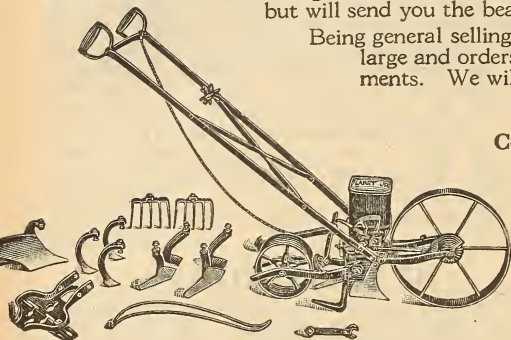


# Planet Jr. Garden Tools



FOR over 40 years Planet Jr. Garden Tools have stood the test of world-wide usage, and are recognized in every known country as the highest type of garden implement. In Europe, where labor is cheapest, Planet Jrs. are in constant use. How, then, can you afford to be without them where labor is both high and scarce? We cannot tell you all about Planet Jrs. in this catalog, but will send you the beautiful 72-page Planet Jr. book on request.

Being general selling agents for Planet Jr. implements, our stocks are large and orders will have prompt attention. State your requirements. We will advise the correct tool.



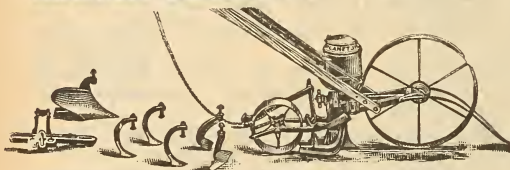
No. 28—Combined Hill and Drill Seeder.

## NO. 28 PLANET JR.

### Combined Hill and Drill Seeder and Wheel Hoe.

The most accurate and perfect of all Planet Jrs.; the culmination of their 40 years' experience. Seeding device is of a special metal and the improved method of delivery gives a narrow straight and even row that can be cultivated easily with the wheel hoe. The control enables you to make the most perfect and finest adjustment for feeding. See Planet Jr. Catalog.

Weight packed 64 lbs. Price \$23.75

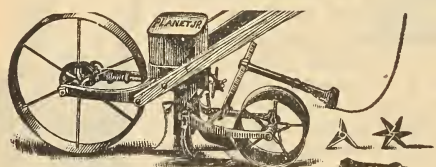


No. 6—Combined Planet Jr.

## NO. 6 PLANET JR.

### Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

It drops all garden seeds in hills and sows in drills, with the greatest regularity, in a narrow line, to any exact depth required, covers, rolls down and marks the next row, all at one passage. As a wheel hoe, it hoes, cultivates and plows all garden crops, completing a row at every passage up to 16 inches in width. Holds over 2 quarts of seed. Price Complete \$23.75. Weight packed 63 lbs. As a Seeder Only \$20.00. As a Wheel Hoe Only (No. 36) \$10.50.



No. 3—Hill and Drill Seeder.

## NO. 3 PLANET JR.

### Hill and Drill Seeder

A favorite among onion growers, market gardeners and seedmen. The special force feed is admirable, working equally well whether sowing with an ounce or a full hopper. 15-inch Steel Driving Wheel. Holds 3 Quarts of Seed. Weight packed 43 lbs. Price \$16.75.

## NO. 1 PLANET JR.

### Combined Drill Seeder, Wheel Hoe, Cultivator and Plow

The sowing cylinder is a drum of spring brass set between the driving wheels, with a sliding brass band and cam. In drum and band are corresponding diamond shaped discharge openings, quickly adjusted for any kind of seed. Inside the drum, shields cover the openings, and insure regular sowing with a full hopper or a thimbleful. Holds 3 pints of seed. Weight packed 47 lbs. Price with tools as shown, \$15.00.

## No. 4 PLANET JR.

### Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

This tool combines in a single convenient implement a capital hill-dropping seeder, a continuous row-seeder, single wheel hoe cultivator and garden plow. Holds 2½ Qts. of Seed. Price Complete \$17.75. Wt. 50 lbs. As Seeder Only \$14.25



No. 1—Planet Jr.

## NO. 25 PLANET JR.

### Combined Hill and Drill Seeder and Double Wheel Hoe, Cultivator and Plow.

Valuable for gardeners who have enough acreage for a double-wheel hoe. Combines in a most practical way the No. 4 Drill and No. 12 Double and Single Wheel Hoe. Holds 2½ Quarts of Seed. Weight packed 61 lbs. Price \$20.75.





# Planet Jr. Garden Tools



## PLANET JR. SINGLE WHEEL HOES

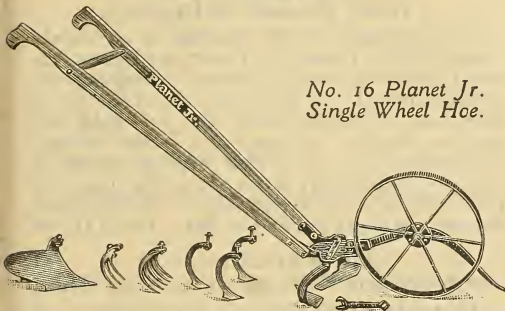
The handles are adjustable in height. The frame is steel, convenient and strong, with quick change device by which to exchange the tools without removing the nuts. Nos. 16, 17, 17½ and 18 wheels, frames and handles are alike, but the attachments sold with each vary.

The hoes are the most valuable of all the wheel hoe attachments; are oil tempered and polished. Use the 4-inch for 6, 10 or 12-inch rows; the 6-inch for rows 12 inches and upwards.

The Plows are invaluable; use them with points together for opening furrows for manure, seed, etc.; then exchange sides for covering; use them also for plowing away from or toward the crop, both sides at once.

The cultivator teeth for deep or shallow work, and for marking out.

Leaf lifters save time and enable fine work to be done close to the row without additional labor, when plants are large or leaves are flat on the ground.



No. 16 Planet Jr. Single Wheel Hoe.

### NO. 16 PLANET JR.

#### Single Wheel Hoe, Cultivator, Rake and Plow

The No. 16 has 15-inch steel wheel, steel frame, one pair of 6-inch hoes, three cultivator teeth, one large garden plow, a 4 and a 7-inch rake, one leaf guard. The plow hoes and cultivator teeth are oil tempered. This complete equipment is suitable for every requirement and the Planet Jr. Wheel Hoes rank as the highest types in their class.

Weight 26 lbs. Price \$9.75.

### NO. 17 PLANET JR.

#### Single Wheel Hoe

You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

Wt. 24 lbs. Price \$8.25

### NO. 17½ PLANET JR.

#### Single Wheel Hoe

This tool is identical with No. 16, except in equipment. The pair of 6-inch hoes, three cultivator teeth and leaf lifter which go with it are all the finest of their kind.

Wt. 21 lbs. Price \$7.35

### NO. 18

#### Single Wheel Hoe

This tool has one pair of 6-inch hoes only—the tools that are constantly useful throughout the season. Other tools can be added as needed.

Wt. 19 lbs. Price \$6.25

## PLANET JR. DOUBLE WHEEL HOES



No. 11 Planet Jr.

### NO. 12 PLANET JR.

#### Double Wheel Hoe, Cultivator and Plow

This tool is identical with No. 11 Wheel Hoe, except that it has one pair plows, one pair hoes and two pair cultivator teeth only, and is sold at a correspondingly less price. Wt. 33 lbs. Price \$11.75.

### No. 11 PLANET JR.

#### Double Wheel Hoe, Cultivator, Plow and Rake

The No. 11 is considered the best combined Double and Single Wheel Hoe made, having the largest assortment of useful tools and the frame being adjustable for any depth work. The attachments and their position can be changed in a few seconds. All edge tools are oil tempered, see attachments illustrated—can be used in narrow rows as a single wheel hoe—as a double wheel hoe the arch will straddle plants 20 inches high.

Weight packed 39 lbs. Price with Attachments as in cut \$14.75.

“Golden West,” the sweetest, richest sugar corn ever grown—early, hardy, productive—the best sweet corn for home or market. See page 18.

# Planet Jr. Garden Tools

## PLANET JR. HORSE TOOLS

### ATTACHMENTS FOR WHEEL HOES

Peat Land Hoes—Weight  $5\frac{1}{2}$  lbs. per pair.  
Per pair \$2.75

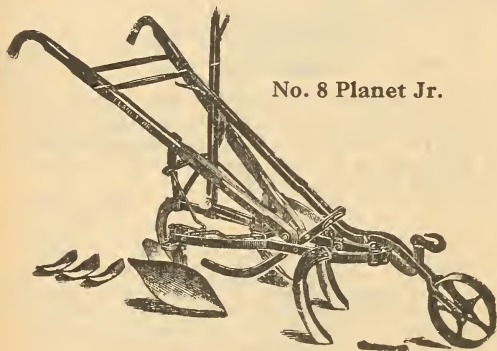
Disc Hoes—Weight  $5\frac{1}{2}$  lbs. per pair.  
Per pair \$4.00

6-Inch Hoes—Complete. Weight  $2\frac{1}{4}$  lbs. per pair.  
Per pair \$1.85

4½-Inch Hoes—Complete. Weight 2 lbs. per pair.  
Per pair \$1.75

3 Prong Cultivator Teeth—Weight  $2\frac{1}{2}$  lbs. per pair.  
Per pair \$2.50

8-Inch Onion Harvester—Weight  $1\frac{1}{4}$  lbs. per pair.  
Cultivator Teeth. Each 55c



No. 8 Planet Jr.

### No. 8 PLANET JR. Horse Hoe and Cultivator

No other cultivating machine is so widely known as the Planet Jr. Combined Horse Hoe and Cultivator, for it is in use throughout the civilized world. It is so strongly built as to withstand incredible strain, yet it is light and easy to handle. It opens and closes furrows, hoes right up to the plants without danger of injuring, throws dirt to or from the row and throws back from center again. With Steel Wheel. Weight packed 83 lbs. Price \$19.00

### NO. 9 PLANET JR. Horse Hoe and Cultivator with Steel Wheel

This admirable tool has a plain wheel instead of lever wheel. It has the high frame, patented hollow steel standard, patent lever Star wheel, patent lever expander, and hollow steel wheel arms. Weight packed 70 lbs. Price \$16.50.

12-Tooth Harrow



A strawberry runner cutter consisting of a 10-inch flat steel disc mounted on an outrigger, to be used as an attachment for 12 tooth harrow. Price extra \$3.25

### PLANET JR. NO. 90

### 12-Tooth Harrow, Cultivator and Pulverizer

With the Twelve-Tooth Harrow you go as deep or shallow as you like, come up close to row without injuring plants, cut out all the weeds, stir the soil and mellow and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. It's a special favorite with strawberry growers, market gardeners and truckers. With Steel Wheel Complete. Weight packed 74 lbs. Price \$19.00. Without Pulverizer, price \$16.00. Plain, price \$12.50.

### NO. 101 PLANET JR. Plain Cultivator With Wheel

This machine is the "latest word" in design. The lever, instead of standing perpendicular, slants backward between the handles, free from danger of being bent or broken, and prevents injury to crops under cultivation. While the design is one of simplicity, it is very strong and most accurate in its work, and the tool has so few parts that there is no danger of its ever getting out of order. With wheel, weight packed 56 lbs. Price \$13.00. Without wheel, weight 48 lbs. Price \$11.50.

No. 101



Equipment  
Five 3x8-inch  
cultivator  
steels. Lever  
expander.

**Berry Boxes and Crates** Prices right, deliveries prompt. Let us supply you the splendid line of Pacific Fruit Package Co.

**Planet Jr. Garden Tools**

**HALL'S No. 6  
Garden Plow  
and Cultivator]**



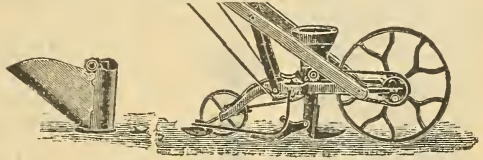
5 Tools  
Plow, Rake,  
Weeder and  
Double Diamond  
Point Markers  
Has 24-in. Wheel

The Swing Frame and extended curved handles insure easy running and a steady draft. The tools are sharpened and polished and will scour in use.

Weight packed 24 lbs.

Price \$6.00

**IRON KING SEED DRILL  
For Onion Growers**



The Iron King Seed Drill is considered by many of the large onion growers of Oregon and Washington to be the most practical of drills for sowing onion seed. It is a well-made, durable and easy running machine, accurate and reliable, and with careful use will last a lifetime. It will save the price of the machine in sowing a few acres. If you are growing onions you cannot afford to be without one. The Iron King can also be set to sow anything from turnips to peas. Weight packed, 58 lbs Price \$12.50

**BARGAINS**

**PLANET JR. CULTIVATORS, HORSE HOES and HAND TOOLS**

To reduce our stock we will offer these Famous "Planet Jr." tools until sold at the following special prices—less than cost to us.

**No. 45 Planet Jr. Riding Harrow and Cultivator**, light, strong, easily handled, is specially designed to prepare ground for grains or vegetables, for use in orchards or for any work requiring a springtooth or disc harrow. Tongue can be set to one side for working under trees, and can also be equipped with 3-horse hitch—preventing side draft—complete with extensions. Regular price \$53.00. **Special price complete \$45.00**

**No. 41 Planet Jr. Orchard and Universal Cultivator**—The low wheels are entirely enclosed by the frame which is of high carbon steel—strong and rigid. The tongue is also of steel. Cuts 4-ft., regular \$72.00, **Special \$52.25**—With 15-in. extension cuts, 5 ft. 3 in., regular \$79.00, **special \$57.50**—With 30-in. extension cuts, 6 ft. 6 in., regular \$89.00, **special \$66.50**.

**No. 81 Planet Jr. Horse Hoe, Cultivator and Hiller Combined**—Has six 3-inch cultivator teeth, two 6-inch side plows, and a 12-inch furrowing tooth, making an admirable equipment for all widths of cultivation and for hilling crops up to four feet apart. The central tooth in front, increases the steadiness of the tool. **With Steel Wheel, Weight packed 90 lbs—Price \$11.75**

**No. 5 Planet Jr. Horse Hoe and Cultivator**—Expanding lever is easily adjustable, either side can be closed or both expanded. Wheel arms are pressed steel—a strong, light running tool. Equipment—5 cultivator teeth, 1 furrower, 2 reversible side shovels. This splendid tool has been superceded by the No. 8 and is an extraordinary value. Weight packed, 69 pounds. **Price \$8.00**

**Planet Jr. Grass Edger**—For edging paths, drives, borders, flower beds and along cement, stone or brick walks the Planet Jr. will work rapidly and beautifully. Can be set to run on the walk or the grass and works equally as well on curved or straight work—use after rains. Strawberry growers use this tool for cutting runners. **Special Bargain Price \$6.75**

**You Must Order Early—They Will Not Last Long at These Prices**

**The NEW "PLANET JR." Catalog** is the handsomest, best, and most instructive book ever issued on a similar subject. Full of little points that bring profit. Full of true and handsome illustrations. We mail it free to any address on application.

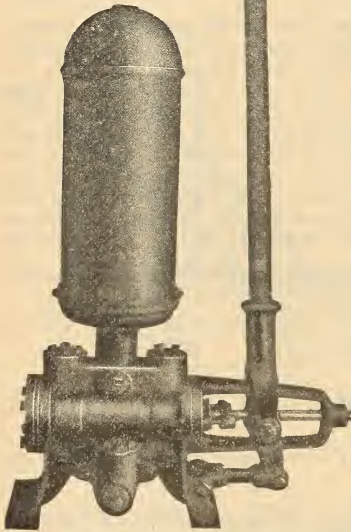


# GOULD'S SPRAY PUMPS

We are General Agents for the Gould Sprayers, guaranteed to be the best built, most lasting and of the highest efficiency. They are the recognized standard.

Every grower of fruit, berries, or flowers should have a good spray pump of some kind, one suited to the work that is to be done. If you want to get the best results, you must spray and spray often. Remember, a person derives the same satisfaction from using a good spray pump that he does from using a good article of any other kind; so when you buy, get one of the following up-to-date and reliable outfits.

**The Principles of Fruit Growing**  
**BAILEY**  
 516 Pages, \$1.85  
 Postpaid



ADMIRAL (Fig. 1608)

best Spray hose, two 8-foot bamboo extensions, with Globe valves and nozzles. . . . . \$52.00  
**Admiral Pump with 3-inch cylinder** furnished on any of above outfits for \$3.00 extra. For pressure gauge, add \$1.50  
 Pitman to connect Admiral for power . . . . . Extra, \$1.25

## GOULD'S "ADMIRAL" DOUBLE ACTING SPRAYER

*For Large Orchards, Parks, Groves, Etc.—Very Powerful*

The "Admiral" is double acting and produces a steady stream at the nozzle, is built for continuous hard work and high pressure. Especially designed for large orchards, and will meet every requirement. The brass cylinder lining is of heavy seamless tubing, with a cast bronze cylinder head, and can be easily removed, as shown in the engraving. This is an important feature, as the gritty nature of many of the spray mixtures has a tendency to cut the cylinder lining, and when it is badly worn it can be replaced at small cost. The valves are all brass, and each one in a separate valve box. They are easily reached by removing the bronze valve box covers. The brass piston rod is outside guided, making a perfectly straight thrust through the stuffing box, which is outside packed.

The removable malleable iron lever is long and powerful, and with the large air chamber a high pressure can be easily maintained. Suction can be taken from either side of the pump, and there are two discharge openings fitted for 3/8-inch hose. When ordered without hose or nozzle, both discharges have half couplings for 3/8-inch hose and a brass strainer.

This sprayer is of sufficient capacity to supply, if necessary, four leads of hose, or two leads, each with two, three or four nozzles, and will be found fully as serviceable as a power sprayer for orchards and large enough to warrant the purchase of a power outfit.

This same pump fitted with a pitman in place of lever for connection to gasoline engine.

**Outfit A**—Pump only, strainer and suction hose couplings \$40.00

**Outfit B**—Pump with 8 feet suction hose and strainer. \$43.00

**Outfit C**—Pump with 8 feet suction hose, two 25-foot leads,

### POWER OUTFITS

We assemble outfits in any manner desired by customer, and suggest the right attachments for special purposes. Attaching any standard engine specified. Write us your requirements. We can save you money and guarantee a satisfactory equipment.

### SCALECIDE

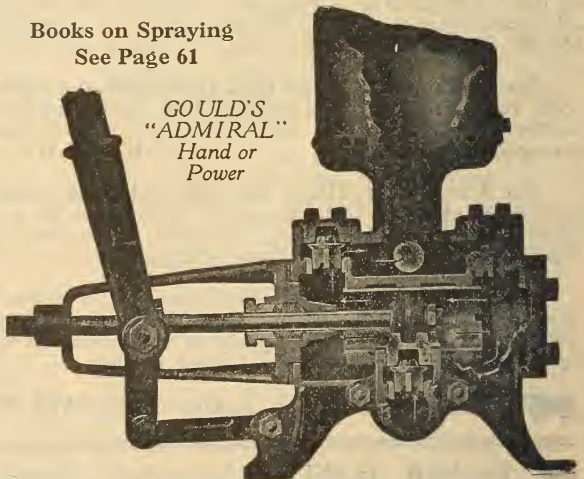
Spreads and Penetrates

Safe, Efficient, Economical

*Will Not Injure Your Face or Equipment*

Books on Spraying  
 See Page 61

GOULD'S  
 "ADMIRAL"  
 Hand or  
 Power



**Corona Dry Powdered Arsenate of Lead is Best—See Sprays**

# Spray Pumps and Sprayers (Continued)

## MONARCH TWO-CYLINDER SPRAY PUMP

**Fig. 1506—Monarch**—This pump has many advantages, and we believe it is the best of the large pumps. The main advantages are: First, the long lever, which can be shifted to pull or push, or to lift or drop, and can be changed by the operator any time he desires a relief; second, pump stands outside of the barrel, and all parts can be easily looked after; third, cylinders are perpendicular, and any grit will not lie against the plunger, to wear it or the packing out, as in the case with the horizontal cylinders; fourth, there are no valves in the plungers; the packing is on the outside, and can be tightened any time, without taking anything to pieces; fifth, the four brass valves (each one by itself and under a separate cap), can be reached by merely unscrewing the cap, and without disturbing the rest of the pump.

- Outfit A, pump only, including strainer and hose connection** \$30.00
  - Outfit B, coupled with 6 feet 3/4-inch suction hose**..... \$32.50
  - Outfit C, pump, suction hose, 25 feet best spray hose, 8-foot bamboo extension, Globe valve and nozzle**..... \$40.00
- For pressure gauge, add \$2.00.

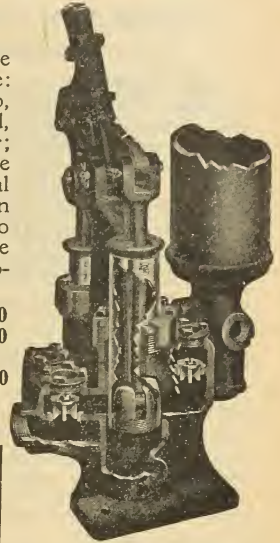


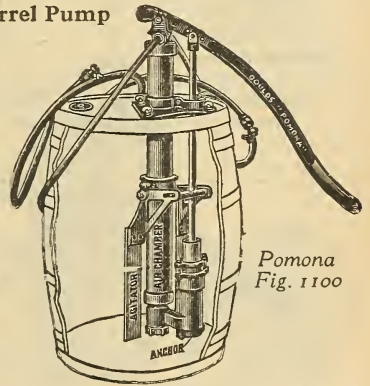
Fig. 1506. Monarch

### Take Care of Your Sprayer

Always empty remaining solution, and pump through clean water after using. Clean thoroughly before putting away at end of season. Never leave sprayers containing liquid where they will freeze; if cylinders are iron they are apt to crack and if brass they will expand.

## GOULD'S POMONA—Our Leading Barrel Pump

**Fig. 1100—"Pomona"** Spray Pump has won for itself an enviable reputation. We unhesitatingly offer it as the best orchard spray pump for mounting in a barrel. It has great power and capacity. Briefly stated, other points of superiority are: No leather packings, consequently no hardened and useless valves. All working parts bronze, including plunger, gland, valves, valve seats, etc. Plunger is outside packed. Valves are easily accessible. Air chamber is very large and of steel, free from imperfections of cast iron. Lever long and powerful, with adjustable stroke, three, four or five inches. The agitator, as shown in the cut, is operated by the stroke of the handle, so whenever any liquid is pumped it is thoroughly agitated. Pump is held securely by small anchor located at bottom of barrel, and by adjustable clamp plate at the top. New plate admits insertion or withdrawal from barrel without removing the agitator.



Pomona  
Fig. 1100

- Outfit A—Pump only**.....\$22.00
- Outfit B—Pump with 12 1/2 feet best spray hose, one Vermorel nozzle, one 8-foot bamboo extension, with cut-off, complete** \$26.00
- Outfit C—Same as Outfit B, except we furnish a good hard wood barrel and mount the outfit**.....\$28.50
- Outfit D—This is our regular Pomona outfit, the best barrel pump outfit that can be bought. It consists of one No. 1100 pump with two 12 1/2-foot leads of best spray hose, two Vermorel or Seneca nozzles, two 8-foot bamboo extensions, with cutoff; all in working order and mounted in barrel**.....\$35.50



Fruitall  
Fig. 1188

## FRUITALL

**Fig. 1188—"Fruitall"** Spray Pump is made on the same general lines as our famous "Pomona." It is, however, made lighter and of smaller capacity. All working parts, including plunger, gland, valves, valve seats and strainer are made of brass. Pump is held in barrel by anchor at bottom and adjustable clamp at top, fitting over end of stave. Not made for side of barrel.

- Outfit A—Pump only**.....\$16.00
  - Outfit B—Pump with 15 feet of spray hose and one Vermorel nozzle, all complete**.....\$18.75
  - Outfit C—Pump mounted in barrel, 15 feet hose, 8-ft. bamboo nozzle and cut-off, all complete**.....\$24.50
- NOTE**—Extra spray hose at 12 1/2 cents per foot.

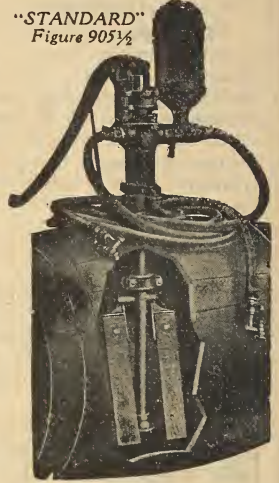
# Spray Pumps and Sprayers (Continued)

## GOULD'S STANDARD SPRAYER

Powerful, Large Capacity, Durable

The "Standard" Sprayer is made with a 2½-inch cylinder. The cylinder is brass-lined, the plunger brass-encased and the valves are brass, making all working parts proof against the spraying mixtures. The plunger is easily repacked without taking the sprayer to pieces, and is unusually large, known as a "differential" plunger, which produces a continuous stream of liquid from the nozzle, similar to the action of a double-action pump. The large standard provides an ample air chamber. The base is made so as to fit either the end or side of a barrel.

"STANDARD"  
Figure 905½



- Outfit A—Pump and strainer only.....\$12.00
- Outfit B—Pump with agitator and suction pipe..... 13.75
- Outfit C—Same as B, with 1 15-foot lead of hose and nozzle.... 16.00
- Outfit D—Same as C, with 2 15-foot leads of hose and nozzles.. 20.00
- Outfit E—Same as D, with 2 bamboo extensions and globe valves 23.00

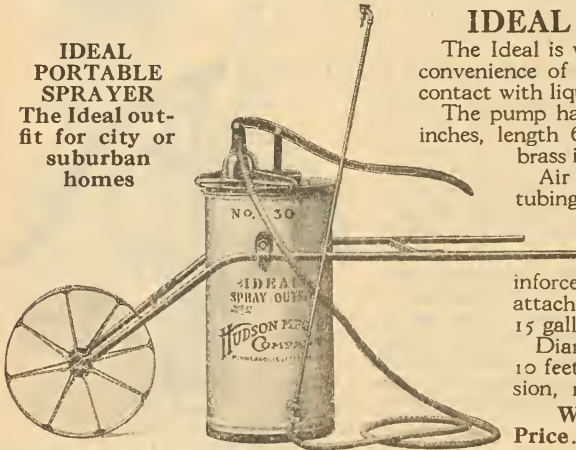
We supply a barrel and mount sprayer for \$2.50 extra.

### FIELD CROP OR POTATO SPRAYER

A practical 4 row adjustable attachment including nozzles, for use with any barrel or power pump. A first-class outfit built for service. Price Complete \$15.00

### IDEAL PORTABLE SPRAYER

The Ideal outfit for city or suburban homes



### IDEAL PORTABLE SPRAYER

The Ideal is well designed and built for durability and convenience of operation. All working parts coming in contact with liquid are made of brass.

The pump has a seamless brass cylinder, diameter 1¾ inches, length 6 inches, 4-inch stroke, bronze balls and brass intake screen, swinging agitator.

Air pump, 2 inches by 24 inches, made of steel tubing. Pump is fastened to the channel hoop at top and bottom and can be removed by loosening one thumb screw. The tank is heavy galvanized steel, reinforced top and bottom with channel iron hoops attached to frame by heavy casting, capacity 15 gallons.

Diameter of wheels, 20 inches, tires 2 inches. 10 feet Ideal Spray hose, 8 feet iron pipe extension, nozzle and leakless shut-off.

Weight crated 75 pounds.

Price.....\$25.00

### AUTO-SPRAY No. 40-D

A Portable Sprayer of the above type. Has brass plunger, graphite packing, brass ball valves. Will maintain a pressure of 150 lbs. Capacity of tank 12 gals. Wt. packed, 80 lbs.

Price \$25.00 F. O. B. Portland

### UTILITY No. 40-A

Of same general type as "Ideal" but has an air tank that will carry 250 lbs. pressure. One man can pump up the pressure and then do the spraying. Capacity 18 gals. Wt. crated, 100 lbs.

Price \$28.00

## HAND PUMPS AND SPRAYERS

### Premier Bucket Pump

Fig. 561½—Brass bucket pump, arranged with suction and discharge hose and spray nozzle, which will throw a solid stream or fine spray. Pump has brass cylinder, plunger and rod, and is particularly adapted for washing windows and wagons, spraying flowers in conservatories, gardens, etc., etc.

Price complete \$7.00

### Bordeaux Bucket Pump

Fig. 1129—Brass garden and spray pump; is especially designed for spraying in gardens and greenhouses. The pump is double action in effect; Seneca nozzle, ball valves; proof against the action of acids and oils. Footpiece is malleable iron. set in pail or bucket, with foot outside. Weight 6½ pounds.

Price complete.....\$6.50



Fig. 561½

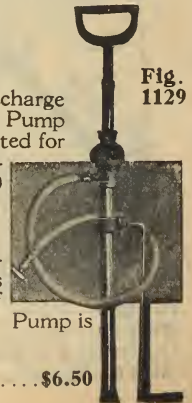
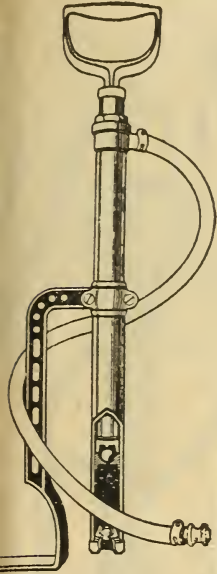


Fig. 1129

# Spray Pumps and Sprayers (Continued)



## MODOC

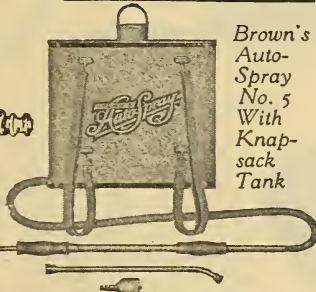
The Modoc is a splendid value in a Bucket pump being strongly built of the best material. Has large air chamber making possible a very heavy pressure.

Price each \$5.00

## PERFECTION — Brandt

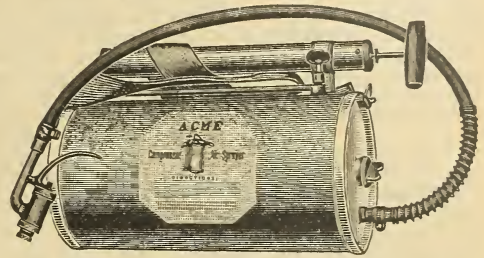
A first-class pressure sprayer with automatic cut-off and nozzles for fine and coarse work. Capacity 4 gals., shipping wt., 14 lbs. Price:

Galv. Steel Tank \$5.50  
Brass Tank 7.50



Brown's Auto-Spray No. 5 With Knapsack Tank

No. 5 Auto-Spray has developed a pressure of 180 lbs.



## ACME COMPRESSED AIR SPRAYER

Made of strong galvanized steel or brass with locked seams tested to 60 lbs. air pressure. Brass pump-seat, bronze ball check-valve easily removable, seamless brass cylinder 1½ in. diameter, solid brass, non-corrosive, self-cleaning nozzle with spiral point, producing whirling spray, an exclusive patented feature producing a finer and better spray than any other pressure sprayer.

Capacity 3 gals., adjustable carrying strap. 3-foot extension.

Price brass \$8.00  
Price galvanized \$6.00

## BROWN'S AUTO-SPRAY NO. 5

The ideal all-purpose hand pump. Will spray at high pressures up to 180 lbs., or can be adjusted for whitewashing, or to throw a solid stream for washing buggies or fighting fires. Is solid brass, double-action ball valves. Can be easily and quickly taken apart. Price with Galvanized Knapsack Tank, as illustrated \$8.50—Pump alone \$5.00—Extra Extension 50c each.

## BROWN'S AUTO-SPRAY NO. 1

The Auto-Spray No. 1 is the strongest and most simple in its working parts of any compressed air sprayer. Two pumpings of about 15 strokes on the plunger will discharge contents under high and constant pressure. The Sprayer is equipped with our patent non-clogging nozzle.

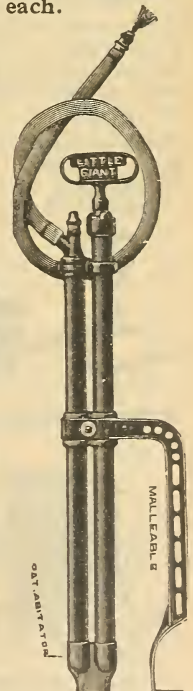
The Solution Tank pulls about 4 gallons and is made of galvanized steel or heavy sheet brass. We recommend brass as it will not corrode with strong solutions and is more lasting.

The brass air pump, made of seamless tubing, is provided with our Cam Locking Device which closes the filler opening air-tight with a half turn of the pump handle.

The entire machine is made without screws or bolts and no tools of any kind are required to take it apart.



Auto Spray No. 1



P. S. Co.'s Bucket Pump

Valves and washers resist oil and other solutions that attack rubber.

Diameter, 7 inches; height, 2 feet; capacity, 3½ gallons; weight, empty, 7 lbs.; weight, loaded, 39 lbs.; weight, shipping, 15 lbs.

Price, galvanized with auto pop nozzle \$6.50—brass \$10.00

## PORTLAND SEED CO.'S BUCKET PUMP

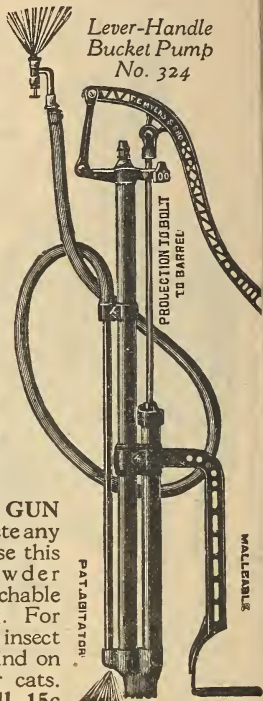
This little pump is very convenient for all sorts of small work. Has brass cylinder and valves, two nozzles, for fine or coarse work. The best low-priced pump on the market. Weight 6 lbs. Price \$4.75



# SPRAY PUMPS AND SPRAYERS

## LEVER HANDLE BUCKET PUMP No. 324

The lever handle and large air chamber make this the most powerful bucket pump and the easiest one to operate. All working parts are solid brass with brass ball valves and patent agitator. Fitted with graduating Vermorel nozzle to throw a fine or coarse spray or a solid stream. Wt. 8 lbs. Price \$7.00



Lever-Handle Bucket Pump No. 324

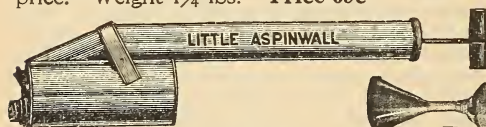
## "Corona" Powder Sprayer—Gold Medal Award for Mechanical Efficiency—See Page 99

### ASPINWALL SPRAYER

Fig. 30. One of the most convenient and economical hand sprayers for applying liquid lice-killers, sprays, etc. Nothing cheap but the price. Weight 1 1/4 lbs. Price 65c

### ACME SINGLE POWDER BELLOWS 1

Fig. 20. Excellent for blowing powder on vines and bushes; good size, and works fine. Wt., 2 lbs. Price \$1.25



LITTLE ASPINWALL



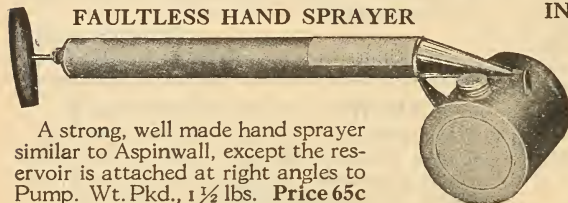
FIG. 20

### BLOW POWDER SPRAYER

A serviceable tin dust sprayer; wt. 1 1/4 lb. Price ea. \$1.00

### FAULTLESS HAND SPRAYER

A strong, well made hand sprayer similar to Aspinwall, except the reservoir is attached at right angles to Pump. Wt. Pkd., 1 1/2 lbs. Price 65c

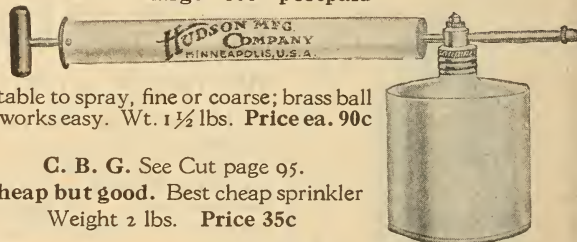


### INSECT POWDER GUN

No need to waste any powder if you use this small hand powder blower. Detachable bottom for filling. For use in applying insect powder of any kind on poultry, dogs or cats. Price ea. small 15c large 30c postpaid

### Portland Seed Co.'s DIAMOND HAND SPRAYER

This is the best hand sprayer to date; has a compressed air chamber, which makes pressure continuous; has brass nozzle, adjustable to spray, fine or coarse; brass ball valve; simple in construction, light, durable; works easy. Wt. 1 1/2 lbs. Price ea. 90c



Diamond Hand Sprayer

### BUSY

A regular water flirter, runs easy. Weight 2 lbs. Price \$1.00



C. B. G. See Cut page 95. Cheap but good. Best cheap sprinkler Weight 2 lbs. Price 35c

### PLUVIUS LAWN SPRINKLER

Properly constructed, iron stand, upper part all brass. Turns with small force. Wt. 3 1/2 lbs. Ea. \$1.50



Busy

Pluvius

## SPRAY AND GARDEN HOSE

SEE PAGE 96

### PORTLAND SEED COMPANY'S HANDY CARTS

All Metal Parts Malleable Steel, Strong, Light, and Easy Running

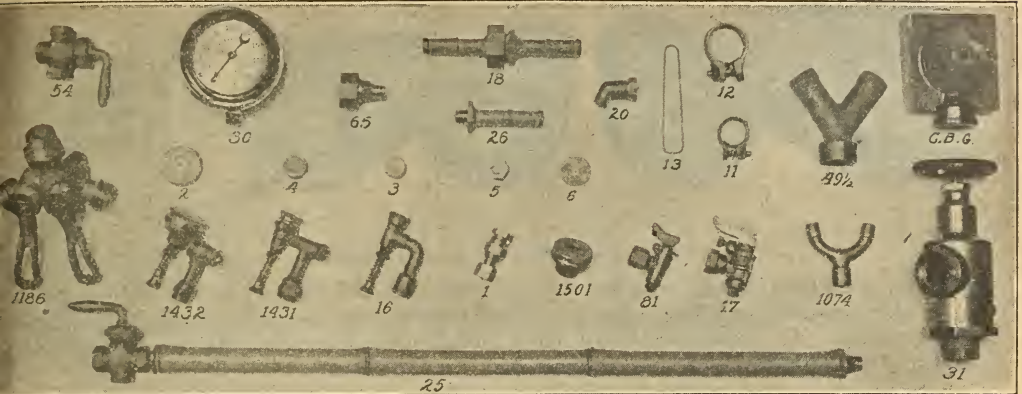
#### NO. 4 BARREL CART

Picks up any barrel from lime to large spray barrel, holding it firmly; no attachment necessary on barrel. Raise handles to empty barrel. Has 36-in. wheels, 2 1/2-in. elliptical rims, 7/8-in. steel axle; weights, K. D., 70 lbs. Price \$9.00



NO. 1 PLATFORM—Will carry four large milk cans, sacks of potatoes, wood, barrels, in fact, anything heavy can be easily and quickly handled. Platform 27x30 inches; 36-inch wheel, 2 1/2-inch elliptical tire. Neatly finished and painted. Weight, K. D. 85 pounds. Price \$9.50





## NOZZLES, CONNECTIONS and HOSE SUPPLIES

**Fig. 1501.** Non Clog, Jr. Best hop nozzle; throws a perfect spray; of greater capacity and a great improvement over other nozzles; produces a fog in great volume at a light pressure. Wt. 8 oz. **Price \$1.00**

**Fig. 16.** Vermorel Nozzle. With degorger, affords a conical discharge. Very popular. Wt. 4 ozs. **Price \$1.20; extra cap. Fig. 3, 35c**

**Two-Discharge Vermorel.** Covers twice the surface sprayed by the single nozzle. The nozzle for general orchard work. Wt. 1 lb. **Price \$2.25**

**Fig. 81.** Seneca. Gives a very wide spray; discharge easily graduated. Wt. 5 oz. **Price \$1.50**

**Fig. 1.** Bean's Best. Best long-distance nozzle. Wt. 2 ozs. **Price \$1.00; extra cap. Fig. 5, 35c**

**Fig. 17.** Bordeaux. Weight 6 oz. Use this nozzle for whitewashing. **Price \$1.50**

**Fig. 20.** Nozzle Ell. Weight 2 ozs. **Price 25c**

**Fig. 30.** Pressure Gauge. Weight 2 lbs. **Price \$2.00**

**Fig. 31.** Relief Valve. Wt. 3 lbs. **Price \$4.00**

**Fig. 26.** Hose Connection. Weight ¼ lb. **Price 25c**

**Fig. 65.** Hose Reducer. Wt. 3 ozs. **Price 30c**

**Fig. 1186.** Double Cut-off. Weight 2 lbs. **Price \$2.50**

**Fig. 49½.** Brass Y, ¾-inch, for hose coupling. Weight 1 lb. **Price 75c**

**Fig. 1074.** Brass Y, ¼-inch, for nozzle only. Weight ¼ lb. **Price 50c**

**Figs. 11-12.** Brass Yerdon's Bands, ½ or ¾-inch. Each 10c; doz. 75c; Postpaid 85c

**Fig. 13.** Caldwell Bands. Doz. postpaid ½-inch or ¾-inch 35c

**Just Rite Hose Nozzle.** One of the best for yard use. Weight 1 lb. **Price 40c**

**Fig. 25.** Bamboo Extension. Has iron pipe inside of bamboo, threaded for nozzles and stop-cock. **Price, with stopcock (Fig. 54)—**

Bamboo		Bamboo	
2 to 4 ft. . . . .	\$1.85	10 ft. . . . .	\$2.70
6 ft. . . . .	2.15	12 ft. . . . .	2.95
8 ft. . . . .	2.45		

Without Stopcock Deduct 70c

**Fig. 54.** Stopcock. Weight ½ lb. **Price 70c**

**Fig. 18.** Hose Coupling. 2½-inch shank, for heavy pressure spraying.

For ½-inch hose, price, pair 65c postpaid

**Hose Couplings,** for garden hose, ½-inch or ¾-inch, complete. **Price 15c; postpaid 25c**

**Hose Washers.** ½-inch, rubber. Doz. 10c

**C. B. G. Lawn Sprinkler.** Wt. 2 lbs. **Price 35c**

### SPRAYOMETER—For Testing Lime-Sulphur

For testing lime and sulphur and other solutions. Registers from 0 to 35 Baume scale, and 1000 to 1300 specific gravity. A well made, reliable instrument that protects you against low grade sprays. Weight ½ lb. **Price each \$1.25**

**Sprayometer Set** Consisting of one LI-SUL Sprayometer, one 12-inch plain Glass Cylinder in wooden container, with full instructions. Per Set—Weight 2 lbs. **Price \$1.50**

## SKINNER SPRINKLING SYSTEMS

**LAWN MIST SPRINKLER**—Waters grass, flower beds and borders on really scientific principles. The water falls as a fine soaking mist—as evenly as rain itself, yet so gently that it does not knock off the most delicate flower petals, and does not pack the ground.

