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Aggeler & Musser Seed Co.

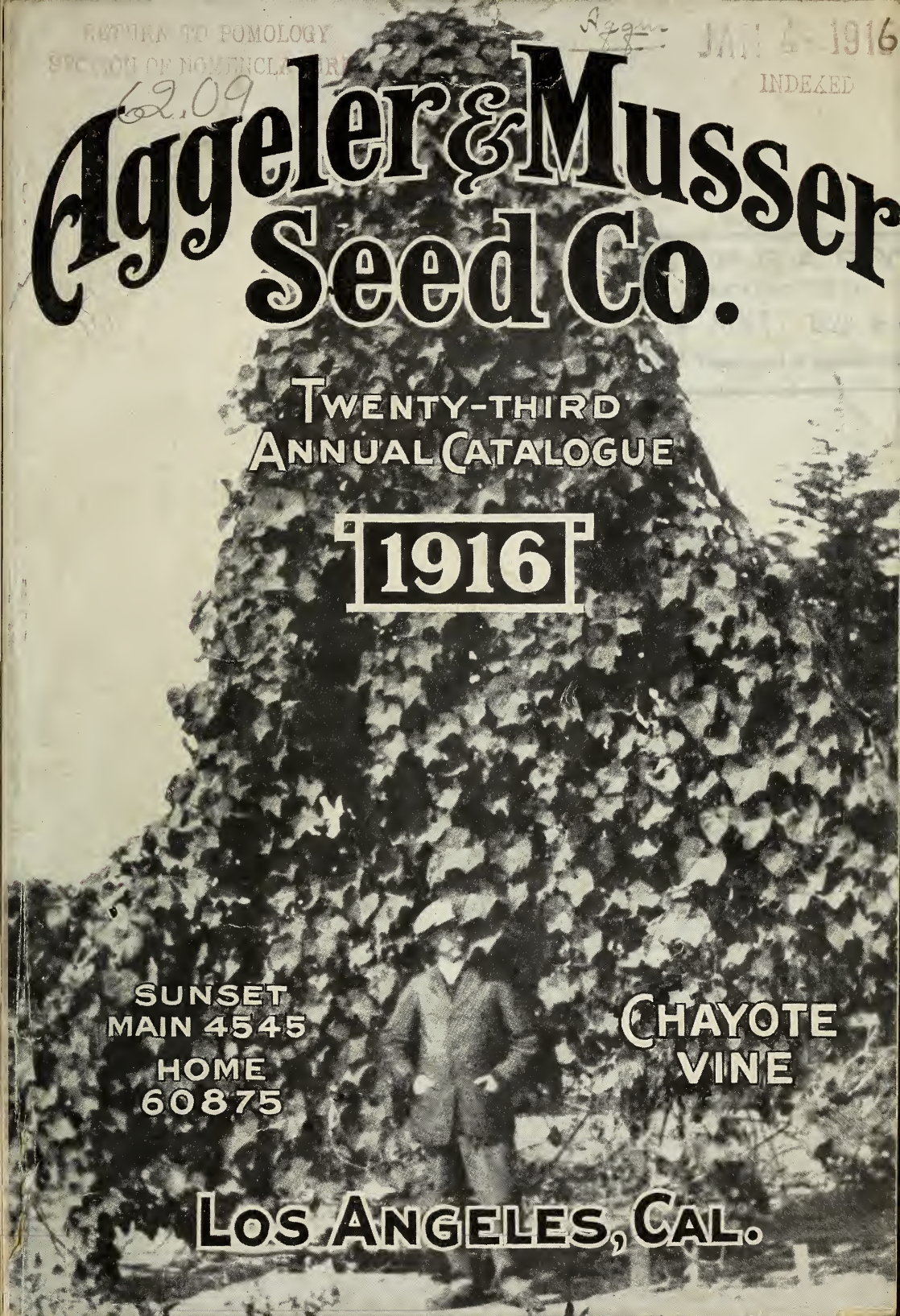
TWENTY-THIRD
ANNUAL CATALOGUE

1916

SUNSET
MAIN 4545
HOME
60875

CHAYOTE
VINE

LOS ANGELES, CAL.



To Our Friends and Patrons:

Again we have the pleasure of greeting our many customers through the medium of our annual catalog, which we have endeavored to improve over all past issues. It may be needless for us to tell our many permanent customers of the quality of our Seeds, Plants, and Bulbs; but to those who receive this catalog, and who have never used our goods, we ask a trial order.

That we may assist the newcomer with his family garden, we have prepared a garden manual, twenty-four pages full of valuable information. It is free with your first order for seeds to the value of fifty cents. Ask for it.

ORDER CORRECTLY—Give name and full address plainly written. State how you prefer to have the seeds sent,—by mail or by express. Send sufficient money to pay for what you order, including postage or express charges when necessary to prepay. The price list plainly indicates what we prepay; when not so stated, we deliver to the transportation company f. o. b. Los Angeles.

If ordered to be sent by express or freight, deduct 10 cents per lb. from mail prices quoted. No plants sent C. O. D.

KEEP A COPY OF YOUR ORDER—Check goods received with this copy. Sometimes items are sold out, or will follow later, in which case a slip is enclosed with goods, or notice sent. In case of error, notify us immediately, that correction may be made.

ORDERS ARE PROMPTLY FILLED—Or in case of delay, you are immediately notified by postal card. If you do not hear from an order sent us, within a reasonable time, send us a duplicate order covering date of order, amount of same and form of remittance, your name and full address. If you cover these points in your first letter, a long delay is often saved in tracing your order.

OUR TERMS—Are strictly cash with order. We prefer not to send C. O. D., but if wanted by that method, customers should enclose $\frac{1}{4}$ of the amount in remittance with order.

HOW TO SEND MONEY—This can be done either in the form of a Postal Money Order, Bank Draft, Express Order, Registered Letter, or Cash may be sent by Express. Remittances sent in any other way are entirely at the sender's risk. Small amount may be sent in postage stamps—5, 10, 15, 25c—stamps preferred.

The parcel post applies to seed. Postal rates are as follows. Owing to the convenience of having mail brought to your door by the rural delivery system, it is well to take advantage of the low rates.

20 pounds anywhere within the city limits of Los Angeles for 15c.

20 pounds one hundred and fifty miles 24c, and 1c for each additional pound up to 50 pounds.

Nothing heavier than 20 pounds may be mailed farther than 150 miles in one package.

The Eighth Zone includes Mexico and Canada.

DOMESTIC PARCEL POST RATES				First	Each
On Seeds, Plants, Bulbs, Roots, etc., within the U. S. and Possessions				lb. or fract'n	addit'l lb. or fract'n
First Zone, Los Angeles and within 50 miles of Los Angeles....				5c.	1c.
Second Zone within 50 to 150 " " "				5c.	1c.
Third Zone " 150 to 300 " " "				6c.	2c.
Fourth Zone " 300 to 600 " " "				7c.	4c.
Fifth Zone " 600 to 1000 " " "				8c.	6c.
Sixth Zone " 1000 to 1400 " " "				9c.	8c.
Seventh Zone " 1400 to 1800 " " "				11c.	10c.
Eighth Zone " all over 1800 " " "				12c.	12c.

When it is required that postage be added to the purchase price of any commodity, note the distance you are from Los Angeles, see in which zone you live. It is then easy to estimate the exact amount of postage required.

Where it is just as convenient to have seeds reach you by express, please say so. We prefer to send them by that method, as it is safer and often cheaper.

Aggeler & Musser Seed Company gives no warranty, expressed or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs or plants we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

Buy Home Products at Home. Nine-tenths of all American grown garden seeds are produced in California.

H. L. Musser, Pres. E. A. Aggeler, Vice-Pres. and Mgr. W. B. Early, Sec'y and Treas.

THE TWENTY-THIRD ANNUAL CATALOGUE OF THE

Aggeler & Musser Seed Company

ESTABLISHED 1893—INCORPORATED 1896



Our wholesale and mail order department and main office are at Sixth and Alameda Sts. This two-story building with basement is 120 ft. by 90 ft., having a railroad track at the rear and a private street in front.

Since the time of our incorporation twenty years ago our business has increased forty fold, and our place of business measured by floor space is just forty times larger than in 1896, and requires forty times as many people to take care of it.

The customers we had twenty years ago are the best boosters we have today. All this means that our efforts to please our customers by giving reliable seeds and reliable information have been appreciated by them. Further evidence of this appreciation is shown by the testimonials we are continually receiving.

READ THE FOLLOWING FROM PROF. E. J. WICKSON

"I desire to thank you most sincerely for your excellent catalog, which presents in exceptionally good form the varied and large amount of desirable material which you offer planters. You are doing excellent work in the extra effort you make to offer things which have been proved in California experience, and your statements about them are very satisfactory and specific."

The above letter complimenting our catalog was received from Prof. E. J. Wickson, of Berkeley. It is the more appreciated coming from such eminent authority. Prof. Wickson is author of the books, "California Fruit and How to Grow It" and "California Vegetables and How to Grow Them." Both of these books are the standard authority for California and accepted as such by the Agricultural Colleges of the entire Southwest, and are on sale at every seed house. See our list of agricultural books.