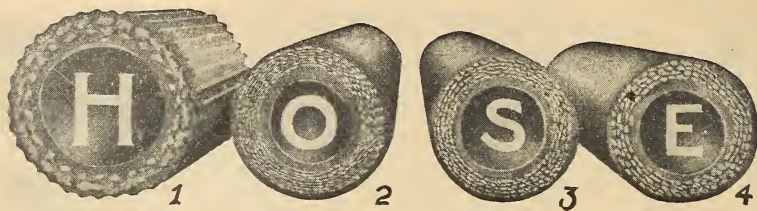
**LAWN MIST JR.** on stand instead of wheels  
 12½ feet. **Price \$6.00**

**PEACOCK**—Twelve and a half foot Section waters sixty feet wide by fifteen feet. **\$12.50**

**LAWN MIST**—Fifteen Foot Section waters twenty feet wide by eighteen feet. **Price \$9.85**

**SINGLE SPRINKLING LINES**—Easily put together or moved. Sold by the foot. Complete, except posts to support it. Waters a strip 50 to 60 feet in width.

**50-foot line \$19.50—100-foot line \$37.50. Other lengths in proportion.**



No. 1—Corrugated  
No. 2—Monarch  
No. 3—Pomona  
No. 4—St. Helens

### FOR SPRAY PUMPS AND GARDENS

**T**HIS season we are offering our customers a very complete and reliable line of spray and garden hose. We buy in very large quantities, direct from the manufacturers, which places us in a position to quote the following very low prices. Most of the brands we offer are manufactured especially for us, and can be obtained nowhere else.

**NOTE**—All our hose, excepting spray, is furnished in 50-foot lengths, and comes coupled ready for use. We will cut any of these hose in 25-foot lengths at an additional cost of 25c for couplings. We will cut  $\frac{1}{2}$ -inch Pomona and Monarch Spray Hose in any length desired, at an extra cost of 65c for spray couplings in less than 50-foot lengths.

**MONARCH SPRAY HOSE**—The Monarch, a new spray hose, is even a better grade than our well-known "Pomona." It is absolutely the best hose we can buy; the rubber is of exceptionally good quality and is very heavy; and we do not hesitate to recommend it to orchardmen, who must have a very high-grade and strong spray hose.

**MONARCH SPECIAL SPRAY**— $\frac{3}{8}$ -inch.  
Per ft 18c

**POMONA SPRAY HOSE**—Our well known Pomona is the best hose which can be bought at a moderate price. It has stood the test of time and hard usage, and has always proved good.

Price  $\frac{1}{2}$ -in per ft 12 $\frac{1}{2}$ c

**SUCTION HOSE**—This is an excellent grade of suction hose, and is what we furnish with our regular pump outfit.

Per ft  $\frac{3}{4}$ -in 27c—1-in 30c—1 $\frac{1}{4}$ -in 35c

**CORRUGATED GARDEN HOSE**—A new process, corrugated rubber hose, that will not kink or break. Especially recommended for florists and gardeners who use hose continuously.

Price per ft  $\frac{3}{4}$ -in 20c

**ST. HELEN'S GARDEN HOSE**—This is a good grade of garden hose of moderate price, and where a hose of medium price is wanted it will give excellent satisfaction.

Price  $\frac{1}{2}$ -in per ft 10c

### SPRAY CALENDAR—WHEN TO SPRAY, WHAT TO USE

Insect or Disease	Plant Attacked	What to Spray With	First Spraying
Codling Moth.....	Apple, Pear.....	Arsenate of Lead.....	Just before calyx cups close
San Jose Scale.....		Scalecide, Standard Sulphur Lime Solution.....	When leaves are off the tree
Oyster Shell Bark Louse	Apple, mainly.....	Standard Sulphur-Lime Solution	When leaves are off the tree
Peach Moth or Twig Borer	Peach.....	Scalecide, 1 part to 20 parts water	When the insects appear
Woolly Aphids.....	Apple.....	Scalecide, 1 part to 40 parts water	When the insects appear
Aphis.....	Roses and plants.....	Aphicide, Nicoticide.....	Just as soon as the insects appear
Cabbage Worm.....	Cabbage.....	Bug Death (non-poisonous).....	Before the worms eat into the cabbage
Cabbage Aphis.....	Cabbage.....	Scalecide, 1 part to 40 parts water	When the insects appear
Slug.....	Pear, Cherry, Peas.....	Slug Shot or Bug Death.....	
Thrips.....	Roses.....	Thrip Juice, or Aphicide.....	When the insects appear
Cottony Scale.....	Pear, Currant.....	Scalecide, 1 part to 40 parts water	When the insects become cottony (May)
Scab.....	Apple, Pear.....	Bordeaux.....	Just before blossoms open
Blackspot Canker.....	Apple.....	Bordeaux, double strength.....	Immediately after leaves fall
Leaf Curl.....	Peach.....	Standard Sulphur-Lime Solution.....	Before buds burst
Mildew.....	Gooseberry.....	Potassium Sulphide, 1 oz. to 2 gallons water.....	Just as buds burst

**Gould Spray Pumps** will give and maintain the necessary pressure to spray right. They are built for lasting service. See page 90

**SPRAYING to be effective MUST BE WELL DONE—**

"How to Spray—When to Spray—What Sprayer to Use" is a valuable and interesting book that tells all about sprays and sprayers. We will mail this book free on request.

# SPRAYS, INSECTICIDES POWDERS AND WASHES

## “CORONA” ARSENATE OF LEAD

DRY POWDERED

Contains only Arsenic and Lead Oxides. No Fillers

“CORONA” carries the highest possible percentage of arsenic oxide—33%—and is always uniform.

MIXES QUICKLY AND EASILY. STAYS MIXED LONGER  
AND STICKS better to leaves, branches and fruit  
than ANY OTHER Arsenate.

No sediment — No lumps — No waste — Never clogs nozzle

“CORONA” Dry Powdered Arsenate is a light, fluffy powder that cannot freeze, dry out, cake or lose its strength—is always uniform and requires only 1 pound to 50 gallons of water. Efficient, economical and convenient. Highest percentage of killing power.

Prices ½ lb 35c—1 lb 60c—5 lbs \$2.75—10 lbs \$5.00—25 lbs \$10.15—50 lbs \$20.00—100 lbs \$39.50—200 lbs \$78.00.

**Caution Against Spraying When Trees are in Full Bloom**—Spraying when trees are in bloom may destroy bees and other insects necessary to pollinate and these natural agents should not be interfered with as their work of transferring the pollen insures bountiful crops and shapely fruit.

## DIAMOND LIME AND SULPHUR SOLUTION

For San Jose Scale

You cannot afford to risk a cheap open kettle product. Be safe. Use the best

**Diamond Lime and Sulphur Solution** is prepared in pressure tanks by steam, and is always uniform and of the highest efficiency tests 30 Baume, Scale, is made of the purest and best quality of Sublimed Sulphur and of Lime, is a clear, deep cherry colored liquid, free from sediment, and is all ready to mix just as you get it. Merely add 11 gallons of water with each gallon of the Lime and Sulphur Solution. There is no sediment to clog the sprayers. No boiling to be done, which saves fuel, time, labor and annoyance. It is always alike and uniform in strength and results.

Price 1 qt 25c—1 gal 75c—5 gals \$2.25—50-gal bbl \$11.00

## SCALECID

The best miscible oil spray for San Jose scale and soft-bodied, sucking insects. Also contains a powerful fungicide, which will control fungus diseases that are controllable in the dormant season.

This assertion is not based on a single test on ten or a dozen trees, but on actual work in great commercial orchards, where thousands of gallons of spray were used. “Scalecide” is a petroleum oil that mixes readily with cold water in any proportion, and stays mixed. It is not necessary to use an extra tank or barrel, and no hot water should be used. Prepared by adding one gallon of “Scalecide” for every fifteen or twenty gallons of water, right into your spray tank. No crude oil is used in the manufacture of “Scalecide,” all the light and heavy oils that might prove injurious being removed—but all of the soluble sulphur is retained; this has the insecticidal value. That “Scalecide” is a satisfactory and dependable remedy for San Jose Scale is attested by the records of some of the largest commercial orchards in the U. S.

Free sample and full information on request.

Price per qt 40c—gal \$1.25—5 gals \$4.50—10 gals \$8.75—50-gal bbl \$37.50.

## DIAMOND SPRA-OIL

SPRA-OIL is a miscible oil spray manufactured at Hood River, Ore., and has been used by the big commercial orchards in that section with the greatest success, especially in spraying for leaf roller.

As a WINTER SPRAY—For San Jose Scale, Pear Scylla, Leaf Roller, Woolly Aphis, use one gallon of Spra-Oil to 15 or 16 gallons of water.

As a SUMMER SPRAY—Very efficient for young San Jose Scale and certain Aphis, when diluted with 50 to 100 gallons of water to one gallon of Spra-Oil—depending on the foliage, which, if very tender, should be sprayed with a weaker solution than 1 to 50.

Directions for Diluting—Shake and stir well while in the original package; after this, mix with one part of water to one part of Spra-Oil, which will readily emulsify to a creamy consistency. When this is thoroughly mixed, put it in the spray tank and it will stay in suspension.

Price qt 35c—gal 95c—5 gals \$3.50—10 gals \$6.50—bbl \$21.00.

## FRUIT TREES DEMAND BEES FOR PROPER POLLINATION

Our Bee Supply Catalog tells why; also how to keep and handle bees. Every fruit grower needs a copy. FREE

# Sprays, Spray Material, Washes (Continued)

☞ Liquid Sprays Cannot Be Mailed, Solid sprays extra for postage.

## "CORONA DRY" THE UNIVERSAL INSECTICIDE

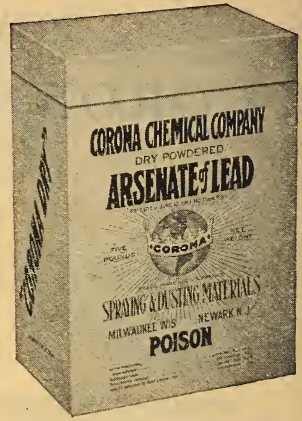
"CORONA DRY" is a chemically pure arsenate of lead, containing one-third arsenic—the most effective poison known for leaf eating insects—and is closely combined with the pure lead in such a way as to leave no free arsenic to burn foliage.

A safe, inexpensive, easily applied and efficient remedy for all chewing garden pests—and for use on fruit trees, berry bushes and plants that will insure perfect fruit and clean vegetables.

	½ lb.	1 lb.	5 lbs.	10 lbs.
PRICE:	35c	60c	\$2.75	\$5.00

Also in 25, 50, 100 and 200 pound packages See page 97.

"CORONA DRY" is best applied with the new **Corona Hand Duster**, specially made for doing rapid and effective work over large areas of trees, vines, bushes and plants; but for small yards or gardens with no trees, a less expensive duster or powder gun will do the work.



## CORONA SULPHUR—For use with Corona Arsenate

**CORONA DUSTING SULPHUR** is a highly refined pure sulphur reduced to an impalpable powder specially for dusting purposes. The use of this finely powdered sulphur in the summer season for fungus diseases of fruit and vegetables is equally as effective as Lime-Sulphur; is more easily applied and there are no harmful results as it is a pure, non-poisonous sulphur.

Price ½ lb 10c—1 lb 18c—5 lbs 75c—10 lbs \$1.20—100 lbs \$10.00

**CORONA DRY AND CORONA DUSTING SULPHUR**—Mixed in equal parts by measure, is a complete and satisfactory summer dust spray for insect pests and fungus diseases; more easily, quickly and effectively applied than other sprays, and is much more economical

## Use "CORONA DRY" and CORONA SULPHUR in your vegetable garden for preventing and exterminating leaf eating insects.

**TOMATOES**—For tomato worms, flea beetles, etc., make first application two weeks after setting out the plants.

**CUCUMBERS**—All chewing insects that injure cucumbers are quickly destroyed by dusting leaves and stems above and below. Corona Dry will not burn the foliage as Hellebore does.

**POTATOES**—Corona Dry is fatal to flea beetles and all chewing insects that damage the foliage. Mixed half and half with Corona dusting sulphur will control and prevent early blight.

**SWEET CORN**—The corn ear worm develops from an egg on the new silk or husk and feeds on the silk, following it into the ear. "Corona Dry" gives absolute control of this pest. Thoroughly dust the new silk as soon as it appears.

☞ Choose a bright day with a light wind and apply the powder from the windward side. It is not necessary to have the foliage appear white but care should be taken to cover all parts. **Begin Early.** Don't wait until the damage is done.

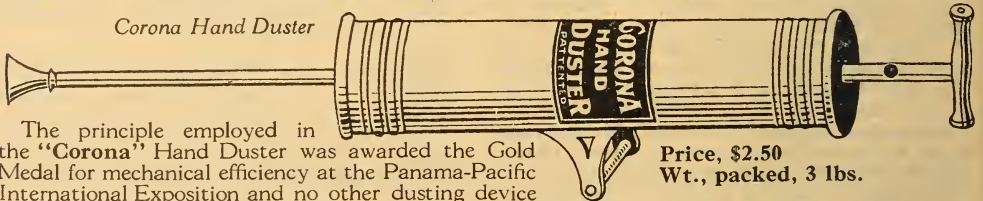
## CABBAGE, CAULIFLOWER AND KALE—

To control cabbage worms, dust about ten days after plants are set and as often as necessary until they begin to head. **Do not use any poisons on plants after they start to head.**

**CUT WORMS**—The best remedy is to scatter poison about where the worms are working. Corona Dry 10%, Molasses 10% by weight, mixed with bran made into small balls and scattered over the ground will attract and kill them.

**ARMY WORMS**—Corona Dry will kill them by dusting or by mixing 25 lbs. of bran and 2 lbs. of Corona with molasses scattered in a line to meet their approach or all around the plants. Be careful to keep chickens away.

Corona Hand Duster



The principle employed in the "Corona" Hand Duster was awarded the Gold Medal for mechanical efficiency at the Panama-Pacific International Exposition and no other dusting device in its class can approach it for efficiency, ease of manipulation, simplicity and durability.

Price, \$2.50  
Wt., packed, 3 lbs.

**SAFETY** Both "Corona Dry" and Corona Dusting Sulphur are safe to use. The small amount of poison that clings to the fruit or plant is easily washed off.

Write for Corona booklet "Garden Pests and their Control." Mailed on request

# Sprays, Spray Material, Washes (Continued)



A SUCCESSFUL  
 REMEDY  
 FOR  
 CABBAGE  
 MAGGOT

For destroying and preventing maggots, grubs and worms that infest turnips, radishes, beets, rutabagas, cabbage and cauliflower, etc., also recommended for combating crown borers in strawberries.

Pints 50c—Qts 75c— $\frac{1}{2}$  gals \$1.25—gals \$2.00

Portland Seed Company's

## APHISCIDE

Our Best Summer Spray for Roses

A clean, efficient spray for aphid, thrip, and kindred insects on plants of any kind. Specially fine for house plants, as it has no offensive odor and will not injure or stain the plants.

Price qt 25c—gal 60c

## KNOXWEED

A single application of Knoxweed kills Plantain, Thistle or any Noxious Weed—Top and Root. Sold under a positive guarantee.

Price Dropper can 50c— $\frac{1}{2}$  gal \$1.50—gal \$2.50

**BORDEAUX MIXTURE**—(Lion Brand)—For fungi—in liquid form. Dilute with 40 parts of water. 1 qt 80c—wt 4 lbs—1 gal \$2.00

**BLUESTONE**—(Vitriol)  
 Lb 20c—per 100 lbs market price

**PARIS GREEN**—(Lion Brand) The standard of purity. Guaranteed superior to other makes. Price  $\frac{1}{4}$  lb 25c— $\frac{1}{2}$  lb 40c—lb 75c

**FISH OIL SOAP**—For aphid, plant lice, etc.  
 Per bar 15c—100 lbs bulk \$8.75

**KEROSENE EMULSION**—An excellent spray for woolly aphid and clover mite.  
 Qt 75c—wt 3 lbs

## TREE TANGLEFOOT

For caterpillars, moths and worms. Protects against all climbing insects. One pound makes a band 9 feet long.

Price 1 lb 50c—3 lbs \$1.45—10 lbs \$4.50—20 lbs \$8.75.

**NICOTICIDE**—The best fumigant and spray for greenhouse work. Kills aphid, red spider, mealy bug, thrip, etc.

1 oz bottle 25c—2 oz bottle 50c—Pint can \$2.75—qt \$5.00— $\frac{1}{2}$  gal. \$8.75—gal \$16.50

**SULPHUR, Powder**— Lb 5c—100 lbs \$3.85

**TOBACCO DUST**—  
 Lb 15c—10 lbs \$1.40—100 lbs \$13.00

**CARBOLINEUM**—C. A. Wood Preserver—  
 For preserving any kind of timber above or below ground.  
 Qt can 40c—wt 4 lbs—gal \$1.50—5 gals \$6.00

## "BLACK LEAF 40"

Nicotine Sulphate—40% Nicotine

Highly recommended by Experiment Stations. It destroys Aphis, Thrips, Leaf hoppers on all tree, bush and vine fruits, vegetables, field crops, flowers and shrubs; also Apple Red Bug, Pear Psylla and similar soft-bodied sucking insects—all without injury to foliage.

May be combined with other sprays. Highly concentrated. Soluble in water—easy to mix—does not clog nozzles.

You cannot go wrong by ordering "Black Leaf 40."

### PRICES:

- 1 oz. makes 6 gallons spray..... \$0.25
- $\frac{1}{2}$  lb. makes 40 to 120 gals. spray..... .75
- 2 lb. makes 160 to 500 gals. spray..... 2.50
- 10 lb. makes 800 to 2500 gals. spray..... 10.75

### CUT WORM FOOD

Use a Teaspoonful to a Plant or Hill

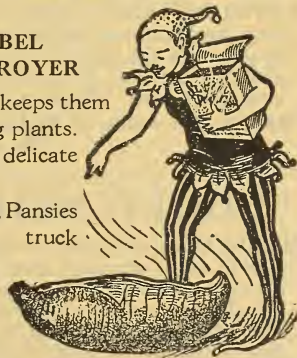
Cut worms are very fond of this special preparation which is eagerly eaten by them in preference to the plants. A careful test proved 95 per cent of the applications effective on Melons, Cucumbers, Cabbage, Cauliflower, Squash, Tomato and Flowering Plants. Easily applied by sprinkling around the plants and will not injure them in any way. Price 1-lb pkg 25c

### BLUE LABEL SLUG DESTROYER

Kills slugs and keeps them away from young plants. Not harmful to delicate foliage.

For Sweet Peas, Pansies and all garden truck sprinkle lightly on and around the plant.

Price 25c



**BUG DEATH**—A non-poisonous insect-killing powder that is in high favor among gardeners for cabbage, tomato and cucumber bugs, etc. Use 12 lbs per acre. Per lb 25c—100 lbs \$15.00

**BUHACH**—Oz 15c— $\frac{1}{4}$  lb 40c—1 lb \$1.00

**HAMMOND'S SLUG SHOT**—For destroying slugs, cabbage and turnip flea, currant worms, etc. Per lb 15c—5-lb pkg 60c

**HAMMOND'S GRAPE DUST**—To prevent mildew on roses, grapes, and gooseberries. Per lb 15c—5-lb pkg 65c



**D**IAMOND QUALITY ROSES are large, sturdy, two-year-old, field-grown roses that will give you splendid flowers the first season. They are true to name and our list includes the best of the well known popular varieties, the most meritorious of recent novelties and the Gold Medal roses of famous European growers.

### Abbreviations

**T.—TEA**—These frequently winter without any protection, although during coolest weather and in cold sections they should be protected.

**H. T.—HYBRID TEA**—Most of these are as free flowering as the teas, and are hardier, but, as a rule, not so hardy as the H. P.'s.

**H. P.—HYBRID PERPETUAL**—Hardest of all roses, growth vigorous and easy of culture.

Other abbreviations that are often used are: **S.—Single**; **H. B.—Hybrid Briar**; **Wich—Wichuriana**; **N.—Noisette**; **Poly—Polyanthus**; **Pern—Pernetiana**; **A. B.—Austrian Briar**.

### Planting and Care

In our favored section, roses attain a perfection seldom equaled, but you cannot expect them to thrive and bloom unless you care for them. We offer the following simple suggestions.

**SOIL**—Any good, well-drained garden soil, enriched with fertilizer, will give excellent results. If heavy clay soil mulch well with burnt earth and manure, rotted sod or leaf mold.

**FERTILIZER**—Our odorless fertilizer, Bone Meal, Tankage of Blood, will give excellent results and should always be applied after the plants start their growth.

**WATERING**—When setting out, water regularly until roots are well set; then about once a week unless the ground is very dry; in such cases more often. Do not get the foliage wet after a hot day. This causes mildew.

**PRICES**—35c roses, \$3.00 doz.; 40c roses \$4.00 doz.; 50c roses \$5.00 doz.; 60c roses \$6.00 doz.; 75c roses \$8.00 doz.; \$1.00 roses \$10.00 doz.

**FINALLY**—Keep the surface well worked around the plants. This is as necessary as water or fertilizer. When planting cut back freely, and the bush will recover quickly.

**SHIPPING**—We always send all our two-year-old rose bushes charges collect by express or freight packing them so they will carry safely even though they should be on the road for two weeks or more.

If necessary, we can send small two-year-old bushes by mail at an additional cost to cover postage, but in such cases we always prune the tops and roots ready for planting.

## GOLD MEDAL COLLECTION FOR 1918

**CLEVELAND**—Vigorous, stout branching growth with very large and handsome leaves. Flowers of grand size, exquisite form, produced freely. Color reddish copper or old rose heavily flushed with coppery yellow at base of petals. A rare novelty. Each \$1.25

**DUCHESS OF SUTHERLAND**—(H. T.)—Delicate warm rose-pink with lemon shading on white base. Sweet briar perfume. Each 75c

**GORGEOUS**—Strong vigorous growing with handsome olive-green foliage. Flowers very large, finely formed, produced freely on stout canes. Color deep orange-yellow heavily veined with reddish copper. Each \$1.25

**HADLEY**—(H. T.)—Color, beautiful bright red. Very free and constant. Each 75c

**HOOSIER BEAUTY**—Crimson scarlet with darker shadings, velvety texture. Bud long and pointed. Deliciously fragrant. Each \$1.00

**LADY MARY WARD**—(H. T.)—Free, vigorous and hardy, color rich orange, shaded deeper orange with metallic veining. Each 75c

**MAD. EDOUARD HERRIOTT**—The famous winner of the Daily Mail Prize. The color being terra-cotta bronzed and geranium red, a new combination of colors in a rose. Each 60c

**OPHELIA**—(H. T.)—Orange salmon buds, opening to flowers of dainty pink. The foliage is clean, dark and leathery—growth vigorous and free, producing long canes. Blooms early and continuously. Each 60c

**OLD GOLD**—(H. T.)—Medium sized flowers of a vivid reddish orange color with coppery red and coppery apricot shadings. Each 60c

**QUEEN MARY**—(H. T.)—Color lemon chrome, bordered at the edge with pure, deep carmine; a charming combination. Each 75c

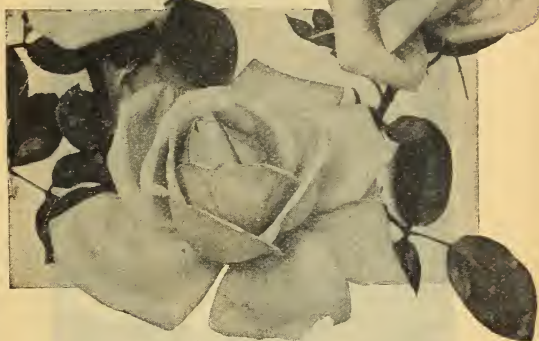
## Gold Medal Collection (Continued)

**LOS ANGELES**—Described by the originator as "a luminous flame pink toned with coral and shaded with translucent gold at the base of the petals." The fragrance equals in intensity the finest Marechal Neil; buds long, pointed and lasting. The flowers are very large, and the beauty of coloring does not fade. Flowers profusely all season on strong shoots that often attain a growth of 4 to 5 feet; when these are cut the side shoots flower freely. The foliage is a rich luxuriant glossy green, proof against mildew and fungus attacks. Two-year field grown plants. **Each \$1.50**

**TIPPERARY**—Beautifully formed buds of a bright canary yellow, produced with great freedom. A fine new Irish rose with all the requisites of a good garden and decorative variety. **Each \$1.25**

**GEORGE DICKSON**—(H. T.)—Very strong and vigorous; velvety blackish crimson, with back of petals heavily veined with pure crimson maroon. Delightfully scented. **Each 60c**


For Classified Alphabetical  
List of Roses see Page 106



*Los Angeles*

## BEAUTIFUL ROSES OF RECENT INTRODUCTION

*The following are the recent novelties and Gold Medal roses that have proven their merit and are now generally in great demand.*

 Young plants 20c each, except sorts marked \* which are supplied only in 2-year-old. Fine 2-year Dormant Plants 50c; \$5.00 per doz. unless otherwise priced.

**BRITISH QUEEN**—(H. T.)—Pure white large, full flowers, opening freely. Fine for cutting.

**\*COUNTESS OF SHAFESBURY**—(H. T.)—Bright, silvery carmine, mottled and flushed shell pink. Profuse bloomer.

**DUCHESS OF WELLINGTON**—(H. P.)—Intense saffron yellow stained with rich crimson which, as the flower develops, becomes deep coppery saffron yellow. Delightfully fragrant.

**EDWARD MAWLEY**—(H. T.)—Long pointed buds of deep, rich, velvety crimson, a decided advancement in its class.

**\*JULIET**—(H. B.)—A wonderful combination of old gold on the outside of petals and a rich rosy red on the inside. Flowers large and full.

**LADY HILLINGDON**—(T.)—Deep apricot yellow, long and pointed bud, a fine forcing or garden rose, excellent for cutting.

**LADY ALICE STANLEY**—(H. T.)—Large, full flowers of lovely, deep coral, inside pale flesh. A free grower and a profuse bloomer.

**LOUISE CATHERINE BRESLAU**—(H. T.)—Coral red, shaded chrome yellow, opening to a flower of shrimp pink, shaded coppery orange.

**\*LYON**—(Pernetiana)—Beautiful shrimp pink with salmon and chrome yellow shadings. Large, coral red buds, beautifully formed.

**MELODY**—(H. T.)—Intense deep saffron yellow with primrose edges. Blooms medium size, very fragrant and freely produced.

**MRS. AARON WARD**—(T.)—A deep golden orange color shading out to lemon or creamy yellow at the edge of the petals. One of the most beautiful roses in existence.

**\*MRS. CHAS. E. ALLAN**—(H. T.)—A novel coloring, opening a pale orange and changing to ochre as the flower opens. Long, pointed buds. A vigorous grower. Free bloomer.

**MRS. DAVID McKEE**—(H. T.)—Creamy yellow, large, full and free. Best of its color.

**MADAME MELANIE SOUPERT**—(H. T.)—Splendid new orange yellow shaded pink; beautiful, long-pointed buds. Best of its color.

**MARQUIS DE SINETY**—(H. T.)—Deep saffron yellow, flushed reddish copper. Flower large, beautiful dark foliage.

**MRS. CORNWALLIS WEST**—(H. T.)—Large flowers, of rosy shell pink, changing to pure white with age. Growth vigorous and erect.

**MRS. FOLEY HOBBS**—(T.)—Immense flowers of ivory white, delicately tinged pink on edge of petals. A great bedding rose. **Each 60c**

**\*MRS. E. J. HOLLAND**—(H. T.)—Deep salmon rose, shading lighter as the flower expands.

**\*RAYON D'OR**—(Pern)—Long, pointed buds of deep orange-cadmium smeared claret, opening to a rich sunflower yellow. Foliage is deep, glossy green; and free from mildew.

**SUNBURST**—(H. T.)—The finest of all yellow roses with long pointed buds. Color a superb Cadmium yellow with orange yellow center. The foliage is a handsome bronze green.

## GRAND GARDEN ROSES

In this list you will find many famous prize winners and some of the most beautiful and popular roses.

Price: Young plants 20c each—3 for 50c. Two-year-old Plants 40c each, unless otherwise priced.



Sunburst (Page 101)

- MRS. DAVID JARDINE**—(H. T.)—Delightful shade of bright, rosy pink, shading in outer petals to salmon pink; large, highly perfumed.
- MADAME PHILLIPPE RIVOIRE**—(H. T.)—Beautiful apricot yellow and Nankeen yellow center, reverse of petals carmine; large and full.

- DOROTHY PAGE ROBERTS**—(H. T.)—Coppery pink, suffused with apricot yellow, very free and perpetual, a delightful garden rose.
- FARBEN KOENIGIN**—(H. T.)—Imperial pink, reverse of petals carmine; good bedding rose.
- HARRY KIRK**—(H. T.)—Deep sulphur-yellow passing to a lighter shade at the edge of petals. Robust growth; free branching habit.
- JONKHEER J. L. MOCK**—(H. T.)—Inside of petals red, outside silvery blush white. Rapid grower.
- JOSEPH HILL**—(H. T.)—Salmon pink shaded yellow. Outside petals yellow suffused copper.
- LADY ROBERTS**—(T.)—Rich apricot, base of petals coppery red, edges shaded orange.
- LE PROGRESS**—(H. T.)—Nankeen yellow, opening to saffron yellow; large and full.
- MAD. RAVARY**—(H. T.)—Clear orange yellow. Long pointed buds; flowers of fine form.
- MILDRED GRANT**—(H. P.)—Delicate pale pink, shading to silvery white in center; grand giant variety; rare beauty; pointed buds.
- MAD. SEGOND WEBBER**—(H. T.)—Large, pure, rosy salmon, vivid center, free bloomer.
- MRS. A. R. WADDELL**—(H. T.)—Large, long pointed buds of a bright, rosy scarlet, opening to a rich apricot or salmon color.
- MY MARYLAND**—(H. T.)—Beautiful, bright pink, with paler edges; fragrant; robust grower.
- PHARISAER**—(H. T.)—Rose, shaded salmon, flowers of large and finest form; blooms freely.

### Finest Hardy Perpetual Roses

FOR Eastern Oregon and Washington or in sections where the winters are severe, this collection will thrive and bloom freely where the Tea and Hybrid Tea roses would not prove satisfactory.

Young Plants, 15c; Set of 14 sorts, \$1.40. Two-year-old Plants, 35c each; \$3.50 per dozen.

- BARONESS ROTHSCHILD**—(H. P.)—Flowers of immense size; color bright rosy pink.
- CAPTAIN HAYWARD**—(H. P.)—Immense flowers in great freedom, sweetly scented. Color deep glowing red shaded crimson.
- CONRAD F. MEYER**—(Rug.)—Beautiful silvery pink, very hardy, its handsome foliage makes it most valuable for a flowering hedge.
- FRAU KARL DRUSCHKI**—(H. P.)—The white American Beauty. Makes splendid buds and immense flowers; perfectly double.
- GLOIRE LYONNAISE**—(H. P.)—Color, chamois yellow, deepest at the center, passing to creamy white; large, full, sweet, very distinct.
- HUGH DICKSON**—(H. P.)—Glowing crimson-shaded scarlet. A strong grower and perpetual bloomer (should be cut back freely).
- GENERAL JACQUEMINOT**—(H. P.)—Bright, shining crimson; very rich and velvety.
- MABLE MORRISON**—(H. P.)—Of purest velvety white; very double and rounded.
- MARGARET DICKSON**—(H. P.)—White, with pale flesh center; large, shell-shaped petals; fragrant.
- MRS. JOHN LAING**—(H. P.)—A soft, delicate pink, with satiny tinge; very free flowering.
- MRS. R. G. SHARMAN CRAWFORD**—(H. P.)—Lovely deep rose pink, outer petals shaded pale flesh, base white. Large flowers.
- PAUL NEYRON**—(H. P.)—Deep, shining rose, blooms freely, the largest variety in existence.
- PRINCE CAMILLE DE ROHAN**—(H. P.)—Dark, rich, velvety crimson, passing to intense maroon, shaded black; best of its color.
- ULRICH BRUNNER**—(H. P.)—Extra large, bold flowers, full and globular; color, rich, glowing crimson, elegantly flamed with scarlet.



## Columbia Collection of Choice Roses

These include some of the most popular favorites for garden or cut flowers.

**Young plants 15c—set of 12 sorts \$1.25. Two-year-old plants 35c—set of 12 sorts \$3.00.**

**AMERICAN BEAUTY**—(H. P.)—One of the largest, sweetest and best; rich rosy crimson, shaded and veined in a most charming manner.

**BETTY**—(H. T.)—Beautiful coppery rose color, overspread with golden yellow. Fragrant.

**FLORENCE PEMBERTON**—(H. T.)—Creamy white, suffused pink. Very large and full.

**FRANZ DEEGAN**—(H. T.)—This beautiful yellow is a fine grower, having the good habit of throwing up numerous heavy canes.

**GENERAL McARTHUR**—(H. T.)—Dazzling crimson, scarlet; delicious perfume and magnificent foliage. Blooms in great profusion.

**MAD. ABEL CHATENAY**—(H. T.)—Color, beautiful rosy carmine, with darker shadings.

**MADAME CAROLINE TESTOUT**—(H. T.)—Bright satiny pink; very fragrant and free in bloom. The official "Carnival Rose."

**MAMAN COCHET**—(T.)—Color is a deep rosy pink, the inner side of the petals silvery rose.

**RICHMOND**—(H. T.)—Vivid red buds and flowers of the most perfect and desirable form.

**SOUV. DE PIERRE NOTTING**—(T.)—Very large; elegant form; has a beautiful long bud; color, orange yellow, bordered in carmine rose.

**SOUV. DE PRESIDENT CARNOT**—(H. T.)—Lovely shell-pink, delicately tinted with gold fawn on rich creamy white. Superb for bedding.

**WHITE MAMAN COCHET**—(T.)—Immense size, exquisitely fragrant; long, pointed buds.

## Favorite Garden and Exhibition Roses

A choice collection of the best standard varieties, "tried and true," sure to give satisfaction.

**Price: Young plants 15c—set of 12 sorts \$1.25. Two-year field grown plants 35c—Doz. \$3.00.**

**AVOCA**—(H. T.)—Deep scarlet crimson flowers of perfect form; very fragrant.

**BESSIE BROWN**—(H. T.)—Creamy white; large full, of very fine form. An exhibition rose.

**DEAN HOLE**—(H. T.)—Beautiful silvery carmine, shaded bright golden pink. Free bloomer.

**GRUS AN TEPLITZ or VIRGINIA R. COXE**—(H. T.)—Color, fiery crimson, with a dark velvety sheen, very fragrant. Free blooming.

**KAISERIN AUG. VICTORIA**—(H. T.)—Elegant, large pointed buds; large, full double flowers; color delicate creamy white; fragrant.

**LADY ASHTOWN**—(H. T.)—One of the finest pinks of a rich, deep, silvery tone; flowers large.

**LADY BATTERSEA**—(H. T.)—Long, oval buds, sharply pointed; very striking in form. The color is a bright, cherry crimson.

**LA FRANCE**—(H. T.)—A silvery rose, changing to pink. A general favorite. Sweetest of all roses.

**MARIE VAN HOUTTE**—(T.)—Of a fine faultless straw-yellow color; outer petals washed and outlined with a bright rosy carmine.

**PAPA GONTIER**—(T.)—A vivid cherry red color, shaded yellow, reverse of petals crimson.

**SAFRANO**—(T.)—Bright apricot yellow, tinged orange and fawn.

**VISCOUNTESS FOLKESTONE**—(H. T.)—Color, delicately tinted flesh, almost white, with beautiful satin finish; strong stems.

## Prize-Winning Everblooming Roses

**Price: Young plants 15c each—4 for 50c. Two-year-old plants 35c each.**

**BELLE SIEBRECHT**—(H. T.)—A true, solid pink of richest shade. The flowers are large, of long, tapering shape, with high center.

**COUNTESS OF GOSFORD**—(H. T.)—Clear salmon pink, base of petals shading to saffron yellow, very vigorous; perpetual bloomer.

**ETOILE DE LYON**—(T.)—Sweet scented; color, rich golden yellow; blooms freely.

**J. B. CLARK**—(H. T.)—Flowers are intense scarlet shaded blackish crimson, of giant size, finely formed and fragrant; growth vigorous.

**KILLARNEY**—(H. T.)—An exquisite shade of deep shell-pink lightened with silvery pink.

**LA DETROIT**—(H. T.)—A beautiful shell-pink shading in center to soft rose pink. Reverse of outer petals creamy-flesh tint, strong grower.

**MME. LEON PAIN**—(H. T.)—A silvery flesh with yellowish orange center; large and full.

**PERLE DES JARDINS**—(T.)—A clear, golden yellow, an indescribably rich, beautiful shade.

**PRINCE DE BULGAIRE**—(H. T.)—Very vigorous grower, with large, bright green foliage. Outer petals are extremely large, of superb rosy flesh color; center of flower bright red.

**PRES. W. R. SMITH**—(T.)—(Maidenblush)—Elegantly shaped buds and open flowers of exquisite silvery pink color; sweetly perfumed.

**WHITE LA FRANCE**—(H. T.)—This magnificent rose is a pure white La France, having just a breath of rose-tinted blush.

**WHITE KILLARNEY**—(H. T.)—Long pointed buds of purest white and heavy wax-like texture opening to large full flowers; very lasting.

## Baby Rambler or Dwarf Polyanthus Roses

Price: Young plants 15c ea.—set of 6 sorts 75c—2-year-old plants 35c ea.—except as noted

**BABY RAMBLER**—(Dwarf Bush Type)—Not over 18 inches high, producing large trusses of light crimson flowers; clean dark green foliage.

**PINK BABY RAMBLER**—(Mrs. W. Cutbush) Clusters of pretty double bright pink flowers; freely produced in panicles, always in bloom.

**CECILE BRUNNER**—Bright, rose, yellowish in center; very sweet; dwarf polyanthus.

**ERNA TESCHENDORF**—A valuable sport from Mad.N.Levavasseur. Color, deep crimson.

**GEORGE ELGER**—Free blooming, erect growth, golden coppery yellow. **Each 40c**

**JEAN DE ARC**—Miniature double white flowers in large clusters surmount plants all summer.

**JESSIE**—Bright scarlet shaded crimson. Flowers double and in great clusters. Very free.

**KATHERINE ZEIMET**—Small, double, pure white flowers. A free and continuous bloomer.

**ORLEANS**—(Poly)—Clusters of bright rosy red flowers, with centers shaded to pure white.

**PERLE D'OR**—Clusters of dainty Nankeen yellow buds with orange center, very beautiful.



### Single Roses

**AUSTRIAN COPPER**—(A. B.)—A beautiful single rose of bright reddish copper. **Each 50c**

**IRISH ELEGANCE**—(S.)—Large, single, golden bronze flowers of great beauty, free and constant bloomer, with deep bronze foliage. **Ea 40c**

**IRISH FIREFLAME**—(S.)—Deep orange splashed crimson, changing to fiery orange crimson; buds hold shape long time. **Ea. 60c**

**IRISH SIMPLICITY**—(S.)—Almost single; pure white, of immense size, with golden yellow anthers resembling a huge water lily. **Ea. 50c**

### Moss Roses

Price, each 35c; dozen \$3.00

**BLANCHE MOREAU**—Flowers pure white, large, sweetly perfumed. Best white Moss Rose.

**CHAPEAU DE NAPOLEON**—Splendid rich red, best of its color.

**CRESTED MOSS**—Bright rose, light edging, well mossed.

**EUGENE GUINOISSEAU**—Beautiful dark red.

**SALET**—Color, lovely satin rose; very full and of great beauty; one of the best.



### "How to Grow Roses"

*A little book for rose lovers*

Free on Request

## GARDEN BOOKS

BOOKS ON  
Roses, Flowers,  
Ferns, Bulbs,  
AND  
General Garden  
Topics.

See pages 60, 61, 62

## Standard, or Tree Roses

Tree roses are budded, or grafted on hardy rose stocks about four feet high. They soon make good size heads, forming a small tree; desirable for planting as single specimens, in backgrounds or rows along walks or driveways.

Order any color or variety you wish and we will send it or give you a good substitute.

PRICE: Tree or Standard Roses, \$1.00 to \$1.50 each, according to size of head.

## Climbing and Pillar Roses

Two-year-old bushes, Field Grown 35c each; \$3.00 doz. (except as noted)

- AMERICAN PILLAR**—(WICH)—A beautiful bright pink with yellow anthers.
- BEAUTY OF GLAZENWOOD**—Bronzed yellow or copper and fawn color. Hardy and free.
- CLI AMERICAN BEAUTY**—Rich crimson color; delightful fragrance; very free bloomer.
- CLIMBING CECIL BRUNNER**—Clusters of pretty pink flowers, especially beautiful in bud.
- \*CLIMBING FRAU KARL DRUSCHKI**—Identical to bush type; good pillar rose. Ea. 50c
- CLIMBING KAISERIN** (Mrs. Robert Peary)—Flowers large, ivory white, of heavy texture.
- CLIMBING LA FRANCE**—Identical with the well known La France; vigorous climber.
- \*CLIMBING LADY ASHTOWN**—Vigorous climbing sport of this valuable rose. Each 50c
- CLI. MADAME CAROLINE TESTOUT**—Immense globular flowers of the same beautiful shade of pink as seen in the bush sort.
- CLIMBING METEOR**—Rapid grower; rich, dark, velvety crimson flowers.
- CLIMBING WHITE MAMAN COCHET**—Identical with bush type; vigorous free bloomer.
- DUCHESS D'AUERSTADT**—Fine rich yellow, flowers are large, full and open freely. Each 50c
- GAINSBOROUGH**—Graceful flower of dainty shell pink color and satiny finish. Very hardy.
- GLOIRE DE DIJON**—Free flowering; delicate tea scent; color, a blending of amber.
- MADAME ALFRED CARRIERE**—Full flowers, very double and sweet; color, rich, creamy white, faintly tinged pale yellow and blush.
- MARECHAL NEIL**—A magnificent deep golden yellow variety; so famous as to need no description; finest of its color. Each 40c
- CLIMBING PAPA GONTIER**—(T.)—A "Native Sport" from this favorite variety.



- PINK CHEROKEE**—Lovely single blossoms 3 to 5 inches in diameter, saucer shaped and of a beautiful shade of light pink.
- REINE MARIE HENRIETTE**—Flowers large and full; glowing crimson, elegantly shaded.
- REVE D'OR (Climbing Safrano)**—Color apricot yellow, with orange and fawn tints.
- RED CHEROKEE**—Growth and habit similar to pink and white Cherokee.
- WHITE CHEROKEE**—Strong erect grower. Large pure white flowers borne profusely.
- WILLIAM A. RICHARDSON**—Rich coppery yellow, flushed carmine; a beautiful variety.

## The Popular Rambler Roses

The Rambler Roses are strong, vigorous climbers, growing ten to twelve feet high in one season.

Price: Young plants 15c each; 4 sorts 50c; two-year-old plants, 35c each; dozen \$3.00.

- FLOWER OF FAIRFIELD**—Brilliant crimson, base of petals white; a splendid grower and a great improvement over the old type.
- PHILADELPHIA RAMBLER**—An improved type of the favorite Crimson Rambler; color, deeper, and more brilliant; flowers double.
- VEILCHENBLAU (Blue Rambler)**—Large trusses of semi-double flowers, opening pink, but quickly change to a violet, or steel blue.
- DOROTHY PERKINS**—Polyanthus type; a beautiful bright shell pink; large double flowers.
- RED DOROTHY PERKINS**—Fine crimson rambler; glossy green foliage; never troubled with mildew. Flowers very double.
- TAUSENDSCHON**—A lovely shade of soft pink, free and vigorous; splendid foliage.
- YELLOW RAMBLER**—Pure, bright yellow; same type and growth as Crimson Rambler.
- WHITE DOROTHY**—A sport from Dorothy Perkins, possessing all the fine qualities of that grand variety, but having pure, white flowers.



# ALPHABETICAL LIST OF ROSES

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Hoosier Beauty	1.00	100
Hugh Dickson	.35	102
Irish Elegance	.40	104

	Price	Page
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Jessie	.35	104
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Mrs. David Jardine	.40	102
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	Price	Page
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Rambler Roses	—	105
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Safrano	.35	103
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Tree Roses	—	104
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Flower Pot, Azalea or Fern Pots, Bulb Pan, Hanging Basket

## Flower, Fern, Azalea Pots, and Bulb Pans Same Price

Size	Each Dozen	Saucers
2-inch	\$0.02 \$0.20	Each
3-inch	.03 .30	
4-inch	.05 .40	\$0.04
5-inch	.07 .75	.04
6-inch	.10 1.00	.07
7-inch	.15 1.50	.10
8-inch	.20 2.00	.10
9-inch	.25 2.65	.15
10-inch	.40	.20
12-inch	.75	.30

## HANGING BASKETS

These are well made and are better than wire baskets, as plants do not dry out so quickly.

Size	Each	Doz.
8-inch	\$0.25	\$2.50
9-inch	.30	3.00
10-inch	.40	4.25
12-inch	.60	6.50

NOTE—At above prices we will pack the pots carefully, but buyer must pay freight or express charges.



## FOSTER ROSE TUBES

For Rosarians and Cut Flower Exhibitors FOR SHOWING ROSES

The Foster Exhibition tubes with adjustable clips, enable you to transfer flowers from one position to another without disturbing their arrangement. A wire holds the flower firmly in any desired position. Tubes afford an ample supply of water close to the rose. Used at all English shows.

Price each 25c—doz \$2.75

Our Nursery Catalog of  
Fruit, Shade and Ornamental Trees and Shrubs, Berry Bushes and Plants

Lists the best varieties for Northwestern Growers

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Florists, Nurserymen and Growers should send list of requirements for Special Prices

APHISCIDE—The Best Summer Spray for Roses—qt. 25c, gal. 60c, ready for use



## Ornamental Climbing Vines

### Clematis

Clematis is one of the most beautiful and useful climbers. Their magnificent flowers, borne in great profusion in beautiful shades of lavenders, purples, reds and white, make them especially attractive. Clematis requires a rich loamy soil, but manure should not touch the roots. Cut out the weak and surplus branches in the spring, and tie the vine up well to its support.

**DUCHESS OF EDINBURG**—Double, white.

**LAWSONIANA**—Light blue.

**VILLE DE LYON**—Red.

**RAMONA**—Beautiful lavender, best of its color.

**MONTANA**—White, anemone-like flowers. May to July; very hardy, rapid grower.

**HENRYI**—Fine, large, creamy white flowers; a strong grower and very hardy.

**JACKMANII**—Intense violet purple, with a rich velvety appearance; distinctly veined.

**MAD. ED. ANDRE**—A beautiful new variety; flowers red, large and abundant.

Choice plants of above sorts, each 60c

Large plants, each 75c to \$1.00, postpaid

**CLEMATIS PANICULATA**—A rapid and vigorous grower; it produces sheets of medium-sized, pure white flowers of the most pleasing fragrance; well adapted for covering trellises or fences.

Choice plants, each 35c to 40c; large, 50c to 60c.

### Honeysuckle

**BELGIAN**—Flowers yellow, blotched with red above; blooms all summer, fragrant. Each 50c

**JAPANESE**—Evergreen; fragrant flowers white changing to yellow. Each 35c

**HALL'S**—Evergreen, very popular; white turning to yellow. Each 50c

### Jasmine

**JASMINE NUDIFLORUM**—Branches drooping, enveloped with bright yellow flowers before leaves appear. Each 75c

**GARDENIA FLOWERED, CAPE JASMINE**—Free-blooming, pure white flowers, star shaped; foliage delicate; evergreen. Each 75c

### Pink Passion Vine

A rapid growing, attractive vine, flowering freely throughout the summer and fall. Plant out in April or May. Each 50c

### Wistaria

**W. SINENSIS**—(Chinese Wistaria)—Grows 15 to 20 feet in a season; has long pendulous clusters of pale blue flowers in May and June and in Autumn.

Choice plants, each 35c to 50c; large 75c to \$1.50.

**WISTARIA CHINENSIS VARIEGATED**—Yellow variegated leaves, pretty after flowering for the beautiful speckled foliage which is very attractive among other green foliage. Flower same as common Chinese Wistaria.

Each 75c to \$1.50

**W. MULTIJUGA**—Similar to Wistaria Sinensis except in color of flowers which are dark violet blue, borne in very long-racemes.

Each 75c to \$1.50

**WISTARIA MULTIJUGA PINK**—Same as above only flowers are light pink. A very rare sort.

Each 75c to \$1.50

**W. BRACHYBOTRYS**—White flowering.

Each 75c to \$1.50

### Ampelopsis

**VEITCHEI** "Boston Ivy"—Leaves glossy green, coloring bronze in fall; flowers small; berries deep blue. Each 35c

**QUINQUEFOLIA** "Virginia Creeper"—Common American Ivy. Each 35c

### English Ivy

Large, thick, shining, leathery leaves; evergreen. Each 25c

### Trumpet Vine

**BIGNONIA GRANDIFORA**—(Trumpet Vine)—Strong climber; deciduous; flowers orange scarlet. Each 50c

**BIGNONIA TWEEDIANA**—Evergreen clinging; flowers canary yellow. Each 50c

### Dutchman's Pipe

**ARISTOLOCHIA SIPHO**—A handsome bright green luxuriant vine, having large foliage and brownish, pipe-shaped flowers. A strong, rapid grower. Strong plants. Each 50c

### Kudzu Vine

Rapid climber with large heavy foliage; purplish flowers in racemes; during late August. Strong roots, 35c; doz. \$3.00

**ANNUAL VINES**—*Cobaea Scandens*, *Wild Cucumber*, *Canary Bird*, *Morning Glory*, *Nasturtiums*, etc. — **SEEDS AND PLANTS IN SEASON**



# DAHLIAS

**I**N THE SELECTION OF DAHLIAS only those varieties of known merit should be considered. The great Dahlia Specialists of Europe and America have set a high standard, established by their years of comparative trials and you will have greater satisfaction and better values from their tested varieties which we offer, and which have been officially recognized, than you can possibly obtain from untried varieties of doubtful origin.

**O**UR TRIALS ARE VERY EXTENSIVE and are conducted by a practical Dahlia expert of wide experience. All tests are made in the field without irrigation and the Dahlias we list represent the "survival of the fittest," the best of the standard varieties and meritorious novelties of the most famous producers, varieties that are recognized the world over. They are true to name, erect bloomers and good keepers.

**IT IS IMPORTANT** that your Dahlias be recognized varieties and **true to name**. If not, you cannot hope to exhibit them successfully.

## Culture

**D**AHLIAS will grow to perfection in any good garden soil, preferably one that contains a little sand. Plant as soon as the frost is gone and the ground warm, cutting the tuber to a single strong eye, and placing it on its side at a depth of about 6 inches, in ground that has been previously well cultivated. An excellent way to start Dahlias is to sprout the tubers in a green house and set out the rooted plants. These are generally believed to give more and better flowers, but is more trouble than planting the bulbs. Rows should be four feet apart, plants 18 inches to 3 feet apart in the row, depending on whether planted for a hedge or for specimen plants. Cultivate thoroughly until ready to bloom, then deep tillage must cease and only the surface be lightly stirred, as deep cultivation at this time is fatal to blooming. Tall varieties should be staked.

If you use commercial fertilizer, do not apply until the plant starts growth, then work it into the top soil, 5 or 6 inches from the plant. Bone meal is an excellent fertilizer for Dahlias but must be applied early, as it is slow in action. When the plant is well up, say 6 to 10 inches, pinch off the top, leaving 2 or 3 joints. This will cause it to branch out into a more sturdy, bushy growth. Water freely.

## FINEST CACTUS DAHLIAS

From comparative tests in the field we have selected the following as being the best of their types and color. This list contains many of the newest Dahlias as well as the best of the older ones.

**PRICES** 15c DAHLIAS \$1.50 doz.; 20c Dahlias \$2.00 doz.; 25c Dahlias \$2.50 doz.  
35c DAHLIAS \$3.00 doz.; 40c Dahlias \$4.00 doz.; 50c Dahlias \$5.00 doz.

Write for Prices by the Hundred.

## Red and Shades

**ARISTID GURTLE**—Flowers of enormous size, color brilliant orange-scarlet. **Each 35c**

**AUGENWEIDE**—Color is bright rose with deep rose center; full flower. **Each 35c**

**BISMARCK**—A most intense bright red, petals slightly incurved; early blooming. **Each 35c**

**DORNROSCHEN**—Variable from carmine to brilliant red, to delicate pinks with blush suffusions; large and free blooming, long stems. **Each 35c**

**DREADNAUGHT**—A giant flower, of deep crimson maroon; good keeper. **Each 35c**

**ELLA**—Deep rose of splendid cactus form. Without a rival in the deep pink shades. **Each 35c**

**ERB PRINCESSEN REUSS**—Blood-red crimson self, the best of its color. **Each 35c**

**GARIBALDI**—Brilliant rich scarlet, darker toward center with back of petals shading lighter. Long curled and twisted petals. **Each 75c**

**H. W. SILLEM**—(Cardinal King)—Rich cardinal red, of perfect form. **Each 25c**

**JOHN PEEL**—A deep rich crimson with lighter suffusion towards center. **Each 35c**

**KALIF**—Immense blooms of brilliant pure scarlet borne on long, strong stems. **Each 75c**

**MARIE PURRIER**—Large brilliant blood-red flower, with slender dainty incurved petals. **Each 50c**

**MATCHLESS**—Dark rich crimson. **Each 20c**

**MINNIE BIRGLE**—Bright, rich, red. **Each 35c**

**MRS. A. P. HOWARD**—Fiery red with satiny sheen; vigorous and free blooming. **Each 35c**

**MRS. FERDINAND JEFFRIES**—Immense deep velvety garnet red flowers. **Each 50c**

**MRS. HENRY WIRTH**—Rich geranium red, very free flowering. **Each 25c**

**MRS. SUZANNE B. HOLMES**—A superb dark crimson-maroon of finest form. **Each 35c**

**M. INMAN**—A bright orange vermilion of largest size; long, narrow petals. **Each 50c**

**OLYMPIC**—Deep rich crimson. **Each 50c**

**OTHELLO**—Deep, rich crimson, center almost black; one of the earliest. **Each 35c**

**PROGENITOR**—Bright carmine. **Each 20c**

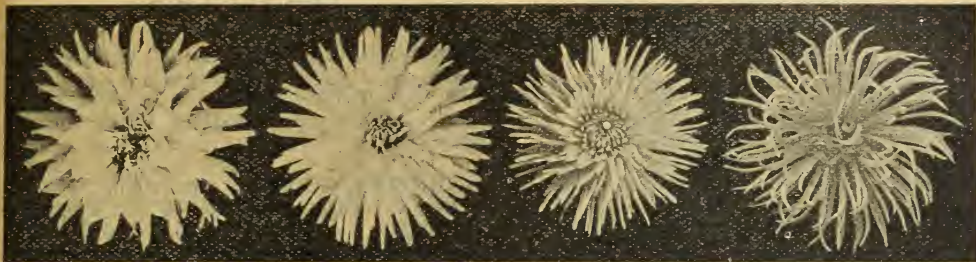
**RENE CAYEUX**—Brilliant geranium red. Dwarf compact growth suitable for hedge. **Each 25c**

**SIGNAL**—Brilliant crimson scarlet; flowers large, of fine form; free blooming. **Each 25c**

**UNCLE TOM**—Dark maroon, medium size; quite free. **Each 15c**



## Cactus Dahlias (Continued)



### Pink and Shades

- BRITANIA**—Beautiful salmon-pink. Ea 25c
- COUNTESS OF LONSDALE**—Rich, rosy-salmon, very floriferous; one of the best. Ea 25c
- FREDERICK WENHAM**—Warm fawn-pink, with soft salmon at the center. Immense flowers are partially incurved. Each 50c
- GALATHEA**—A delicate soft flesh pink of finest form; flat petaled type. Each 60c
- GONDOLA**—Beautiful shade of pink; with old-gold penciling; lighter at tips. Each 35c
- GWENDOLINE TUCKER**—A dainty rose color with lighter center, petals incurved. Ea 50c
- HELENE**—Delicate, clear pink, with rich, creamy center, profuse bloomer. Each 15c
- MARGUERITE BOUCHON**—Brilliant rose with white center and white tips. Each 35c
- KRIEMHILDE**—Blush pink; a prize winner; one of the finest dahlias. Each 20c
- MRS. J. B. CHAFFEY**—A deep rich rose-pink of superb form; splendid for cutting. Price 35c
- MRS. WILLIAM H. TAFT**—Lovely pink of La France rose, with lighter center. Each 35c

### Lavender

- INDOMITABLE**—Long, narrow petals, perfectly incurved; in color a rosy mauve. Each 50c
- MAUVE QUEEN**—A beautiful true lavender with lighter center, petals incurved. Each 35c

### Variegated and Shaded

- COMET**—Extra large, silvery rose, marked crimson, a very free bloomer, of good habit. Each 25c
- CURIOSITY**—Large white flower with claw shaped petals, penciled rose carmine. Ea. 50c
- H. L. BROUSSON**—Color is salmon-rose on a pale yellow ground, showing lighter center and tips. Petals twisted and incurved. Ea. 75c
- RELIABLE**—A blending of yellow, brick-red and salmon; truly a grand flower. Each 25c

### White

- THE BRIDE**—A pure, glistening milky white, golden variegated foliage. Each 25c
- GUNTHER**—Pure white with broad twisted petals on stiff stems. Large, beautiful. Ea. 25c
- LAWINE**—Fine large white, faint blush tint, erect, free-flowering; extra good. Each 25c
- RHEINKOENIG**—(King of the Rhine) Dazzling snow-white of magnificent form. Ea. 35c

### Yellow and Shades

- CAPSTAN**—Orange-scarlet and apricot; fine for cut flowers; dwarf-habit. Each 15c
- DRAGON D'OR**—A magnificent deep rich yellow of mammoth size. Petals broad. Ea. 25c
- DR. ROY APPLETON**—The finest of the straight petal type; a beautiful light lemon yellow, merging to light salmon. Each \$1.00
- ENCORE**—A pleasing shade of orange-buff, incurved petals, strong stems. Each 35c
- FLOSSIE RIDEOUT**—Pure deep yellow with finest needle-like petals, sometimes with distinct pure white tips. Each 35c
- GELBER PRINZ**—A grand new yellow of Marechal Neil shade. Flowers extra large. Each 60c
- GENOVEVA**—Pale canary yellow, with a beautiful faint greenish tinge suffusing the entire flower. Well filled incurved petals. Ea. 25c
- GOLDEN WAVE**—A magnificent clear deep yellow; petals long and narrow. Each 50c
- GOLD REGEN**—Twisted petals, deep bright yellow; long stiff stems. Each 40c
- IVERNIA**—Bright salmon fawn. Each 35c
- JOHANNESBERG**—Agiant golden yellow of great brilliancy; long stems. Each 50c
- MODELL**—Clear waxy yellow with a delicate plum blush sheen over tips of petals. Each 50c
- MRS. WM. E. RUSSE**—A most pleasing yellow with chamois center, the broad twisted petals edged plum shading to old rose. Ea. 50c
- NEW YORK**—Color, orange-yellow center shading off to deep bronze-salmon. Each 35c
- WODAN**—Flowers of largest size; color orange-rose shading to old gold center. Each 50c



## PAEONY FLOWERED DAHLIAS

**T**HE rare new shades, brilliant coloring and giant size are not found in any other class of flowers. Paeony Dahlias bloom more freely than any other class and are very vigorous, growing to a height of 5 to 6 feet.

**ANDREW CARNEGIE**—Salmon-pink, shaded bronze; petals somewhat flat. **Each 35c**

**AMERICA**—A glowing old rose overlaid with a rich shade of old gold. Flowers 7 to 9 inches across; twisted petals. **Each 35c**

**A. SCHUTTEVAER**—White ground with lilac suffusion. Rare and beautiful. **Each 35c**

**BEAUTY OF CROYDON HALL**—Shades of lilac, salmon and pink. **Each 35c**

**BERTHA VON SUTTNER**—Salmon-pink, shaded yellow, erect, elegant form. **Each 35c**

**DOMINION**—Bright rosy red, shading rose-pink toward edges; ornamental foliage. **Each 35c**

**DR. PEARY**—Brilliant, dark, velvety garnet red with deep golden center enhancing the brilliancy of the pure self-colored petals. **Each 50c**

**EILEEN KELWAY**—Golden yellow overlaid cerise with yellow center. **Each 50c**

**GEISHA**—Bright yellow ground color; heavily marked with clear, bright red, shading toward points of petals into clear yellow; the massive petals are twisted and curled in the most fantastic manner. **Each 50c**

**GERMANIA**—A rich, dark, velvety wine color, with suffusion of golden-yellow toward the edges of petals. **Each 35c**

**GIANT EDELWEISS**—A pure glistening velvety white, with brilliant golden yellow center. **Each 35c**

**GLORY OF NYKERK**—Dark, violet red, overlaid with blackish crimson. **Each 50c**

**GREAT BRITAIN**—A pleasing light mauve with dark markings toward center. **Each 50c**

**HORTULANUS FIET**—Bright salmon rose on old gold and orange, lighter towards tips. A magnificent flower. **Each 50c**

**HORTULANUS WITTE**—A wonderful giant white of great beauty; large stems. **Each 50c**

**JAN OLIESLAGERS**—Clear deep yellow. Flowers on long erect stems. **Each 50c**

**KING GEORGE**—Rich wine red, large, full flower, conspicuous and attractive. **Each 35c**

**LA HOLLANDE**—Light rose with golden suffusion that deepens toward the center. **Each 50c**

**PRESIDENT FALLIERS**—Orange red of a most pleasing shade. Free bloomer. **Each 35c**

**P. W. JANSSEN**—Lovely shade of old rose, marked and suffused with deep, rich golden yellow. **Each 35c**

**QUEEN EMMA**—A bright pink with darker pink penciling and narrow yellow shading in center of petals. **Each 35c**

**THE BRIDE**—A giant fluffy flower. Color silvery white; center petals twisted. **Each 50c**

**ZEPPELIN**—Rich, bright lavender, largest size, well poised on big strong stems. **Each 35c**



*Mrs. Warnaar*

**LEO XIII**—A giant yellow, rich, deep and brilliant. Petals twisted and incurved. **Ea. 50c**

**MADAM VON BYSTEIN**—A magnificent lilac lavender, changing to light blue. **Each 50c**

**MME. BUTTERFLY**—Soft salmon rose, having a rich golden sheen. **Each 50c**

**MRS. WARNAAR**—A gem among the many wonderful new Dahlias. Creamy white suffused pink of distinctive form. **Each 75c**

**OREGON BEAUTY**—Bright fiery scarlet with golden sheen. Free blooming. **Each 35c**

**PHILADELPHIA**—Rich reddish-purple, suffused and marked with white. **Each 35c**



Paeony Flowered Dahlias are specially valuable for garden display and cut flowers





# Dahlias (Continued)

## Decorative Dahlias

A Magnificent Collection of the Best of this Superb Type

- DELICE**—(Decorative)—Lovely shade of pink, broad petaled flowers. **Each 35c**
- GAIETY**—Vivid scarlet, heavily marked with pure white; excellent for cut flowers. **Each 35c**
- JEANNE CHARMET**—A beautiful lilac pink; each petal edged with white. **Each 25c**
- LAVENDER QUEEN**—Clear, soft lavender; petals deeply serrated. **Each 15c**
- LE GRAND MANITOU**—A white ground splashed and striped with violet red. **Each 35c**
- MME. A. LUMIERE**—Pure white with violet-red points, good. **Each 25c**
- MRS. WINTERS**—Snow white, large, beautiful form. **Each 20c**
- MEADOW GOLD**—A lovely, clear lemon, shading to creamy tips; free bloomer. **Each 35c**
- PRINCESS JULIANA**—Pure white, of perfect form; foliage is rich dark green. **Each 50c**
- REISEN VON STUTTGART**—A bright blood red; of great size and beauty. **Each 35c**
- SOUVENIR DE GUSTAVE DOAZON**—Magnificent rich scarlet, often growing 9 inches in diameter; constant bloomer. **Each 25c**
- MME. OCTAVIE GRAINDORGE**—A magnificent pure white, of great beauty of form. **Each 50c**

## Show Dahlias

- A. D. LIVONI**—This grand old variety still remains the best pink of its type. **Each 15c**
- DIADEM**—Brilliant rich crimson. **Each 25c**
- DREER'S WHITE**—A magnificent white of largest size, great purity, long stems. **Each 35c**
- FRANK SMITH**—Very dark rich red with light tips, variable; a fine full flower. **Each 15c**
- GOLDEN BOW**—Large rich yellow. **Each 35c**
- GRAND DUKE ALEXIS**—A giant glistening, clear white flower, with the daintiest of lavender flakes or markings near center. **Each 25c**
- JOHN BENNETT**—Yellow, deeply edged scarlet; very free bloomer; desirable color. **Ea. 25c**
- LUCY FAWCETT**—Light canary-yellow, with penciling of clear magenta. Very free. **Each 20c**
- MRS. ROOSEVELT**—A beautiful, delicate pink, of immense size; large and double. **Each 35c**
- NORMA**—Pure old gold with delicate plum suffusion that adds to its brilliancy. **Each 25c**
- THOS. PENDRED**—Soft shade of golden yellow; blooms freely and continuously. **Each 25c**
- YELLOW KING**—Magnificent pure rich yellow of large size and splendid form. **Each 75c**
- W. W. RAWSON**—Pure white overlaid with amethyst blue. **Each, 50c**

## Pom Pon Dahlias

These are pretty little globe shaped flowers on long stems, high above the dwarf foliage, fine for border, keeps well when cut.

- BESSIE**—Creamy white, finely quilled. **Ea. 15c**
- CATHERINE**—Purest yellow; large. **Each 20c**
- DARKEST OF ALL**—Darkest pom-pon; perfect flowers. **Each 20c**
- GUINEVERE**—Pale salmon and yellow suffused and shaded pink with distinct gold tips. **Ea. 20c**
- GLOW WORM**—Rich yellow center with red tip, shading lighter toward center. **Each 20c**
- HYPATICA**—Amber shaded fawn edge and center lighter. **Each 20c**
- LILACEA**—Pale blush pink tipped rosy lilac. **Each 20c**
- LITTLE HERMAN**—Deep carmine, shaded garnet; tipped white. **Each 20c**
- NERISSA**—Soft pink, silvery tint; a beautiful new color. **Each 20c**
- POMPONIA**—Bright amber edged rosy cerise. **Each 20c**
- WHITE ASTER**—("Guiding Star")—Pure white flower with tips of petals cleft. **Each 20c**

## Collarette Dahlias

Of French origin, having single flowers with an additional row of petals around the disc, forming a frill or collar usually of a contrasting color.

- ALBERT MAUMENE**—Rosy mauve, suffused with lilac, white collarette, fine stems. **Ea. 35c**
- COLLARETTA**—Lovely rose-shaded pink, yellow and rose collarette; very pretty. **Each 35c**
- FINE FLEUR**—Shades of fawn, apricot and yellow. Yellow collarette, very distinct. **Ea. 35c**
- TITANIA**—Deep crimson, edged rosy lake, white collarette. **Each 35c**

## Dwarf Mignon Dahlias

- NEW "MIGNON" DAHLIAS**—A new dwarf type of single flowered Dahlias, growing to a height of about 14 inches. Plants are bushy and produce in the greatest profusion brilliant large flowers. They make a grand garden display and are long keepers when cut. We offer in four colors: *Brilliant Orange, Velvety Crimson, Yellow and Violet.*

Price each 15c—doz \$1.50

## GLADIOLI

**E**XQUISITE coloring, vigor, ease of cultivation and freedom from insect pests and diseases are making Gladioli universal favorites that should have a place in every garden. They come into bloom at a season when there are few other flowers.

**CULTURE**—*Gladioli may be planted as early as the ground can be worked or as late as June. A sunny situation is preferred. Plant to a depth of 3 to 6 inches, depending on the size of the bulb. Largest bulbs are not always best, as some varieties do not produce large bulbs. Any garden soil will give satisfactory results, but if well enriched, cultivated and freely watered when bulbs first show, Gladioli will amply repay you for this additional care. If cut when the first bud opens and put in water, the flowers will open perfectly, keep for many days, and coloring is richer and more delicate than if left to open on plant.*

### Beautiful New Gladioli

**EUROPA**—Snow white without a trace of color or shading. A grand flower of great beauty and substance. **Each 20c; doz. \$2.00**

**FASCINATOR**—Large salmon-pink flowers tinted with flames of carmine; throat-blush with carmine-lake pencilings. **Each 15c—dozen \$1.50**

**GOLDEN KING**—Bright sulphur yellow with an intense crimson patch on the lower petal. One of the best yellows. **Each 20c; doz. \$2.00**

**HALLEY**—Salmon pink with creamy white blotch. Large flower and early bloomer. **Each 10c; doz. \$1.00**

**PINK PERFECTION**—Clear soft pink of great beauty. The large graceful flowers bloom freely, 6 to 8 flowers showing at one time. The most wonderful pink ever introduced. **Each 20c; doz. \$2.00**

**WHITE GIANT**—Magnificent clear white of large size and fine form. Flowers freely. Strong and vigorous. **Each 8c—dozen 75c**

**WAR**—A deep rich, velvety crimson self color. Many consider "War" the most striking Gladiolus ever produced. **Each 20c; doz. \$2.00**

**WILLIE WIGMAN**—Creamy white with red throat, large perfect flowers of the most pleasing type. **Each 15c; doz. \$1.25**

### Select Named Gladioli

**INDEPENDENCE**—Pleasing light scarlet flowers on long, straight spikes. **Each 8c; doz. 75c**

**KLONDYKE**—Light yellow, crimson maroon blotch. **Each 6c; doz. 60c**

**MRS. FRANCIS KING**—A pleasing light scarlet; fine for forcing. **Each 6c; doz. 60c; 100 \$3.00**

**PEACE**—Large flowers of good form; almost pure white; strong grower. **Each 15c; doz. \$1.50**

**PINK BEAUTY**—Brilliant rich rose pink with heavy dark maroon blotch in the throat. An early blooming variety. **Each 6c—dozen 60c**

**PRINCEPS**—Giant flowers of richest, most brilliant crimson, with fine white blotch on lower petal. **Each 10c; doz. \$1.00**

**ROSEA SUPERB**—A superb brilliant flower as its name implies, opening very freely. One of the most satisfactory pinks. **Ea. 10c—dozen \$1.00**

### Mixed Gladioli

**GLADIOLI, FINE MIXED**—A large variety of fine flowers unequalled for the price. **Each 4c; doz. 35c; 100 \$2.50**



*Gladioli are very pleasing in groups on the lawn or in the foreground of shrubbery.*

**LILY LEHMAN**—Brilliant light pink shading to blush white. Flowers resemble a lily. One of the best sorts. **Each 10c—dozen \$1.00**

**MRS. FRANK PENDLETON**—A clear brilliant salmon pink with bright blood-red blotch in throat, on lower petal. A superb flower of largest size, opens freely and keeps well. **Each 20c; doz. \$2.00**

**NIAGARA**—Lovely deep cream, shading to a canary yellow on the two lower inside petals. The giant flowers open freely and contrast beautifully with the broad, dark green foliage. **Each 15c; doz. \$1.50**

**PANAMA**—A new seedling of America, identical except in color, which is much deeper pink. Spike long and the large flowers are well arranged and bloom out freely. **Each 15c; doz. \$1.25**

**AMERICA**—Exquisite shade of flesh pink-tinted lavender. **Each 6c; doz. 60c; 100 \$3.00**

**BARON HULOT**—The only true blue Gladioli; a dark indigo shade. **Each 10c; doz. 90c**

**CANARY BIRD**—A pleasing bright yellow. **Each 10c; doz. \$1.00**

**"GLORY"**—A delicate cream pink tint with an attractive crimson stripe in the center of each lower petal. From 4 to 8 flowers open at the same time, petals are exquisitely ruffled and fluted. **Each 10c; doz. \$1.00**

**GLORY OF HOLLAND**—White with inner throat slightly marked red, sometimes tinged delicate pink. **Each 10c; doz. \$1.00**

**GOLDEN WEST**—A splendid variety of bright orange color, very showy and brilliant. **Each 10c—dozen \$1.00**

**DIAMOND MIXTURE**—Select named varieties with choicest Childsi Hybrids. **Each 8c; doz. 75c; 100 \$5.00**

## CANNAS

WE are extensive growers of Cannas, and the following sorts are newer and better types that will give best results in our climate. Cannas require a rich, moist soil and should not be planted until all danger of frost is past. They are quick growers and the new flowering sorts bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be excelled, and the grand new varieties offered are equally valuable for the beauty of their bloom. Let us know your requirements. We can supply the correct variety.

**Prices, except where noted: Bulbs or plants in season, each 25c; dozen \$2.50, postpaid**

**ALICE ROOSEVELT**—Deep crimson, compact green foliage. Height 4 to 5 feet.

**CARL LUTZ**—Bright rich yellow; foliage leathery and luxuriant. Profuse bloomer. Height, 3½ feet.

**DR. NANSEN**—Dwarf yellow Canna with green foliage. Fine for borders; height about 2½ ft.

**FEURMEER**—Magnificent clear bright red, flowers freely produced; foliage deep green. Height, about 5 feet.

**FIREBIRD**—New. Considered the best red-flowered, green-leaved Canna. Flowers are fiery, bright red, borne in immense trusses. Height 4 ft. **Each 75c; doz. \$8.00**

**FLORENCE VAUGHAN**—A deep, bright yellow mottled and marked with bright red. Green foliage. Height, 4 to 5 feet.

**GUSTAV GUMPPER**—A rich, clear golden yellow, flowers freely produced. Height 3 to 4 feet.

**HUNGARIA**—A beautiful soft rose pink—flowers early, freely, continuously. Height, 3½ ft.

**KING HUMBERT**—The mammoth flowers are a brilliant orange-scarlet, with bright red markings, foliage is broad and of a rich coppery bronze with brownish green markings; 5 to 6 feet.

**LOUISIANA**—Foliage green-edged bronze. Flowers brilliant scarlet. One of the most attractive of the Orchid flowering Cannas. 6 to 7 ft.

**METEOR**—One of the best reds, being a deep dazzling crimson. Free bloomer. Green foliage. 5 feet.

**MRS. ALFRED F. CONARD**—Superb salmon pink flowers of large size, freely produced, very luxuriant green foliage; height about 4 feet.

**MT. BLANC**—A compact vigorous grower, producing large, pure white flowers, glossy green foliage.

**OLYMPIC**—A rich oriental red with center flamed a lighter shade and dappled carmine. Flowers are of largest size and produced in immense clusters. 5 feet.

**PORTLAND**—A magnificent "Testout" pink with salmon suffusion. Luxuriant green foliage, very vigorous and hardy.

**STUTTGARTIA**—The large flowers are brilliant orange-scarlet with bright yellow band and markings. Foliage, luxuriant dark green. Height 4 to 5 feet.

**WABASH**—Sometimes called the "Bronze leaved Rosea Gigantea." The immense carmine-pink flowers combined with the deep purple-brown foliage makes this especially attractive. Height 4 feet.

**WINTZER'S COLOSSAL**—Without doubt the largest flowering Canna, the blooms measuring 8 inches across. Flowers are an intense vivid scarlet of the orchid flowering type. Foliage green; 5 to 6 feet.

## Miscellaneous Ornamentals

### Bleeding Heart

**SPECTABILIS**—Hardy spring flowering plants, with elegant green foliage and long, drooping heartshaped flowers. **Each 30c, postpaid**

**PAMPAS GRASS**—Ornamental grass, easily grown, producing long, pointed leaves and majestic, silvery white plumes; 6 to 8 feet high.