Always Up to Date. The rapid growth of our business each year is conclusive evidence that our seeds are giving satisfaction, that the care we exercise, to guide new settlers in their selection of the proper varieties of seed suited to the soil, the season, and to the purpose or market for which each crop is intended, all prove our sincerity of purpose to help the grower, be he rancher or gardener, in the proper selection of seeds.

We are strictly a market gardener's seed house in every sense of the word. Our practical experience in growing and marketing enables us to give proper directions and advice to new and inexperienced growers in every phase of the profession, from the selection of the seed to the marketing of the crop.

We have approximately two thousand acres growing in seeds for us in California under our supervision, yet the acreage for growing our seeds is scattered to every quarter of the earth, as experience has taught us where the best seeds grow. We find that the seeds that produce the best results here are the certain strains of various kinds that have originated and acclimated right here in Southern California, discovered and introduced by us.

We are constantly originating, by years of selection, such new types of various vegetables and fruits as the market demands. This year we offer for the first time the Hungarian Casaba, a Black Seeded Angeleno Watermelon and many other things that will prove remunerative to those who will grow them.

We urge that you do not hesitate to try out every new thing we offer, because we will not offer anything that has not been thoroughly tried, and is an improvement in its line.

SOME VALUABLE INTRODUCTIONS OF NATIONAL IMPORTANCE WE ARE PROUD OF BECAUSE THEY HAVE ADDED MILLIONS OF DOLLARS TO THE BENEFIT OF CALIFORNIA GROWERS AND TO MIDDLEMEN FROM THE PACIFIC TO THE ATLANTIC, AND MUCH PLEASURE TO THE ULTIMATE CONSUMER.

We introduced the **California Pearl Cauliflower** in 1900. Prior to that time California Cauliflower was unnoticed in the Eastern market, but since the California Pearl is being shipped in car lots arriving at Eastern points in perfect condition, Southern growers cannot compete in quality. Hence California growers are now shipping thousands of carloads, owing to the Pearl variety. (See page 35).

We introduced the **White Rose Potato** in 1901. The White Rose has superseded other varieties in Southern California, because of its earliness and enormous yield of a large average size potato. It has added greatly to the receipts of the potato grower in Southern California.

We introduced the **Hybrid and Golden Beauty Casabas** in 1902 and 1908. These are today the money-makers. More than \$100,000 worth of Golden Beauties alone are shipped outside of the state. The value of the five varieties grown within the state amounts to fully \$1,000,000.

We introduced the **New York Special Lettuce** in 1902. Prior to the introduction of this variety very little lettuce was shipped outside of the state, and a carload shipment was unheard of. Now the car lot shipments to all parts of the far east run into thousands, requiring thousands of acres to grow it.

We introduced the **Anaheim Chili and Pimiento Pepper** in 1904 and 1910. Owing to the introduction of these two peppers, thousands of acres are grown annually. A number of canneries use these peppers exclusively, giving employment to more than one thousand people during the season. The value of this crop to the growers exceeds one million dollars.

We introduced **Chilian and Angeleno Watermelon** in 1900 and 1907. These are now the leading watermelons grown for the early shippers, and together with the **Klondike**, they are the best for local consumption, because of their excellent flavor.

The **A. & M. First Early Tomato** ranks with the foregoing in importance and value because of earliness for shipping and enormous production.

Not only in the introduction of vegetables have we been foremost, but in forage crops also. The latest that has proven of great promise is **Peruvian Alfalfa**, which we first offered in 1912, since which time it has constantly grown into popularity. In a few years the common alfalfa will have become obsolete.

PLANT DEPARTMENT

We do not maintain a nursery, but in our never-ending research we are continually finding something new with promise of exceptional merit; thus this year we are offering the **Lue Gim Gong Orange**.

We also endeavor to assist in the introduction of new varieties that might prove valuable when the grower understands the proper modes of handling. Therefore see our pages of sub-tropical plants. We keep on hand during the season trees of the standard citrus fruits. Our list of berry plants will interest you because we offer only the improved sorts.

We have had numerous inquiries for instructions in propagation, budding, planting and pruning. We have now just what every beginner wants.

THE ART OF PROPAGATION, 30c postpaid.

PRACTICAL PLANTERS' GUIDE, by Geo. C. Roeding, 30c postpaid.

THE LUE GIM GONG ORANGE

Read about this wonderful Orange now so popular in Florida.

Wilder Medal. The most noted horticultural organization in the country today, as it has been for the past sixty years, is the American Pomological Society. This Society, recognizing the merits of the Lue Gim Gong Orange, awarded a Wilder Silver Medal to this variety. We believe this is the first time a Wilder Medal has been awarded for a new variety of Orange since the Society was organized, and gives a fair idea of the estimation in which this fruit is held by experts.

Origin. Mr. Lue Gim Gong, De Land, Fla., pollinated Hart's late with pollen from what was believed to be a Mediterranean Sweet Orange tree. One Orange, containing fifteen to eighteen seeds, resulted from the crossing. From these seeds about twelve trees were raised, no two of which proved to be alike.

The variety now called Lue Gim Gong, when it came into fruit, seemed to be such an improvement on Hart's Late that Mr. Lue budded fifteen trees with this variety on one side, and Hart's Late (Tardiff) on the other. About thirty other trees were budded with this variety on one side, and other varieties on the other. Five trees are now solid.

Description. Size large; form oblong, carrying the size well out to the rounded ends; color deep orange-red; skin thin, smooth on current crop, becoming rougher on two- and three-year-old fruit; sections well defined, ten or eleven in number; flesh deep orange; juice sacks large; juice abundant, even in old specimens; flavor a rich blending of sweet and subacid; quality best. A fine shipping fruit and a good keeper. Very hardy and resistant to cold.

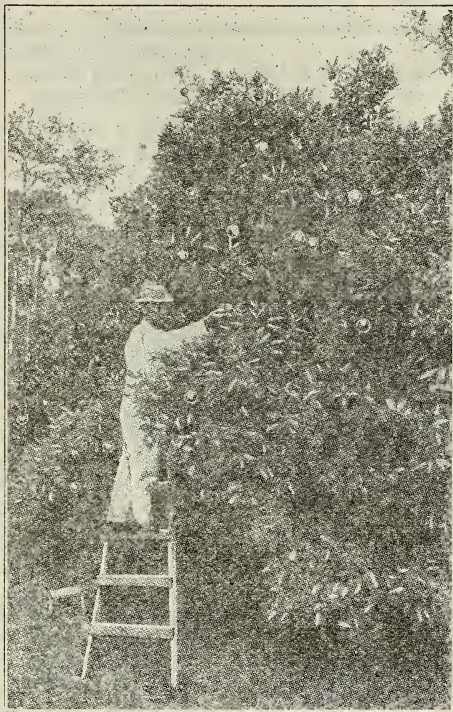
Comparisons. At this time, Hart's Late is the standard late Orange of Florida, and it may therefore be well to make comparisons between this new variety and the standard sort. On July 6, Mr. Lue took fifteen boxes of Hart's Late (from one side of the above trees) to the packing-house and, after testing for specific gravity by placing them in water, packed five boxes out of the fifteen. These were considered to have enough weight for shipping. The five boxes were shipped to North Adams, Mass. Upon arrival they had to be repacked at a cost of 35 cents per box, and then only three boxes remained, which sold for \$2.50 per box. At the same time, five boxes were picked from the Lue Gim Gong Orange from the other side of the same trees. The fruit was not tested for specific gravity, and all the fruit was shipped. On arrival at North Adams, they did not require repacking, and the whole five boxes brought \$4.50 per box.

The Lue Gim Gong Orange is a hardy, thrifty-growing variety. It can be marketed to advantage in August, September and October, when the only fruit on the market is Valencia Late, from California.

An extract from a personal letter from Mr. W. S. Hart, Hawks Park, Fla., sets forth his opinion of the Lue Gim Gong Orange. Mr. Hart has for years stood for all that is best in citrus-fruit growing in Florida, and no man is more competent to pass on the merits of a new variety. He says:

"During the past two seasons, I have had some opportunity to study the peculiar merits of the Lue Gim Gong Orange, and I can honestly say that I have become convinced that it is the most promising money-producing proposition for the citrus-grower now in sight."

We now offer for the first time in California a limited number of two-year-old budded trees at \$5.00 per tree. f. o. b. Los Angeles.



*Picking Lue Gim Gong Oranges

require repacking, and the whole five boxes

FRUIT TREES

All prices f. o. b. Los Angeles, Cal. Write for quantity prices on all trees.

At the proper planting season we have on hand fruit and ornamental trees of such varieties as are in general demand for beautifying the home grounds as well as adding the luxury of home grown fruits.

CITRUS FRUIT TREES

On sale at our branch store, 115 N. Main Street

Orange—Washington Navel—A beautiful tree bearing abundantly each season of large delicious fruit that is absolutely seedless, ripens early, bearing from November until May. Price \$1.25 each. Write for quantity price.

Orange—Late Valencia—A prolific bearer of excellent fruit that matures from June until November. With one tree of Navel and one of Valencia in your garden you will have oranges the year round. Price \$1.25 each. Write for quantity price.