**Strong roots, each 60c to 75c**  
**Large specimen plants, \$2.00 to \$5.00**

**St. Johns Wort**  
(*Hypericum Moserianum*)

Low growing with yellow blooms; a drought resister. July and August. **Clumps 50c**

### Tritoma (Pfitzeri)

**EVERBLOOMING FLAME FLOWER**—(or **Red Hot Poker**)—Rich orange-scarlet, blooming from mid-summer to latest fall; spikes 3 to 4 feet high; winters best if lifted and stored in sand. Fine for borders or mass effects.

**Strong flowering roots 25c, doz. \$2.50 postp'd**

### Yucca

**SPANISH BAYONET OR ADAM'S NEEDLE**—Bell-shaped flowers on laterals, forming a perfect pyramid; fine for rockwork. 2 to 3 ft.

**FILAMENTOSA**—Thread leaved, creamy white; July. **Plants, 2 feet, each 75c to \$1.00**

**HEDGES** We can supply Holly, Privet, Laurel, Hawthorne, Roses and any of the evergreens for ornamental or utility hedges or windbreaks. Write us

**Fruit and Ornamental Trees, Berry Bushes and Plants, Roses and Flowering Bulbs**—*Best varieties for Northwestern growers fully described in our Nursery Catalog. Mailed Free on Request*

# PERENNIAL BORDER AND BEDDING PLANTS



**W**E offer well-rooted specimens that can be safely packed and promptly delivered in perfect condition. If you contemplate large plantings or special effects, let us know your plans and requirements. We can supply in any quantity for every requirement at lowest prices.

By proper arrangement cut flowers and a grand garden display can be obtained throughout the season. The great advantage in planting perennials is their permanency and the fact that they require so little care.

Plants marked 15c, are \$1.50 doz.; 20c, \$2.00 doz.; 25c, \$2.50 doz., F. O. B. Portland.

- ACHILIEA** (The Pearl)—Pure white flowers, 2 ft. high. **Each 15c**
- ACONITUM** (Monkshood or Helmet Flower)  
—*Napellus*—Large dark blue flowers, 4 ft. high, invaluable for semi-shady places. **Each 25c**
- AGROSTEMMA** (Rose Campion)—*Coronaria Alba Hort*—Silvery white foliage. June, July, 2½ to 3 ft., flowers rosy crimson. **Each 15c**
- ALYSSUM SAXATILE COMPACTUM**—Bright yellow corymbs; showy Spring flowering plant—also flowers in Autumn. **Each 20c**
- ANCHUSA**—*Myosotidiflora*—Beautiful sprays of forget-me-not-like flowers of rich blue. April and May. **Each 25c**
- ANCHUSIA ITALICA**—Tall growing hardy plant, with pretty blue flowers in large racemes. **Each 20c**
- ANEMONE JAPONICA**—Beautiful Fall blooming plants. Pink or white. **Each 20c**
- ANTIRRHINUM**—(Snap Dragon). Pink, Red, White, Orange, Bronze, Yellow. Tall and dwarf. Clumps, **Each 15c**; Small Plants, doz. **50c**
- AQUILEGIA HYBRIDA**—(Columbine). An old favorite for Spring and early Summer. Blue, violet, pink. Fine for cut flowers. **Ea. 15c**
- ARABIS** (Rock Cress)—Very early spring flowering plants especially adapted for edging and borders. Pure white flowers.  
*Alpina Grandiflora*—Single. **Each 15c**  
*Alpina Floro Pleno*— **Each 25c**
- ARTEMISIA** (*Lactiflora*)—Hardy bright white flowers in Aug. and Sept., 4 to 5 ft. **Each 25c**
- ARTICHOKE**—Ornamental garden plant, bearing edible buds that develop into giant thistle-like blooms. **Each 15c; doz. \$1.50**
- AUBRETIA**—Pretty dwarf growing rock plants, silvery-green foliage and sheets of flowers in early spring and summer.  
*Bougainvillei*—Purple. **Each 15c**  
*Leichtlini*—Pink. **Each 15c**
- BOLTONIA** (False Chamomile)—Large, single aster-like flowers. Blooms during the summer and autumn months.  
*Asteroides*—Pure white, 6 to 7 ft. **Each 15c**  
*Latisquama*—Pink slightly tinged with lavender, 4 to 6 ft. **Each 15c**
- CAMPANULA**—A dainty and beautiful flower, 2 to 2½ feet high, bearing spikes of large double snow white blossoms. Pinch off the old flowers and the plant will bloom continuously. Fine for borders or bedding. **Each 25c**
- CANTERBURY BELLS**—Pink, white, blue, large clumps. **Each 20c; doz. \$2.00**
- CHELONE** (Shell Flower) *Barbata*—Brilliant, rosy color; 2 to 3 ft. high. **Each 15c**
- COREOPSIS**—(Golden Sunbeams). Beautiful golden-yellow; fine for cutting. **Each 15c**
- DIANTHUS** (Hardy Pink). **Each 15c**
- DORONICUM**—Early Spring Marguerite-like yellow flowers. Fine border plant. **Each 20c**
- ECHINOPS** (Globe Thistle) *Ritro*—Thistle-like plant with globular heads of deep metallic blue flowers, which can be dried. Flowers in August. 2 to 3 ft. **Each 25c**
- ENGLISH PRIMROSE**—Finest sorts, from pure yellow to deepest crimson-maroon; early, low-growing, fragrant. **Each 20c**
- FOX GLOVE**—(*Digitalis*). Tall *Gloxinia* Flowered. Pink, White and Blue. **Each 15c**

## Hardy Perennial Garden Plants—Continued

- GAILLARDIA**—(Blanket Flower.) *Grandiflora Maxima*.—Combination coloring of yellow, brown, crimson, orange; height, 2 feet; bloom until frost; fine for cut flowers. **Each 20c**
- GALEGA** (Goats Rue) *Officinalis*—Flowers white and blue, 2 to 3 ft., all summer. **Ea. 15c**
- GEUM**—(Atrocinum).—A splendid bed or border plant—18 to 24 inches—bearing freely, dainty little double red flowers. **Each 20c**
- GIANT DAISIES**—Pink and white. **Each 15c**
- GYPSOPHILA**—(Baby Breath.) *Paniculata*.—Single and double; thrives during driest weather; elegant rock plants and very useful for cut flowers. **Each 20c**
- HARDY ASTERS**—Among the showiest of late flowering plants. The colors are dainty blues, shades of red, pink and white. **Each 15c**
- HELENIUM** (Sun-bridle or Sneeze-wort)—Very desirable border plant, broad-spreading heads of flowers, useful for cutting. Red, yellow, brown. **Each 25c**
- HELIANTHUS** (Hardy Sunflower)—Effective hardy plants for large borders and planting among shrubbery. Flowers, golden-yellow.
- Multiflorus Maxima*—Golden-yellow flowers, July to August. **Each 15c**
- Multiflorus flore pleno*—(Double hardy Sunflower)—July and August, 4 ft. high. **Each 15c**
- Soleil d'or* (Golden Sun)—August and Sept., 3 to 4 ft. high. **Each 15c**
- HELIANTHUS SPARSIFOLIA**—Superb new single sunflower of striking beauty; blooms late in the season. **Each 15c**
- HELIOPSIS** (Orange Sunflower)—July and August. Similar to Helianthus but earlier. Dwarf habit, fine for cut flowers. **Each 15c**
- Pitcheriana*—Beautiful deep golden yellow flowers about two inches in diameter. **Each 15c**
- HEUCHERA SANGUINEA**—Dainty alpine plant requiring shade of a rockery or fernery. The bell-shaped coral red flowers are borne on wiry stems about 18 inches. **Each 25c**
- HOLLYHOCKS**—Good soil required, work in well rotted manure; water during dry weather.
- New Double and Single**—Red, yellow, pink, and white. **Each 15c; 4 for 50c**
- Large clumps,** **Each 25c; doz. \$2.50**
- LYNCHNIS** (Campion)—Excellent for border and rock gardens. Brilliant orange-scarlet.
- Chalcedonica*—June and July, 2 to 3 ft. **Each 15c**
- Haageana*—May to June, 12 inches. **Each 15c**
- MARGUERIETE MRS. F. SANDERS**—(Annual). Valuable for conservatory or window garden in late winter or spring; excellent bedding plant during summer months; color, pure glistening white. **Each 15c; doz. \$1.50**
- MYOSOTIS** (For-get-me-not)—*Dissitiflora*—Little blue star-like flowers. Useful for borders and half shady places. **Each 10c**
- PENTSTEMON** (Beard Tongue) *Hybridum*—Large Gloxinia-like flowers, in all colors from white to deep crimson, 2 to 3 ft. high. **Each 15c**
- PLATYCODON** (Balloon flower or Japanese Bell Flower)—2 to 2½ ft. high. After the third season the plant will have ten to twelve stalks covered with lovely blue blossoms for nearly a month, beginning about July first.
- Mariesi*. **Each 15c**
- PLUMBAGO** (Lead-wort) *Capensis*—A shrub-like perennial growing 3 to 5 ft. high, similar to the Phlox. Large trusses of lavender-blue flowers. **Each 25c**
- PLUMBAGO LARPENTAE**—Fine edging plant, growing four inches high and covered all Summer with sky blue flowers. **Each 15c**
- PYRETHRUM** (Persian Daisy)—Of easy culture in any garden soil where there is good drainage and full exposure to the sun. They prefer to be undisturbed for two or three years, bloom in June—*Hybridum*. **Each 20c**
- RUDBECKIA**—(Golden Glow)—Bears in profusion immense double blooms of the brightest, golden yellow; hardy everywhere. **Each 15c**
- RUDBECKIA NEWMANI**—(Black-eyed Susan). Golden yellow ray petals around a dark center. Fine cut flowers. **Each 15c**
- SALVIA PATENS**—A beautiful plant of the purest blue, blooms June to October. Is not quite hardy and needs some protection. 1½ to 2½ feet. **Each 25c**
- SANTOLINA** (Lavender Cotton)—A dwarf evergreen perennial with attractive silvery-white foliage, useful as a rock or border plant.
- Chamaecyparissus incana*—Flower heads light yellow. **Each 15c**
- SCABIOSA**—Handsome border plant.
- Caucasica* (Blue Bonnet)—A soft shade of lavender, blooms June to Sept. Stems 18 to 24 inches. **Each 25c**
- SEDUM** (Stone Crop)—Suitable for rockery carpet bedding, etc.
- Album*—Green foliage and white flowers. **Ea. 15c**
- Lydiium glaucum*—Glaucous foliage. **Each 15c**
- SHASTA DAISY**—(Alaska). Immense, fluffy white blooms, with golden eyes, from July until late Fall; fine for cutting; splendid border plants. **Each 20c**
- STATICE** (Sea Lavender)—Valuable for border or rockery, with tufts of leathery leaves and immense candelabra-like heads. They last for months when cut and dried. Bloom June to Sept.
- Incana*—White minute flowers. **Each 15c**
- Latifolia*—Minute purplish blue flowers. **Ea. 25c**
- STOKESIA** (Cornflower Aster) *Cyana*—Handsome lavender blue cornflower-like blossoms which measure from 4 to 5 inches across. Desirable as a single plant or grown in beds. 18 to 24 inches high, June to Sept. **Each 15c**
- SWEET WILLIAM**—Old favorites for beds and borders. **Each 15c**
- VALERIANA** (Garden Heliotrope)—Decorative plant for the rockery, with strong heliotrope odor.
- Officinalis*—Rose tinted white flowers during June and July. **Each 15c**
- Coccinea Rubra*—Rose-pink flowers; blooms in May; 2 ft. high. **Each 15c**
- Cocina floralba*—Pure white flower tufts. **Ea. 15c**



## Hardy Perennial Garden Plants—Continued

**VERONICA PROSTRATA**—Splendid for rock gardens and edges of borders; color deep blue. Blooms May to August. **Each 15c**

**VERONICA REPENS**—(Creeping Speedwell)—Slender compact plant with blue flowers. Thrives in the sun where grass will not grow. Fine for rock work. **Each 15c**

**VIOLA**—Fragrant plants which grow in half shady places and begin to flower early in the spring. Double and single—colors violet, blue or white. **Each 15c**

**WALLFLOWER**—(Dark and Light; single and double; mixed), good subjects for rock garden and spring bedding. **Each 20c**

### Perennial Phlox

**HARDY** everywhere. The marvelous new colors, beautiful foliage and easy culture make this choice flower one of the most desirable for beds, borders or lawn groups where permanent effects are desired. **Each 15c; doz. \$1.50**

**ANTONIN MERCIÉ**—Medium; light ground color; upper half of each petal deeply suffused bluish-lilac, large white halo.

**ATHIS**—Tall magnificent salmon pink, free and continuous bloomer.

**COQUELICOT**—Scarlet, with crimson eye.

**DIADEM**—Large flowering, pure white—dwarf.

**EUROPA**—Medium; immense trusses of pure white with distinct crimson eye.

**GOLIATH**—Truly a giant in growth; color bright crimson carmine, deeper eye.

**GEO. A. STROHLEIN**—Medium bright scarlet with crimson red eye; does not bleach.

**HUXLY**—Medium; a beautiful lavender.

**MME. PAUL DUTRIÉ**—Tall; delicate lilac rose, reminding one of beautiful soft pink Orchids.

**MRS. JENKINS**—The best tall early white for massing.

**R. P. STRUTHERS**—Tall, rosy carmine, with claret-red eye; fine.

**SELMA**—Tall; large flower; pale rose mauve with claret eye.

**SUNSHINE**—Dwarf; large, aniline-red with crimson-red eye and light halo.



**VESUVIUS**—Medium; pure red with bright purple eye; a dazzling color.

**VON LASSBURG**—Medium; one of the largest flowered purest whites in cultivation.

### Phlox for Rock-work

**PHLOX SUBULATA**—(Moss or Mt. Pink).—Early spring flowering; useful for carpet bedding, cemetery planting or rockeries.

**PHLOX DIVARICATA CANADENSIS**—Blooms early April, has large, beautiful lavender flowers; grows 10 inches high.

### Larkspur—Delphiniums

**HARDY LARKSPUR**.—One of the most beautiful and useful border plants; vigorous, free-blooming and hardy. The following named varieties are among the best—and the hybrids are the selection of a famous specialist.

**PRICES** Named Varieties—Fine Large 2-year Clumps. Each, 25c; per dozen, \$2.50. Mixed—Each, 20c; per dozen, \$2.00.

**BELLADONNA GRANDIFLORA**—Clear, delicate turquoise; a strong grower.

**DELPHINIUM FORMOSUM**—Dark blue with white center.

**DUKE OF CONNAUGHT**—Large flower of bright velvety-blue with inner petals of rosy-lavender, eye nearly black.

**HANS DEKKING**—Very free flowering sort having flowers of a brilliant cornflower blue.

**KING OF DELPHINIUMS**—Giant semi-double flowers, deep blue with white eye.

**MASTERPIECE**—Lovely deep gentian-blue and plum. Reflexed flowers of immense size. Tall.

**PERFECTION**—Sky-blue petals suffused with rosy-lilac. Semi-double. Branching habit.

**PRIMROSE**—White sepals, yellow eye, single flowered.

**QUEEN ALEXANDRA**—Sky-blue, white eye, single, very effective and beautiful; 4½ ft.

**TRUE BLUE**—Intense deep blue with black eye. Single flowered tall sort. One of the finest.



## PAEONIES

### Double Herbaceous

THE development and increase in popularity of the Paeony has been unparalleled among flowers, and the profusion and duration of bloom, combined with handsome, massive foliage, accommodating habit, and easy culture, render them one of the most popular hardy plants grown for lawn and garden decoration.

*Paeonies are always free from disease and insects do not bother them. They are hardy, thrifty growers, bloom freely, and nothing will add more to the beauty and attractiveness of the lawn.*

➔ Varieties not listed in our choice collection can be supplied to your order.



**ASA GRAY**—Very large. Semi-double. Pale to deep lilac. Mid season. **Each \$1.00**

**AVALANCHE**—Very large and full, milky white. Strong grower, fragrant. Mid season. **Each \$1.00**

**COURONNE D'OR**—Superb white flower; immense size, reflects yellow, center petals, bordered carmine, fragrant, vigorous; late. **Ea. 75c**

**DELACHEI**—Large, full flower of a deep rich crimson, purplish tone; very fragrant; medium to late **Each 50c**

**DELICATISSIMA**—Light rosy apricot, sometimes margined carmine red. Mid season. **Each 40c**

**EDULIS SUPERBA**—Rose pink, delightfully fragrant. An early bloomer, ready for Decoration Day. **Each 60c**

**FELIX CROUSSE**—Full double, flaming red, good bloomer. Mid season. **Each 75c**

**FESTIVA MAXIMA**—Immense double flowers, pure white tipped or flaked with a small crimson spot at center. Early. **Each 50c**

**FLORAL TREASURE**—Large, very showy, pale lilac-rose, good for cutting. Mid season. **Each 60c**

**FRAGRANS**—Late; color deep rose; fragrant prolific bloomer; tall grower. **Each 40c**

**GLOIRE d'BOSKOOP**—Large globular flower of rich pink shading to lilac. Mid season. **Each \$1.00**

**MAD. BREON**—Flowers outside flesh, center lemon, occasionally carmine tipped when first open; entire flower gradually changing to pure white. Early. **Each 60c**

**MAD. DE VERNEVILLE**—Broad outside petals, sulphur white, with center rosy white, sometimes edged carmine, and beautifully imbricated. Early. **Each 60c**

**MONSIEUR JULES ELIE**—Bomb type, pale lilac-rose shading lighter, early. **Ea. \$1.00**

**MODESTE GUERIN**—Medium Bomb type, solferino red, good for cutting. Mid season. **Each 75c**

**OFFICINALIS ALBA**—Blooms with Officinalis Rubra. Light pink at first, fading to white as flowers grow older. **Each 40c**

**OFFICINALIS ROSEA**—Beautiful bright pink globular flowers, blooms with Officinalis Alba and Rubra, producing fine flowers for Decoration Day. **Each 40c**

**OFFICINALIS RUBRA**—Bright scarlet crimson; quite double and globular. Early **Each 40c**

**POTTSI-ROSEA**—Rich deep rose, lighter center. **Each 50c**

**QUEENS PERFECTION**—Creamy white, large, full and attractive. Early. **Each 40c**

## Paeony Moutan

### (Tree Paeony)

Grows about four feet high, forming a small tree-shaped shrub. When this plant becomes well established and is covered with dozens of massive blooms it presents a magnificent display. We have **Crimson, Pink, Scarlet, Rose and Variegated**.

**STRONG IMPORTED ROOTS**, from January to May, by express at buyer's expense (too heavy to mail). **Each 75c**

## Oriental Poppy

The most brilliant and gorgeous of all hardy garden plants; blooming in May and June.

**KELWAY'S HYBRIDS**—Graceful, bright-colored cup-shaped flowers. **Ea. 20c; doz. \$2.00**

**PERRYS' WHITE**—Pure satiny white with brilliant crimson marking at base of petals. **Each 25c; doz. \$2.50**

**ORIENTAL POPPY**—Red. The old time favorite. **Each 20c; doz. \$2.00**

**MAHONY**—A magnificent flower of the darkest richest color yet known in a poppy, almost a true dark mahogany. Large free blooming. **Each 25c; doz. \$2.50**

**SALMON QUEEN**—Rich salmon pink with coppery orange suffusion; deep purplish black center and markings. **Each 25c; doz. \$2.50**



# IRIS

## Japanese Iris (*Iris Kaempferi*).

Japan Iris are unsurpassed for their brilliant and varied colorings, producing effects that are truly marvelous. Blossoms early summer. Plant three inches deep, about 4 inches apart; divide the clumps every two years. Fertilize established beds while dormant, using stable manure, but do not apply after growth starts.

### Double Varieties

**HANA-AOI**—Bright violet blue shaded white to center.

**OSHO-KUN**—Navy blue, purple center, late.

**WAKA-MURA-SAKI**—Crimson, purple, blue shadings and blotches in center.

**SENJO-NO-HORA**—Mottled and veined, red, purple and white.

**KUMOMA-NO-SORA**—White, with a strongly marked sky-blue zone and mottled in the same shade.

**YEZO-NISHIKI**—Deep rich crimson, mottled and blotched white, 3 standards same color.

**NAMED VARIETIES.** Each 20c; doz. \$2.00; 100 \$15.00

**MIXED, GOOD ASSORTMENT.** Each 15c; doz. \$1.50; 100 \$11.00

## English Iris

English Iris is very hardy and has a wide range of colors; they follow the Spanish Iris and are passing when the Japanese begin blooming. Plant 3 to 4 inches apart, in any good soil.

**BLEU CELESTE**—Pale blue.

**EMPEROR**—Violet.

**GRAND VAINQUEUR**—Purple, flaked red.

**MISS BARKLEY**—White, flaked crimson-violet.

**MONT BLANC**—Snow-white; beautiful variety.

**PRINCE OF WALES**—Dark blue.

Each 6c; doz., 60c; 100, \$4.00

## Iris Siberica

A dainty free blooming Iris producing beautiful dark blue flowers, fine for cut flowers or garden decoration.

Clumps, Each 25c; doz. \$2.00; Postpaid.

**KUMA-FUNJIN**—Purple overlaid with navy blue, 2 standards, very large orange blotches.

**KUMO-NO-OBII**—Dark lavender purple, large handsome flower, 3 petals.

### Single Varieties

**YOMO-ZAKURA**—Light ground, densely veined and suffused purple.

**O-YO-DO**—Dark violet.

**ISO-NO-NAMI**—Silvery white, veined violet.

**SHINOGO**—White.

**YJINO**—Reddish purple, mottled and veined white.

## German Iris

One of the best of the early hardy Spring flowers. They produce magnificent orchid-like blooms of great size and delightful fragrance.

**CELESTE**—Satiny blue.

**FLORENTINE ALBA**—White.

**PALLIDA DALMATICA**—Extra large, true lavender, fine for massing or as a cut flower.

**MADAME CHERAU**—Large white, dainty frilled blue edge.

**MAORI KING**—Rich deep yellow.

**SPECTABILIS**—Violet purple.

**SHAKESPEARE**—Bronze violet.

**MARS**—Light yellow and cream.

Prices: **CHOICE ROOTS** Each 15c; doz. \$1.50; 100 \$10.00

## Water Lilies

**E**ASILY grown in tubs made by cutting a barrel in half and setting in the ground, to within a few inches of the top. Put in good loam soil, with one-third old manure, or better still is the soil from a swamp or lowland, using one-third of old, well-rotted manure; cover soil with a layer of sand one to two inches deep, allowing for a depth of six inches of water. Water Lilies like a mild temperature, and will not succeed in a fountain or a strong or cold inflow.

**NYPHAE**—Hardy white. Single roots, 35c, postpaid; large roots, 75c to \$1.50, prepaid





**WE** offer a splendid list of Ferns, including some of the newest varieties as well as the older sorts. Florists wishing stock of the new varieties write for prices.

### Nephrolepis or Boston Ferns

Price small plants, 25c; from 4 in. pots, 60c; 5 in. \$1.25, postpaid.  
Specimen plants, \$1.50 to \$3.00 F. O. B. Portland.

**N. AMERPOHLII**—"Lace Fern", beautiful and attractive "sport" from the Boston Fern. Is so finely "crested" as to have a fluffy lace-like appearance.

**BOSTON FERN**—This is the original and well known type of "Sword Fern."

**OSTRICH PLUME FERN**—(*Nephrolepis Whitmani*)—Beautiful new sport from the well known Boston Fern.

**N. ROOSEVELT**—Resembles Boston Fern, produces more fronds, making a bushier plant.

**SCOTT FERN**—(*Nephrolepis Scottii*)—Identical with the original Boston type, but is dwarfed with a more compact and bushy habit of growth.

**TEDDY JUNIOR**—New Dwarf Fern. A sport from the famous Roosevelt Fern. Compact in form, and a rapid grower, producing about four times as many fronds as any other fern.

### New and Popular Ferns

**ASPARAGUS SPRENGERII**—(Emerald Feather)—Handsome evergreen trailing plant; its beautiful sprays of lovely green, feathery foliage can be cut freely.

Nice plants, each 20c; large plants, 35c to 50c

**CYRTOMIUM ROCHFORDIANUM**—Foliage of a rich deep glossy green color; and wavy leaflets are deeply cut or toothed; valuable for a dish fern.

Prices: Small plants, 25c; from 4-inch pots, 60c, postpaid.

**ASPARAGUS PLUMOSUS**—(Climbing Lace Fern)—A finer and more delicate plant than the Sprengeri, but hardy and easily grown. Nice plants, each 15c; large plants, 25c to 50c

**MAIDEN HAIR**—(*Adiantum Croweanum*)—Very valuable to florists for cutting, grows freely under almost any condition inside.

Good plants from 4-inch pots, \$1.00 postpaid

**FOR FERN DISHES**—Attractive assortments, sufficient for 5 to 6-inch pans.

75c to \$1.00, postpaid

### SPECIAL—Six Fine Table Ferns for \$1.25

Price 20c each; 6 sorts for 1.00. Extra large plants, 40c each, postpaid.

**ADIANTUM GUNEATUM**—Maiden Hair Fern. A very beautiful and graceful fern.

**ASPIDIUM TAUSSIMENSE**—One of the most valuable for fern dishes; of strong but dwarf and graceful habit.

**BOSTON FERN**—See description above.

**CYRTOMIUM FALCATUM**—(The Holly leaved fern). Hardy, dark green foliage. Very desirable.

**PTERIS CRETICA ALBO-LINEATA**—A pretty and useful variegated variety.

**OSTRICH PLUME**—See description above.

### HARDY FERNS—For Shady Borders and Rock Work

Prices: Nice plants, 25c and 50c each. Trial Collection, 1.50, postpaid.

**EVERGREEN WOODFERN**—(*Dryopteris Marginalis*)—Marginal shield fern; most valuable of the hardy evergreen ferns for garden.

**QUEEN OF LADY FERNS**—(*Asplenium Victoriae*)—A vigorous rapid grower: The arrangement of the leaves forming rows of crosses the full length of the fronds.

**NATIVE OREGON SWORD FERN**—Splendid for borders or in tubs. Prefers partial shade.

**FIVE FINGERED LADY FERN**—(*Adiantum Pedatum*)—Most graceful and beautiful hardy maiden hair fern.

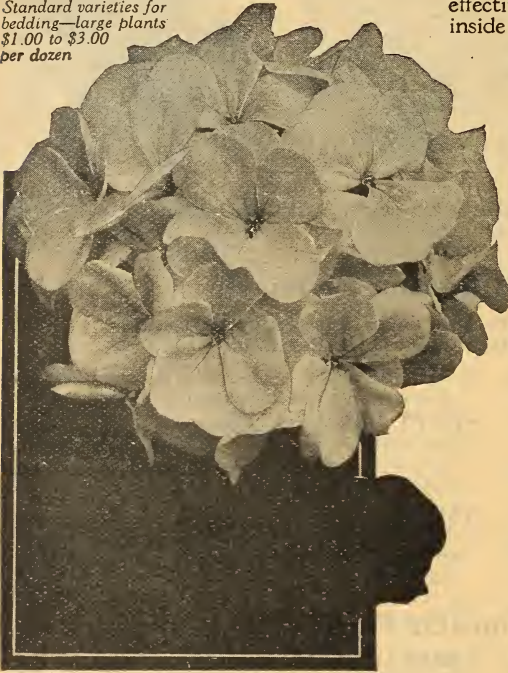
**ASPLENIUM MULTIFIDIUM**—Crested lady fern. The ends of the leaves are beautifully crested and like all of its class makes a fine showing the first year.

**HARTS TONGUE**—(*Scolopendrium Vulgare*)—Easy of cultivation; very distinct and attractive.

# GERANIUMS

**G**ERANIUMS are undoubtedly the most popular bedding plant of the time. Their free rapid growth and continuous blooming qualities keep them in the front rank among the long list of bedding plants. Beds of one color or variety have been very popular of late years, being very effective in all garden efforts, and for Winter flowers inside nothing is more satisfactory. They are of the easiest culture, requiring to be kept cool and given plenty of air, with an occasional sprinkling of the foliage to clean and freshen it. Keep the roots moist, not too wet, and have good drainage in the pots. No other flower can take their place as a bed or border plant, and inside they grow beautifully throughout the year, making cheery house plants.

Standard varieties for bedding—large plants \$1.00 to \$3.00 per dozen



Our list of varieties include a number of rarely beautiful novelties as well as the very best standard sorts, and prices are so low as to place them within reach of everyone.

Our list of varieties include a number of rarely beautiful novelties as well as the very best standard sorts, and prices are so low as to place them within reach of everyone.

## Rare Novelties — Single Geraniums

Price 20c each—set of 8 sorts \$1.25

**FREDERICK PLESSIS**—Large trusses of well rounded florets. Color light scarlet shaded to large, white center, very striking.

**JEAN LIONETT**—Grand trusses on stout heavy flower stalks. Color reddish purple, each floret maculated with orange in the center. Very distinct and beautiful.

**LUCILE HILL**—Long upright stems; large trusses of beautiful ruffled form; perfectly circular florets of largest size; rich salmon shaded with rose, an excellent grower.

**MARQUIS DE LONQUEIL**—Rich geranium red shaded to light carmine with very large white center. Large trusses on fine strong stems.

**MME. REYNARD**—Profuse bearer of fine trusses of bloom; rosy-amaranth, upper petals shaded flame scarlet, distinct white eye. A grand new sort.

**ROMILDA VICINI**—White ground overlaid with light rosy-salmon with a reticulated effect. Upper petals feathered with crimson. Novel colorings.

**ROSAMIE**—Large trusses of fine flowers; delicate rose-color reverse of florets clear violet, the whole maculated with white. An excellent new sort.

**PIERRE VIERGE**—Light salmon shaded and reticulated with white. One of the freest blooming sorts we have seen.

## Twelve Fine Single Geraniums

Price 10c each—set of 12 sorts \$1.00—postpaid \$1.10

**ALBION**—Beautiful free flowering white variety as pure as driven snow. Always in bloom.

**G. W. WARD**—Rich salmon shaded to orange. magnificent zoned foliage.

**EUGENE SUE**—Odd shade of russet orange, very distinct.

**JACQUERIE**—Rich, vivid crimson, immense trusses.

**MAXINE KAVOLENSKI**—Odd shade of orange red; very distinctive, splendid bedder, vigorous, handsome; a dependable sort.

**MADAME CHAPOTAN**—Delicate light pink flowers in very large trusses; handsomely zoned foliage.

**MADAME MOSNAY**—Peculiar shade of carmine-lake, shaded to violet and white. Very distinct and striking.

**METEOR**—Brilliant crimson maroon. A magnificent bedding variety.

**MILDRED RIVAL**—Pure rose pink, with conspicuous white blotch on two upper petals.

**MRS. A. BLANC**—Silvery salmon shaded to peach; one of the richest colored sorts.

**MRS. E. G. HILL**—Very large trusses of single florets; color clear salmon, with a white center.

**NUIT POITEVINE**—Trusses and florets of grand size; rich, rosy violet; the upper petals feathered with scarlet at their base. Very distinct and much admired.



## Rare Novelties—Double Geraniums

Price 20c each—set of 8 sorts \$1.25

- BARON DE MONTAL**—Color rich rosy-magenta shaded fiery red at base of upper petals. Fine healthy, growing sort of great beauty.
- BLANCAFLEUR**—Fine new double white with flowers of wonderful purity of color. Sturdy growing and free blooming.
- EUGENE CARRIER**—Enormous semi-double florets of rich copper color shaded salmon-rose. Robust growth, trusses immense in size.
- ERNEST CHEBROUX**—Very large trusses of rich bright cerise colored flowers, each floret with large distinct white eye.
- ELECTRE**—Rich deep cerise shaded vinous rose, upper petals dashed with white at their base. Dwarf, compact growing and charming for bedding.
- LOUIS MAZIEUX**—Brilliant vermilion scarlet with prominent white markings at base of petals; very distinct.
- PIERRE COURTOIS**—Velvety purple spotted with light violet. A rare color among Geraniums.
- VIRGINIA**—Delicate daybreak-pink shaded painted-rose with large white center. Large trusses on strong stalks. Very beautiful.

## Twelve Fine Double Geraniums

Price 10c each—set of 12 sorts \$1.00—postpaid \$1.10

- ABBIE SCHAEFER**—Beautifully formed florets in fine large trusses, rich scarlet crimson of velvety texture.
- ALPHONSE RICARD**—Immense trusses of large round flowers of the most vivid scarlet.
- BEAUTE POITEVINE**—Very large, semi-double flowers of a brilliant salmon color. One of our best sorts.
- EDMOND BLANC**—Large trusses of rich purplish violet flowers borne in greatest freedom. One of the finest dark colored sorts.
- JEAN VIAND**—Soft rose color, shaded to white. Magnificent bedder.
- MADAME CHAROTTE**—Rosy salmon shaded and reticulated with white.
- MADAME LANDRY**—Distinct salmon pink. Lightly shaded scarlet. Magnificent trusses.
- MARQUISE DE CASTELLANE**—Rich solfermocarminé of great brilliancy. Immense trusses, robust grower, free bloomer.
- MME. RECAMIER**—Snow white; strong, vigorous grower; flowers abundantly produced in large trusses.
- MRS. GLADSTONE**—Pure white flushed and bordered with rose-pink. A most beautiful variety.
- MRS. LAWRENCE**—Beautiful satiny pink shaded to white; a gem among geraniums.
- S. A. NUTT**—The best of the rich, dark crimson varieties; trusses massive.

## Ivy Leaved or Trailing Geraniums

These are unexcelled as basket or window-box plants, as well as being useful in bedding, covering the ground quickly with their deep green, ivy-shaped leaves and brilliant colored flowers.

Price 15c each—set of 6 sorts 75c

- BALLADE**—Large double flowers of a tender lilac color, feathered with crimson.
- GARDEN GLORY**—Brilliant scarlet, upper petals veined crimson; rich and attractive.
- CHARLES TURNER**—Brilliant pink, approaching scarlet. Upper petals nicely feathered maroon. Large trusses. Best of all ivy geraniums.
- COLONEL BADEN POWELL**—The nearest approach to a pure white variety in this class of geraniums. Fine large trusses.
- INCOMPARABLE**—Exquisite shade of rosy-carminé, sturdy growing and free blooming.
- MRS. HAWLEY**—Soft rose-pink of silvery appearance. A beautiful variety.

## Pelargoniums—Lady Washington Geraniums

Price 20c each—set of 6 sorts \$1.00

- BRIDEGROOM**—Silvery rose veined crimson, with dark purplish maroon blotches on upper petals. A wonderful bloomer.
- COUNTESS OF OXFORD**—Bright scarlet richly mottled and veined with crimson. Prominent maroon blotches on upper petals.
- DUCHESS OF PORTLAND**—Large round flowers vinous cerise shaded to vermilion. Upper petals darkly blotched and veined.
- EASTER GREETING**—Remarkable for its free blooming proclivities, equally as fine bedder as a pot plant. The flowers are of a fiery amaranth red, each petal distinctly blotched maroon. A novelty of the greatest merit.
- FAIR MAID**—Lower petals white flushed light pink; upper petals blackish maroon surrounded with crimson and bordered white.
- MADAME VIBERT**—Flowers bright red blotched with black and maroon and edged with pink and white.

## New Heliotropes

Price 15c each—set of 4, 50c postpaid

- ALBATROSS**—Elegant dwarf, bushy growing new variety of great merit; large panicles of pure white flowers in great profusion all season; the best white variety to date.
- HEAVENLY BLUE**—Large, close panicles of exquisite light blue flowers, with a white eye. Grows vigorously and flowers abundantly.
- LAVENDER QUEEN**—Enormous florets, very large trusses of bloom; color, a beautiful shade of lavender, suffused with rosy mauve. A dwarf robust grower and free and continuous bloomer.
- ROYAL PURPLE**—Very large and fragrant; color deep violet purple, with white eye; very floriferous highly recommended for bedding, \$1.00 per dozen.

## Choice Novelties in Carnations

**C**ARNATIONS will thrive in any good fresh garden soil. After danger of frost is over, set 10 to 12 inches apart each way, cultivate and water as needed until they begin blooming, then mulch with light manure that has straw in it; plants should be staked or strung to support them. Carnations are easily grown in the house for Winter flowers.

Price 20c each—Set of 7 sorts \$1.00

*American Carnation Culture*, Lamborn  
\$2.00 Postpaid



**ALICE COOMBES**—A beautiful new ever-blooming carnation of robust erect growth. Silvery rose-pink in color so greatly admired in this class of plants.

**BELLE WASHBURN**—Very large bright scarlet flowers finely fringed and very fragrant. Free blooming sturdy branching grower. Believed to be the finest scarlet sort yet produced.

**GOOD CHEER**—Large, handsome, well built flowers of a rich shade of deep pink, tinted with carmine. Remarkably free in bloom for such a large flowered sort.

**MATCHLESS**—A wonderful new white variety produced by a famous hybridizer of New York State. Large massive flowers on strong upright stems. Sweetly perfumed.

**PRINCESS DAGMAR**—A grand new ever-blooming carnation, producing very large flowers of a rich crimson maroon color. Its rich, velvety color is immensely popular.

**PINK SENSATION**—Very large, heavily fringed flowers with exquisite fragrance. Color pure rose-pink with silvery shadings. Rank growing variety with long straight stems and leathery blue-green foliage. A superb new American seedling.

**YELLOWSTONE**—Vigorous growing, free flowering new variety producing flowers of a dainty canary yellow lightly splashed and mottled with pink. A gem among fancy carnations.

### Standard Everblooming Carnations

Price 15c each—4 for 50c—set of 12 fine varieties \$1.25 postpaid

**ALICE**—Large nicely fringed, well formed flowers on stout stems. Color light pink with silvery shadings. One of the best sorts we have.

**BEACON**—A bright, deep scarlet; a most perfect color, soft yet brilliant; the flower is of the largest size and perfectly double; nicely fringed; sweet.

**BONORA**—A beauty; fancy variety of fine size and form, borne on long, stout stems. Color white flaked and splashed with red.

**ELDORADO**—Deep golden yellow, splashed and striped with red; a very rich combination of colors and a novelty of much merit.

**ENCHANTRESS**—Flowers very large, borne on long stems. The color is a superb shade of flesh pink. An early and continuous bloomer.

**HERALD**—Flowers very large and massive with finely fringed petals and strong calyx. Stems long and very stout; color bright rich scarlet. A true everbloomer.

**LADY BOUNTIFUL**—Pearly white flowers, produced on strong wiry stems. Nicely fringed and very fragrant.

**MRS. ACKHURST**—Bright salmon pink flowers of the largest size, most perfect form and nicely fringed. Very fragrant.

**MRS. C.W. WARD**—Simply superb, both in form and color; brilliant dark pink, of immense size.

**PHILADELPHIA**—Greatly admired for its beautiful soft rose pink flowers. Very delicate and pretty.

**POCAHONTAS**—Rich crimson-maroon flowers of fine size and build. Rarely beautiful variety.

**WHITE ENCHANTRESS**—A pure white sport from the famous variety Enchantress, having the same general habit and characteristics. A superb flower.

**VICTORY**—Intense scarlet of great brilliancy. Strong stout stems, holding the flower upright. One of the best sorts of its color.

### Sweet Violets

Single

Price each 15c; 8 sorts, \$1.00, Postpaid.

Double

**BARONESS ROTHSCHILD**—Similar to Princess of Wales, but blooms more freely.

**CALIFORNIA**—Very showy flowers of enormous size, deep violet blue; deliciously fragrant.

**WHITE CZAR**—Single white, very free flowering.

**PRINCESS OF WALES**—Gigantic flowers, of a very rich shade of blue, extremely fragrant.

**ALASKA**—Enormous flowers of a deep blue-black color and powerful fragrance.

**LADY HUME CAMPBELL**—Beautiful light blue, very free-blooming, exquisitely fragrant.

**MARIE LOUISE**—A constant bloomer, producing large flowers, lovely deep violet purple.

**SWANLEY WHITE**—The finest and best double white violet in cultivation.



## Twelve Finest Exhibition Chrysanthemums

Price 10c each—set of 12 sorts \$1.00 postpaid

**CHRYSOLORA**—In our field trials during the past season this variety stood out pre-eminently as the finest yellow in the collection. Large, incurved flowers of elegant form.

**CHARLES RASER**—Elegant, snow-white, incurved blooms of fine size and build. Comes on long, stout stems grandly clothed with luxuriant foliage. One of the finest new sorts.

**CLEMENTINE TOUSET**—Creamy white, delicately laced with lilac and lavender; petals beautifully twisted and arranged. Fine large flower.

**GOLDEN EAGLE**—Rich, golden yellow, immense size, very double; a grand, well-built flower, with splendid stem and foliage. A sure prize-winner.

**GREYSTONE**—Large reflexed broad petaled blooms of reddish bronze; reverse of petals light buff. One of the most distinct and beautiful.

**DR. ENGUHARD**—Flowers delicate pearl-pink; large, beautifully incurved; very double and of exquisite form.

**MAJOR BONNAFFON**—Soft, clear yellow, full in the center, eight inches in diameter and nearly as deep; perfect form.

**CHIEFTAIN**—Color a beautiful shade of Enchantress, or flesh pink. Perfectly incurved flowers of remarkable waxy appearance. Sturdy grower with handsome, leathery foliage. A fine thing.

**L'AFRICANE**—Very large rich crimson flowers; one of the finest dark colored sorts.



**MRS. H. W. BUCKBEE**—Fine incurved blooms of ivory white color; very double and lasting. Free blooming and very hardy.

**MARIGOLD**—Heavy broad incurved petals forming a very large globe shaped bloom of glistening texture. Color golden yellow tinged with bronze. Rank grower, very large foliage.

**ROMAN GOLD**—In this fine variety we have secured a sort which for richness of color excels all other yellow varieties to date. Comes shaded with bronze in cool weather.

## Rare New Japanese Chrysanthemums

Price 15c each—set of 12 sorts \$1.25

**D. B. CRANE**—Bold incurved flowers of wonderful substance. Color golden yellow distinctly splashed with red. Very distinct and novel coloring.

**EARLY FROST**—Large pure white flowers of perfect incurved form and fullness. Flowers very early and remarkably free.

**GOLDEN QUEEN**—Deep golden yellow blooms of fine size and build. Petals nicely incurving and full to the center.

**HARVARD**—Rich velvety crimson of reflexed form, produced with great freedom. The darkest colored variety to date.

**MANKATO**—Of sturdy upright growth producing stout stemmed flowers of fine size. Color amaranth red shaded to purplish rose. Petals reflexing and interlacing in beautiful manner. Very distinct.

**MRS. B. E. HAYWARD**—Rich bright pink shaded to silvery pink. Of improved incurved form and very dwarf habit requiring little staking.

**ODESSA**—The greatest exhibition yellow yet produced. Flowers of immense size, filled with a myriad of incurving petals, requiring a long season to mature.

**OCONTA**—Rank in growth, free in bloom, flowering in early October this fine white variety is going to become very popular.

**PINK GEM**—Crisp broad incurved petals forming a perfectly round bloom of waxy finish. Color delicate silvery pink. Splendid foliage and habit of growth.

**TEKONSHA**—Very large loosely incurving blooms of a rich golden bronze color. A most beautiful shade of color. Fine healthy dwarf habits of growth.

**WHITE CHIEFTAIN**—A sport from the variety Chieftain having all the characteristics of that fine sort except that the flowers are pure white. Dwarf sturdy habit, long fringe-like petals of the most perfect form.

**WILLIAM TURNER**—Immense incurved flowers of snowy whiteness. The largest variety in existence and without a peer for exhibition purposes.

## 6 Beautiful Flowering Begonias

Price 10c each—set of 6 sorts 50c postpaid.

**BERTHA CHATEROCHER**—Glossy green foliage covered nearly the year round with clusters of bright scarlet flowers.

**COMPTA**—Pointed purplish-green leaves with silvery shadings. Pure white flowers.

**ARGENTEA GUTTATA**—Handsome erect growing sort, with pointed wine-colored leaves with silvery white spots; clusters of pure white flowers on the tips of the stems.

**FOLIOSA**—The freest-flowering Begonia we have. Makes a handsome window plant, with its glossy green leaves and bright pink flowers.

**NITIDA ALBA**—Waxy dark green ovate leaves and graceful pure white flowers.

**PRESIDENT CARNOT**—Very large green leaves with purplish cast on reverse sides. Large pendant clusters of light scarlet flowers.

### REX BEGONIA

Grown for the beauty of their foliage. The leaves are large, variegated and margined with a peculiar silver-metallic gloss.

Price choice plants each 25c



*Rex Begonia*

## Free Blooming Fuchsias

Price 10c each—set of 6 sorts 50c

**ELSA**—Sepals rose-pink, corolla rosy purple. A fine large bloom.

**JUPITER**—This is a grand mammoth double flowered Fuchsia; flowers of enormous size, very large, rich purple violet corolla; tube and sepals bright crimson.

**MOLESWORTH**—Fine, large and elegant form, sepals long and reflexed, pure red; corolla large double white.

**SPECIOSA**—A winter blooming variety producing very long narrow flowers, tube and sepals blush-pink, corolla bright carmine.

**STORM KING**—Superb double white variety well known to all plant lovers.

**TRAILING QUEEN**—Tube and sepals rosy-scarlet, corolla violet purple. Of trailing habit of growth, fine for baskets and window boxes.

## Bedding Lantanas

A fine class of summer blooming bedding plants also known as shrubby Verbenas. They vie with the geraniums and cannas in their brilliancy of colors during the summer season.

Price 15c each—set of 6 sorts 75c

**CORBILLE D'ARGENT**—Lovely pure white variety, dwarf and compact.

**IOLANDE**—Beautiful umbels of showy flowers in shades of crimson, orange and yellow.

**LEO DEX**—Bronzy-red and crimson-violet, very striking.

**LYRE**—White with clear yellow centers, dwarf.

**RED AND GOLD**—Dwarf grower. Yellow and orange in center, deep crimson towards edge of umbels. This fine variety has been featured strongly at our Rose Festivals.

**WEeping LANTANA**—Of trailing habit making it also desirable for baskets and boxes. Lavender colored flowers all summer long.

## PARROTS FEATHERS

Produces long trailing sprays of lovely green, finely cut foliage set in symmetrical whorls; plant in a water tight vase or hanging basket, keeping water standing over the soil surface.

Good roots, each 25c; doz. \$2.50

## Popular Annual Bedding Plants

During the months of April and May we have thousands of the following bedding plants, price per dozen by express at buyer's expense:

Alyssum.....	\$0.30	English Daisies..	\$0.50	Lobelia.....	\$0.30	Phlox.....	\$0.30
Asters.....	.30	Forget-Me-Not..	1.00	Marigold.....	.30	Salvia.....	30 and .50
Carnations.....	.60	Geraniums, 75c to	2.00	Mignonette.....	.50	Stocks.....	.30
Cosmos.....	.30	Heliotrope.....	.50	Petunia...30 and	.50	Verbena.....	.30



## Mastodon Pansies

### In Bloom

From March until June we offer our famous "Mastodon" Pansy plants in full bloom. Put up one dozen in a basket.

Price, 60c to \$1.00 per basket by express, buyer to pay charges.

### Giant Pansies

**NEW GIANT PANSIES**—Our Giant Plants can not be compared to any other Giant Pansies. Each 5c; doz. 50c; by mail 75c doz.

**MASTODON PANSY SEED**—We offer a limited amount of this hand selected seed, **DIAMOND MIXED**, and four named varieties. Per pkt 25c; Large Trade pkt \$1.00



## Miscellaneous Flowering Plants

The following list includes many of the most useful and beautiful plants for Baskets, Porch Boxes, Bedding and House Plants

**ABUTILON ECLIPSE**—Handsome variegated foliage and bright pendant flowers of scarlet and gold colors. Fine for vases and hanging baskets. **Each 15c**

**AGERATUM—Blue-Star**—Bedding and border plant growing one foot high. Feathery blue flowers all summer. **75c per dozen—each 10c**

**CALCEOLARIA—Shower of Gold**—Pretty clusters of golden yellow flowers all through the season. One of the most popular bedding plants in England. **Each 10c**

**CINNAMON VINE**—A beautiful vine of rapid growth, suitable for porches, trellises, etc. One of the very best quick-growing vines. **Large roots 10c each—3 for 25c**

**COLEUS—Fancy Leaved**—Coleus are the most important of all the fancy leaved bedding plants. They also make very fine pot plants, especially if you have a warm room to Winter them in. Our collection is strictly up to date. **Each 10c—6 fine sorts 50c**

**PERSIAN CYCLAMEN, Giant Flowered**—Cyclamen have circular fleshy leaves of rich metallic green variously marked with silvery stripes. The flowers appear at the approach of cool weather and continue blooming throughout the winter. Colors, red, pink, and white. **25c each—larger plants 50c each postpaid**

**GERMAN IVY**—Waxy green leaves, strong growing vine for window and porch boxes or for hanging baskets. **Each 10c**

**GENISTA RACEMOSA—Shower of Gold**—Its pendant-shaped flowers literally smother the plant during the spring months, while at other times its graceful dark green foliage makes a very ornamental plant. Easily grown. **Each 20c—larger plants 40c—add 10c if postpaid.**

**GERANIUM ROSE SCENTED**—Cultivated for its sweetly scented leaves. **Each 10c**

**MESEMBRYANTHEMUM SPECTABILIS**—Quilled shaped, succulent leaves with large single thistle-like cerise pink flowers. Fine for baskets, vases or porch boxes. **Each 10c**

**PETUNIA, Irvington Beauty**—Single-flowered. A very popular bedding and window-box plant. Covered all season with beautiful light pink flowers veined green and shaded to white in the throat. **Each 15c—4 for 50c**

**PRIMROSES, New Giant "Obconica"**—The crisp green leaves spring up luxuriantly amid which appear, all season, stout little stalks, each surmounted by a pretty cluster of lavender-pink flowers several inches across. One of the finest winter blooming house plants for a cool room. **Price 15c each—larger plants 25c and 35c each—add 10c if postpaid.**

**PRIMROSES, Chinese Fringed**—Are easily grown in a cool room, delighting in a light sandy soil. Flowers are fringed, produced in trusses well above the fresh lively green foliage which of itself is very handsome. Colors red, pink, white. **Price 15c each—larger plants 25c and 35c each—add 10c if postpaid.**

**SALVIA—New Zurich**—A distinct and attractive variety of compact dwarf growth, of neatly rounded form, closely set with stiffly erect spikes of bright scarlet flowers. **Each 10c—per dozen \$1.00**

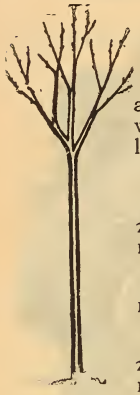
**SMILAX**—For using as a green with cut flowers. Fine as a parlor or window plant. **Each 10c**

**UMBRELLA PLANT—Cyperus—Alternifolia**—A splendid house plant of easy culture; resembles a palm; remains green throughout the year. Keep well watered. **Small plants, each 15c to 25c Large plants, not postp'd, each 35c to \$1.00**

**VINCA VARIEGATA**—Leaves are a glossy green, broadly margined a creamy white. The best of trailing plants for window boxes. **Each 15c—2 for 25c**

**VERBENA—New Mammoth**—The Verbena is, next to the Geranium, the most popular of all bedding plants. **Each 7c—7 assorted colors, dozen 75c**

**WANDERING JEW—Tradescantia—White and Red Variegated.** **Each 10c**



# FRUIT TREES AND BUSHES

Our 40-page Nursery Catalog contains a complete list with full description and illustrations of Fruit, Shade and Ornamental Trees, Shrubs, Climbers, etc. We would be pleased to mail a copy to anyone interested. We give below and on the following page a condensed price list. We can supply all reliable and standard sorts.

## APPLES

	Each	Per 10
2 years.....	\$0.25	\$2.25
1 year, 4 to 6 feet.....	.20	2.00

## APRICOTS

1 year, 4 to 6 feet.....	.35	2.50
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## CHERRIES

2 years.....	.75	6.00
1 year, 4 to 6 feet.....	.50	4.00

## PEARS

	Each	Per 10
2 years.....	\$0.50	\$4.00
1 year, 4 to 6 feet.....	.40	3.75

## PEACHES

1 year, 4 to 6 feet, branched.....	.25	2.00
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## CRAB APPLES

	Each	Per 10
2 year trees.....	\$0.35	\$2.50

## PLUMS

2 years.....	.35	3.00
1 year, 4 to 6 feet.....	.25	2.00

## PRUNES

2 years.....	.25	2.25
1 year, 4 to 5 feet.....	.20	1.75

## QUINCE

2 years.....	.50	4.00
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## GRAPES

	Each	10	100
2 years.....	\$0.15	\$1.40	\$12.00

# BUSH FRUITS

## GOOSBERRIES

Prices except where noted... Each 15c; per 10, \$1.00; per 100, \$8.00; per 1000, \$50.00.

**Downing**—Large, light green; soft juicy and good. Vigorous and very productive.

**Houghton**—Medium size, pale red, sweet and juicy. Abundant bearer.

Each 15c; 10, \$1.25; 100, \$12.00

**Industry**—Very large, dark red, of delicious flavor; best English variety. Bushes strong, upright and very productive.

Each 25c; 10, \$2.00; 100, \$17.50

**Oregon Champion**—Berries very large, pale green; sweet, fine; bush strong, prolific bearer.

**Pearl**—Large, light yellowish green; very hardy and free from mildew; superior in size and quality. Very prolific.

Each 15c; 10, \$1.25; 100, \$12.00

**Red Jacket (Josselyn)**—Large, smooth, prolific and hardy; best quality.

Each 15c; 10, \$1.25; 100, \$12.00

## CURRANTS

Currants are a profitable easily grown crop, and the market is always good.

PRICES, except where noted: ..... Each 15c; 10 \$1.25; 100 \$7.00

### New Varieties

**Perfection**—New; largest and most prolific Currant; bright red, rich flavor, mild sub-acid.

**Strong Plants**, each 15c; 10, \$1.25; 100, \$10.00

**Pomona**—Splendid red variety; good keeper; record acreage yield. Later than Perfection.

**Strong Plants**, each 15c; 10, \$1.25; 100, \$10.00

**Belle De Boskoop**—New black currant excelling in quality and productiveness. A hardy, vigorous, grower. Each 15c; 10 for \$1.25

### Standard Varieties

**Black Naples**—Very large, black, rich, tender; fine for jellies and wine. Productive, vigorous.

**Cherry**—Very large; deep red; fine for preserving; valuable market variety.

**Fay's Prolific**—Bright red, very sweet; fruit hangs on better than most varieties.

**North Star**—Strong growing red variety; bunches average four inches in length; extra quality.

**Victoria**—Large, bright red bunches; late, productive.

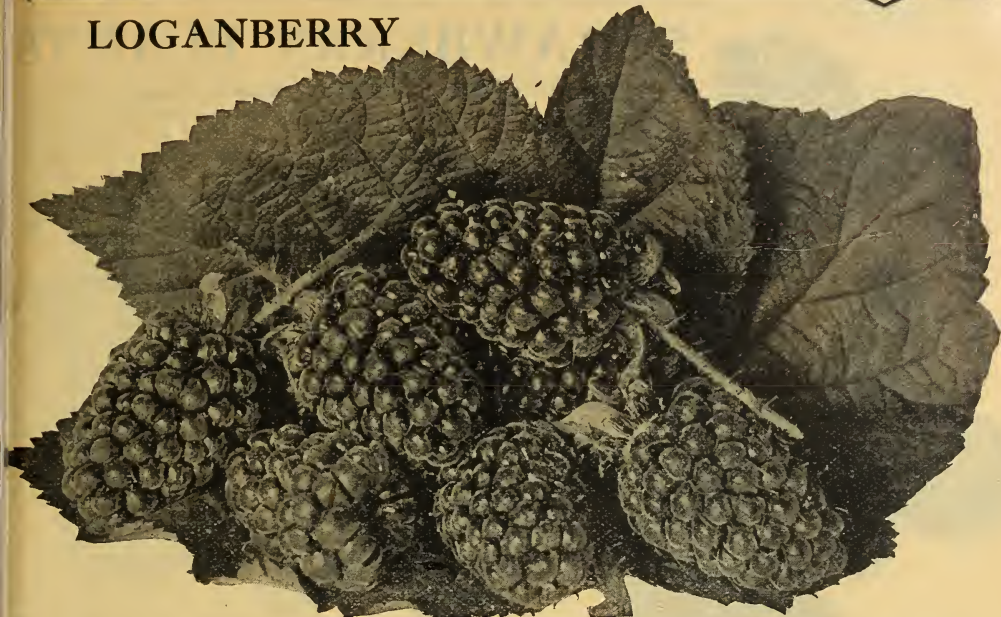
**White Grape**—Large, yellowish white, valuable for the table.

**White Transparent**—The best white currant known. Splendid market variety; rich flavor; mild sub-acid.

**Fruit and Ornamental Trees, Berry Bushes and Plants, Roses and Flowering Bulbs**—New and improved varieties for Northwestern growers fully described in our Nursery Catalog—Mailed Free on Request.



# LOGANBERRY



The loganberry is generally larger than the blackberry, often an inch and a quarter long; color dark red and produced in immense clusters. It partakes of the flavor of both the blackberry and raspberry. Fruit ripens early; excellent for jelly or jam. June.

**Large, well-rooted plants:** Prices: Two-year-old 20c each; \$1.75 per doz., prepaid; by express or freight, \$1.50 per doz.; \$9.00 per 100.

## Burbank's Phenomenal

Larger than the logan and a brighter crimson raspberry color. Sweeter than the loganberry. July 1st.

Prices: Two-year-old, 20c each; \$1.75 per doz., postpaid; by express or freight, \$1.50 per doz.; \$9.00 per 100.

## Blackberries

**Evergreen**—An Oregon introduction; berries long, black, sweet, rich, delicious; July to Nov.

10 for \$1.00; 100 for \$8.00

Postpaid, each 15c; 10, \$1.25

**Himalaya Giant**—Strong grower of a trailing nature; everbearing; an enormous yielder. The berries are large, juicy, coreless, sweet and firm. Good producer even in a very dry season.

Postpaid, each 15c; doz. \$1.50  
Frt. or Exp., doz. \$1.25; 100 \$8.00

**Lawton**—Fruit large; very productive; Oregon's most popular kind. Each 10c; 10, 60c; 100, \$5.00; postpaid, each 15c; 10, 75c.

**New Mammoth**—Rampant grower of trailing habit. Enormously productive and exceedingly early. Fruit very large; seeds small, cores small and soft; July 1.

Two-year-old, ea. 15c; doz., postpaid \$1.50; by express or freight, doz. \$1.25; 100 \$8.00.

**Kittatiny**—Large, glossy black, juicy, sweet, excellent when fully ripe. July. Each 10c; 10, 60c; 100, \$5.00. Postpaid, ea. 15c; 10, 75c.

**Eldorado**—Large, jet black, melting, sweet and rich; hardy and productive. Ea. 10c; 10, 90c; 100, \$7.00; postpaid, each 15c; 10, \$1.25

## Raspberries—Red Caps

Prices except where noted: Not prepaid, 2 years—Ea. 15c; per 10, \$1.00; per 100, \$8.00

**The Improved Superlative**—Soft red crimson. Berry large and firm, with very small, brittle seeds. Vigorous, productive; rich, luscious flavor; earlier than Cuthbert. Good shipper. Price: Ea. 15c; doz. \$1.50, postpaid; freight or express, 1 doz. \$1.25; 100, \$8.00.

**Cuthbert**—Deep rich red, large and firm; one of the best market berries. Ripens medium to late.

**Marlboro**—Standard, light crimson, large, very firm; good commercial variety; ripens early.

**Herbert**—Splendid, large, bright red; strong grower; productive. Each 15c; 10, \$1.25

## Raspberries—Black Caps

Prices except where noted: Not prepaid, each 15c; per 10, \$1.00; per 100, \$8.00.

**Cumberland**—Very large; similar to Gregg.  
**Kansas**—Black. Similar to Gregg, ripening earlier. Good commercially; strong grower.

**Mammoth**—Black, good quality.

**Munger**—Black, good, juicy; fine for home use.

**Gregg**—Of good size, fine quality; very productive and hardy. Takes same position among black caps as Cuthbert among the red sorts.

**Plum Farmer**—Large black, hardy and productive. Good quality.

## Dewberry

Price, not prepaid, each 15c; per 10, \$1.25; per 100, \$8.00.

**Lucretia**—Fruit large, soft, sweet; no hard core. Hardy, good for this Coast. Last of May.

**Gardenia**—Large glossy black; delicious; heavy bearer; trailing vine. June.



# STRAWBERRY PLANTS



**DIAMOND Quality Strawberry Plants** are large, vigorous and healthy. They are heavily rooted and have large, full crowns; have been carefully grown, and are free from disease and pests. We dig as ordered and pack for shipment in ventilated crates of 500 plants each. **They are grown from our select strains and are always true to name; no substitution is ever allowed without instructions from the purchaser.**

Our select strains of **New Oregon, Gold Dollar, Marshall, Magoon, Clark's Seedling** and other Western varieties, many of which were introduced by ourselves, still hold their position as the **leading commercial varieties of the Northwest**, and are being planted more extensively each season. Thus demonstrating by actual market and growing tests the great superiority of our Western varieties, against the keenest competition from all sections.

## Care For and Feed Your Plants

Neglect is the prime factor in strawberry failures, and most strawberry beds suffer from lack of attention and starvation. Proper fertilization and intelligent culture insure enormous crops of finest fruit and freedom from diseases and pests. White grubs, cutworms, crown miners, etc., can all be controlled by preventive measures. Never set strawberries in or near clover sod or hay fields. Such ground should have at least two years cultivation before using for strawberries. Remove the mulch directly after fruiting.

## NEW OREGON

*Our Own Introduction*

**Best, Most Uniform and Heaviest Yielding Main Crop Strawberry**


"**NEW OREGON**" is large, firm and of fine form, averaging 15 to the quart box, color a brilliant, deep, rich red, having a glossy varnished appearance when fully ripe. This dark blood red coloring extends through to the very center, and, no matter how large, "**NEW OREGON**" is never hollow. When fully ripe the distinctive flavor is suggestive of the wild berry, is crisp and delicious, and will remain on the vine for three days without injury, keeping perfectly for many days after picking; stands handling and long shipments and will hold its color, shape and flavor when canned.

"**NEW OREGON**" is an early and continuous bearer, being ready for marketing the first half of May in the Willamette Valley and holds

**Big  
Healthy  
Well  
Grown  
Plants**



up in size and quality throughout the season, which in some localities extends until frost.

 The strawberries here offered have all stood the market test and you will be safe in selecting any one of them that will suit your conditions and requirements. They are the best varieties obtainable.



# FALL OR EVERBEARING STRAWBERRIES



NEW FALL BEARING Strawberry

“PROGRESSIVE”

Photo ¼ size of fruit 4 months from planting

The new varieties of Fall bearing Strawberries, also known as “Everbearing,” are very satisfactory for home gardens and under some conditions will prove profitable commercially, but require special care and attention to secure best results as the late fruit will be small and yield less if the first blossoms are not removed, and the plants are allowed to fruit early and continuously. When properly grown they are of splendid quality and yield heavily until frost. We offer “Progressive” and “Superb.”

**PROGRESSIVE**—Rich, red color, firm and of delicious flavor. Good keepers and shippers. Blossoms should be cut back about 4 weeks before the berries are wanted. We consider this the best of its class.

Per doz. 50c; 25 plants 75c; 100 \$2.00 postpaid; by frt. or exp. \$1.75 per 100; \$15.00 per 1000

## Gold Dollar—Extra Early

No early strawberry we have ever known equals our special strain of “Gold Dollars.”

Gold Dollar berries are large size, dark red all through, and have fine flavor. Foliage heavy, large and spreading, which protects the blooms from early frosts.

Gold Dollar Strawberries are the standard early berry in the big markets of the Northwest, and are always in demand.

## Magoon

Berry large, fine and of excellent sub-acid flavor; bears heavily; especially adapted to Western Oregon and Washington.

## Clark’s Seedling

The berry that has made Hood River famous; best shipper, berries large, of delicious flavor; vines bear large crops; especially adapted to dry soil.

## Wilson

A heavy bearer of fine, moderate-sized berries; sharp acid flavor and the leading sort for canning.

## Marshall

Very large; dark crimson throughout; fine flavor; a fine market and table berry. Our stock of Marshalls is absolutely true, vigorous and prolific.

# PRICE LIST OF PLANTS

VARIETY—	By mail, postpaid		F. O. B. Portland	
	Dozen	100	100	1000
Clark’s Seedling.....	\$0.30	\$1.00	\$0.75	\$5.00
Gold Dollar.....	.30	1.00	.75	5.00
Magoon.....	.30	1.00	.75	5.00
Marshall.....	.30	1.00	.75	5.00
NEW OREGON—IMPROVED.....	.30	1.00	.75	5.00
Wilson.....	.30	1.00	.75	5.00

Not less than 500 plants of a kind at 1000 rate. Special prices on 3000 or more.

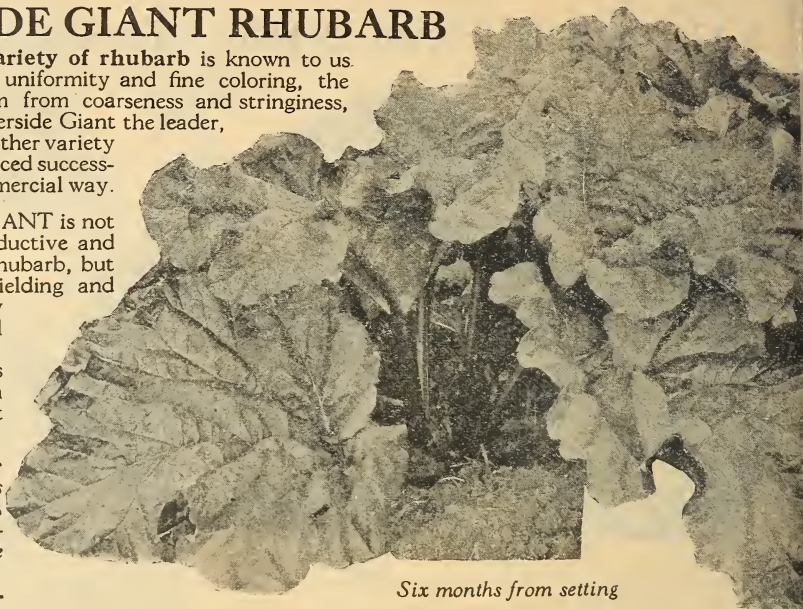
## RIVERSIDE GIANT RHUBARB

**N**O OTHER variety of rhubarb is known to us that has the uniformity and fine coloring, the flavor, the freedom from coarseness and stringiness, that has made Riverside Giant the leader, and we know of no other variety that has been produced successfully in a large commercial way.

RIVERSIDE GIANT is not only the most productive and profitable hardy rhubarb, but is also the best yielding and finest in quality when forced of all forcing varieties.

Full instructions and information on forcing will be sent on request.


*Four men in 6 hours have cut over 5 tons from less than one-half acre on the fourth cutting.*



*Six months from setting*

RIVERSIDE GIANT is unequalled for yield and quality, being crisp, tender, free from stringiness, with a good color and a delicious, distinctive flavor. The skin is so thin that it disappears in cooking. Riverside Giant has every good quality of a commercial rhubarb and is so vigorous and productive that over thirty-five tons per acre is a conservative estimate for the season. Cuttings begin in March and usually four are made, the last one in July. Full information for preparation of the soil and growing the crop, as practiced by the originator, will be sent on request to all purchasers.

Two cars of Riverside Giant Rhubarb shipped to The Dalles for drying, proved to be the best variety for that purpose, containing more substance and not having a tough skin.

 We have the exclusive sale of this wonderful rhubarb and offer root divisions from the original stock. Each root will make a thrifty plant if properly cared for.

Root divisions must be made from young healthy stock, cuttings from old roots will give poor returns

**PRICE**—each 15c; dozen \$1.25; \$8.50 per hundred. Special prices on large lots.

### Victoria Mammoth Rhubarb

Standard Hardy Variety

**ONE-YEAR-OLD ROOTS**—Postpaid, 8c ea.; 75c per dozen. By express or freight, 50c per dozen; \$3.00 per 100.

**TWO-YEAR-OLD ROOTS**—Postpaid, 15c each; \$1.25 per dozen. By express or freight, 85c per dozen; \$6.00 per 100.

Write for prices on larger lots.

### Wagner's Giant

A larger, heavier yielding variety than the Crimson Winter. Our stock is locally grown from root divisions only and will be found true and uniform. Does not run up as many seed stalks as the Crimson Winter and in our experience has proven better in every way.

**Price, not prepaid:** Root divisions, each 15c; \$1.25 doz.; \$8.00 per hundred.

Root Clumps, each 50c; \$4.00 per doz.

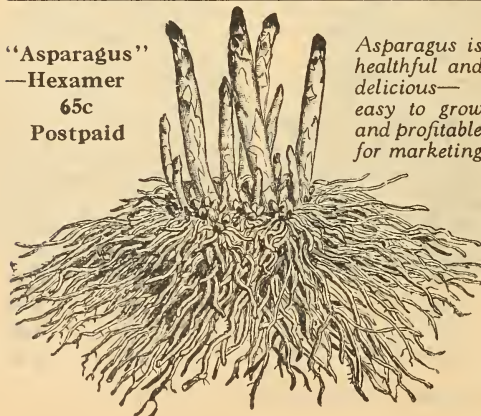
"Asparagus"

—Hexamer

65c

Postpaid

*Asparagus is healthful and delicious—easy to grow and profitable for marketing*



### Asparagus Roots

**ONE-YEAR-OLD PLANTS**—Postpaid 25c doz—75c per 50—\$1.00 per 100—by express or freight 20c dozen—50c per 50—75c per 100—\$6.00 per 1000.

**TWO-YEAR-OLD PLANTS**—Postpaid 40c dozen—\$1.00 per 50—\$1.50 per 100—by express or freight 25c dozen—75c per 50—\$1.00 per 100—\$8.00 per 1000.

### Horse Radish

Postpaid 5c each—35c per dozen—by express or freight 25c dozen—\$1.50 per 100.

Write for price by the 1000.

# VEGETABLE PLANTS

WE grow large quantities of vegetable plants, and can supply all the kinds listed below, in their proper season, in most any quantity. We have made arrangements this year so that we can supply all vegetable plants in two grades. If you want a quantity of plants write us early.

Transplanted plants are much stronger and better rooted, and are well worth the price especially in the early part of the season. We can supply most any of the leading sorts. No plants sent C. O. D.

## CABBAGE

Transplanted and "pulled" plants in all standard varieties. Early and late at seasonable times.

Prices	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Transplanted.....	\$0.20	\$0.90	\$0.75	\$6.00
Not transplanted.....			.50	4.00

F. O. B. Portland.

## KALE

When you order Kale be sure to state whether you want the Garden Kale or the "Cow" Kale.

Prices	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Thousand Head or "Cow Kale".....	\$0.15	\$0.65	\$0.50	\$4.00
Garden or Curley Kale. .	.25	.90	1.00	7.50

Special prices on large lots in season.

## BROCCOLI

Our famous "St. Valentine" Broccoli should be in every garden. Broccoli is a winter cauliflower very hardy and of the finest quality—"St. Valentine" is the best variety; plants can be set after June and are ready to use in March.

Prices	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Broccoli.....	\$0.30	\$1.40	\$1.25	\$8.50

Write for prices on large lots. We will grow them to your order.



## CAULIFLOWER

Cauliflower seed is scarce and high in some varieties and plant prices subject to change.

Prices	Postpaid		Not prep'd	
	Doz.	100	1000	
Early Varieties, transpl'ted. .	\$0.30	\$1.00	\$7.50	
Not transplanted. . . . .		.90	6.50	
Late kinds, transplanted. . . .	.30	1.00	7.50	
Late kinds, not transplanted. . . .		.75	6.00	

☛ Add 15c per hundred if ordered by mail.

## CELERY

Fine healthy plants in early and winter varieties furnished in season or grown to order.

☛ To succeed with celery keep the plants growing constantly while young—if they "stand still"—they are liable to run up to seed later

Prices	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Transplanted. . . . .	\$0.30	\$1.25	\$1.00	\$7.50
Not transplanted. . . . .			.75	6.00

## TOMATOES

Tomato plants should not be set out before the weather is settled and ground warm; unless they are protected from frost.

If you do not know what variety is best, tell us, we will give you the right one.

Prices	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Transplanted. . . . .	\$0.30	\$1.25	\$1.00	\$7.50

Write for prices on "pulled" plants and large lots, grown to order.

## BRUSSELS SPROUTS

These are very hardy and should be grown the same as Kale or Broccoli.

Prices	Postpaid		Not Prep'd	
	Doz.	100	100	1000
Brussel Sprouts. . . . .	\$0.25	\$1.00	\$0.75	\$7.00

## SWEET POTATO PLANTS

Sweet potatoes can be successfully grown in most sections. The plants should be set out after the ground is warm. Rich sandy bottom land is best but any good garden soil will give good returns.

Prices	Postpaid		Not Prepaid	
	Doz.	100	100	1000

For seasonable delivery. . . . \$0.35 \$1.25 \$0.25 \$1.00 \$9.00

☛ ABOVE PRICES ARE SUBJECT TO CROP CONDITIONS.

## Flavoring and Medicinal Herbs—Plants

**CHIVE**—Has mild onion flavor, grows in grass-like clumps; much used for flavoring.

Each 15c; doz. \$1.50

**LAVENDER**—By distillation produces the well-known Lavender water, the flowers for perfuming wardrobes, etc. Each 25c; doz. \$2.50

**ROSEMARY**—Infusions of the leaves are used in medicinal beverages. Produces an aromatic oil. Each 25c; doz. \$2.50

**PEPPERMINT**—Hardy perennial for producing oil. Each 20c; doz. \$2.50

**SWEET MARJORAM**—The sweet aromatic leaves are used in either the green or dry state. Each 20c; doz. \$2.00

**SAGE (Giant)**—The leaves and tender tops are used in stuffings and sauce; also in the beverage known as Sage Tea. The Giant Sage is a greatly improved variety. Each 15c; doz. \$1.50

**THYME**—Broad leaved, used in soup, stuffing and sauce. Each 25c; doz. \$2.50

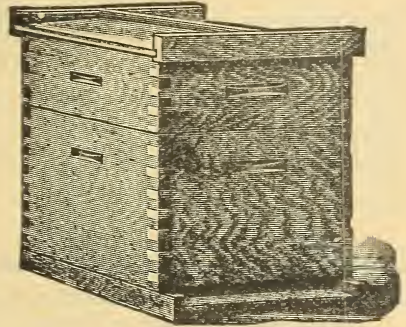




# BEE HIVES AND SUPPLIES

## P. S. Co.'s Dovetailed Western Cedar Hives

These cedar hives are made especially for our Western trade. In construction they are the same as our pine hives, the only difference being that they are made of a superior quality of cedar, the best and most lasting wood for our Western climate. The sections and separators used in the supers are the regular No. 1 Eastern stock. Price and quality considered, these hives are splendid bargains.



	Each Nailed	K. D. 5	Weight 5
Fig. 1-8.....	\$2.65	\$11.50	140
Fig. 2-8.....	2.35	10.00	125
Fig. 1-10.....	2.95	13.00	135
Fig. 2-10.....	2.65	11.50	126
Fig. 10-8.....	2.75	12.00	150

For description of numbers, see those given for our pine hives at bottom of page.

## P. S. Co.'s Dovetailed Western Pine Hives

This is our lowest priced hive and is the best value we can offer. It is standard size and well and carefully made of first-class lumber. The inside fixtures are just the same as in our regular pine hives and the sections supplied are of the best grade of white Eastern basswood. For general description of the different numbers see corresponding numbers and descriptions under Eastern Pine Hives below.

	Each Nailed	K. D. 5	Weight 5		Each Nailed	K. D. 5	Weight 5
Fig. 1-8.....	\$2.65	\$11.50	140	Fig. 2-8.....	\$2.35	\$10.00	135
Fig 1-8, less Super....	1.70	7.40	103	Fig 2-8, less Super....	1.60	6.90	100

## P. S. Co.'s Dovetailed Eastern Pine Hives

This hive is similar to the Root Dovetailed Hive except that it is made from a little different kind of Eastern Pine, but is first-class.

### Descriptions and Prices Order by Number

**Fig. 1. DOVETAILED HIVE**—(Complete with 1 super) consists of 1 bottom board, 1 body, 1 super, 1 cover, 8 Hoffman brood frames, 1 division board, 2 tightening springs for super, 6 section holders, 6 slotted separators, 24 sections and foundation starters for frames and sections and nails.

Nailed \$3.15 each—per 5 K. D. \$14.00

**Fig. 2. DOVETAILED HIVE** is the same as No. 1, less sections and foundation starters.

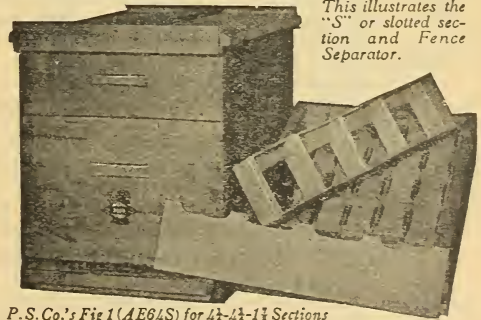
Nailed \$2.85 each—per 5 K. D. \$12.50

**Fig. 3. DOVETAILED HIVE** is the same as No. 1, except it has two supers instead of one.

Nailed \$4.25 each—per 5 K. D. \$19.15

**Fig. 4. DOVETAILED HIVE** is the same as No. 3 less sections and foundation starters.

Nailed \$3.70 each—per 5 K. D. \$16.75



This illustrates the "S" or slotted section and Fence Separator.

P. S. Co.'s Fig 1 (AEB4S) for 4x4-1 1/4 Sections

**Fig. 10. DOVETAILED HIVE** (Complete two-story for extracting), consists of one bottom board, 2 bodies, 1 cover, 16 Hoffman brood frames, 3 division boards and nails.

Nailed \$3.20 each—per 5 K. D. \$14.50

WE ADVISE THE USE OF THE ABOVE COMBINATIONS, BUT IF YOU WANT SECTIONS OR SEPARATORS OF OTHER DESIGNS, MAKE NOTE IN YOUR ORDER

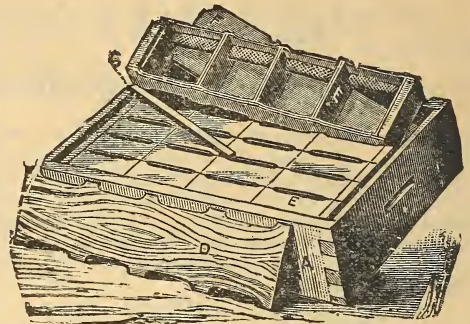
**Our Special Catalog of Bee Supplies** lists everything necessary for the successful handling of bees and the production of honey—tells how to care for bees and gives valuable information on pollination, of special interest to fruit growers. This catalog is ready in February and is mailed free on request



**P. S. CO.'S DOVETAILED SUPERS**

Unless otherwise ordered we always send S super for the regular stock  $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$  sections and wood separators. (See cut.)