Orange—Tangerine—Ripens from November until May. The Tangerine is a delightful fruit, sweet and delicious. The rind is easily separated from the fruit. Price \$2.50 each.

Orange—Kumquat—The tree is small but ornamental; fruit olive-shaped, orange yellow



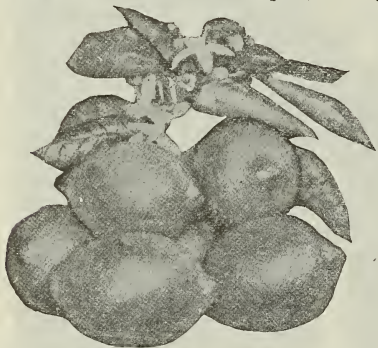
Washington Navel Orange

and exceedingly aromatic; is candied by the confectioner and is in much demand. Ripens May to July. Price \$2.50 each.

Lemon—Eureka—The favorite variety in California. Because of its good keeping qualities it is the favorite with the shipper, and because it is a prolific bearer throughout the year, of medium-sized, well-shaped, nearly seedless fruit, it is the favorite with the grower. Price \$1.25 each.

Pomelo, or Grape Fruit, Marsh's Seedless—The best of all Pomelos; sweet and seedless, with thin rind; an early and continuous bearer. Price 50c each.

Pomegranate—Beautiful tree, bearing fruit the first year. Price 50c each.



Eureka Lemon

GRAPE VINES

One-year-old rooted cuttings. Price, prepaid—Muscat, Red Emperor, Black Morocco, Rose of Peru, Black Hamburg, Cornichon, Madera, Thompson Seedless, Tokay, (Each 15c) (dozen \$1.25) (100 \$6.00).

Write for quantity price.

SUB-TROPICAL PLANTS AND TREES

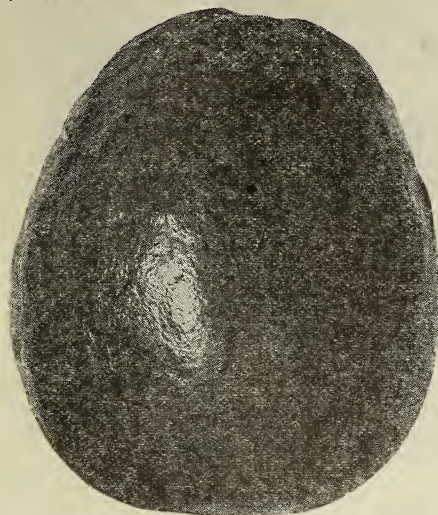
The increasing demand for Sub-tropicals has led us to make a special arrangement with the largest growers of this stock, for a sufficient supply of their best plants for our trade. These will be shipped fresh and direct from their nurseries, and will be especially choice specimens.

All plants that must be delivered through any transportation company, we deliver to such company at Los Angeles. The purchaser pays the transportation charges.

Los Angeles is the city of homes, not walls of houses built solidly covering an entire block, but homes with parks in front, vine-covered houses with flowers at each side; a vegetable garden and fruit trees at the rear. To persons who own their homes we suggest that they plant an assortment of fruit trees, grapes and berries that are both ornamental and valuable. The following is a good assortment: One Navel and one Valencia Orange, one Lemon, one early Peach, one late Peach, one Harmon Avocado, one Cherimoya, two Feijoa Selowianas, one Macatawa, one Mammoth Blackberry, three Mortgage Lifter Dewberries, three Surprise Raspberries, one Himalayan Yellow Raspberry, three assorted Grapes. We offer the entire list for \$8.00 f. o. b. here.

THE AVOCADO

Orange County alone claims an annual production of Avocados to the value of \$5000.00.



Taft Avocado

Harman. Green, pear shaped, of good quality, seed slightly loose in cavity, a prolific and early bearer. Season, late fall.

The Avocado in a very few years will become a commercial article in our daily markets in common with other produce, but unlike fruit in the ordinary sense, it will be a staple article for food as indispensable as the potato. It is only a matter of good husbandry to have one or more trees about your home.

Ganter. Another green colored fruit, ripening in the fall. Tree a vigorous grower, an early bearer and prolific. Fruits weigh 8 to 10 ozs., of good quality.

The large fruited Guatemalan types fall a few points below the above in oil content, but are the sorts best suited to commercial use, having a thick, strong skin adapted to long distance shipments. These fruits command a high price in the markets, and always will. We offer the leading varieties.

Taft. As in the past, we rate the Taft as the leader. The tree has uniformly proven a strong, vigorous grower. The fruit is pear shaped, weighs about a pound, quality good, green skin; has a long season, lasting from May to September.

El Fuerte. This variety has proven one of the hardiest of the large fruiting kinds. Form, oval; color, green; flesh, yellow and buttery; season, late fall; weight, ¾ lb. or more.

Challenge. An almost round fruit, weighing about one pound; early spring ripening; color, bronze. Parent tree bore 2000 fruit last year.

Prices—All varieties. Healthy, vigorous trees, balled or in large cans, by express or freight, \$4 each f. o. b. Los Angeles.

FEIJOA SELLOWIANA

A relative of the common guava, but very much superior to it. The fruits, which mature in December, are delicious, and a few of them will perfume a room with a pleasing fragrance. Is especially hardy, stands frost down to 10 degrees above zero. The flower is sufficiently beautiful so that the Feijoa is properly classed as an ornamental shrub also. In groups or as a hedge it is very desirable. It is well worthy of commercial planting.

Our stock is the choicest procurable. Fine, field grown plants, two feet high or over, \$1.50.

See—They are readily grown from seed, bearing the second year.

(25 seeds 15c) (50 seeds 25c) (100 seeds 45c) (1000 seeds \$3.00).

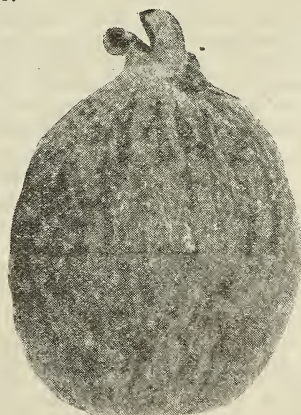
The Taft Avocado

In Southern California from Santa Barbara southward, fruiting Avocado trees ranging in age from 3 to 30 years are to be found in quite large numbers. These afford a practical and acceptable demonstration of the adaptability of the tree to this climate and soil, and of its fruitful character. As to food value, it is not stating the matter too strongly to say that it takes first rank among the wonderful and varied productions of Southern California.

The thin skinned, small fruits of the Mexican type are particularly rich and nutty, and are ideal for home use. One variety of this sort recently analyzed by the University of California was found to contain 29% of oil. These are especially hardy also. The best varieties are:

Northrup. A purple fruit of oval form weighing 6 or 8 ozs., very rich and nutty, prolific, and perhaps the most hardy of all; ripens in October.

San Sebastian. Oval, black, medium to large in size, flesh a rich yellow, tree very hardy, season April and May—a fine variety.



Feijoa average size

WHITE SAPOTE

Introduced in California by the early Mexican settlers. It is hardier than many semi-tropical fruits. The tree forms a beautiful crown, and is very ornamental. The fruit is similar in appearance to the quince. The skin is thin and surrounds a quantity of soft, melting pulp, sweet, and of a flavor almost impossible of description, since it resembles no other cultivated fruit. Our stock is of choicest quality.

Plants 2 to 3 feet high, 75c each.

THE GUAVA

Besides the popular Strawberry Guava (*Psidium Cattleianum*) found in almost every garden in Southern California, other species of this highly esteemed tropical fruit are well adapted to our climate. Some of these are so valuable as to warrant extensive use. Only those who have eaten the guava jelly of the tropics know how vastly superior it is to that of the strawberry guava.

Psidium guayaba

Tropical America—The common guava of the tropics. Variation from seed has led to the existence of many different forms, which have been given little systematic attention as yet.

Psidium lucidum (syn. *P. chinense*)

Brazil—Yellow strawberry guava. It is identical with the strawberry guava, except in the color of its fruit, which is bright yellow instead of red. It is considered by some to be of finer flavor than the last named, and it is also as hardy.

Price—Large plants in 4-inch pots, 50c.

CHERIMOYA

The Cherimoya (*Anona Cherimolia*) has been classed as one of the three finest fruits in the world. Forty years of cultivation in California have shown it to be eminently adapted to this climate, which is, indeed, not unlike that of its native home, the highlands of Central America. The tree is a handsome one, with broad, velvety, bright green leaves, frequently deciduous during the winter months. It is sufficiently hardy to be grown wherever the orange thrives.

The fruit is heart shaped or oval, green or brown in color, and ordinarily about the size of a navel orange. The flavor of the pulp is similar to the pineapple, and is liked by everyone. As a dessert fruit the Cherimoya, when grown in a climate such as that of California, is without a superior. It ripens during the spring months.

Our stock is grown from large, delicious fruits from hardy and productive trees selected in the Mexican highlands. We have the finest stock ever offered in California. Price in 6-inch pots, \$1.00 each f. o. b. Los Angeles.

THE NATAL PLUM

A South African shrub (*Carissa grandiflora*), worthy of cultivation in every California garden for its ornamental value as well as for its fruit.