	Nailed or K. D.	P'ck'd in Wt. flat 5	
Fig. 1-8 Pine.....	\$1.15	\$5.25	40
Fig. 1-8 Western Pine.....	.95	4.25	40
Fig. 1-8 Cedar.....	.95	4.25	35
Fig. 2-8 Pine.....	1.00	4.50	35
Fig. 2-8 Western Pine.....	.80	3.50	35
Fig. 2-8 Cedar.....	.80	3.50	30
Fig. 8-8 Extracting Super..	.90	3.75	40
Fig. 0-8 Empty Wes'n Pine.	.40	1.75	20
Fig. 0-8 Pine.....	.55	2.50	20
Fig. 0-8 Empty Cedar.....	.40	1.75	20



Super, Designated as 4 or Fig. 1-S—Complete

For description of Super Number See Corresponding Number Describing Hives

**ROOT'S HIVE COMBINATIONS AND HOW TO UNDERSTAND THEM—Prices on Page 134**

To accommodate various localities and bee keepers of different preferences, we have a large number of different combinations, and each combination is indicated by a series of letters and figures. A glance at the following table showing the meaning of each letter or figure in alphabetical and numerical order will make all plain.

- A. Danzenbaker bottom.
- E. Excelsior cover.
- G. The gable cover.
- I. Super for Ideal plain sections,  $3\frac{3}{8} \times 5$ .
- M. Super  $4 \times 5$  plain sections for the Danz. hive.
- P. Super equipped for plain  $4\frac{1}{4}$  sections.
- Rc. Metal roof, double cover.
- S. Super for  $4\frac{1}{4}$  beeway sections.
- 2. Super with section holders, separators of fences, but no sections or foundation.
- 4. Super with section holders, separators or fences, sections and foundation starters.
- 5. Hive body or brood chamber, with frames and division board but no starters.
- 6. Hive body or brood chamber with frames, division board, and foundation starters.

- 7. Complete Hive Body with full sheets of foundation, without cover or bottom.
- 8. Indicates hive with 8 brood frames.
- o. Indicates hive with 10 brood frames.

When the figures are doubled, it indicates that two of the articles are called for. For instance, 2-2P means two supers with plain section holders and fences.

If you desire a Danz bottom-board, Excelsior cover, 8-frame dovetailed hive with frames, foundation and super with section holders,  $4\frac{1}{4}$  plain sections, fences and foundations, the number would stand thus: AE64P-8.

If you wish two supers, in place of the one you would add another figure 4, and the whole would read for 8-frame hive; or if you wanted this same combination without foundation or sections, the designation would be AE522P-8.

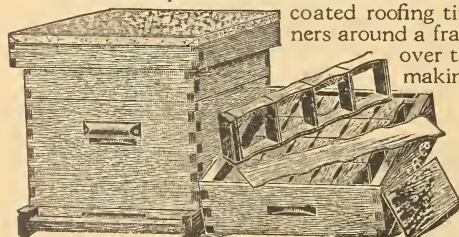
**IMPROVED APPLIANCES OF THE A. I. ROOT CO.—Prices on page 135**

**DANZENBAKER HIVES**—These hives take the same Cover, Bottom Board and Super as the ten-frame dovetailed hive, but the Brood Chamber is more shallow, taking ten closed end Brood Frames  $7\frac{1}{2}$  inches deep and 17 inches long; each is supported by a pivot in the center of the end bars, a great improvement, as the frames can be reversed and filled out to the ends; it also prevents bees mashing in handling.

The Section Holder has the same kind of Pivot Support, and a fence separator is used. The section is a plain  $4 \times 5 \times 1\frac{1}{8}$ , a size and shape that is very pleasing to the eye, and therefore a good seller. The arrangement in the super is such as to get perfect results in filling out the sections, and in no other hive are they so uniformly and attractively finished. While the Danz. Hive is more shallow than the standard Langstroth it has exactly the same Cubic Capacity as the eight-frame Dovetailed Hive. For prices see page 135.

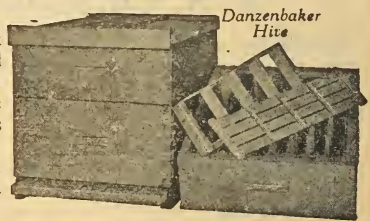
**METAL ROOFED DOUBLE COVER Rc.**

Consists of a  $\frac{3}{8}$  inch super cover, tin-bound, that should be supported a full bee-space above the sections; this is designated as c. The outside part of the cover is made of a solid sheet of lead coated roofing tin folded at the corners around a frame that telescopes



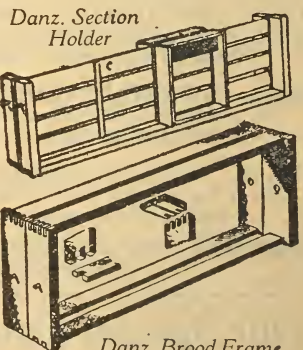
Showing Rc Cover

over the top of the hive making a weather proof cover that will not blow off, warp or leak. This top is the R part of combination cover listed and sold complete as Rc.



Danzenbaker Hive

The Danzenbaker Hive is Specially designed for the production of Fancy Comb Honey.



Danz. Section Holder

Danz. Brood Frame

Add 45c per hive when Rc cover is ordered. For Price of Rc Covers see page 135.



# Dovetailed Hives and Fixtures (Continued)

Root's Dovetailed Pine Hives—Different Combinations	Each Nailed	K. D. in Flat	Wgt. of 5
<b>HIVES:</b>			
Fig. 1 (A-E or A-G, 6-4, S or P) 8 frame body and 1 super, all complete with starters . . . . .	\$3.65	\$16.25	140
Fig. 1 (A-E or A-G, 6-4, S or P) 10 frame body and 1 super, all complete with starters . . . . .	3.90	17.50	160
Fig. 2 (A-E or A-G, 5-2, S or P) 8 frame body and 1 super, all complete less section and starters . . . . .	3.30	14.50	130
Fig. 2 (A-E or A-G, 5-2, S or P) 10 frame body and 1 super, all complete less sections and starters . . . . .	3.55	15.75	150
(A-E or A-G, 6) 8 frame body only, with frames, division board and starters, cover and bottom board . . . . .	2.45	10.75	100
(A-E or A-G, 5) 8 frame body only, with frames, division board and no starters, cover and bottom board . . . . .	2.35	10.25	100
Fig. 10 (A-E or A-G, 5-5) 8 frame body, two story . . . . .	3.60	16.50	160
(A-E or A-G, 5-5) 10 frame body . . . . .	3.85	17.75	170
<b>HIVE BOTTOM:</b>			
A-Danzenbaker bottom-8 . . . . .	.50	2.25	20
<b>HIVE COVERS:</b>			
E-Excelsior or G-gable cover-8 . . . . .	.60	2.75	20
Rc cover 8 fr. . . . .	.95	4.25	40
Rc cover 10 fr. . . . .	1.05	4.75	40
<b>HIVE BODIES (Brood Chamber):</b>			
Empty body for 8 frames 9 1/2 inches deep with tin rabbets . . . . .	.80	3.50	40
5-Body-8, with frames and division board . . . . .	1.25	5.75	65
6-Body-8, with frames, division board and starters . . . . .	1.35	6.25	70
<b>SUPERS:</b>			
Fig. 1 (4 P, S or I) 8, all complete with starters and sections . . . . .	1.20	5.50	40
Fig. 1 (4 P, S or I) 10, all complete with starters and sections . . . . .	1.30	6.00	50
Fig. 2 (2 P, S or I) 8, all complete, less starters and sections . . . . .	.95	4.25	35
Fig. 2 (2 P, S or I) 10, all complete, less starters and sections . . . . .	1.05	4.75	40
Fig. 0 Plain supers, with flat tin; empty . . . . .	.45	2.00	20
<b>DANZENBAKER HIVES:</b>			
A E D, 6-4 M-10 . . . . .	4.10	18.75	165
A E D, 5-2 M-10 . . . . .	3.75	17.00	150
A E D, 5-10 . . . . .	2.55	11.75	100
<b>SUPERS:</b>			
Danz. 4 M-10 super . . . . .	1.45	6.50	60
Danz. 2 M-10 super . . . . .	1.20	5.25	50

Note—D, Danzenbaker cover; M, Danzenbaker super

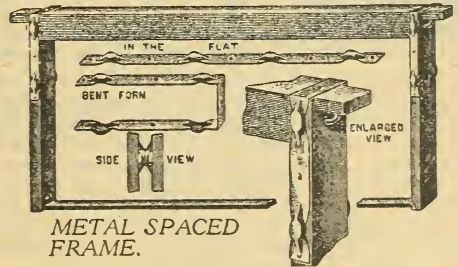
## Hoffman Brood Frames

The Hoffman Improved Foundation Fastening Frames (see cut) are the latest, most satisfactory brood frames. The top bar is made with a beveled strip, which holds the foundation absolutely in place, perfectly straight and exactly in center of top bar. Any one can put foundation in these new frames very rapidly

### PRICE OF HOFFMAN FRAMES

	Wt. per 10	Per 10	Per 100
Improved F. F. Root's, 4 1/2 lbs.	50c		\$5.00
Improved F. F. P. S. Co.'s . . . . .	4 1/2 lbs.	50c	4.50
Western . . . . .	4 1/2 lbs.	40c	3.50
Half Hoffman . . . . .	2 1/2 lbs.	50c	4.00
Danz. Reversible . . . . .	2 1/2 lbs.	50c	4.75

The Half Hoffman Frame is used in the ideal super and for extracting only.



METAL SPACED FRAME.

## New Metal Spaced Frame

Recommended where there is much propolis. Spacing is accurate and frames handle easily. Price per 10, 60c—100, \$5.60. Wt. per 10, 5 lbs.

### METAL SPACERS ONLY

Per 100 Pair. Wt. 1 1/4 lbs. \$1.10

## Section Holders

Six section holders with separators, one follower and wedge are put in each super, and each section holder holds four one-pound honey boxes. The bottom strip is 1/4-inch thick, and is cut out to fit insets of sections.

Root's 1 1/4 x 18 3/4 inches slotted. Wt. 23 lbs. per 100. Each 4c—per 100 \$3.90

P. S. Co.'s 1 1/4 x 18 3/4 inches, slotted. Wt. 23 lbs. per 100. Each 4c—per 100 \$3.00

Western, 1 1/4 x 18 3/4 inches, slotted. Wt. 29 lbs. per 100. Each 3c—per 100 \$2.70

Root's, 1 1/2 x 17 1/2 inches, plain. Wt. 15 lbs. per 100. Each 4c—per 100 \$3.40

Danzenbaker, reversible. Wt. 24 lbs. per 100. Each 4c—per 100 \$3.90

Bottoms only—1 1/4 in. wide, slotted. Western. Wt. 11 lbs. per 100. Each 2c—per 100 \$1.35



## SECTION HONEY BOXES

**Our No. 1 Sections** are made of the choicest white basswood lumber, and are all perfect in finish and free from defects. They are not all snow-white, but vary from that to a light cream color. Choice honey shows off to best advantage in a section not too white, as it is the honey rather than the wood that the consumer looks at. Wt., 6¼ lbs. per 100

**Root's No. 1 best white per 100 90c—per 500 \$4.00—per 1000 \$8.00.**

**Portland Seed Co.'s No. 1 per 100 90c—per 500 \$3.90—per 1000 \$7.75.**

**Our No. 2 Sections**, selected from our best grade, sell at a price considerably less than our No. 1, and are correspondingly lower in quality. Most of them are equal to No. 1, except in color; some have dark spots, sawmarks, or other blemishes which exclude them from No. 1 grade. Wt., 6¼ lbs per 100.

**Root's No. 2 Second grade per 100 85c—per 500 \$3.80—per 1000 \$7.50.**

**Portland Seed Co.'s No. 2, Wt. 6¼ lbs. per 100, per 100 85c—per 500 \$3.65—per 1000 \$7.25.**

Order any of the following sizes wanted. We have 4¼x4¼x1 7/8, generally used and always sent unless otherwise ordered; 4¼x4¼x7 to the foot; 4¼x4¼x1 15-16; 4¼x4¼x1 ¾. The 4¼x4¼x1 ½, 3 5/8x5x1 ½, and 4x5x1 ¾ plain sections, having no beeway, are 25c per 1000 less.

### Different Styles of Sections.



Style 1 Beeway, commonly called closed-top.



Style 2 Beeway, open top and bottom. This style is sent when no other is specified.



Style 3 Beeway, open three sides.



Style 4 Beeway, open on all four sides.



Style 5 Plain, no beeways. Used with fences.



Style 5 M, 4x5x1 ½ plain, no beeways.

For large quantities, other sizes, etc., write for special prices. If ordered by mail, allow 1c each for postage. Sample section, by mail, 1c each.

## COMB FOUNDATION



Full Sheet, Triangular and Quarter Sheet Method of Using Foundation

There is little question but that it pays to use foundation in full sheets in the brood frames and sections, especially the latter. If you think you cannot afford so much you should at least have a strip for a starter. It will help much more than it costs you, in getting straight, even combs. You can use a starter any width from one inch up.

Our foundation is made by the "Weed process," and is a very superior article. Packed in 1, 2, 3 and 5-lb. cardboard boxes in a case.

### PRICES OF COMB FOUNDATION

When you order, be sure to tell what grade you want, and give price.

GRADE	Size of Sheets	No. per lb.	In Lots of	
			1 lb.	10 lbs.
Light Stand'd Brood	7 3/4 x 16 1/2	7	\$0.85	\$0.80
Extra Light Brood	7 3/4 x 16 1/2	9	.87	.82
Light Section	3 1/2 x 15 1/2	28	.90	.85
Extra Light Section	3 1/2 x 15 1/2	30	.93	.88

Write for lowest market prices on larger orders.

## SEPARATORS

One separator should always be placed between each section holder so that the bees will build the honey comb even in each section (see illustration of supers, page 134.)

**Slotted Wood Separators, 4 1/2 x 18, Root's, Eastern. Wt. 8 lbs. per 100. Per 10, 20c—per 100, \$1.50.**

**Western (Veneer) 8 lbs. per C; per 100, \$1.35 Plain Separators. Weight 6 1/4 lbs. per 100.**

**Per 10, 15c—per 100, \$1.30**

**Fence Separators, P. or L., Weight 13 lbs. per 100. Per 10, 35c—per 100 \$3.00**

**Fence Separators, Danz., M. Weight 16 lbs. per 100. Per 10, 35c—per 100, \$3.10**

## HONEY SHIPPING CASES

These have a glass front, and corrugated, non-dripping packing, which protects against breakage, and are designed for marketing honey. If you expect to get the best market price, you must put your honey up in nice cases.

### PRICE LIST OF SHIPPING CASES

	Nailed Each	Flat 10
Non-drip—		
24-lb. Root	\$.35	\$3.00
24-lb. Western	.....	.....
24-lb. Eastern	.30	2.75
24-lb. for 3 1/2 x 5 Sections	.30	2.95
32-lb. for 1 1/2-inch Sections	.30	2.95
24-lb. for Danzenbaker Sections	.35	3.00

## SECTION PRESSES

### HUBBARD

This is one of the best machines for putting together one-piece sections. The ends are forced together by means of a toggle joint. It is made adjustable for sections of different sizes. Weight, 25 lbs. Price \$3.25

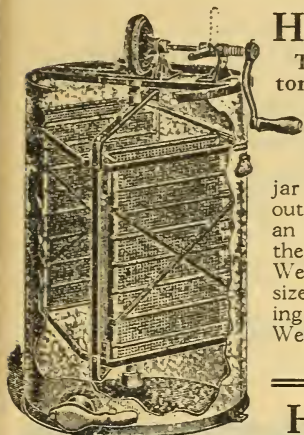
### ROOT'S

Simple and practical. Fastens to the wall. Takes but little space. Works rapidly and accurately.

Price \$2.30



## HONEY AND WAX EXTRACTORS



Reversible Extractor

The New Root Automatic Extractor—  
No. 25-B—Fitted with a brake that reverses the frames instantly without jar or injury and without stopping. This is an exclusive feature of the Root Automatic. We furnish the 4 frame size. Has ball bearing and slip gear device. Weight 210 pounds.  
Price \$42.50

No. 5-B, Novice—Two frame for any size frame not over 9½ by 18½ inches; weight 45 pounds.  
Price \$18.25

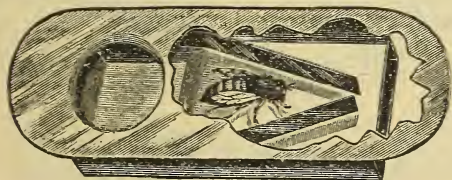
Cowan No. 15—2 frame reversible extractor. This is a well known extractor. Weight 85 pounds.  
Price \$24.50

### WAX EXTRACTORS

Doolittle Solar Wax Extractor. With this the sun supplies the heat; wt. 30 lbs. Price \$7.75

Swiss Wax Extractor. Comb is put in wire basket inside of can and set over hot water. Simple and good.  
Price \$5.75; with steam generator \$7.00

## HIVE FIXTURES AND SUPPLIES



PORTER BEE ESCAPE

Great Labor-saver. Weight 2 ozs.  
Price 20c—postpaid  
Mounted. Weight 2¼ lbs. Each 15c

### PORTER HONEY HOUSE ESCAPE

No extracting room is complete without one or more of them.  
Each, 25c—postpaid

### FEEDERS

Alexander. Latest out. Used under rear end brood chamber. Weight 1¼ lbs. Price 35c  
Simplicity. Weight 6 ozs. Each 15c  
Miller's. Sets on hive like a super; holds about 25 lbs. of syrup. Weight 5 lbs. K. D.  
Nailed up complete, 60c; in flat, 55c

Boardman's. Weight ½ lb. Price without jar, 25c.

Division Board Feeders. Weight 1¾ lbs. Each, nailed, 40c

### PERFORATED ZINC

Used for making honey boards, also entrance guards, queen and drone traps, etc.

Perforated sheets, each 32x96. Weight 6 lbs \$4.40. Less than a sheet, per square foot. Weight 4½ ozs. 30c.

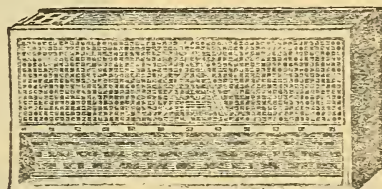
### QUEEN BEES

We are in a position to furnish full-blooded Italian queens. It takes about five days to get these in from the apiary, so do not expect queens by return mail.

Untested Queen. April, \$1.75. May, June, July, August, September, \$1.25.

Tested Queen. April, May, June, July, August, Sept., \$2.00.

Selected Tested Queen. April, \$3.50—May, June, July, \$2.50 August or September, \$3.00



Alley's Combined Drone and Queen Trap

### ALLEY'S DRONE AND QUEEN TRAP

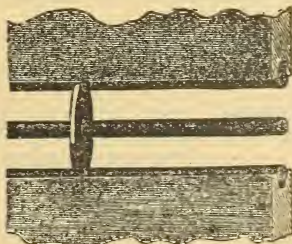
A non-swarmer device. Weight 1 lb.  
Each, 8-frame 70c—10-frame 75c  
Improved Wire Front. Weight 1¼ lbs.  
Each, 8-frame 75c—10-frame 80c

### BEE ENTRANCE GUARDS

Root's or Tinker's. These are to admit workers, but exclude drones. Weight ¼ lb.  
Price Zinc Front 25c—Improved Wire Front, Price 8-frame 25c—10-frame 30c.

### HONEY BOARDS

Used to confine the queen to the brood chamber. Nos. 1 and 11 are unbound zinc. Nos. 12 and 13 are wood-bound with a bee space one side.



NEW STYLE WOOD AND WIRE HONEY BOARD

No sharp edges for the bees to pass over.

- No. 11. 8-frame, unbound, 12x19½ inches. One 45c—ten \$4.00
- No. 1. 10-frame, unbound, 14x19½ inches. One 50c—ten \$4.50
- No. 13. 8-frame, wood-bound, 13½x20 inches. One 55c—ten \$4.90
- No. 12. 10-frame, wood-bound, 16x20 inches. One 60c—ten \$5.45
- No. 8. 8-frame, wood and wire, 13½x20 in. One 70c—ten \$6.70
- No. 7. 10-frame, wood and wire, 16x20 inches. One 80c—ten \$7.60

# Hive Fixtures and Supplies (Continued)



## BEE BRUSHES

Cogshall's. (See cut) Price 35c—by mail 40c  
 Dixie. (See cut) Price 30c—by mail 35c  
 German. Price 30c—by mail 35c

## GLOVES, RUBBER

Ladies. Sizes 7, 8, 9. Price \$1.70—by mail \$1.80  
 Men's. Sizes 10, 11, 12.

Price \$2.00—by mail \$2.10

Men's Half Long. Sizes 13, 14, 15.

Price \$2.25—by mail 2.35

CANVAS—Long Sleeve, Oiled.

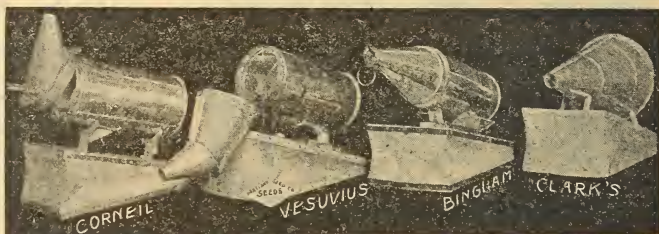
Price 70c—postpaid 80c

Note—To insure getting proper size, mark outline of hand on sheet of paper.

## SMOKERS

Every owner of a hive of bees should have a smoker. A few blasts of smoke will quiet the bees so that they can be handled with safety. (See cut of the leading kinds.)

Clark's Cold Blast—Root's  
 Probably the most popular smoker in use today. Weight 1¼ lbs.  
 Price 80c



## IMPROVED CORNEIL

Makes a good strong blast. The most satisfactory and serviceable smokers.

Standard size, 3¼-inch, wt. 2 lbs. \$1.05  
 Standard Jumbo, 4-inch, wt. 2 lbs. \$1.50  
 Standard Copper, 3¼-inch, wt. 2 lbs. \$1.80  
 Junior. 2½-inch, weight 1¼ lbs. .80  
 Danz, Victor. Combined hot and cold blast.  
 Weight 1¾ lbs. Price \$1.10

## FOUNDATION FASTENERS

Parker's. A satisfactory and serviceable tool  
 Weight 1 lb. Price, 45c

Daisy Foundation Fastener. Will put starters in better and faster than any machine before introduced. Weight 5½ lbs.

Price, without lamp, \$1.35; with lamp \$1.65  
 Van Deusen Wax Tube Fastener. Price 30c  
 Root's, complete with lamp, 75c; without lamp, 35c

## WIRE IMBEDDERS

The Easterday. Weight 4 ozs. Price by mail 30c

Spur Wire Imbedder. Teeth set so as to straddle the wire while imbedding it. Weight, 4 ozs. Price by mail, 30c

## ROOT'S QUEEN REARING OUTFIT

A complete set of tools and materials, including book of instructions, enabling any one with very little experience to rear his own queens at small expense. Price \$6.00

## MANUM'S SWARMING DEVICE

A most complete swarming device. The swarmer is light, conveniently carried and will carry a swarm 20 feet from the ground. Complete \$2.50—wire basket, with ball, no pole \$1.80. Weight 3½ lbs.

## BINGHAM SMOKERS

Strong, well made. The "Conqueror" and "Doctor" not excelled for use in large apiaries.  
 Bingham Conqueror. Weight 1 lb. .95  
 Bingham Little Wonder. Weight 1 lb. .75  
 Bingham Doctor. Weight 1½ lbs. \$1.15  
 Bingham Engine. Weight 1½ lbs. \$1.40

## BEE VEILS

Globe. Has five bars that will keep veil away from head. Weight, 6 oz. Price \$1.20

Hat Veils. These veils have a rubber band round the top, so as to fit the hat snugly.

No. 1 Veil, made entirely of silk tulle.

\$1.20 postpaid

No. 2 Veil, cotton tulle, silk face.

95c postpaid

No. 3 Veil, cotton tulle throughout.

80c postpaid

Alauder.

\$1.10 postpaid

## No. 30 TINNED WIRE

¾-ounce spools. Each 10c  
 ¼-pound spools. Each 20c  
 ½-pound spools. Each 30c  
 1-pound spools. Each 45c  
 5-pound coils. Each \$1.60

## TIN RABBETS

Price: 12-inch. . . . Per 10, 20c—per 100, \$1.70  
 14-inch. . . . Per 10, 20c—per 100, \$1.80

## T-TINS

Price: 12-inch. . . . Per 10, 20c—per 100, \$1.70  
 13¼-inch. . . . Per 10, 20c—per 100, \$1.70  
 14-inch. . . . Per 10, 20c—per 100, \$1.80  
 15-inch. . . . Per 10, 20c—per 100, \$1.80

## FLAT TINS

Price: 13-inch. . . . Per 10, 10c—per 100 90c  
 15-inch. . . . Per 10, 10c—per 100, \$1.00



## Miscellaneous Bee Supplies

### CAGES FOR QUEENS

Benton—For mailing and introducing. Each no candy 5c—by mail 7c.

### QUEEN CELL PROTECTOR—Doolittle

Each 3c—by mail 5c

WEST'S CELL PROTECTOR Ea 5c—by mail 7c

WEST'S SPIRAL CAGE Ea 10c—by mail 95c

### DIVISION BOARDS

Wt. 5 oz. per 10.

Each 15c—10 \$1.10

### FOLLOWERS

Each 5c—10, 50c

HIVE TENT—Weight 6 lbs.

Price \$3.50

HIVE CLAMPS—Without screws per pair 6c—10 pairs 55c—add 3c per pair postage for single pairs.

### HIVE TOOL

Roots Nickel Steel.

Each 60c

### HONEY KNIVES

Novice.

Price 95c—by mail \$1.00

Bingham.

Price 95c—by mail \$1.00

### TIGHTENING SPRINGS.

Each 1c—10, 9c

## BEGINNERS' OUTFIT

To the inexperienced we recommend the following complete equipment—all that is necessary to make a start with bees.

- 1 Copy A B C and X Y Z Bee Culture.
- 1 Fig. 1-8 P. S. Co.'s Dovetailed Western Cedar Hive.
- 1 Clark's Cold Blast Smoker.
- 1 Bee Veil No. 2.
- 1 Parker Foundation Fastener.
- 1 Porter Bee Escape, Mounted.
- 1 Pair Long Canvas Gloves.

"GLEANINGS IN BEE CULTURE" — The best bee magazine published, will be included with this outfit—a year's subscription.

**PRICE Without Bees \$8.50**

F. O. B. Portland

BEES can usually be purchased near your home and it is best to have them examined by an experienced man to see that the colony is in a healthy condition.

ITALIAN BEES (the leather colored), are to be preferred but any strong colony is alright for we can supply pure bred Italian Queens that will soon Italianize the colony as the worker bees live but a short time. If unable to get bees write us, we will try and secure them for you.

## Before You Get Your Bees, Choose a Location

GENERALLY speaking, bees are not very cross on arrival as the shaking they get causes them to fill themselves with honey and in this condition they are easily handled and not disposed to sting. Level up stand for bottom board, place hive where wanted; always open entrance first, using as little smoke as possible. The bees will boil out with a rush, although making quite a fuss, they will not likely be very cross and sting. You can then remove screen on top of hive, replace the cover, seeing it is down tight, leave alone for a day or so, then manipulate as necessary.

Do not condemn a colony of Italians because a few black bees appear; bees mix and visit among themselves. Italians as imported do not produce golden bees. Most of the darker strains are better honey producers than the golden bees. Straight five banded bees have been produced by selection but have not accomplished much as honey gatherers when compared with the leather colored, neither have they proven as hardy.

Don't get excited if a bee starts after you.

Don't fight and slap; walk slowly away a few paces, keeping face down, as a bee cannot fly upward and sting.

Don't use too much smoke, just a few puffs is generally sufficient.

Don't pinch the bees in handling or in taking out of the frames; that makes them cross.

Don't stand in front of the hive while working with the bees.

Don't forget that bees are the most interesting and profitable insects in natural history.

## To Rid Bees of Foul Brood

This method is recommended by one of the most successful Bee men of the Northwest and when instructions are carefully followed, has proven a radical cure.

Drum the bees from the old colony into a new hive with 7 frames full of new sheets of foundation and one frame full of good, new, clean drawn comb, marking this frame.

Then make a frame the size of the top of your hive, cover this with wire screen with a Porter bee escape in the center, turning this so the bees cannot pass up out of the hive. Place this screen on the top of the new hive. Place the old hive that the bees were drummed out of on the top of the screen, leaving the screen between the hives for 3 days. Then very gently lift the old hive from the new one. Set it to one side, lift the screen and remove the marked frame, shake the bees therefrom and in its place put another new frame of new foundation, destroying the marked one. Then replace the screen and the hive on top as they were before. In 21 days all the bees will be hatched in the old hive and will pass down into the new hive and the job is done.

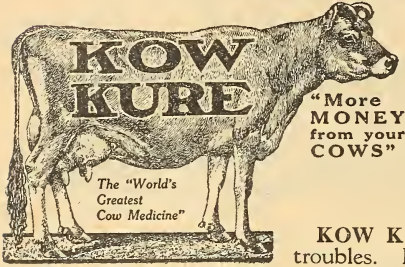
The old hive should then be completely destroyed by burning, and any honey that is left after the burning of the hive and comb, should be buried, as honey will seldom burn.

**CAUTION:** Be sure to prevent any part of honey or comb from diseased colony being used by the bees or coming in contact with the new hive in any manner.



# DAIRY SUPPLIES

**KOW-KURE** Makes Poor Cows Good  
—Good Cows Better,  
and Makes More Money for Cow Owners.



**"THE HOME COW DOCTOR"**  
A handbook for cow owners, describing diseases that affect a cow's productivity and telling how to prevent and cure them in a single cow or a whole herd. **Free on request.**

**KOW KURE** is different from anything ever discovered for cow troubles. It is the only cow medicine that is strictly for cows only. It is not a stock food, but a specific remedy especially for cow diseases, such as Barrenness, Scours, Milk Fever, Caked Udder, Bloating, Red Water, Swelling of Bag, etc. It prevents abortion and removes retained after-birth. It tones up the system, renews vitality, restores appetite to cows that are "off feed," and keeps them healthy. Makes poor cows good, good cows better, and makes more money for cow owners. It increases the milk flow, and enables the cows to produce strong, vigorous calves. It's the dairyman's gold mine, and a sure profit-payer.

Price 55c, cans wt. 1 3/4 lbs—\$1.10, cans wt. 3 1/2 lbs

## AMERICAN DAIRY ASSOCIATION REMEDIES

**BAG BALM**—A soothing, penetrating ointment for all affections of the bag.  
55c packages—wt 1/2 lb.

**HORSE COMFORT**—For wire cuts and all flesh wounds.

30c bottles wt 1 lb—55c bottles wt 2 lbs.

**GRANGE GARGET CURE**—An unsurpassed and positive cure.  
55c cans—wt 2 lbs.

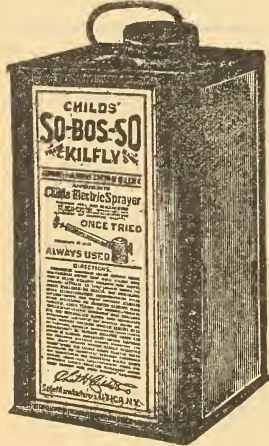
**AMERICAN HORSE TONIC**—A general improver for horses.

30c boxes wt 1 lb—55c boxes wt 2 lbs.

Increases Milk Production  
20 Per Cent

## SO-BOS-SO

Protects Stock From the  
Torture of Flies



**YOUR** cows will give more milk—your horse do more work on less feed if protected by So-Bos-So at a cost of less than 1/2 cent a head per day.



Horses hitched or harnessed will stand quietly or work in comfort if protected by So-Bos-So, and many run-aways will be avoided. So-Bos-So is a boon to blacksmiths.

**So-Bos-So** is easily and quickly applied with a hand sprayer, cloth or sponge and is the only really efficient "fly bouncer" that we have ever seen.

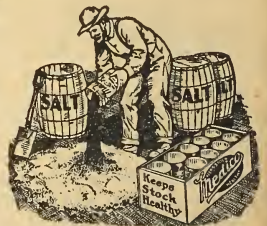
Be sure to look for the trade-mark as there are many preparations offered that will prove disappointing.

**Price** So-Bos-So is sold in one gallon sealed tins only, weight 10 lbs. at \$1.25.

## "MEDICO" Tonic and Worm Destroyer

80% of all stock losses are due to worms—only healthy animals respond to feeding; wormy stock will not thrive—your money is fattening worms

**MEDICO DESTROYS** the dreaded intestina and stomach worms and expels them from the system, tones up the digestive tract and keeps them away. Horses, cattle, sheep, hogs, all must have salt, a package of Medico mixed with 70 pounds of salt makes the most perfect medicated salt tonic and worm destroyer possible to obtain, and at a fraction of the cost of such preparations. Keep this salt before your stock, they will use the proper amount to keep them healthy.



Be sure this Trade Mark is on the package

**PRICE, 5-lb package.** (Mailing wt. 6 lbs.).....\$1.50.

5 lb. pkg. to 70 lbs. salt



# The National CREAM SEPARATOR

**WHEN YOU BUY A SEPARATOR** you want the one that skims the closest, summer or winter; that will handle milk from "stripper" cows; that will produce cream of any desired density.

A durable machine that will give everlasting satisfaction and service, at the minimum cost of up-keep; a separator that is mechanically perfect, having the fewest parts, the greatest capacity for its size, the quickest, cleanest and easiest running.

**The National** combines all the above and for 24 years has stood the test of time, maintaining its position against all competitors—and many of those first National Separators are in daily use after 20 years of service.



National  
No. 24  
Capacity  
One  
Gallon  
per  
minute

Six to  
Fourteen  
Cows

We offer  
the  
National  
in three  
sizes



Bowl Shell



The "Vortespoon"  
One solid piece of  
nickel steel. Does  
all the skimming.



Feed Tube



Bowl Top



Inner Top Cone

### CLEANED IN 3 MINUTES

The superiority of the "National" Cream Separator is due to the marvelous one-piece skimming device, the famous "Vortespoon." Just one cylinder shaped piece of the finest nickel

steel, extremely light in weight and large enough for any woman to put her arm through.

A child can clean it in three minutes without risk of breaking or harming it. Just wipe off with a wet rag inside and out, and rinse in hot water and the job is done.

**Capacity**—The National is not over-rated but will make perfect separation of the amount of milk claimed under ordinary conditions and have ample reserve capacity. The separator that has to be crowded to handle its advertised capacity will not skim perfectly.

**It should be especially noted** that no mechanical contrivances are required between the "Vortespoon" and the feed tube; the globules of butter fat are therefore allowed to remain in a whole condition, the highest grade from which the finest butter is made, commanding the highest price.

**The National Bowl flushes clean** after using; not a particle of cream is lost and it is the simplest and easiest bowl to handle and clean.

**The Upper Bearing** is of phospher bronze and flexible, maintaining its equilibrium without the slightest vibration; the lower bearing rests on a single cushioned ball bearing.

**Driving mechanism** of finest steel, with worm wheel of phospher bronze; all parts machined to one-thousandth part of an inch.

**Special side ball bearings** of exclusive design help to make the National the easiest running Separator. The gear shield protects the gears. The oiling system insures an ample supply of fresh oil always in view and under control of the operator.

**Power attachments** can be furnished for all sizes of National Separators; they are easily and quickly adjusted to fit any engine or shaft.

**National Catalog** 40 pages illustrated, gives complete and interesting facts about National Separators. We will gladly mail you a copy on request

**National** Separators are made in the following sizes, and all prices are F. O. B. Portland. We have all sizes and can fill orders promptly on receipt.

	Hourly Capacity	Cows	Shipping Weight	Price
No. 22	325 lbs.	3 to 8	166 lbs.	\$60.00
No. 24	500 lbs.	6 to 14	167 lbs.	70.00
No. 26	600 lbs.	12 to 30	170 lbs.	80.00

**NATIONAL SEPARATORS** are fully guaranteed to be as represented and as perfect as human skill can make them. All parts showing defective material or workmanship will be cheerfully replaced. Read the Guarantee in the special NATIONAL Catalog.



# Dairy Supplies, Stock Foods, Etc.

## BABCOCK TESTER—MODEL 8

For Testing Milk and Its Products

The most accurate and best built tester. Case is one solid piece, weighing about 4 pounds. Crank and shaft a single solid piece of steel. Worm spindle and gear solid steel and iron mesh full width. Buckets solid brass. Gear worm runs in oil. Model 8 Babcock Testers are guaranteed perfect in workmanship and material, all are equipped with full set of glassware, bottle of acid and brush. Shipping weight, 15 pounds. Accurate skim milk bottles at 60c each; \$6.00 per dozen; postage 10c for single bottle.

### Prices Babcock Testers

- No. 4—2 bottles, milk only . . . . . \$4.25
- No. 5—2 bottles, milk and cream . . . . . 4.75
- No. 6—4 bottles, milk only . . . . . \$5.25
- No. 7—4 bottles, milk and cream . . . . . 5.75

"TIPS FOR BUTTERMAKERS" is a splendid little book which we send Free on Request

### DAIRY THERMOMETERS

Floating Glass Dairy Thermometers, 8 inches, flat scale, easy to read, floats upright, range 150 degrees. Each 25c

### LACTOMETER

(Milk Per Cent Scale, New York Board of Health Pattern.) 0 to 20; 2 degrees graduation. Each 50c

### LACTODENSIMETER—Quevenne

Specific gravity scale, 1015 to 1040, 1 degree graduations. Each 50c

### LACTODENSIMETER—Quevenne with thermometer

Specific gravity scale, 1015 to 1040, 1 degree graduations; with thermometer in top of stem, length, 13 inches. Each \$2.00

NOTE—All glassware carefully packed for mailing; but will not be responsible for breakage in transit.

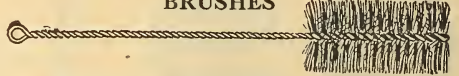
### GLASS JARS

Plain glass jars with foot and pour-out for use with spraymeters and hygrometers in testing. 10x2 inches. . . . . Each 45c  
12x2 inches. . . . . Each 50c

### GRADUATED CREAM GAUGE

Graduated 0 to 30 per cent. 9½x1½ inches. Each 75c

### BRUSHES



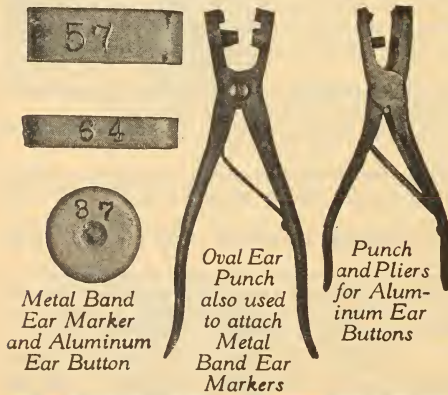
- National Bowl Brush. . . . . Each 25c
- National Spout Brush. . . . . Each 20c
- Sharples Flexible Tube Brush. . . . . Each 10c
- Sharples Spout Brush. . . . . Each 20c
- Sharples Bowl Brush. . . . . Each 50c

## Markers for Cattle, Sheep and Hogs

Metal Ear Labels and Ideal Ear Buttons are satisfactory and easily applied marks of identification that are indispensable to breeders and stockmen.