The plant, which does not grow over a few feet in height, is a solid mass of foliage and very shapely. In spring and summer it bears a profusion of white, star-shaped flowers of an inch and a half in diameter, which have the fragrance of the tuberose. The flowers are followed by bright scarlet fruits about the size and shape of a plum. These are of a peculiar acid flavor, and are used for preparation of jelly.

The Natal Plum is particularly recommended as a hedge plant. It is hardy, remarkably tolerant of abuse, and thrives with almost no attention. The thorns with which the shrub is supplied make the hedge practically impenetrable, and it has the added advantage of exceptional beauty of foliage and flower, and production of fruit.

Large plants, in 4-inch pots, 50c each f. o. b. Los Angeles.

THE QUEENSLAND NUT

The Australian tree (*Macadamia ternifolia*) is, from several points of view, one of the most valuable additions that has been made to California horticulture. Aside from the value of its fruit, the tree is a highly desirable ornamental one for the lawn or dooryard, as well as for streets and avenues, for which purposes its drought-resisting qualities make it particularly desirable. It is an evergreen, with dark green, serrated leaves greatly resembling those of the holly.

The nuts are abundantly produced in clusters of from three to fourteen, enclosed by a hull similar to that of the hickory nut. They are round, smooth, light brown in color and about an inch in diameter. The shell is thick, and encloses a round kernel, similar to the filbert, but larger. The flavor is like that of the Brazil nut, but greatly superior to it. Price of two-year-old trees in 6-inch pots, 2 feet or more, fine specimens, \$1.50 each f. o. b. Los Angeles.



Fructing Passion Vine

PASSIFFORA EDULIS

Passion Vine

The Passion Vine thrives in California. It is not yet well known, however, and hence its fruit has not come into general use. In Australia it is extensively grown.

The fruit is the size of an egg, and contains a pulp of exceedingly good flavor. It is consumed much in the same manner as an egg—that is, by cutting off one end and removing the contents with a spoon. The pulp is also used as a flavoring for cakes, ice-creams, drinks and sweet-meats, and is a much appreciated addition to fruit salads. It packs and ships well.

The vine is a vigorous grower, and well suited to use on trellis or screen frames. It is quite hardy.

Price, large plants in 4-inch pots, 50c each. Seeds, per pkt. 10c.

DASHEEN

The Dasheen or Chinese potato has been cultivated in China and Japan for centuries, and it is said there are more of these tubers eaten than of the Irish potato. It is related to the ordinary caladium or elephant's ear, which it resembles in habit of growth, and is both ornamental, interesting and useful. It develops tubers in the ground which are cooked similarly to a potato and have much the potato's texture and flavor. When boiled they have a chestnut flavor.

The Dasheen is very pungent, and should never be even tasted until boiled. If by accident it is tasted, olive oil will give relief.

The Dasheen can be prepared in many way, but they are generally liked best when parboiled for about 15 minutes and the cooking completed by baking in a fairly quick oven. Depending upon the size, they should be baked from one to two hours, a fork being used to test them.

As soon as done the corms should be cut open lengthwise, covered with a napkin, in a warm dish, and served immediately. If they have been cut open before cooking, the thin crust formed over the cut surface should at once be lifted, on taking from the oven. (This crust is itself very palatable.) The mealy interior can be taken out easily with a fork or spoon. Baked Dasheens are generally drier than baked potatoes and therefore need more butter. Salt is used in seasoning.

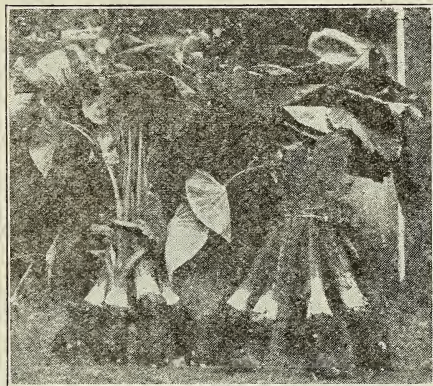
There is no better food for hogs than Dasheen. They will yield more abundantly than potatoes and can be stored and handled in the same manner.

Mrs. Larkey permits us to say: "The Dasheen when properly cooked is much better than potatoes; it is as easily grown and its culture should be encouraged, that it may be more generally used."

The bulbs we offer have been grown on our trial grounds, and therefore are partly acclimated.

(One bulb 10c) (6 for 50c) (12 for \$1.00) postpaid.

In offering the various things that are new and untried to this climate we select such varieties that have proven of much value in their respective places. The Dasheen is as indispensable to Asiatic and to the South Sea Islanders as is the potato to the white race. It has proven to grow well here; it has also proven palatable. Who can say but that the future generations will value the Dasheen above the potato?



Dasheen

CASSAVA, or TAPIOCA



In growth and culture the casava is similar to the dahlia. It grows six to ten feet tall, yielding large tuberous roots, from which tapioca is made. These roots are excellent food for hogs, and cattle, and is greatly relished by them. It is destroyed by frost, therefore the stalks are cut in the fall, all leaves and tender growth cut away. The stems are then stored for spring planting by being buried in sand. About April 1st they are rooted and ready for planting. Cut into pieces three inches long, and plant in moist sandy loam four feet apart in rows six feet apart. Water and cultivate freely. As the roots grow to large size they may be removed without injury to the plant. In this way the yield is enormous.

The picture was taken at our trial grounds. This is our first year's experience with it. The results show a natural growth throughout the season until the tender stems are destroyed by frost. New growth soon appears and the second season is much more prolific of both foliage and large roots. While we are recommending it particularly for hog feed, it is not improbable that it may prove to be profitable to grow for the manufacture of tapioca. Another season at our trial grounds will fully demonstrate it.

It is very ornamental. Every home garden should have one, and every stock-raiser should try it out. Plant in March or April. We offer good live home-grown canes 12 inches long which may be cut into four pieces for planting, at (25c each) (5 pieces \$1.00) postpaid.

If interested write for circular and quantity price.

GINSENG AND GOLD SEAL

The two are of such similar nature, both as to culture and marketing, that both should be grown together if you have a place suitable for their culture.

Send 60c for Kain's book on Ginseng Culture.

Price—Ginseng, (fresh seeds, per 1000, \$2.00 postpaid) (stratified seeds, per 1000, \$3.00 postpaid) (One-year-old roots, \$8.00 per hundred, postpaid).

Price—Gold Seal, (50 plants \$5.00) (100 plants \$9.00).

Write for quantity price.

CACTUS

(If interested, write for particular information and price on large quantity).

We have devoted several years to a careful observation of cactus-growing, with the conclusion that about three varieties represent the best. Probably as many as twenty varieties are commonly offered. Some of these varieties are nearly or wholly synonymous.

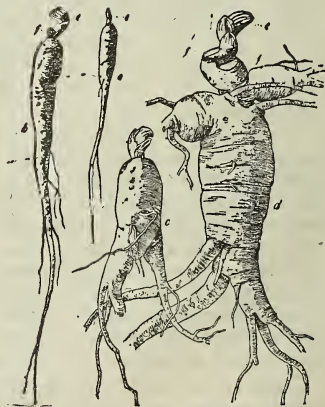
If you have a piece of waste land, plant it to Thornless Cactus. During a dry season when fodder is scarce you can rely upon the cactus. A few plants in a home garden will prove desirable for the fruit, which is considered very good.

We offer only the following varieties, which we consider the best:

Meyers—Absolutely free from thorns or spines; can be handled without gloves. Price per blade, 50c postpaid.

Robusta—Free from thorns, and is hardier than others. Price per blade, 40c postpaid.

Anacantha—Probably the most prolific of all varieties, both in blades and fruit. Not entirely thornless. Price per blade, 40c postpaid.



Roots of Ginseng
1, 2, 3 and 4 years old

BERRIES

Orange County claims an annual income of \$50,000 from berries.



This picture plainly shows an easy way to make a trellis upon which to train all berries that have trailing vines. By this method cultivation is made easy, and by keeping the vine trimmed and trained closely to the trellis, picking is easy and convenient.

Drive stakes sixteen feet apart along the berry rows. Nail cross pieces on top of the stakes, and stretch wire somewhat heavier than baling wire along the row on each side of the stake, and attach with staples to each end of the cross-pieces.

All berry plants here listed are ready for delivery from January 1st until April 15th, except strawberries, which are ready for market from November 1st until April 1st.

For Dewberries, the stakes should be 2 ft. high, cross-pieces 20 in. long.

For Phenomenal and Loganberries, the stakes should be 2½ ft. high, cross-pieces 24 in. long.

For Mammoth Blackberries, the stakes should be 4 ft. high, cross-pieces, 24 in. long.

For Black Cap Raspberries, the stakes should be 4 ft. high, cross-pieces 20 in.

For Himalaya Blackberries, the stakes should be 5 ft. high, cross-pieces 30 in.

When ordering berry plants along with seeds, do not expect to receive them together. We do not wish to ship plants the latter part of the week, because they may be delayed during Sunday; therefore all plants are shipped early in the week.

F. O. B. means we deliver to the carrier; you pay express charges.

MAMMOTH BLACKBERRY

It is all that its name implies, both as to cane and fruit. A single plant has been known to have as much as 175 feet of bearing cane and will cover the side of an ordinary-sized dwelling. The canes start growth early in the spring and after reaching a height of six or seven feet take the trailing habit and should be trellised. They make a prodigious growth and have luxuriant foliage. The canes can be pruned to suit.

In size of fruit no other blackberry approaches it. Berries are frequently found measuring 2½ inches long. For cooking purposes the fruit fulfills all the desired qualities of other blackberries, and as a fresh fruit is generally preferable, owing to large size, having more pulp, less core, no seeds, and is one of the sweetest of all blackberries.

—Price—(3 for 25c) (\$1.00 per dozen prepaid) (\$6.00 per 100 f. o. b. here).

We aim to have only strong, healthy plants and true to name. We have received few complaints, all of which have been due to delays in transit.



Mammoth Blackberry—½ actual size

Every home garden should have a few berry vines in the corners or along the fence. It requires only a few vines to supply the family table with berries. They are but little trouble and not particular as to soil.

HIMALAYA BLACKBERRY

Mr. J. E. Hathaway says: "It is wonderfully productive, and if kept well pruned, the berries are large and delicious. I have the Mammoth and other varieties, but for all table purposes I prefer the Himalaya."

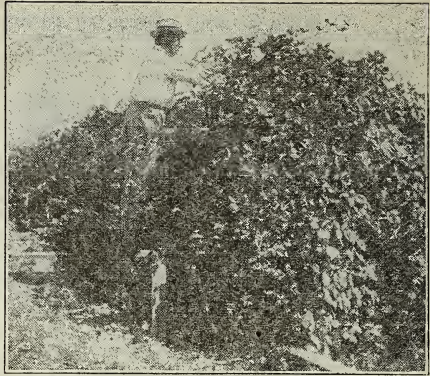
Mr. C. E. Trapp says: "As a money-maker, it beats them all."

This is enormously productive, bearing from June until frost.

In field planting, the vines should be given plenty of room; ten feet apart each way is not too much, as the canes make a prodigious growth if allowed. Strong wire trellises should be provided on which not more than four canes from each plant should be trained.

These canes after reaching the desired length should be cut off, causing the surplus energies of the vine to go into fruit.

Prices—(10c each) (\$1.00 per dozen prepaid) (\$6.00 per 100 f. o. b. Los Angeles).



Three plants of Himalaya make forty feet of row. These plants bore ripe fruit from June until October.



Macatawa Blackberry

It is coreless and almost seedless, very solid, jet black when ripe, and can be shipped one thousand miles without bruising. The shape is oblong, very uniform, averaging three and one-half inches around one way, by three and one-fourth inches the other way."

(Each 15c) (doz. \$1.25 prepaid) (100 plants \$8.00 f. o. b. Los Angeles).

MACATAWA

New Ever-bearing Blackberry The Berry for Shipping

In offering this berry we believe you may now have what has long been wanted in the blackberry line—an All-Season bearer. The Mammoth Blackberry for very early, the Himalaya for late, but the Macatawa for both early, medium and late—just all season.

The originator of this berry says of it: "It begins blooming in the southern and coast states about February 15th; in the eastern states about April 1st. One month later you can begin to pick. It is a continual cropper from spring until the frosts; in fact, it is the only berry, in my 46 years' experience, that is an ever-bearing variety. The fruit is very large and sweet; in fact, it is the sweetest black-

GARDENA DEWBERRY

Dewberries grow wild in many localities. Some varieties have been domesticated and improved. Among these is the Gardena, which wins favor wherever tried. The vine is a low Rambler and should not be trained up over twenty-six inches high for best results. Early in the spring the vines are covered with a mass of bloom, later yielding an immense crop of large, lustrous, blue-black berries, very sweet.

(Each 5c) (doz. 50c prepaid) (100 \$4.00 f. o. b. Los Angeles).

The Mortgage Lifter Dewberry The great merit of this variety is its extreme earliness and its enormous yield of excellent large fruit. It is truly a mortgage lifter. (3 for 25c) (doz. \$1.00 prepaid) (100 \$6.00 f. o. b. Los Angeles).

PHENOMENAL BERRY

This has been said to be the best berry in the world. In its place it certainly is unique, being the result of a cross between a dewberry and the Cuthbert raspberry, taking the size and shape of the former and the color and flavor of the latter.

The vines are similar to the Loganberry and should receive the same training and cultivation. Berries grow in clusters of from 5 to 10 or more, and for size there is no berry of its kind approaching it. Individual berries often measure 3x4 inches in circumference. Bright crimson in color and rather tart in flavor, they are excellent for jams, jellies, etc.

(3 for 25c) (\$1.00 per dozen prepaid) (\$6.00 per 100 f. o. b. Los Angeles.)

LOGANBERRIES

Loganberries are very similar to Phenomenal berries in appearance.

This berry is largely used for pies, for canning, and making preserves. It has the appearance of a large raspberry and the blended flavor of raspberry and dewberry. It is so prolific that a single vine will often bear 100 boxes of berries. For a home garden a few vines trellised along a fence will be sufficient, but for commercial planting set the plants five feet apart in rows six feet apart.

(3 for 25c) (1 doz. \$1.00 prepaid) (100 \$4.00 f. o. b. Los Angeles.)

ST. REGIS EVERBEARING

Raspberries for four months—that's what you get when you plant St. Regis—the new everbearing variety.

This variety has been aptly termed "the early till late" variety; for it is the first red raspberry to give ripe fruit, while it continues to produce berries without intermission until late in October.

Unlike any other raspberry, the St. Regis yields a crop of fruit the first season; planted in early April, ripens berries early in June of the same year. For four weeks thereafter the yield is heavy, and the canes continue to produce a ripe fruit freely without intermission until the middle of October.

(3 for 25c) (\$1.00 per dozen) (100 plants \$6.00 f. o. b. here.)

CUTHBERT RASPBERRY

Nearly everyone knows about this excellent berry. Where favored with moist ocean breezes the large red fruit is unsurpassed.

(3 for 25c) (doz. 75c prepaid) (100 \$4.00 f. o. b. here.)

SURPRISE RASPBERRY

This berry is very similar in appearance to the Superlative. It is the earliest red raspberry on the market and has a long fruiting season. The roots produce an abundance of bushy canes, immense clusters of berries on every lateral. The Surprise is practically an ever-bearer in warm climates and raspberries at Christmas time yield a handsome profit. This variety is especially recommended for warm and hot locations where other varieties are subjected to sunburn.

(Each 15c) (doz. \$1.25) (100 \$7.00 f. o. b. here.)

KING OF THE CLIFFS EVERBEARING

Mr. B. L. Reynolds says: "You made no mistake bringing the King of the Cliff to California. It has them all beat, and it is a wonderful berry."

This is truly a wonderful raspberry; actually bears fruit from May until December.

The earliest of all black raspberries. This new raspberry was first discovered in the spring of 1905, growing in and around a cliff of rocks. Berries firm, yet glossy black and of a delicious flavor; seeds very small, berry compact and uniform large size. Canes of ironclad hardness, enduring the severest cold uninjured, and are wonderfully prolific. Unlike many other varieties, its foliage never suffers by blight or its cane never attacked by Anthracnose or any other disease, nor its cane impaired by the heat or drouth of summer.

(15c each) (doz. \$1.25) (50 plants \$4.00) postpaid.

HIMALAYAN YELLOW RASPBERRY

An importation from India that is proving very attractive. It is wonderfully vigorous raspberry growing canes fifteen and twenty feet long. Grows in bush form, or can be trained to cover an arbor or pergola. It is very rapid in growth, devoting itself to wood-making for two or three years, then begins to fruit and yields abundantly. The fruit is like the ordinary raspberry, but is yellow in color and very attractive. Where planted for growth in bush form will require fifteen feet of space. A most interesting plant. Our stock is limited.

In 4-inch pots, 18 in. to 24 in., strong plants, 75c each.

If you are interested in the culture of raspberries, we suggest that you write the United States Department of Agriculture for Farmers' Bulletin No. 213.

STRAWBERRIES



Early Strawberries by the Cross method

The present method of setting plants a few inches apart on little narrow ridges too close to permit of irrigating without uncovering the roots is not conducive to best results.

Set the plants in December, January or February two feet apart in rows two feet apart; keep the soil in perfect condition to permit of the runners to root freely, but train them to grow along the row. Then do not disturb them except to cultivate and fertilize. By January or February of the following year you will have a field like shown in the above picture in full bearing, and the vines will continue bearing until late in the season. Continue the cultivation, allowing the runners to set as before. The profit in earliness and productiveness the second season is conclusive that this method is better than is now generally pursued.

ETTERSBERG NO. 80

Of all the various types of strawberries, we pronounce the Ettersburg No. 80 as outclassing all other varieties. Our trial grounds proved to us that it is all Mr. Etter claims for it, and in comparison with other varieties grown under like conditions, it proves to be in a class by itself. We can only say to you, Try it.