Your name and address on one side, numbers on the other.

OVAL EAR PUNCHES—Cattle size; wt. 1¼ lb. each, \$1.75; Sheep and Hog size \$1.40. Postage 10c each.



Not more than ten large letters can be used on the hog and sheep size; 15 large letters on cattle size or 22 small ones.

- Prices Two sizes Sheep and Hog Cattle
- 100 with name and number. . . . . \$1.75 \$2.25
  - 50 with name and number. . . . . 1.25 1.50
  - 25 with name and number. . . . . .85 .95
  - 100 with name only, or No. only. . . . . 1.25 1.75
  - 50 with name only, or No. only. . . . . 1.00 1.25
  - 25 with name only, or No. only. . . . . .75 .85
- Weight for mailing, Cattle size, 2½ lbs. per 100; sheep size, 1 lb. per 100.

### IDEAL EAR BUTTONS Pure Aluminum Hardened

Medium size, suits all animals, clinches tight cannot come out; double strength. Name and address on top side; number on bottom, or number and name can both appear on one side if not more than 18 letters and figures; if more than 18, both sides can be used to the limit of 30 letters and figures. Easily attached with special punch and pliers.

### PRICES

- 25, Wt. 3oz. . . . . \$1.35
- 50, Wt. ¼ lb. . . . . 2.00
- 100, Wt. ¾ lb. . . . . 3.75
- 500, Wt. 4 lbs. \$16.50
- 1000, Wt. 6 lbs. 30.00
- Punch and Pliers, Wt. 1 lb. . . . . \$1.50

The Exclusive Original Features of the National Separator are the inventions and property of the National Separator Company and cannot be duplicated or used by any other separator. They are fully guaranteed and are as perfect as human skill can make them. See Page 141.





## BLATCHFORDS CALF MEAL

*A perfect Milk Substitute at one-third the cost—will push Calves and Colts ahead quicker than any other food*

100 lbs. Makes 100 gals. of Complete Milk Equal



Blatchfords Calf Meal is a thoroughly steam cooked food for calves, to take the place of cows milk, contains all the elements of whole milk, yet costs less than skim milk. Calves and colts are healthier, hardier and grow faster when fed on Blatchfords calf meal. Ask for the Blatchfords booklet and learn how others made big profits raising calves on Blatchfords meal.

Prices 25 lbs \$1.75—50 lbs \$3.10—100 lbs \$5.75

### BLATCHFORDS PIG MEAL

The Perfect Milk Substitute for Young Pigs

At weaning time Blatchfords pig meal will safely carry the young pigs from the sow to the pasture and coarse feed, and there will be no runts, a pound of pig meal makes a gallon of perfect milk equal. Keeps the pigs healthy and growing strong. Booklet and full information on request. Prices 25 lbs \$1.75—50 lbs \$3.10—100 lbs \$5.75.

### BLATCHFORDS MILK MASH

Baby chicks started on this imitation milk will grow and thrive rapidly and be free from bowel trouble. Contains no drugs. Prices 25 lbs \$1.75—50 lbs \$3.10—100 lbs \$5.75.

### BLATCHFORDS LAMB FOOD

Lambs demand a careful weaning, needing a milk diet for the change to ordinary food. Blatchfords Lamb Food is an ideal ration and imitation Ewes milk. Price 25 lbs \$1.75—50 lbs \$3.10—100 lbs \$5.75.

## The National Separator

GETS ALL THE CREAM

The marvelous one-piece skimming device does all the work and the bowl flushes out clean after skimming.

All parts easily cleaned in 3 minutes.

## International Stock and Poultry Foods, Remedies, Etc.

Every package of "International" is guaranteed to fulfill every claim made for it, or your money back for the asking. We sell "International" on its merits. You are the judge. Full directions on each package.

### FOR POULTRY

International Poultry Food—Pkgs; 25c wt 2 lbs—50c wt 4 lbs—\$1.00 wt 7 lbs.  
 International Louse Killer—Weight 2 lbs pkg 25c.  
 International Lice Paint—35c cans wt 3 lbs—60c cans wt 5 lbs.  
 International Scaly Leg Ointment—Box 25c postpaid.  
 International Cresul—Wt packed 1 lb—½-pint can 25c.  
 International Aseptin—Per box 25c postpd.  
 International Rheumatism Oil—Per bottle 25c.  
 International Sudal—Box 25c postpaid.  
 International Cholera Cure—Per bottle 50c.  
 International Worm Pills—50c postpaid.  
 International Bowel Trouble Remedy—Per box 50c postpaid.

### FOR STOCK

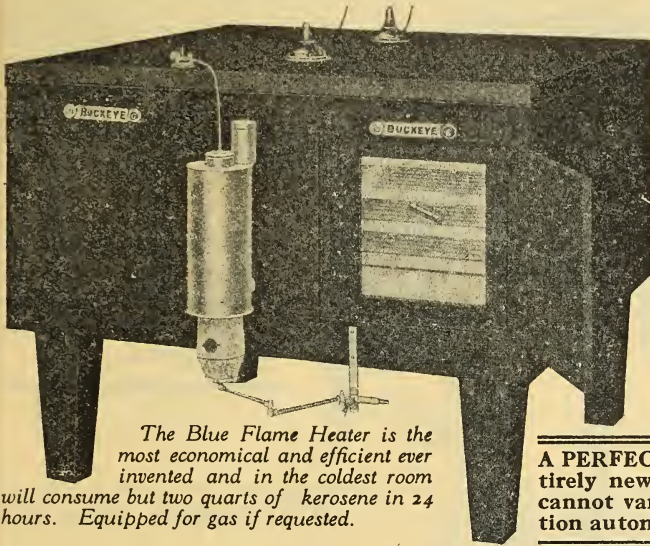
International Stock Food—Pkg 25c wt 2 lbs—50c wt 4 lbs—7-lb pkg \$1.00.

International Heave Cure—Weight 1¼ lbs Pkg 50c.  
 International Worm Powder—Pkg 50c wt 1¼ lbs.  
 International Pheno-Chloro—25c wt 1 lb—50c wt 2 lbs—\$1.00 cans wt 3 lbs.  
 International Harness Dressing—Price 25c weight 2 lbs—large can 50c weight 3 lbs—5 lbs \$1.00—10 lbs \$2.00.  
 International Honey Tar Foot Remedy—50c can wt 2 lbs—\$1.00 cans wt 3 lbs.  
 International Colic Cure—50c wt 2 lbs—\$1.00 bottles wt 3 lbs.  
 International Silver Pine Oil—25c 1 lb—50c wt 2 lbs—\$1.00 bottles wt 3 lbs.  
 International Distemper Remedy—Pkg 50c wt 1¼ lbs.  
 International Hoof Ointment—Wt 1½ lbs \$1.00.  
 Dan Patch Stable Liniment—\$2.00.  
 International Dip—1 gal can \$1.50.  
 International Compound Absorbent—\$2.00

**"KOW KURE"** Makes poor cows good, good cows better and makes more money for cow owners. SEE PAGE 140.



# New "BUCKEYE MAMMOTH" Incubator



The Blue Flame Heater is the most economical and efficient ever invented and in the coldest room will consume but two quarts of kerosene in 24 hours. Equipped for gas if requested.

A practical mammoth incubator with a capacity of 2440 eggs.

Takes a floor-space of only 5x5 feet, will pass through an ordinary door and can be set up in any building.

Burns only 2 quarts of kerosene in 24 hours and hatches big, healthy chicks from every fertile egg.

**A PERFECT HATCHER.** Built on an entirely new principle. The temperature cannot vary—the moisture and ventilation automatic and always correct.

The "Buckeye Mammoth" a continuous hatcher—Single trays may be filled with eggs at any time or the entire machine can be loaded at one time.

Only in the Buckeye Mammoth is such an arrangement possible because under the old methods all the eggs must be placed in the egg chamber at the same time as the necessary cooling could not be applied to later lots of eggs while the first lot was hatching.

In the Buckeye Mammoth the eggs require no cooling. The real purpose of the cooling period was to give the developing chicks a breathing spell and allow the poisonous gases and foul air to pass out of the egg chamber.

By the continuous circulation in the Buckeye Mammoth the air is re-vitalized and the chicks produced are larger and of exceptional vitality.

For the special convenience of those that wish to introduce fresh eggs every few days a chick guard is provided for the four lower trays. By starting all the new eggs in top trays and moving the trays down as each hatch is completed the chicks always hatch in the bottom trays where the metal guard confines them comfortably in the dark when the machine is opened.

## SPECIFICATIONS AND PRICE

Capacity, 2440 eggs, size 5 feet square by 32 inches deep, legs 18 inches high.

The case is California redwood, cabinet construction, piano finish.

Boiler 14 ounces cold rolled copper, pipes cast iron.

The twenty egg trays are rigid, have wire net bottoms, and extra trays for turning are furnished. Lower trays are fitted with chick guards.

Gas or kerosene oil can be used. Average consumption of kerosene is 2 quarts, daily; gas 50 ft.

The electric fans are specially constructed with ball bearings and use very little current. A tested guaranteed thermometer is included.

The incubator is completely set up and tested before shipping, and anyone can attach the legs and electric wire, no mechanical skill required.

PRICE \$380.00 f. o. b. Portland. Weight, crated, 850 lbs.

## GUARANTEE

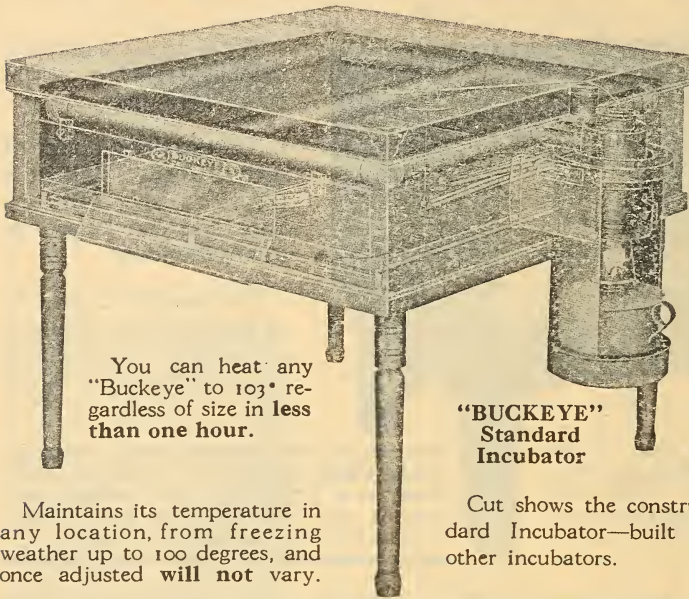
The Buckeye Mammoth is guaranteed to be mechanically perfect in every part, carefully constructed of select materials. Is further guaranteed to hatch more and better chicks than any other mammoth incubator of like capacity. If for any reason the purchaser has cause for complaint regarding the machine or its operation, satisfactory adjustment will be made

(Signed) BUCKEYE INCUBATOR COMPANY

**Diamond Chick Food** Saves little chicks. Helps them to grow into big strong healthy birds. No other food is necessary. See page 156



# "BUCKEYE" Hot Water INCUBATORS



You can heat any "Buckeye" to 103° regardless of size in less than one hour.

"BUCKEYE" Standard Incubator

Maintains its temperature in any location, from freezing weather up to 100 degrees, and once adjusted will not vary.

Cut shows the construction of a "Buckeye" Standard Incubator—built to outmatch and outlast other incubators.

You fill the lamp, turn the eggs—and the "Buckeye" will hatch every hatchable egg. No experience needed.

Nearly half a million "Buckeyes" are in operation in all parts of the United States.

## READ THE FOLLOWING STATEMENTS FROM THE MANUFACTURER

THE unprecedented success which has followed the Buckeye for 25 years is primarily due to the invention of the Buckeye hot-water system, without which that perfect balance between the temperature, moisture and ventilation which is so necessary to successful incubation, would be a physical impossibility. Heating the egg chamber without cooking all the moisture out of the air is responsible not only for the abundant supply of natural moisture but at the same time the soft, radiated heat from the hot water tank provides an absolutely uniform temperature and permits the perfect ventilation of the egg chamber.

We guarantee the temperature of every Buckeye we build to be uniform within a fraction of a degree at all times in the egg tray.

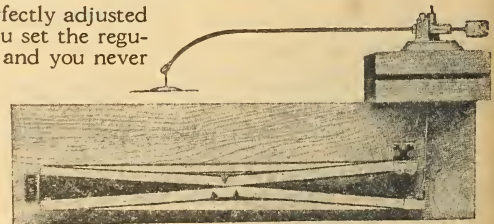
**Requires no Artificial Moisture** Regardless of the conditions under which a "Buckeye" Incubator may be operated it NEVER requires ARTIFICIAL moisture. The word NEVER sounds pretty strong and yet we mean it in its full sense. A "Buckeye" NEVER requires artificial moisture. We have sent over four hundred thousand (400,000) of them to all quarters of the globe—to be operated under the same positive instructions—and have never found a single instance where applied moisture was required to produce a perfect hatch.

**THE BUCKEYE SYSTEM** of regulation is so perfectly adjusted that it works like a watch. You set the regulator when the hatch is started and you never touch it until the next hatch. The solid, all-metal construction of the Buckeye thermostat is so positive and perfect in its action that a variation of more than 2 degrees is an absolute impossibility. We guarantee that.

**Operated in any Temperature Regardless of Sudden Changes** Cold rooms or sudden changes in the temperature have no terror for the "Buckeye." Regardless of size or price we GUARANTEE every Buckeye to work satisfactorily in any temperature down to freezing.

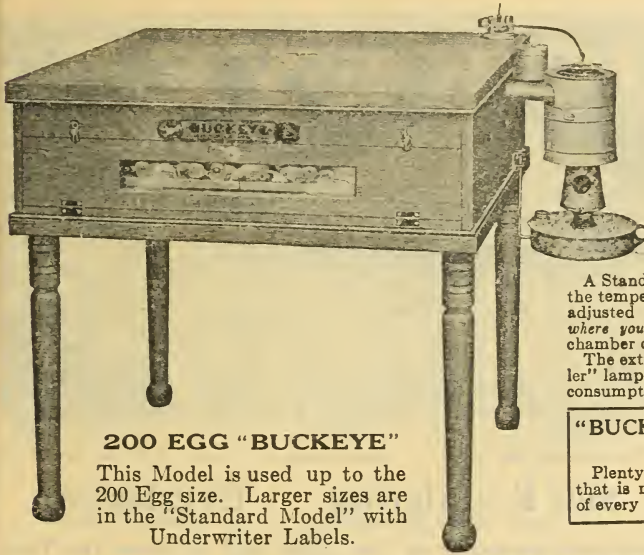
**Highest Type of Construction** Every item that enters into the construction of a Buckeye is, without exception, the best that money can buy. The lumber, the metal, the hardware, the lamp, the thermometer—every item without exception—the best.

The labor that builds the raw material into the finished product is the best that money can employ. Boys and unskilled labor are unknown in the Buckeye factory.



**Simplicity of Operation** No previous incubator experience is required to operate a "Buckeye." Outside of filling the lamp and turning the eggs, everything is automatic and requires no attention from the operator.

Nothing left to the judgment of operator—that's why a "Buckeye" never goes wrong



**200 EGG "BUCKEYE"**

This Model is used up to the 200 Egg size. Larger sizes are in the "Standard Model" with Underwriter Labels.

**"BUCKEYE"  
Incubators—Cont.**

Styles E and H

Made of California Redwood beautifully finished, with insulated double top and walls so built as to hold the temperature perfectly even in freezing weather—this is the popular model in sizes up to 200 eggs.

A Standard Buckeye meta thermostat regulates the temperature to a fraction of a degree, is easily adjusted at the beginning of the hatch, and stays where you put it, and the temperature in the egg chamber cannot change.

The extra large tank of new design and the "Miller" lamp burner insures plenty of heat with small consumption of fuel.

**"BUCKEYE" Incubators Never Require Artificial Moisture.**

Plenty of fresh air in the Incubator room is all that is necessary to bring a big strong chick out of every hatchable egg.

**EVERY "BUCKEYE"**

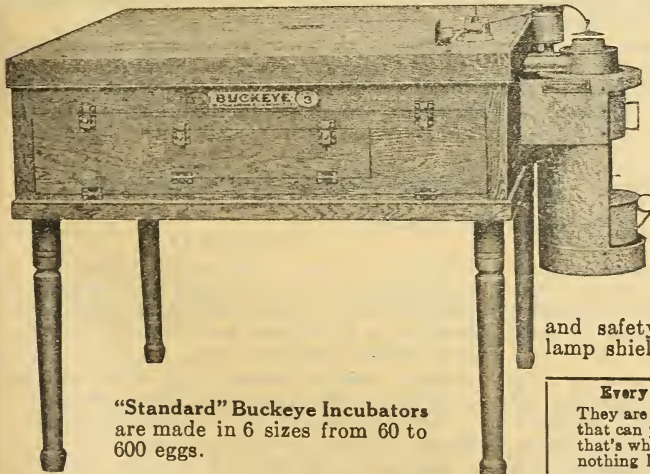
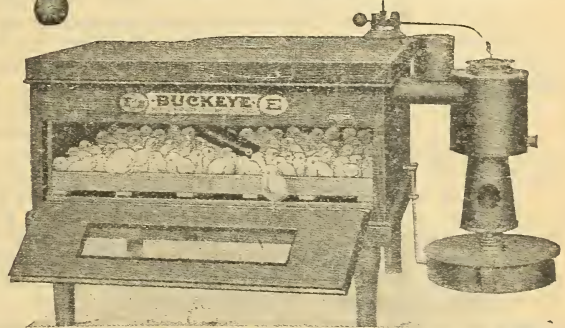
Regardless of size or price is guaranteed to hatch every hatchable egg.

**"Buckeye" No. 14**

Capacity 60 Eggs

A genuine "Buckeye"—has all the desirable features at the lowest price a good incubator could be made for.

Style H, No. 15, is same capacity but has long legs—See the "Buckeye" Catalog.



**"Standard" Buckeye Incubators** are made in 6 sizes from 60 to 600 eggs.

**"BUCKEYE  
STANDARD"  
INCUBATORS**

"Buckeye Standard" is the Highest Grade Incubator in this line—is Fireproof, bearing the Underwriters labels and so perfect in operation that any beginner can run it successfully. The "standard" is equipped with every desirable device to add to its efficiency, durability and safety. The special features are the lamp shield and double wall construction.

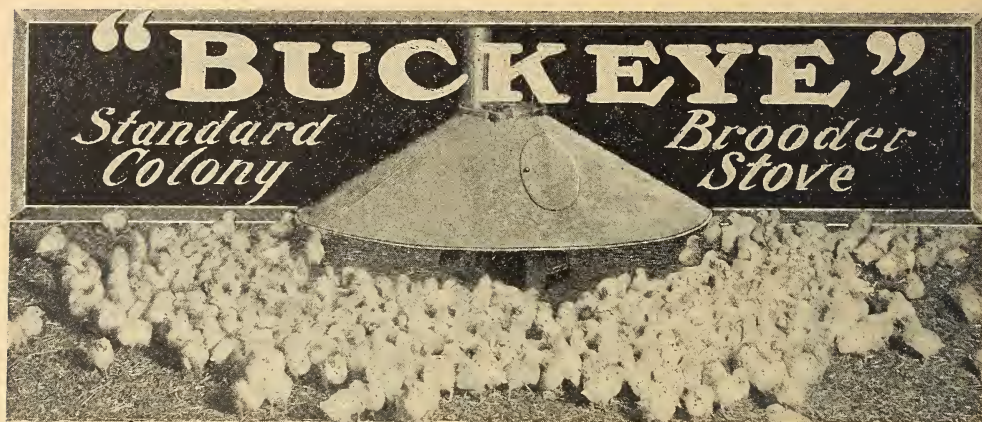
**Every Standard Buckeye is Complete**

They are equipped with every desirable device that can possibly be added to any incubator—that's why the big breeders like them. There's nothing left undone—nothing to be wished for

**PRICES and SIZES OF BUCKEYE INCUBATORS—F. O. B. Portland**

	Size	Wt.	Price		Size	Wt.	Price
No. 14.	60 egg, short legs.....	55 lb.	\$12.00	No. 1.	110 egg .....	110 lb.	\$26.50
No. 15.	60 egg, tall.....	75 lb.	16.00	No. 2.	175 egg .....	135 lb.	32.00
No. 16.	110 egg.....	85 lb.	20.00	No. 3.	250 egg .....	200 lb.	43.00
No. 17.	200 egg.....	125 lb.	26.50	No. 4.	350 egg .....	230 lb.	51.50
<b>NEW MAMMOTH,</b>	<b>2440 egg .....</b>	<b>850 lb.</b>	<b>380.00</b>	No. 5.	600 egg .....	325 lb.	76.50

**The New "BUCKEYE MAMMOTH" 2440 Eggs. See page 145**



*This is the Famous Original Brooder Stove that has been copied or imitated by every manufacturer of Brooder Stoves.*

## Self Feeding      Self Regulating      Everlasting

**Cuts the Cost of Equipment and Operation to Less Than Half—Reduces the Time and Labor to Less Than a Fourth. Nothing to Break. Nothing to Wear Out. The Simplest, Safest and Most Economical Brooder Ever Invented**

**BUCKEYE BROODER STOVES** will do anything any other brooder will do—regardless of price—and do it better. It matters not whether you have ten or ten hundred chicks under a Standard Colony Brooder, the results are the same. You can remove part of the chicks or increase the number at any time.

**Air Always Pure and Fresh**—No dampers or valves of any kind between the smoke pipe and the fire, the draft being controlled automatically, an exclusive feature of the Standard Colony Brooder and the only coal-burning Brooder that is absolutely free from gases under the Hover.

**Operated Anywhere**—No room is too large or too small for a Standard Colony Brooder. Whether it is operated in the largest barn or the smallest colony house, the results will be the same.

**Burns any Fuel**—Hard or soft coal, charcoal, coke, briquettes or gas. Hard coal is best simply because it is cleaner. All fuel should be nut size.

**Regulator**—Two double disc thermostats—tandem hitched—supported on substantial casting that is bolted solidly to stove. Lower arm movable and attached to check valve by substantial iron rod. Chick-proof, accurate and positive.

**Standard Colony Brooder** is fire-proof, simple and requires little attention; has but one adjusting nut which you need never touch more than once in a season. Requires absolutely no more attention than filling with coal once a day, shaking down the ashes into the pan twice.

**The first cost is the only cost. Nothing to Wear Out.** Nothing to break, being made of cast iron just like a kitchen range, and the Hover is of galvanized steel built to last a lifetime.

## 1918 "Buckeye" Standard Brooder Stoves

MADE IN TWO SIZES

### NUMBER 18

Height of stove  $20\frac{3}{4}$  inches; diameter of stove  $10\frac{3}{4}$  inches; diameter of base  $11\frac{1}{2}$  inches. Fire-proof base 7 inches high with corrugated asbestos pad attached to lower plate and 1 inch air space between asbestos pad and floor.

**Grates.** Rocker furnace type made of solid casting, outside clearance, free burning, self cleaning and anti-clog. Diameter  $7\frac{1}{2}$  inches.

**Hover.** Galvanized steel 42 inches in diameter, removable, mounted on a substantial ring casting that rests on the top of the stove, moulded to fit and cannot be displaced. Furnished complete with rope and pulley for quick attachment.

Capacity any number of newly hatched chicks up to 500.

PRICE \$19.50. Shipping weight 75 lbs.

### NUMBER 19

Height of stove  $22\frac{1}{2}$  inches; diameter 12 inches; diameter of base  $11\frac{1}{2}$  inches. Fireproof base 7 inches high with corrugated asbestos pad attached to lower plate and 1 inch air space between asbestos pad and floor.

**Grates.** Rocker furnace type made of solid casting, outside clearance, free burning, self cleaning and anti-clog. Diameter 9 inches.

**Hover.** Galvanized steel 52 inches in diameter, removable, mounted on a substantial ring casting that rests on the top of the stove, moulded to fit and cannot be displaced. Furnished complete with rope and pulleys for quick attachment.

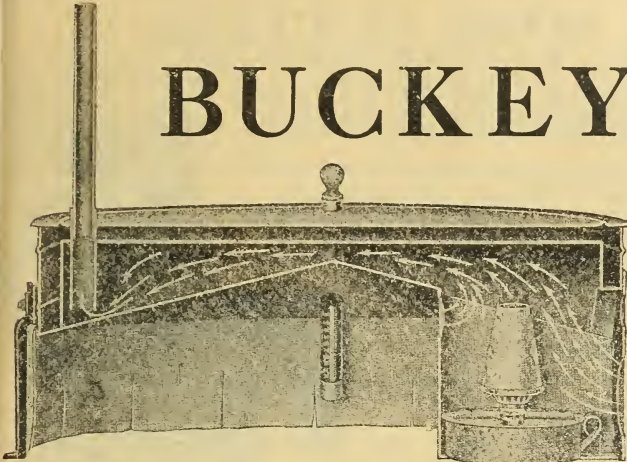
Capacity any number of newly hatched chicks up to 1,000.

PRICE \$22.50. Shipping weight 94 lbs.

**A GAS BURNER FOR BUCKEYE BROODER STOVES CAN BE SUPPLIED FOR \$2.50**



# BUCKEYE PORTABLE BROODER



Showing a Sectional View of the "Buckeye" Brooder

The Lamp Brooder that broods like a Stove Brooder. The chicks hover at the curtain, making crowding impossible.

Note that every particle of air under the hover is drawn from the outside—then up into the upper chamber, where it is discharged through the exhaust tubes. Every particle of impurity is drawn up and out—nothing can come back.

## IT'S A TRULY WONDERFUL BROODER— AND IT'S DURABLE

Nothing about it but metal—excepting the curtain—and that's interchangeable.

**THERE IS NO WASTE OF HEAT.** The dead air space keeps all the heat in and all the cold out. This construction insures the highest degree of efficiency, and we Guarantee the satisfactory heating of every brooder in any inside temperature down to freezing.

**THE "BUCKEYE" LAMP IS NOT ENCLOSED.** This feature of the "Buckeye" Brooder is in itself one of the most valuable improvements ever made to an oil-burning brooder. It is, in fact, the improvement that makes the oil-burner just as safe as a coal-burning stove.

**FRESH AIR.** The constant current of fresh air over the lamp bowl prevents all possibility of overheating the oil, and absolute safety is the result. This improvement is just as good as an insurance policy. **IT'S THE FRESH AIR THAT MAKES THE CHICKS GROW.**

**THE OUTSIDE SHELL** is made of 28-gauge galvanized steel—the inside shell is 28-gauge black iron—  
—with a one-inch dead air space between.

**THE BROODER BODY** is supported by three **Cast-Iron Legs** that are rigidly secured to the sides by a set nut, which makes them easily detachable.

**THE LAMP SUPPORT** is free from the floor and is welded to the plate above. The door to the lamp chamber is of galvanized steel with a large peep hole for the ready observation of the lamp.

**THE LAMP BOWL** is made of seamless galvanized steel—the burner is a "Miller"—all the fittings are of heavy brass and the chimney is made of sturdy black iron.

**THE THERMOMETER** is mounted on a hardwood turning which is dropped through the top of the brooder, and brings the bulb of the instrument right down to the level of the chicks. Each brooder is equipped with a thermometer.

## BUILT IN THREE SIZES

### No. 20

Diameter 19 inches.  
Capacity 60 Chicks.

**\$8.50**

### No. 21

Diameter 22 inches.  
Capacity 100 Chicks.

**\$10.50**

### No. 22

Diameter 30 inches.  
Capacity 150 Chicks.

**\$13.75**

## Wire Netting for Poultry Runs, Trellises, Etc.

No. 20 Wire, in rolls 150 feet long, in the following widths

	12-in.	18-in.	24-in.	30-in.	36-in.	48-in.	60-in.	72-in.
2-inch mesh.....	\$1.35	\$1.90	\$2.45	\$2.90	\$3.35	\$4.45	\$5.50	\$6.65

Short lengths, 2-inch mesh, 1c square foot. Prices subject to change without notice.

## CALMADE Straight Line Poultry Fence

The only fence made with less than one inch bottom mesh. Will not hang the chicks.

**Spacing**—Bottom,  $\frac{5}{8}$ ; next,  $\frac{3}{4}$ ; next two,  $\frac{7}{8}$ ; next six, 1 inch; next eight,  $2\frac{1}{4}$  inches, making 20 inches of close mesh. The top spacing is  $3\frac{1}{2}$  inches. One size only, 72 inches. No. 19 wire.  
**Per Roll \$6.30**



# MANN BONE CUTTERS

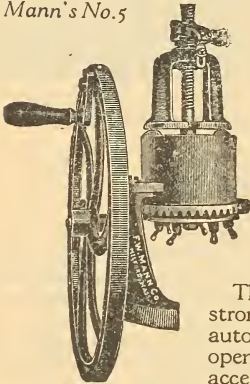
The Only Mill That Will Cut Green Bone and Not Clog.

THE Mann's Green Bone Cutter is offered to the poultry world on a warranty to produce a perfectly edible poultry food, with no waste, from any lot of green bones, with less labor, and less annoyance than any other bone cutter.

We send the Mann's to any responsible poultryman with this understanding; if you are not satisfied that it meets every claim we make for it, notify us, and we will give instructions to return the machine, and will, upon receipt of same **refund purchase price**. Could you ask more?

The Mann's is the only machine which has a self-governing feed, producing uniform pressure against the knife, whether the bone be hard or soft. You set the machine to suit your strength, and it never requires more power than you set it for.

Mann's No. 5



## MANN'S NO. 5

Has four knives, large solid cylinder, and has the latest patent automatic governing spring feed which makes it one of the best low-priced bone cutters ever offered. We can furnish with crank, balance wheel, or mounted on iron stand.

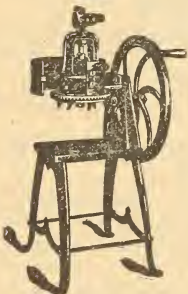
Mechanism of the Mann's showing automatic force-feed, cylinder parts, etc. Mann's catalog gives all details.

## MANN'S NO. 7

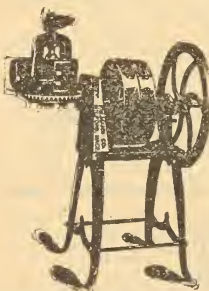
The New No. 7 is mounted on a strong iron stand, and has patent automatic governing spring feed. Large open-hinged cylinder, giving instant access to all working parts, has six knives, gear guard, anti-clog device, heavy balance wheel and other improvements. (See cut.)

## MANN'S NO. 7½

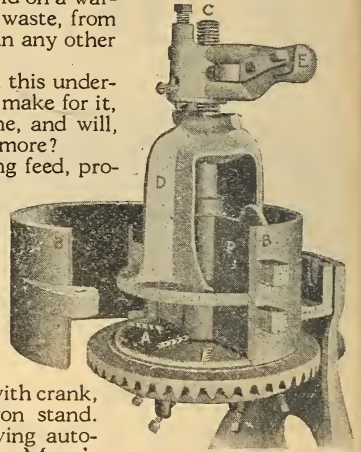
Adapted to run either by hand or power without any change. The particular advantage of the 7½ is that while it is a complete power machine, it can be operated by hand just as easily as the No. 7. It is recommended even if you have no power, for should you get power you need be at no further expense.



Mann's No. 9



Mann's No. 11



Mann's No. 7½

## MANN'S NO. 9

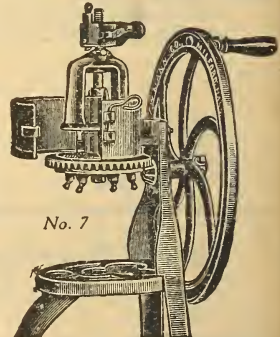
About the same as No. 7, except that it has a larger cylinder and greater holding capacity, different design and larger table.

## MANN'S NO. 11

The No. 11 is exactly the same as No. 9, with the power parts added. It has all the latest improvements. Capacity, 100 pounds per hour.

## MANN'S NO. 12—POWER

Strictly a power machine, and full of business from top to toe. Capacity 120 to 150 pounds per hour. Horsepower required, one to two. Just the machine for marketmen, extensive breeders, or anyone who has large quantities of bone to cut.



No. 7

## PRICE LIST OF MANN'S BONE CUTTERS

New Styles	Price	Wgt.
No. 5C (with crank handle).....	\$9.20	30
No. 5B (with balance wheel).....	13.00	55
No. 5BM (B. W. and iron stand)....	16.75	80
No. 7 (B. W. and iron stand)....	18.75	107
No. 7½ (hand or power).....	25.40	150
No. 9 (B. W. and iron stand)....	29.00	163
No. 11 (power machine).....	40.00	215
No. 12 (power machine).....	48.50	260
No. 15 (power machine).....	91.00	420

## MANN'S HANDSOME 40-PAGE CATALOG

is fully illustrated and tells all about the different style Green Bone Cutters, Clover Cutters, Corn Shellers, Grit Smashers, etc., and contains much valuable information. Free on request.

## Mann's Corn Sheller

Best low-priced corn sheller made. A profitable tool if you have corn to shell. Weight 10 lbs. Price \$3.75

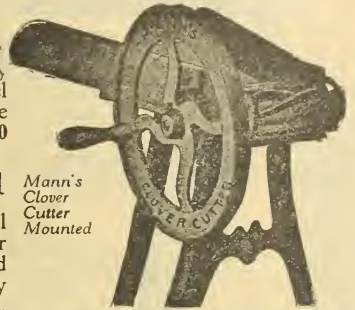
## Mann's Cast Iron Mortar

For breaking glass, crockery ware or oyster shells. Weight 33 pounds; height 12 inches; 9 inches square; pestle 4 feet long. Price \$5.00



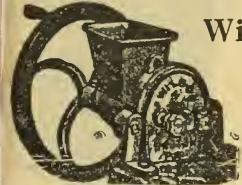
### Mann's Clover Cutter

Made entirely of iron and steel; cannot warp or shrink. It cuts any kind of hay or clover, either dry or green, and more rapidly than any other make. Each revolution of the balance wheel produces 12 cuts. Do not buy a clover cutter until you have seen Mann's. Price \$12.50; mounted on iron stand, \$14.00



Mann's  
Clover  
Cutter  
Mounted

### Wilson Dry Bone Mill No. 1



Wilson's Mill No. 1

This is a practical mill, grinding all kinds of shell, crockery, grit, burnt or dry bone, feed, etc. Instantly adjusted to grind coarse or fine. Every poultry keeper should have one of these mills. You will find them very convenient

and serviceable: Weight 33 lbs. Diameter of hand wheel, 20 inches.

Price, \$6.00

### Wilson Grist Mill No. 0

A family grist mill in itself. Especially made for grinding flower, corn meal, spices, coffee, etc., for table use. It can also be adjusted for cracking grain. Capacity and size same as No. 1; hopper round. Weight 30 pounds.

Price \$6.00

### Bond's Grit Machine

Will break rock, limestone, ore, crockery, glass, dry clam and oyster shells, etc. A boy or seven can work it. Drop the material in the top and work lever up and down quickly, but not with great pressure. Do not use green bone or wet oyster shells. Weight 25 lbs. Price \$5.00

# SPROUTED OATS

INCREASE THE EGG YIELD, DECREASE THE FEED BILL

A bushel of oats sprouts into 3 bushels of nutritious green feed. Hens lay more eggs, young chicks grow faster and are more healthy on green feed. Oats, rye and wheat can be easily and quickly sprouted and make the most economical and profitable food for winter. We carry the DOUBLE QUICK and COLFAX METAL GRAIN SPROUTERS

COLFAX METAL—Two Trays

Small Base— $\frac{1}{4}$  Bu., 25 to 35 hens, 13x16x20, Weight 25 lbs. .... \$9.25

Small Section— $\frac{1}{4}$  Bu., 25 to 35 hens, 13x16x10, Wt. 12 lbs. .... \$4.25

Large Base—1 Bu., 100 to 150 hens, 26x26x22, Wt. 50 lbs. .... \$18.50

Large Section—1 Bu., 100 to 150 hens, 26x26x10, Wt. 33 lbs. .... \$9.25

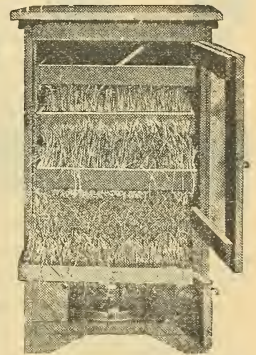
"DOUBLE QUICK"

No. 1— $\frac{1}{4}$  Bu., 2 trays, 25 to 37 hens, 18x14x23, Weight 35 lbs. .... \$9.75

No. 2— $\frac{1}{2}$  Bu., 4 trays, 50 to 75 hens, 18x14x30, Weight 45 lbs. .... 12.00

No. 3—1 Bu., 5 trays, 100 to 150 hens, 21x17x40, Weight 75 lbs. .... 18.75

No. 4—2 Bu., 6 trays, 200 to 300 hens, 25x20x44, Weight 100 lbs. .... 24.75



## NORWICH AUTOMATIC EXERCISER AND FEEDER

Every kernel of grain put into this feeder will go to your flock, not a single one will be wasted. Absolutely bird and rat proof. Rain or dampness cannot affect it. Saves its cost in 90 days by preventing waste, requires no attention except filling of hopper when empty. Adjustable for slow or fast feeding.

KEEPS THEM BUSY ALL THE TIME

Guaranteed to improve the flock, increase the egg production and save feed. Descriptive pamphlet on request.