Read what Mr. Etter says of it:

Ettersburg No. 80—Something new in the strawberry line; an entirely new creation bred up from the native California wild strawberries. Of the several varieties Mr. Etter has created, we are offering his No. 80, which we recommend to our readers as one of great merit and promise of exceptional value, because of its large size, delicious flavor, productiveness, hardiness to endure both cold, heat and drouth, and it will bear abundantly on soil too poor to produce other varieties. In fact, it is not congenial to rich damp land. Mr. Etter says of it:

"No. 80 is a large solid berry. It is very productive of fine red berries that are of large size and have a large, clean-cut green calyx or hull. The blossoms are very large and the runners very strong. The plant is extra vigorous and deep rooting and the foliage leathery. In the fall of the year the young foliage is of a bluish cast. The fresh fruits is of fine dessert quality, and for flavor as a canned berry it is the very best, a deliciousness I have found in no other variety. It is red, and red to the center. It is a great canning sort. I regard No. 80 as about the best of all my hybrid strawberries for trial everywhere."

No. 80 was productive by crossing the Rose Ettersburg with the Chilvensis or Beach strawberry from Cape Mendocino, and crossed again with a cross from the Rose Ettersburg and California wild strawberry.

Price—(Doz. 75c) (25 \$1.00) (100 \$3.00) postpaid.

Read what J. J. Carter of Orange County says of it under date of February 23rd, 1915. "Replying to yours of the 17th inst. regarding Ettersburg No. 80 strawberries and requesting me for a testimonial: Beg to say that two years ago I secured 12 plants from M. Etter, and the first year I did not let them bear, as I wished to get

STRAWBERRIES (Continued)

a good many plants. Last winter I transplated 600, which made a very quick and vigorous growth, and in three or four months they were bearing very prolific. The berries are large and delicious in flavor and sweet. They make very superior jam, having a distinctive flavor all their own. Besides having all we wanted for ourselves, we sold some to our neighbors, who were very much pleased with them. At the present time the plants are simply covered with bloom and green berries, besides producing a very large number of vigorous runners."

Mr. Etter insists that we also offer his numbers 84 and 121. They are as different from No. 80 as No. 80 is different from Brandywine.

No. 84—This variety is a fall sister to No. 80. The fruit is deep glossy red and of large size. The flavor is good to very good.

It is of the greatest vigor and its root penetration is remarkable. The foliage is coarse, stiff and leathery and very resistant to heat. It is productive and good.

(Per doz. 75c) (25 \$1.00).

No. 121.—In this fine berry we have something distinctly new. It is remarkable for its firmness. If given too much moisture and richness of soil they will go much to vine and the fruit will be smaller than plants on poorer soil. A bed will last for a much longer time than will the regular sorts.

(Per doz. 75c) (25 \$1.00).

AMERICUS (EVERBEARING)

Last year we offered four everbearing varieties. Our trial grounds showed so little difference in the several varieties that we are this year offering only the Americus. Price—(Doz. 60c) (25 \$1.00) (100 \$2.00) postpaid.

THE BANNER

The Banner strawberry is claimed by Mr. Philippi to be the best of all the local varieties because of its uniformly large size, red, glossy appearance, good keeper, non-acid flavor, and always showy, on which account the dealer prefers it.

Several Los Angeles bon ton grocers will handle no other strawberries as long as they can get Philippi's Banner berries.

Price—(50 plant 75c) (100 plants \$1.00) postpaid (1000 plants \$7.00 f. o. b. here).

Klondike and Brandywine are too well known to require description. They are local favorites. Price—(50 plants 50c) (100 plants 75c) postpaid (1000 plants \$4.00 f. o. b. here).

Write for quantity price.

OUR BULB DEPARTMENT

Los Angeles, the city of beautiful lawns, owes much of its popularity to the many flowering bulbs that bloom so profusely and so constantly in this climate, only requiring proper setting at the right time of the year and the right selection to attain the highest perfection of beauty.

The bulbs we offer are chosen with the purpose of giving our customers the best bulbs to get the best results. In order to get the best results, make your selection according to the time of planting, and many of them may be planted at any time in order to have them bloom when you wish.

Although this catalog will come to you when the time for planting Dutch bulbs has nearly passed, we request you to keep this list that you may refer to it next September, when making up your order for fall planting.

Do not order any Dutch bulbs after February 15th.

IMPORTED BULBS

Plant from October until February.

Hyacinths

Early Flowering French Roman Hyacinths

For early forcing in window boxes for inside decoration.

	Each	Doz. Prepaid
White, Dark Rose and Blue .....	.05	.50
Extra large single named varieties for forcing in pots.		
Pure White, L'Innocence,—Pink, Gertrude,—Red, Rol Des Belges,—		
Blue, Grand Maitre .....	.10	1.00
Popular Mixed Hyacinths for out-door bedding.		
Red, White, Blue and Pink. Single, any color.....	.05	.60
Double, any color05	.60

Tulips

Extra early for forcing, any color, single or double.....	.03	.35
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Narcissus		Each	Doz.
The largest Daffodils in cultivation.			
Emperor, Pure Yellow05	.50
Empress, White and Yellow.....		.05	.50
Victoria, Creamy White and Deep Yellow.....		.05	.50
Polanthus, Paper White	2 for	.05	.25
Chinese Sacred Lily (Imported) .....		.20	2.00

Jonquils		Each	Doz.
Campnelle Rugulosus, Largest Flowering:			
Pure Yellow, very fragrant	3 for	.10	.30

Crocus		Each	Doz.
Striped and Variegated	2 for	.05	.25

Ranunculus		Each	Doz.
All colors	2 for	.05	.25

Anemones		Each	Doz.
All colors	2 for	.05	.25

Spanish Iris		Each	Doz.
All colors	2 for	.05	.25

The following list of bulbs may be planted at any time from January until July. Some varieties may be planted at any time throughout the year.

Amaryllis		Each	Doz.
Belladonna, large lavender flowers, the most beautiful of all Amaryllis.			
Very large bulbs .....		.25	2.50
Johnsonii, Scarlet striped white.....		.25	2.50

Caladiums		Each	Doz.
Elephant Ear .....		.25	\$2.50
Dasheen, Edible bulb .....		.10	1.00

Callas		Each	Prepaid
May be planted at any time.			
White Flowering .....		.10	\$1.00
Yellow, Large sized bulbs .....		.50	5.00

Freesias —Refracta Alba .....		.25	2.50
Gladiolus —A. & M. Superb Mixture .....		.05	.50
English Iris —Blue or White .....		.05	.60
Oxalis —Pink .....		.20	2.00
Watsonii —Mixed Colors .....		.05	.50

Our mixture of Glodioli is beautiful beyond description—scarcely two alike.

MEXICAN EVER-BLOOMING TUBE-ROSES

They have tall stiff stems, flowers pure white, single, delightfully fragrant. They withstand all winds and weather save hard frosts, commence to bloom in May and continue to December. They never blight and if the stalk is cut when the first bloom appears, the other flowers increase in size and whiteness and keep for a week or ten days. They increase rapidly.

	Each	Doz. Postpaid
Mexican .....	.10	1.00
Double Pearl .....	.10	1.00

CANNAS

Louisiana—Green foliage edged with brown. Flowers large scarlet, one of the finest of the orchid flowering type. Height, 5 feet.

Shenandoah—Bronze foliage, flowers rose pink, forming in large clusters. Height, 3 feet. Very pretty for bedding.

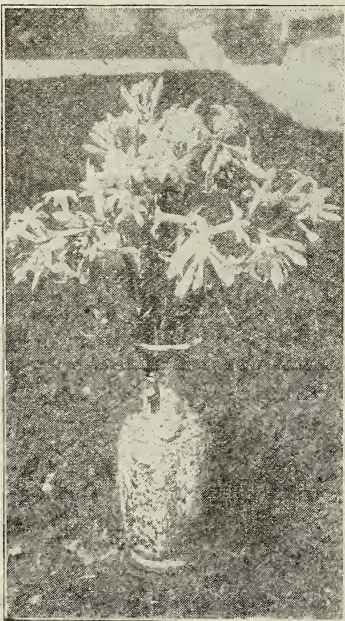
Indiana—Green foliage, flowers very large golden orange, orchid type, height, 5 feet.

Mont Blanc—Green foliage, flowers creamy white. Height, 3 feet.

Pennsylvania—Foliage green, flowers large pure deep scarlet, orchid flowering type. Height, 6 feet.

King Humbert—Bronze foliage, flowers large, double red. Height, 3 feet.

Any of the above varieties—10c each; \$1.00 per doz. Postpaid. Write for quantity price.



Mexican Ever-Blooming Tube-rose

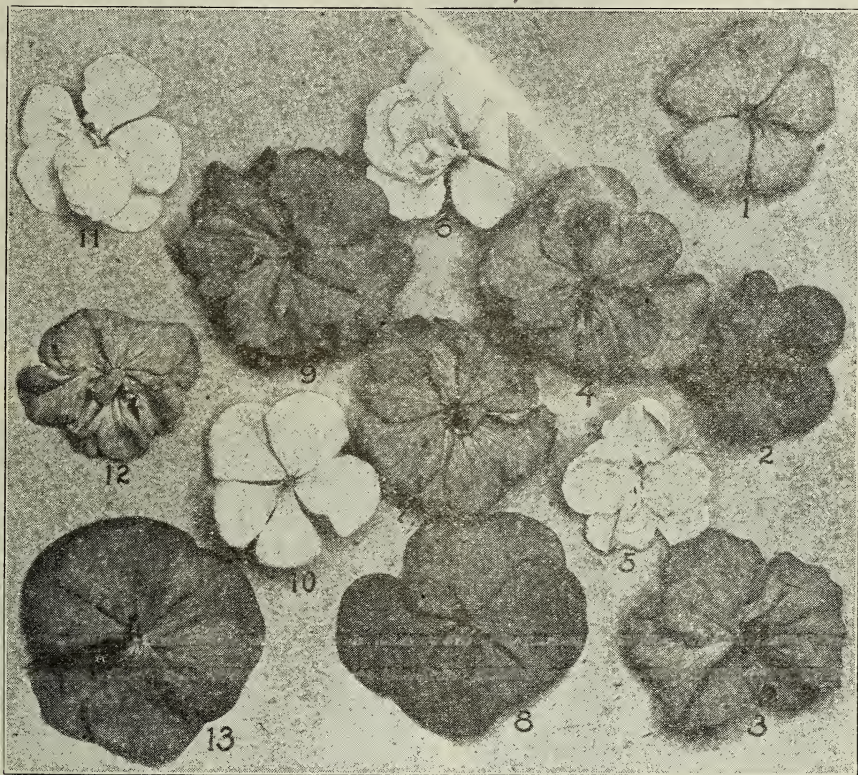
PLANT GERANIUMS

Why is this beautiful flowering plant so much neglected? It requires little attention, little watering; it blooms all the year, in sun or in shade, nothing more beautiful for bedding or potting, for hedge or border, for arbor or window boxes. No other plant affords greater variety of flowers, both in type, color and variation of foliage. No other plant is so easily propagated. No other plant grows anywhere in all conditions of soil and climate so luxuriantly as the geranium. Every home in the city or country and every desert home may be surrounded, even buried in the dense cool foliage of the beautiful flowering geranium. Slips will bloom within a month after transplanting.

In order that the planting of geraniums may be encouraged, we are offering slips of various types of geraniums that shall be known by number, as we cannot name all of the varieties we have to offer. Each number is described, that you may order the one best suited to your purpose. Some varieties are very scarce, but we make no variation in price, but if we haven't what you order we will substitute another variety that is of similar description.

Send no order amounting to less than 25c.

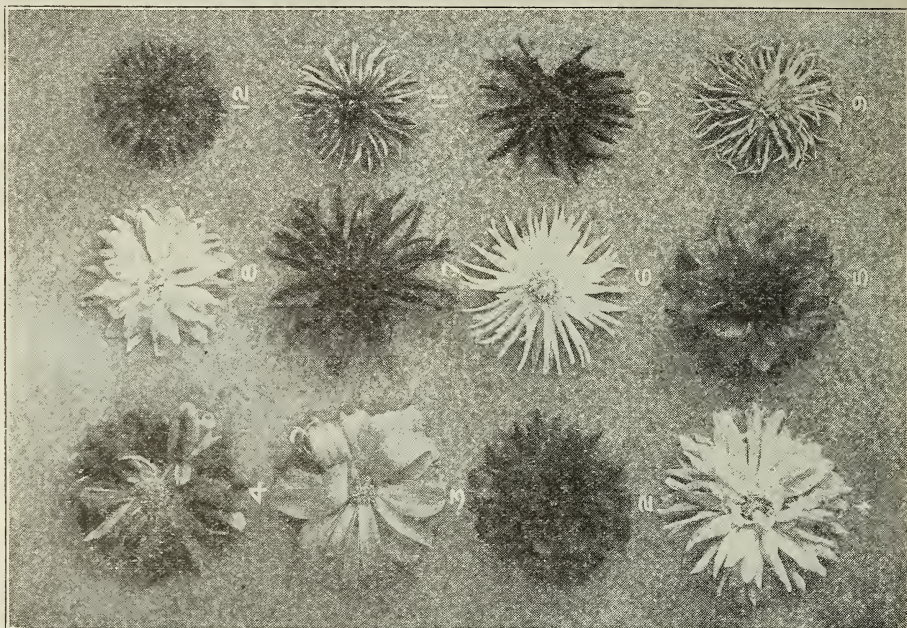
Price—(5 slips 25c) (12 slips 50c) (25 slips 75c) (100 slips \$2.50) postpaid.



No.	Color	Height	Suitable for
1.	Pink	18 inches	Bedding or border
2.	Majenta	2 feet	Bedding or hedge
3.	Scarlet	2 feet	Bedding or hedge
4.	Pink	Dwarf Ivy	Sidewalk
5.	Pure White	12 inches	Bedding or border
6.	Apple Blossom	12 inches	Bedding or border
7.	Light center to rose edge	18 inches	Bedding, border or hedge
8.	Dark Red	10 feet	Hedge, arbor, or to cover fences
9.	Red	Climby Ivy	Sidewalk, fences, around palms
10.	Light Pink	2 feet	Hedge
11.	Pure White	12 inches	Bedding or border
12.	Red with light center	18 inches	Bedding or hedge
13.	Bright Scarlet	18 inches	Bedding, border or hedge

DAHLIA BULBS

The dahlia bulbs we are now offering have been selected with great care, as we chose these types from among forty-two that we grew in our trial grounds. We have endeavored to describe each of the dahlias pictured here in order that you may be aided in your selection.



No.	Name	Description	Type	Price		Prepd.
				Hght.	Each. Doz.	
1.	Semiramis	Pink and Gold	Paeony	3 ft.	25c	\$2.50
2.	Beliot	Dark Wine	Decorative	4 ft.	35c	3.00
3.	Queen Emma	Light Wine	Paeony	5 ft.	25c	2.50
4.	Herstog Hendrygg	Deep Rose Pink	Paeony	4 ft.	25c	2.50
5.	Souvenir de Gustav	Watermelon Red	Decorative	4 ft.	25c	2.50
6.	Mrs. Geo. Stevinson	Yellow	Cactus	4 ft.	15c	1.50
7.	Rene Cayaux	Brilliant Red	Cactus	3 ft.	25c	2.50
8.	Lady Seville	Nell Rose	Paeony	4 ft.	25c	2.50
9.	Schorr Helena	Delicate Pnik	Cactus	3 ft.	25c	2.50
10.	Rev. D. A. Williamson	Dark Red	Cactus	4 ft.	25c	2.50
11.	Acrobat	Red and White	Cactus	3 ft.	25c	2.50
12.	Frank Smith	Dark Maroon	Show	4 ft.	15c	1.50
13.	Crimson Beauty	Bright Crimson	Pompon	3 ft.	20c	2.00
14.	Tree Dahlia	Large Lavender	Single	12 ft.	75c	....

TO THE UNEMPLOYED. READ THIS

A golden opportunity is being neglected by many persons, old and young, who have the leisure and can get the use of a small space of ground with water for irrigation that is within reach of any of the municipal markets. There is a demand for good fresh vegetables far in excess of the supply. Many market places have discontinued, not from lack of customers, but because the supply was of stale vegetables discarded from commission houses. Maintain the markets by supplying them with good fresh vegetables and fruits, and by doing so you will make a comfortable home for yourself, besides getting healthful, enjoyable exercise.

Get our Garden Manual, free with a fifty cent order, get busy, get a garden, get money and health.

Mr. Harkness, aged 74 years, living near 42nd and Vermont Ave., Los Angeles, more than paid his grocery bill for a large family from vegetables grown on two vacant lots.

We request all newcomers who contemplate putting in a garden, whether for private use or for market, to consult us concerning the selection of seeds, preparation of the soil, fertilization, irrigation, preparing and marketing the produce.

GARDENING MADE EASY



A Field of Lettuce

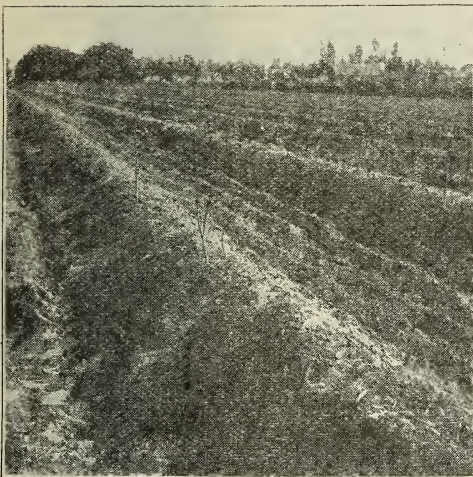
Beets
Chard
Carrot

Kohl Rabi
Lettuce
Onion

First give the soil a good soaking, wetting it down two or three feet deep. As soon as it can be handled without sticking to the spade, dig ten or twelve inches deep, turning the soil over and pulverize it thoroughly. Then make ridges to stand about six inches high, flattened to about ten inches wide on top and twelve inches between ridges. Drill the seed or transplant on each side of the ridge. Irrigate in the furrow between the ridges. By this method two rows are irrigated with one furrow, and you will have only one furrow to cultivate after each irrigation. It is easy to see the advantage of this method over the usual way of drilling on level ground and irrigating each row, often flooding the plant, which is harmful, particularly during the heat of summer. The following is a list of vegetables that should be planted the way we have illustrated in the picture:

Parsley
Parsnip
Radish

Salsify
Spinach
Turnip



A Field of Asparagus After Three Years



Artichokes Should be Trimmed and Kept Clean

In order that we may be of greatest benefit to our friends, we have published for distribution, free with a fifty cent order to all of our customers and to all the schools of the great Southwest, a **Garden Manual**, of 32 pages of valuable information to the beginner.