MADE OF HEAVY GALVANIZED IRON Each

No. 1—8 quarts. .... \$3.75

No. 2—14 quarts. .... 4.75

No. 3—20 quarts. .... 5.90

Chicks  
6 weeks old  
will  
operate  
this feeder

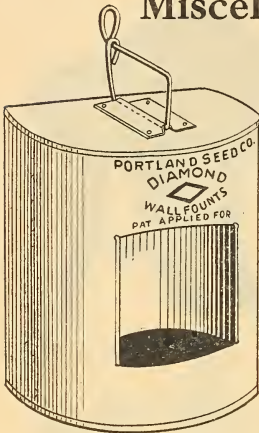


## "DAY-OLD" CHICKS

Hatched to order in the "BUCKEYE MAMMOTH." See Page 145

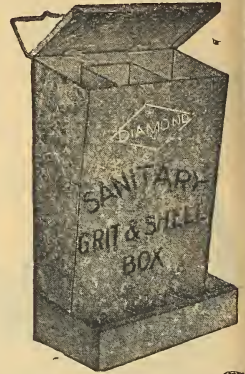


## Miscellaneous Poultry Supplies



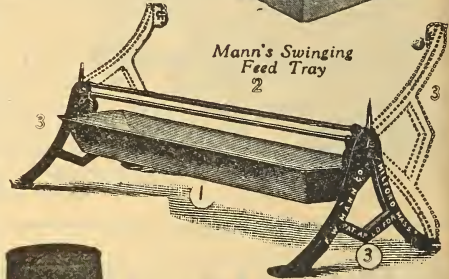
**"DIAMOND" SANITARY SELF-FEEDING BOXES**  
 Made of heavy galvanized iron; soon pays for itself in preventing waste of feed. Keeps grit, shells and charcoal before the fowls at all times.  
**Price, 3 compartments, weight 2½ lbs., each, 95c. Large size, 2 compartments, weight 3 lbs., each \$1.25.**

**MANN'S SWINGING FEED TRAY**  
 For water or feed. Fowls cannot scratch dirt into it, or feed out of it, nor roost on it; yet will not tip over or spill the food out.  
**Price: 18-inch, weight, 5½ lbs., \$1.25; 27-inch, weight 6½ lbs., \$1.50; 36-inch, weight 8 lbs. \$1.85.**

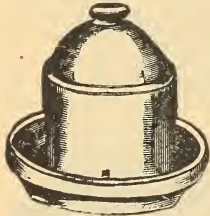


### DIAMOND GALVANIZED WALL FOUNTAIN

Something new and serviceable. To be hung on the wall or against an upright post. The patented construction protects the water from becoming soiled. One gallon size, weight 2 lbs. **Each 90c**  
 Two-gallon size, weight 2½ lbs. **Each \$1.15**



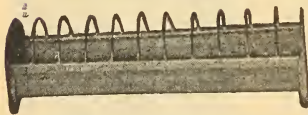
Mann's Swinging Feed Tray



Stone Fountains

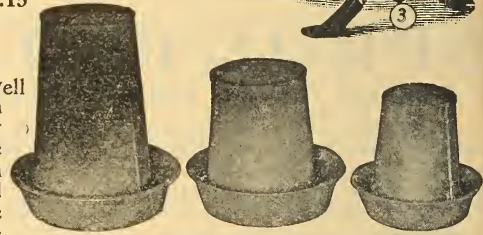
### SANITARY STONE FOUNTAIN

These are strong and well finished; made in two pieces. They probably keep the water cooler than the galvanized fountains, but are heavier to handle



Wire-Covered Feed Trough

and more liable to break **Price: ½ gal. 35c; 1 gal. 50c; 2 gal. 75c**



Galvanized Fountains

### GALVANIZED IRON DRINKING FOUNTAINS

Our Galvanized Iron Drinking Fountains, we believe, are the best in use. They are easily filled, cleaned and kept clean. If placed in the shade in Summer time, the water will keep nearly as cool as in an earthen vessel. Lighter than the earthenware and safer to ship. **Price: Small size, weight ¾ lb. . . . Each 45c; 6, \$2.60 Medium size, weight 1 lb. . . . Each 55c; 6, \$3.10 Large size, weight 1½ lbs. . . . Each 70c; 6, \$3.40 Extra Pans. . . . . 20c to 30c.**

### CHINA NEST EGGS

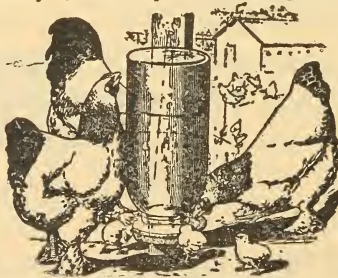
Best grade Opal Eggs. Weight per doz. ¾ lb. **Price: 3 for 10c; 12 for 35c**

### LIME NEST EGG

These are superior to the China egg, not so cold, and are indestructible. Weight per doz. 2 lbs. **Price: Each 5c; doz. 40c; postpaid, ea. 10c**

**WIRE-COVERED FEEDING TROUGH**  
 Decidedly convenient for young chicks. (See cut.) **Weight 1 lb. Price 45c**

**MODEL FOUNTAIN AND FEEDER**  
 For water, grit, chick food or grain, using ordinary Mason jar, either quart or half gallon. Galvanized pans quickly detached, easy to clean, will not rust.

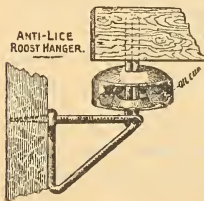


**PRICE, one size only, without jar, weight, ½ lb. each. Each, 15c; doz. \$1.50**

### ANTI-LICE Roost Hanger

Screws into the wall. Keeps the cup filled with Lee's Lice Killer or kerosene. **Weight . . lb.**

**Price each 15c; pair, 25c; doz. \$1.50.**



### WIRE HEN'S NESTS (See cut.)

Strongly made; very durable; fasten to the wall; no harbor for vermin. **Weight 10 ozs. each. Price each 25c; dozen \$2.50.**



# MISCELLANEOUS POULTRY SUPPLIES

## LEG BANDS FOR POULTRY AND PIGEONS (SEE CUTS)

Every chicken must have a leg band on before it can be entered in a poultry show. In ordering Leg Bands, be sure to state size wanted, or breed of fowls bands are to be used on, and number wanted for males or females.



Eclipse



DOUBLE CLINCH LEG BANDS PIGEON SIZES



Leader Band

**DOUBLE CLINCH.** A new band, very safe; no exposed corners, ends or loops; has double fasteners. Prices postpaid 12 for 20c; 25 for 35c; 50 for 60c; 100 for 95c.

**SMITH SEALED.** Of aluminum and so constructed that by simply crushing a soft rivet they are sealed on the bird's leg, and must be destroyed to be removed. See cut. Prices postpaid 12 for 30c; 25 for 55c; 60 for \$1.15; 100 for \$1.50.



**COLORED "LEADER" LEG BAND.** Adjustable, will fit any fowl, the colors are of celluloid in metal protecting band. White, Pink, Red, Blue, Yellow, Green and Brown.. Numbered 1 to 100.

Price 12, 40c; 25, 75c; 50, \$1.35; 100, \$2.50; 250, \$5.50; 500, \$10.50; 1000, \$20.00

**PIGEON BANDS.** We can supply the Double Clinch and Open Band—you simply clasp it on—at price of Double Clinch.

**SMITH SEALED—Pigeon.** Doz. 30c; 100, \$1.50

**LEADER.** Latest and best adjustable leg band out. Has neat, compact, and smooth fastening, with no catching points; easily attached and is absolutely secure. Prices postpaid 12 for 20c; 25 for 35c; 50 for 60c; 100 for 95c.

## SMITH SEALING TOOL

Made especially for sealing the Smith leg bands. Plain jaw, 50c; lettered jaw, any letter, 75c; postage 10c.



## PETTEY'S POULTRY PUNCH

Latest, most convenient Poultry Punch; can be put on a key ring or used for a watch charm. Will not clog. Very practical. Postpaid 25c

## RELIABLE POULTRY MARKER

For marking the web between the toes. One of the best and handiest markers. Postpaid 35c

## MODEL POULTRY PUNCH

A well made, serviceable tool. Postpaid 40c

## POULTRY KILLING KNIFE

French, best and most popular. Price postpaid 50c

## SCISSOR POULTRY PUNCH

Strong. Cuts clean. Each 15c, postpaid 20c

# THERMOMETERS

## FOR GENERAL USE

Cabinet No. 5. 8-in. wood back, nice finish \$0.40

Fig. 4. Household, 7-inch, tin case. . . . . 25

Fig. 1.—P. S. Co.'s Self-Registering.

A necessity for greenhouse and poultrymen. Will accurately register extremes of heat and cold. Price postpaid, securely packed. . . . . 4.00

Fig. 3.—Hotbed Thermometer. Know when temperature is right for planting. Saves loss and delay. Each postpaid 1.50

## FOR BROODERS

"Buckeye." Tested. . . . . 75

Fig. 2.—P. S. Co.'s; for any style brooder. . . 50

**WILDER ILLUMINATED THERMOMETER.** Instantly indicates the temperature without opening doors. So simple that a child can attach it to incubator and fully guaranteed.

Everyone who owns an incubator knows how hard it is to read the thermometer correctly through the glass doors, and it is not always advisable to open them. But with the "Wilder" you simply press the button and the temperature is plainly indicated. Price each \$2.75

## FOR INCUBATORS—TESTED

"Buckeye." Tested. . . . . \$0.75

Fig. 6.—P. S. Co.'s triangle shape; metal back. . . . . 75

Fig. 10.—P. S. Co.'s Straight Metal back. . . 60

Fig. 14.—Triangle shape; certified correct; worth the price. . . . . 1.00

Fig. 7.—Mandy Lee style. . . . . 75

## BREEDER'S MAGIC EGG TESTER

### The Manufacturers Challenge—

Any person in the world to hatch one egg the Magic Egg Tester registers unhatchable before incubation. No light. No electricity. No expense and lasts a life-time. Shows the best strongest hatchable eggs before incubation.

Don't set another egg until you have the Breeders' Magic Egg Tester. Price each \$2.00

## CAPONIZING INSTRUMENTS

The demand for capons exceeds the supply, the price per pound averaging more than twice as much as that paid for ordinary roosters, P. S. CO.'S STANDARD, the best low priced set. Price postpaid \$2.00

**MANDY LEE EGG TESTER**—Made to use on lamp, fits No. 2 burner. Furnished with all Lee Incubators. Price 50c postpaid

**WIGMORE**, a first-class outfit with book of instructions. Price postpaid \$2.50



MISCELLANEOUS POULTRY SUPPLIES—Continued



Kant-Krack Egg Box is specially designed for the safe delivery of valuable eggs for hatching and is a great favorite with poultrymen.

Made of heavy corrugated paper. Only a few seconds' work to set the box up, pack it with eggs, and address it. These boxes are light but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing.

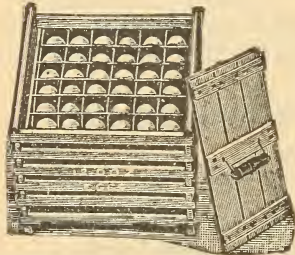
No.	Size	Weight	Each	Six	Dozen
3	15-Egg	1 lb.	\$0.20	\$1.00	\$1.65
4	30-Egg	1½ lb.	.30	1.50	2.75
5	50-Egg	2 lb.	.40	2.15	3.75

IDEAL PAPER EGG BOXES

Intended for use in delivering eggs to private families. Nicely printed with a blank space for your name and address. Weight 12 lbs. per 100.

Prices: 1-dozen size, 20c dozen; 95c per 100; \$9.00 per 1000. Sample box by mail 5c

"HUMPTY DUMPTY"



The "Humpty Dumpty" dozen. Weight with fillers, 7 lbs.

Price: Ea. 60c; per 6, \$3.40; doz. \$6.50

The best, the cheapest, the most convenient EGG CARRIER. The "Humpty Dumpty" is light but strong, being almost indestructible. Can be folded flat for shipping empty. The most satisfactory egg carrier. Holds 12

LIVE CHICK BOXES

Our Live Chicken Boxes for delivering day-old chicks are safe, economical, convenient. They come in three sizes at the following prices:

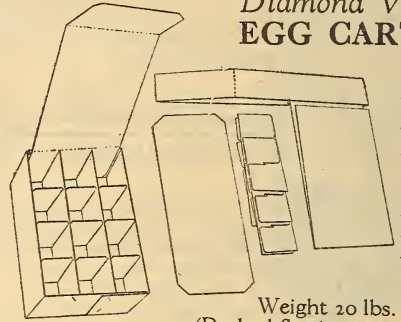
25-chick size, ea. 20c; doz. \$2.25; 50-chick size, ea. 30c; doz. \$3.00; 100-chick size, ea. 50c; doz. \$5.00.

COLLAPSIBLE POULTRY COOPS

These are the neatest, lightest and strongest coops for shipping poultry that we have ever seen. They are well made, and will last for years. Easily cleaned and stored.

- No. 1 Coop—For 12 to 24 chickens, size 36x24x12, weight 23 pounds. . . . . Price \$2.00
- No. 3 Coop—For 24 to 36 chickens, size 48x30x14, weight 33 pounds. This is the favorite size. Price \$2.80
- No. 4 Coop—For turkeys and geese; will carry 250 pounds of weight. Size 48x30x23 Price \$3.00

Diamond Veneer EGG CARTON



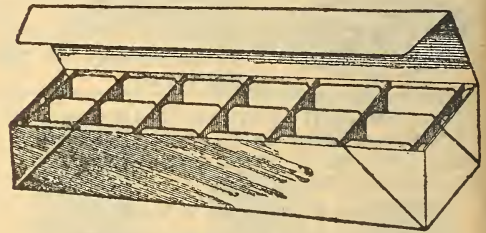
Strong  
Light  
Rigid

Moisture  
Does Not  
Affect It

Weight 20 lbs. per 100. (Packed flat in crates of 1/3 of a thousand; covers in bundles of 1000).

A safe, strong package that will hold its shape and deliver the eggs without loss.

Prices: 1 doz. 15c; 100, 75c; 1000, \$7.00



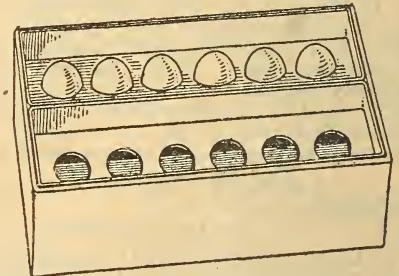
SUWANEE EGG CARTON

Throw away your "fillers." Use this carton; packs three to a layer in an ordinary egg case, and is always ready for delivery. Saves handling—saves breakage. Built with double walls. Ask for sample. Weight with fillers, 3 ozs. each.

Price: Doz. 25c; 100, \$1.40; 1000, \$12.50

NON-BUSTO EGG CARRIER

Holds the egg in suspension so it cannot touch the top or bottom. Easily and quickly set up and filled. A serviceable package at a low price.



Non-Busto prices: 1-dozen. size 80c doz.; 2-dozen. size \$1.35 doz.; 3-dozen. size \$1.75 doz.; 4-dozen. size \$2.25 doz.; 5-dozen. size \$2.75 doz.



# REMEDIES, LICE KILLERS, ETC.

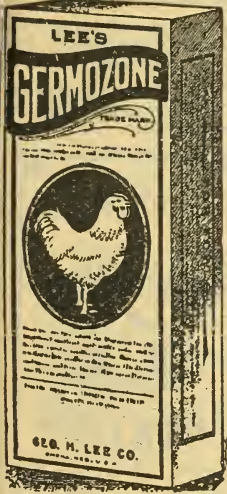
LEE'S FOODS AND REMEDIES FOR STOCK AND POULTRY

THE GENUINE MERIT of the LEE FOODS and REMEDIES and their recognized superiority is their best guarantee, and you can depend upon them absolutely to do all that is claimed for them. The valuable booklets of the Lee Company are free to poultry keepers and stockmen, and contain reliable and complete information to date on poultry and stock feeding problems. We mail them on request.

## LEE'S LICE KILLER—FOR 20 YEARS THE STANDARD

**LIQUID.** Destroys either by vapor or contact. No trouble to apply; just paint the roosts or wall at night. Rids poultry and houses of all vermin; is prepared exclusively for this purpose, and there is nothing just as good.

Price: Qt. 45c; ½ gal. 75c; 1 gal. \$1.25; 5 gal. \$4.50



## GERMOZONE

Regular use of Germozone insures BETTER health; BETTER chicks; BETTER layers; and the RIGHT kind of BREEDERS. Use it for Bowel Complaint in little chicks; for Cholera, Roup, and other diseases among the older fowls; and regularly TWICE - A - WEEK for ALL fowls. It prevents contagion, tones the system, and insures BETTER health for the entire flock.

### PRICES

12-oz. bottle. Liquid.....65c  
 Small size bottle. Liquid.....35c  
 Pkg. postpaid. Tablets.....65c

**LEE'S HOG REMEDY.** Cures all diseases of hogs and keeps them healthy.

7½ pkg. \$1.00, Mailing weight 9 lbs.;  
 25-lb. pail \$3.00.

**LEE'S CARBOLIC SHEEP DIP.** For lice, ticks, mange, itch or scab, on cattle, sheep and hogs. Qt. 50c; ½ gal. 75c; gal. \$1.25; 5 gals. \$5.00. Mailing wts. qt. 3 lbs.; ½ gal. 5 lbs.; gal. 10 lbs.

**LEE'S WORM POWDER.** For horses, cattle, sheep and hogs. Safe and sure in result.  
 Pkg. 25c; weight 1¼ lbs.

**LEE'S BEST CONDITIONER STOCK FOOD.** Promotes good health, digestion and assimilation.  
 30c pkgs. wt. 3 lbs.; 90c pkgs. wt. 8 lbs.;  
 25-lb. pails \$3.00.

**LEE'S PEERLESS GOPHER KILLER.** For killing gophers, squirrels, etc. Sure death.  
 Quart can, wt. 3 lbs., 75c

**LEE'S PEERLESS BUG KILLER.**  
 Wt., pkd., 2 lbs.; 12-oz. bottle, 20c

**LEE'S HICKORY SMOKE EXTRACT.** Hickory Smoke Extract applied to meat preserves it indefinitely, imparting the delicious flavor that is only otherwise obtained by smoking with green hickory.  
 12-oz. bottle, wt. pkd. 2 lbs., 35c; 32-oz. bottle 75c.

**LEE'S FLYO-CURO.** We sell thousands of cans of this fly spray every season, and it gives good satisfaction.  
 Qt. 35c; ½ gal. 60c; Mailing wts. qt. 3 lbs.; ½ gal. 5 lbs.

**LEE'S EGG MAKER** is not a tonic nor a medicine, but a meat food of great value. It will make hens lay, chicks grow, and keep them all in a healthy, vigorous condition.  
 2-lb. pkg. 30c; 5-lb. pkg. 60c; 25-lb. pail \$3.00

**LEE'S HEADLICE OINTMENT.** For little chicks. Large box, 15c

**LEE'S INSECT DESTROYER.** (Powder.)  
 1-lb. can 25c

**LEE'S WHITE DIARRHOEA REMEDY.** The best medicine for this dangerous disease of little chicks. Wt. 2 lbs.; 12-oz. bottle 50c



# EGG-O-HATCH and EGG-O-LATUM



## DON'T GET THE TWO NAMES MIXED

**Egg-o-hatch** is a dry powder. It is mixed with water and the resulting liquid is applied to eggs two or three times during the 21 days of incubation. It is a liquid that does three things—supplies oxygen for the growing chick; absorbs carbon dioxide given off; makes more brittle and porous the shell of the egg.

Price 50c postpaid Will treat 600 eggs

**Egg-o-latium** is a white cerate. Rubbed over the shell of the egg it seals every pore so no air, moisture, odors, or germs can get in. Preserves the egg in all its original freshness. The application of Egg-o-latium is easily and quickly done. A dozen a minute and they will keep a year. Fresh eggs must be used, unfertile ones are best. One pkg. treats 50 doz. eggs. Price 50c postpaid



## PORTLAND SEED CO.'S

**"DIAMOND QUALITY" POULTRY FOODS**

**W**E manufacture our Diamond Poultry Foods from choice, clean, wholesome material. They are made to a standard and are the result of a lifetime of careful study and experiments by a thoroughly practical expert, who is a recognized authority on feeding.



TRADE MARK

### The Making of Diamond Chick Food

The select grains that are used in the preparation of Diamond Chick Food are cut by a special process, screened to a uniform size and run through a Fanning Mill to remove the dust and meal, which is the fatal element in most Chick Foods. After this process the ingredients are carefully weighed and mixed in correct proportions. **No guess work.**

By using Diamond Chick Food you are giving the chicks just what Nature intended they should have, a food composed of grains (cracked), small seeds, bone, dried sweet meat (to take the place of insects and bugs), charcoal, etc., mixed in the right proportions to produce a quick and profitable growth without loss. It's so convenient, so handy, always ready for use, and you can raise so many more chicks by feeding it that it is the **cheapest food you can buy.** A trial is all we ask.

Ask for descriptive pamphlet—Directions for feeding in each sack or package.

**PRICE: 4 lbs., 25c; 8½ lbs., 50c; 25 lbs., \$1.25; 50 lbs., \$2.35; 100 lbs., \$4.40.**

## Diamond Chick Food

A Properly Balanced Ration that will make chicks grow and keep them healthy

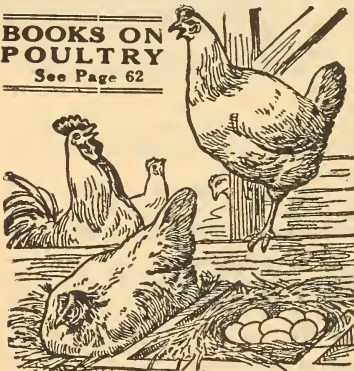
For Young Turkeys, Pheasants and all young fowls **DIAMOND CHICK FOOD** is unexcelled. The safest, most dependable and satisfactory food.

Our trade mark on every original package is your protection. Demand it of your dealer, as there are many dangerous substitutes.



**ALL PRICES** are subject to market changes without notice.

**BOOKS ON  
POULTRY**  
See Page 62



## Portland Seed Company's DIAMOND EGG FOOD

### A LAYING MASH

Makes hens lay when eggs are high; keeps poultry healthy. Unequaled for feeding young chicks.

A complete ground food to be fed dry or wet. Starts hens laying and keeps them at it. Hastens moulting. Puts poultry in prime condition. Makes young fowls grow fast. **No Drugs--No Stimulants--**but a rich, wholesome, nourishing food for growing fowls and hens, encouraging rapid growth and increasing egg production. Can be fed dry or as a mash and is the most successful combination of egg producing elements. **Put up in 100 lb. Bags. Full Weight.**

**PRICE: Per lb., 6c; 25 lbs., 1.25; 50 lbs., \$2.10; per 100 lb. sack, \$3.85.**

Look for the trade mark—be sure it's "Diamond."

## Diamond Growing Food

For Quickly Developing Little Chicks into Big Profit-Paying Broilers

Our special formula for promoting a rapid, healthy growth, and should be fed after the third or fourth week; nothing else needed; will quickly produce large, plump "Broilers."

**PRICE: Per lb., 6c; 50 lbs., \$2.25; 100 lbs., \$4.25**

**IF YOUR LOCAL DEALER CANNOT SUPPLY YOU WITH OUR DIAMOND POULTRY FOODS—WRITE US.**



Portland Seed Co.'s Diamond Poultry Foods—Continued

**DIAMOND SCRATCH FOOD**

The great general purpose food. Complete, economical and satisfactory for every feeding requirement from the three-weeks old chick to mature fowls.

A perfect "working ration" for fowls. Grains, Grit, Shell, Meat, Bone and Charcoal carefully prepared in correct proportion, a veritable "hen's delight." When fed in conjunction with Diamond Egg food a scant allowance scattered in the scratching material in the morning keeps the hens busy hunting for the grains. In the evening feed sufficient that hens may go to roost with crops full.

Diamond Scratch Food can be fed to young chicks at three weeks and has every element necessary to hasten normal growth, build up bone and flesh—a rich nourishing food they greatly relish.

PRICES: 1 lb. 5c; 50 lbs. \$2.25; 100 lbs. \$4.15

**DIAMOND PIGEON FOOD**

Made to a Standard

Makes a properly balanced ration, easily assimilated, and gives wonderful results when fed to squabs, or in preparing for exhibition; it is fed by the big squab breeders with the greatest success as a regular working ration, being the most economical and satisfactory food for forcing growth.

Price per lb. 6c; 100 lbs. \$4.50

**HIGH GRADE MEAT SCRAPS**

**DIAMOND BRAND, SPECIAL.** A new meat product, perfectly prepared, fine ground and clean. The highest feeding value yet produced.

Price: 4 lbs. 25c; 50 lbs. \$2.90; 100 lbs. \$5.50

**GRANULATED.** Clean and free from dust, hide, hair, etc. There is no waste; can be fed like grain if preferred. Every poultry keeper knows the value of this food.

Price: 4 lbs. 25c; 50 lbs. \$2.75; 100 lbs. \$5.25

**FISH SCRAP**

A high grade poultry food, rich in protein (65%) relished by fowls—furnishing a clean, healthy meat ration. No chemicals or acids used in its manufacture, and it is free from meal and dust.

Price: Per lb. 6c; 50 lbs \$2.75; 100 lbs. \$5.00

**FISH MEAL**

A fine-ground, pure, sweet fish meal, containing 65% protein—feed as you would meat meal; a rich, wholesome food for poultry.

Price: Per lb. 6c; 100 lbs. \$5.00

**GRANULATED BONE**

Our "Diamond Brand" is made from selected hard white raw bones, and of a superior quality; an indispensable food for laying hens.

**DIAMOND.** Price: 10 lbs. 45c; 100 lbs. \$3.50

**STANDARD.** Price: 100 lbs. \$3.40

**HIGH GRADE MEAT MEAL**

A highly concentrated food. Being cooked meat, dried and ground. Very rich in protein. It should be mixed with the soft food. No hides or tankage in our meat meal, but, as its name implies, meat, cooked, dried and ground; unexcelled for egg-production.

**DIAMOND GRADE.**

1 lb. 10c; 10 lbs. 65c; 100 lbs. \$5.50

**STANDARD.** Good Grade. 100 lbs. \$4.25

**GRIT**

Every poultry raiser should keep a supply of grit in each pen. Made in two sizes, chick and hen size. We always send hen size unless otherwise ordered.

**DIAMOND CRYSTAL**

Price: 5 lbs. 10c; 100 lbs. 1.00

**BLOOD MEAL**

The most highly concentrated egg-producer on the market. To be fed in soft food. Unexcelled as a food for forcing growth of chicks or as an egg food.

**DIAMOND.** Price: 1 lb. 10c; 10 lbs. 75c; 50 lbs. \$3.25; 100 lbs. \$6.25

**OYSTER SHELLS, CRUSHED**

We offer nice clean stock, free from dust and waste. These should be within reach of your hens at all times. In two sizes: coarse and fine.

**DIAMOND.** Price: 5 lbs. 10c; 100 lbs. \$1.30

**STANDARD POULTRY SHELL.** A very good grade of mixed sea shell—sold by some dealers as oyster shell—but is not so good and has more waste.

100 lbs. 1.00

**BIRD SEED**

Not for planting. Special Prices in Quantity  
 P. S. Co.'s Best Mixed . . . Per lb. postpaid 25c  
 Canary, best re-cleaned . Per lb. postpaid 25c  
 Hemp . . . . . Per lb. postpaid 20c  
 Millet . . . . . Per lb. postpaid 20c  
 Rape . . . . . Per lb. postpaid 20c  
 Cuttle Bone, large bone . . . Postpaid 2 for 5c

**TOBACCO DUST**

For use in dust baths and nests. A cheap and effective exterminator of lice.

Price: 1 lb. 15c; 100 lbs. \$13.00

**ALFALFA MEAL**

The best substitute for green food for Winter feeding; helps keep the egg basket full; mixed with the soft feed is good for large or small chicks; endorsed by leading experts.

Price: 1 lb. 5c; 10 lbs. 20c; 25 lbs. 70c; 50 lbs. \$1.20; 100 lbs. \$2.05

**CHARCOAL**

Our Charcoal is guaranteed, prepared especially for poultry; no dust; a good thing for bowel trouble, sour crop and indigestion; a health preserver.

Prices: 1 lb. 10c; 10 lbs. 50c; 100 lbs. \$3.50

**POULTRY PEPPER**


A good tonic and invigorator; ground.

Price: 1 lb. 25c; 5 lbs. \$1.15



# Practical Hints and Suggestions for

DISEASE	CAUSE AND SYMPTOMS
Constipation	Loss of appetite. Too liberal feed, such as oats, buckwheat, etc.
Diarrhoea in young Chicks	Unsuitable food; no grit to aid digestion. Brooder too cool, allowing chicks to chill.
Egg Eating	Kept on frozen or unplowed ground; no shell making material to be found.
Gapes	Worms in windpipe of young chicks. Picked up in grass, soil and filthy drinking water. Wings droop. Head up, accompanied by sneezing, gaping.
Limber Neck	A form of poisoning caused by eating decomposed meat, etc. Fowls can't hold neck straight; neck twists and fowls stagger.
Obstructions in Throat	Trying to swallow too large particles of food. Choking.
Apoplexy	Eyes dilate, head hangs down, wings droop, beak drips, comb blackens stiff neck, brain enlarged or broken.
Bumble Foot	Sores or callous caused by jumping from too high perches.
Frosted Combs	When in cold weather combs freeze, turn black and become sore.
Chicken Pox	Scaly pimples form on head, face, neck, etc., very contagious.
Scaly Legs	Scaly formation on feet and legs, insects found under each scale Very contagious; due to filth.
Head Lice on Small Chicks	Contaminated from the hen.
Swollen Head, Watery Eyes, Redness, First Stage of Roup	Caused by dampness, drafts and filth in winter, in summer by lack of shade trees. Swelled head.
Roup	Same as above, advanced stage. Swelled and inflamed head; breathing bad; offensive breath and discharge at mouth and nose; eyes red and canker spots on throat.
Cholera and Bowel Trouble	Nothing to digest the food. Without the use of good sharp grit indigestion invariably follows and indigestion is acknowledged to be indirectly the cause of most poultry ailments.
Colds	Dampness, drafts, etc. Eyes red, watery; inflamed head.
Lice and Mites	Filth and lack of spraying. Infested fowls are constantly on the run.
Feather Eating	Generally caused by fowls pulling them out for the blood contained.
Canker	Generally follows roup. Yellow mucous coating, nose, throat and windpipe. Very contagious.
Bronchitis	Colds, coughs, wheezing, caused by dampness, drafts and filth.
Consumption	Last stage of roup. Very contagious.
Indigestion	Lack of digestive agents.
Crop Bound	Full crop, hard lump, passage stopped from crop to gizzard. Cause, bacon rinds, tough meats, cords, gunny sack ravelings and various tough and hard substances, wire grass, etc.

 Keep your yards and houses clean and well ventilated—use with Lee's Liquid Lice Killer—and you





# Treatment of Poultry Diseases

## REMEDY

Feed green feed—vegetables and dampened bran; a teaspoonful of olive oil daily for 2 or 3 days.

Feed mash of finely minced, hard boiled eggs; also cooked rice and cooked vegetables; use Germozone in all drinking water and keep Grit constantly before them; disinfect the premises with Poultry Dip. A permanent cure results.

Feed constantly crushed oyster shell and granulated bone.

Remove infected chicks to clean ground; administer Poultry Dip and keep premises well disinfected.

Pour medium warm water down throat until crop is full; hold head down and work contents of crop out of mouth; repeat 3 or 4 times; then give 2 tablespoonsful of castor oil and 2 of milk; feed mash sparingly and keep fowl quiet. Use Grit in feed troughs; use Germozone in all drinking water.

Pour down the fowl's throat 1 to 2 teaspoonsful of olive oil or sweet oil; massage throat until substance is worked out of mouth.

Bleed by cutting a toenail of each foot; drench the head frequently with cold water, until disease abates; for a few days feed dampened bran and skimmed milk; disinfect premises with Poultry Dip.

Lower the perches, lance the swelling crosswise and remove the pus and hold the feet two minutes in Poultry Dip, diluted as directed. Keep the fowl out of the dirt.

Bathe the comb with Germozone or Camphorated Oil.

Dip the fowl thoroughly with Poultry Dip, as directed. Thoroughly disinfect the premises.

Hold the fowl's legs in Poultry Dip two minutes, as directed. It rarely fails and will cause legs to again appear normal. Grease legs weekly for a month, the scales will drop and leave the legs healthy. Burn the old perches—the scabies are on the roost.

Use head lice ointment, a never-failing remedy.

First remove cause, then use Germozone as directed. Hold the fowl's head under water until it starts to strangle. It will then reach all diseased parts. Use Poultry Dip to thoroughly disinfect the premises.

Use Germozone in water. Hold head under water until starts to strangle. Disinfect thoroughly with Poultry Dip. Clean out nostrils and inject Camphorated Oil.

Use Crystal Grit constantly. Then Cholera cure powder in all drinking water. Spray the premises thoroughly with Poultry Dip.

Give a 2-grain quinine pill and use Germozone in all drinking water.

Use Lee's Liquid Lice Killer, as directed on the can. Nothing better.

Feed blood meat or fish scraps in all food and disinfect the premises with Poultry Dip.

Remove cause. Use Germozone as directed. Spray the premises with Poultry Dip.

Remove cause and use our Germozone. Disinfect with Poultry Dip.

Get a sharp ax and remove head. Burn the remains. Disinfect the premises with Poultry Dip, to save others.

Feed constantly Grit and sprouted oats; use Germozone in drinking water, as directed. In five days all are well. Disinfect premises with Poultry Dip.

A dose of sweet oil. Massage the crop upward and downward. If this fails, open the crop remove contents and sew up with silk thread; feed Grit constantly to prevent.

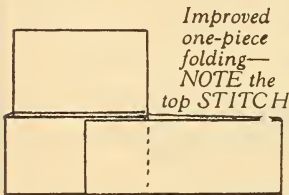
**Germozone in the drinking water—spray the roosts and houses will seldom be troubled by poultry ills.**

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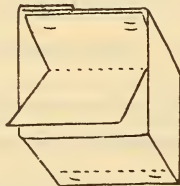
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## BERRY BOXES AND CRATES

New—Machine Stapled Crate

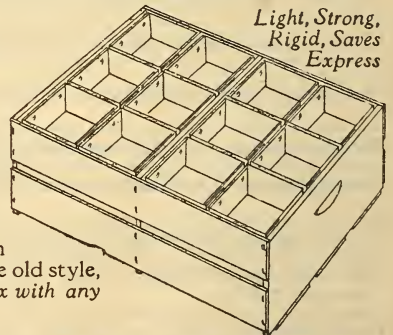


Improved one-piece folding—NOTE the top STITCH



Will Not Warp or Pull Apart

Write for Prices



Light, Strong, Rigid, Saves Express

**TOP STITCHING** the one-piece bottom makes the box open up perfectly. No loss from misfits and breakage as with the old style, and the bottom never drops out. Compare this new box with any box on the market. Prices on request.

**THIS NEW STYLE STAPLED CRATE** is made up on a special machine that centers the long staples uniformly, giving greater strength than can be obtained in a nailed crate. They never warp or pull apart and are the lightest crate on the market, making a great saving to shippers. Prices and complete information on request.

**Prices Right, Deliveries Prompt--** Let us supply you the splendid line of the *Pacific Fruit Package Company*

# PARCEL POST RATES

PARCEL POST RATES are based on DISTRICTS and ZONES. THE DISTRICT includes the office where mailed and the rural routes therefrom.

A DISTRICT RATE OF 5 CENTS for the first pound and 1 cent for each additional two pounds or fraction thereof up to 50 lbs. (the district weight limit) is charged between points in this district.

THE 1st ZONE covers a radius of 50 miles from the point of mailing; the rates are 5c for the first pound and 1 cent for each additional pound or fraction thereof, up to the limit of 50 pounds.

THE 2nd ZONE covers a radius of 150 miles, and the rate is 5c for the 1st pound and 1 cent for each additional pound or fraction thereof; weight limit of 50 pounds.

 A WEIGHT LIMIT OF 20 POUNDS APPLIES TO THE 3rd, 4th, 5th, 6th, 7th and 8th zones. ZONE RATES increase with the distance—see table.

## When you order from Portland

your ZONE will be shown the amount of postage to be added on items mailable by parcel post, and by the aid of the table here shown you can always figure your postage.

look for the Zone that corresponds to the distance you are away. Then note where the weight of your package is marked on the table of rates, on the same line under when ordering. We have catalogued the weight of most

### SIZE AND WEIGHT

A Parcel Post package may weigh from 4 ounces to 50 pounds for the first and second zones—with a 20-pound weight limit for third to eighth zones, and must not exceed in size 84 inches in length and girth combined.

Four ounces or less will be charged for at 1c per ounce or fraction thereof, except on Books, Seeds, Plants, Bulbs, etc., which are 1c for 2 oz. up to 8 ozs. for any distance.

### SEEDS, BOOKS, ETC.—

Seeds, Plants and Books over 8 ozs. and other 4th Class matter over 4 ozs. are charged at parcel rates, a fraction being charged as a full pound.

WEIGHT	1st Zone		2nd Zone	3rd Zone	4th Zone	5th Zone	6th Zone	7th Zone	8th Zone
	Local rate	Zone rate to 50 miles	50 to 150 miles	150 to 300 miles	300 to 600 miles	600 to 1000 miles	1000 to 1400 miles	1400 to 1800 miles	All over 1800 miles
1 pound				\$0.06	\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2 pounds				.08	.11	.14	.17	.21	.24
3 pounds				.10	.15	.20	.25	.31	.36
4 pounds				.12	.19	.26	.33	.41	.48
5 pounds				.14	.23	.32	.41	.51	.60
6 pounds				.16	.27	.38	.49	.61	.72
7 pounds				.20	.31	.44	.57	.71	.84
8 pounds				.22	.35	.50	.65	.81	.96
9 pounds				.24	.39	.56	.73	.91	1.08
10 pounds				.26	.43	.62	.81	1.01	1.20
11 pounds				.28	.47	.68	.89	1.11	1.32
12 pounds				.30	.51	.74	.97	1.21	1.44
13 pounds				.32	.55	.80	1.05	1.31	1.56
14 pounds				.34	.59	.86	1.13	1.41	1.68
15 pounds				.36	.63	.92	1.21	1.51	1.80
16 pounds				.38	.67	.98	1.29	1.61	1.92
17 pounds				.40	.71	1.04	1.37	1.71	2.04
18 pounds				.42	.75	1.10	1.45	1.81	2.16
19 pounds				.44	.79	1.16	1.53	1.91	2.28
20 pounds				.44	.83	1.22	1.61	2.01	2.40



## WAR TAX

On Packages requiring 25c Postage add 1c Tax; on 26c to 49c add 2c Tax; over 49c add 1c for every 25c or Fraction thereof.



The 8th zone rate applies to ALASKA, HAWAII and the PHILIPPINES with 20 lb. weight limit—To MEXICO with 11 lbs.; CUBA, 4 lbs. 6 oz.; PANAMA, 4 lbs. 6 oz. Postage to Canada on 4th class packages of over 4 oz. and NOT EXCEEDING 4 lbs. 6 oz., go at 8th zone rate.

## Our FREE PREMIUMS YOUR OWN SELECTIONS

As an expression of our good will and appreciation of your business we offer these premiums

 If you wish to take advantage of these premium offers, be sure to make your selections when sending in your orders; otherwise they cannot be sent. They are given only with cash orders, at catalog prices.

**With a \$2.50 order** Your choice of Vegetable or Flower Seeds in packages or ounces to the value of 25c, or any 25c Lily, Dahlia, Canna or Gladiola Bulb.

**With a \$25 order** Three times the premium on the \$10.00 order or \$1.50 to apply on any additional item selected.

 NOTE—The amount allowed on premiums cannot be deducted from the price, but is allowed over the amount of the order.

IF YOU SELECT PREMIUMS LISTED ABOVE YOU ARE NOT ENTITLED TO OUR SPECIAL DISCOUNT OFFER BELOW ON SEEDS IN PACKETS AND OUNCES.


**With a \$5.00 order** Double the \$2.50 premium, or any 25c book or 25c to apply on any book we list, or choice of any 25c package of Stock or Poultry Foods or Seed Potatoes, or Flowering Bulbs to value of 50c.

**With a \$10 order** You may double the premiums on the \$5.00 order or choose any 50c book in our list.

## Special Rates on Seeds in Packets or Ounces—Postpaid 25 cts. worth of Seeds FREE

with every \$1.00 order for Seeds in Packets and ounces. Remember, in packets and ounces

only. \$1.25 for \$1.00, \$2.50 for \$2.00, and so on. This does not apply on quantities over one ounce, or where any other premium is taken. We pay one cent (in seeds) per name for good addresses. See back of Order Sheet.

 NO PREMIUMS on GRASSES, GRAINS or FOODS, which are subject to market changes

*"Diamond Quality"  
Northern Grown*

**SEED  
POTATOES**

*WHITE ROSE* (CALIFORNIA)

TWO HEAVY YIELDING HIGH  
QUALITY PROFITABLE VARIETIES  
FOR PACIFIC COAST GROWERS

THERE IS AN INCREASING  
DEMAND IN THIS MARKET  
FOR POTATOES OF THIS TYPE

**PRODUCER**  
(P.S.CO)



PRIDE OF MULTNOMAH  
OFFICIAL RECORD  
790 BUSHELS  
PER ACRE

*Select Strains*

SNOW, WHITE ROSE  
PRODUCER, EARLY ROSE  
WHITE PRIZETAKER, SCOTCH ROSE  
AM. WONDER, EARLY OHIO  
BURBANK



TRADE

MARK