This page is a sample of what information is contained in the manual.

Ask for it with your first order for seed. It is free with a fifty cent order.

LIST OF UP-TO-DATE SEEDS

Garden, Field and Flower Seeds and Plants
 Everything Pertaining to the Garden and Ranch
 Incubators, Brooders, Poultry Food and Supplies

We will catalogue only standard and such other varieties of vegetable seeds as have been thoroughly tested by us and have proved particularly adapted to the climate and conditions of the great Southwest; other varieties that have proven of less value in this section will not be listed.

Localities nearer the coast within reach of the coast fogs require different cultural instructions and different varieties than those that would thrive best in the sections east of the Coast Range. We would request those who are unfamiliar with the requirements of their local conditions to write us for information.

The numerous letters we have received from customers pleased with the results of their seeds is evidence that our efforts to secure good seeds and improved varieties are meeting with marked success.

That our zeal to advise the amateur grower and the new colonist what to plant, when to plant and how to plant, has been of great benefit, is proved by many who have written to us of their success with our seeds and our advice.

Nowhere in the world is there such necessity for competent, intelligent seedsmen as in Southern California, because of the diversity of climate, of soil, and of local conditions.

TO THE BEGINNER: We request that beginners and new-comers consult us either by letter or in person when additional information and advice is wanted other than is contained in these pages. Always give your local conditions of soil and climate, and whether a market gardener or a general rancher. All inquiries will command prompt attention.

SEEDS WE OFFER—As to the seeds we offer, we assure you that the utmost care is exercised to secure only reliable and true to name seed. We have devoted much time and attention to learning the varieties of garden and field crops suited to each locality. This information will often be found of great service to intending planters.

We are continually testing the germination and purity of our seeds, but owing to the diversity of climatic conditions, insects, inexperienced growers, and liability of mistakes on the part of the numerous middle men from the grower to the planter, each living in various parts of the globe, Aggeler & Musser Seed Co. cannot and will not guarantee the germination or product of any seeds they sell.

Our record for the past twenty years has given us such a reputation for fair treatment that our oldest customers are our best advertisers.

FULL INSTRUCTIONS ARE GIVEN WITH EACH SUBJECT

Owing to the difficult climatic conditions of each locality, no general rule can be applied as to time of planting, and what varieties to plant. Home gardeners require different instructions from market gardeners, and market gardeners are governed by different conditions than shippers.

We have prepared a guide for planters that is accurate if care will be taken to see that the soil and local conditions are suitable. This guide is printed on the inside of the last cover page, but for particular information concerning each subject we invite you to ask us what you want to know concerning culture and marketing.

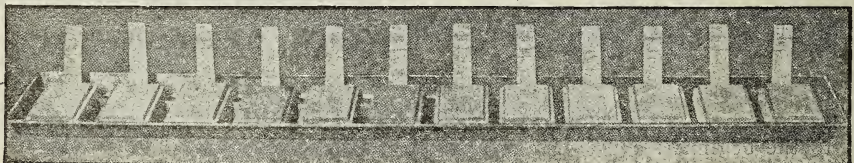
Copied from the Los Angeles Times, October 1st, 1914.

Growing of winter vegetables in the frostless belt of Orange County has proven especially profitable.

For the year just ending the association sold vegetables for its members to the value of \$62,160. The grower who got the most was J. B. Handy, whose receipts were \$4715.44.

One of the most remarkable instances of productiveness reported by the association was the receipt of T. G. Bratch of \$814.92 from an acre and a quarter. C. B. Thompson sold egg plant from a quarter of an acre for \$300.

P. H. Medlin planted two sacks of green pea seed, and from his patch he realized enough to buy a Maxwell automobile for \$815. From six acres of bell peppers A. D. Paxton's receipts were \$3000.



We are continually testing the germination of our seeds.

ARTICHOKE

The seed may be sown at any time and transplanted when about eight inches high. It will mature in about eight months from time of planting the seed, but in Southern California the proper season to bloom is in March.

The best way to get a good artichoke is to secure plants from old stalks of some good strain, as seeds cannot be depended upon to produce any certain variety. One half dozen is enough for a family garden.

Transplant five feet apart in rows seven feet apart. When the young plants are attacked by aphid spray with "Black Leaf 40." About the time the buds are well advanced the under leaves often become a harbor for flies and aphid. When this occurs break off all the under leaves,

clear the ground of all rubbish. You will then have a long season of large clean buds.

Selected Large Green Globe.—French stock is the standard variety. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.15). Postpaid.

Plants from good stalks, 15c each—\$1.50 per dozen, postpaid.



Six Artichoke plants in a family garden.

JERUSALEM ARTICHOKE

Excellent for hogs.

It is a most valuable food for hogs. It is said by many hog raisers that a hog fed on artichokes has never been known to have cholera. They grow to perfection here, yielding as much as 500 sacks per acre. They are grown from tubers the same as Irish potatoes. It requires 300 lbs. to plant an acre. Cut the tubers to single eyes. Plant in March and April two feet apart in rows three feet apart. Let them grow until fall and allow the hogs to harvest the crop.

The tubers are excellent for table use boiled as potatoes or parboiled and pickled in vinegar.

(Per lb. 15c) postpaid; (10 lbs. \$1.00) (100 lbs. \$5.00) f. o. b. here.



Jerusalem Artichoke

ASPARAGUS

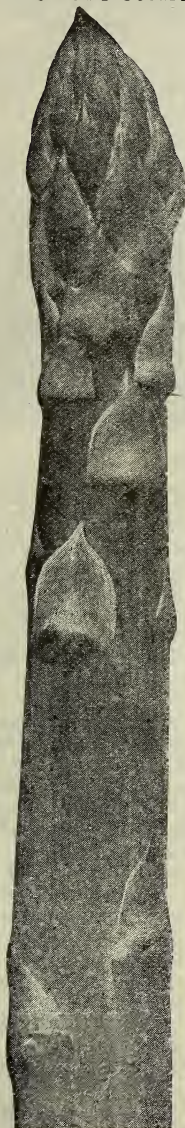
Culture for Home Gardens.—In January plant roots two year old, eighteen inches apart, in rows four feet apart.

To start a large acreage, the seeds should be sowed in drills about fifteen inches apart. Sow in March, and transplant the following January. In fifteen months it will be ready to ship. In some sections earlier.

Palmetto.—The leading and most popular variety for the home garden or market. The tender sprouts are green and their delicious flavor makes this variety the favorite for table use. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 45c) (lb. 85c). Postpaid.

Conover Colossal.—Nearly the same as Palmetto, possibly larger, but culture has so much to do with size and quality that it is difficult to state which is the better variety.

(Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 45c) (lb. 85c). Post-



Argenteuil Asparagus paid.

ASPARAGUS—(Continued)

Barr's Mammoth.—A large white sprout, the flavor of which is generally liked. This is an excellent variety for canning, where appearance is desired. (Pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

Giant Argenteuil.—An excellent variety for the canner and early shipper. This variety is now more extensively grown by large planters and shippers because it is more prolific, and stands shipping better. Also its purple tinge is attractive, and its excellent flavor puts it on an equal with the Palmetto for table use.

(Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00). Postpaid.

Asparagus Roots.—We have always on hand roots of the Palmetto and Argenteuil varieties. Two year old roots—(per doz. 40c) postpaid; (100 roots \$2.00) postpaid; (1000 roots \$8.00) f. o. b. Los Angeles.

To prevent rust, spray freely with powdered sulphur about Aug. 1st.



Palmetto

BEANS

Orange County grew beans to the value of \$2,000,000 in 1914.



Canadian Wonder

Note—Prices on half pound and pound quantities include postage or expressage prepaid. When sent otherwise, deduct 10 cents per pound or fraction thereof. If desired sent by Parcel Post necessary postage should be added. See our Parcel Post Schedule on cover page. If quantities are desired, do not fail to write for special prices.

Market gardeners who are beginners and not familiar with gardening in the Southwest would do well to consult us either in person or by mail before buying, as to variety and time of planting. Special attention should be given to the instructions concerning the time of planting, which is an important factor in Southern California, as each month requires a different variety according to the market for which they are grown.

Culture for Home Gardens.—Plant early Refugee and Golden Wax early in April. Plant one to two inches deep, six inches apart, in rows twenty inches apart. Plant Kentucky Wonder at the same time. Train them to grow in arbor fashion by placing poles and wire to grow upon. As soon as the plant is well formed, cultivate frequently; let no weeds grow. Spray with powdered sulphur just before the bloom shows, to avoid mildew. Sulphur will prevent mildew, but not cure a plant once attacked, but will check it. Plant every month until September.

The seed germinates quickly and should show above ground within a week if no rain falls before that time. The seed will rot in cold wet soil. It requires six to eight weeks to mature string beans, but weather conditions may delay maturity much longer.

Market gardeners should read carefully the description of each variety.

Anyone having light, sandy soil that needs enriching, should plant it to beans, inoculating the seed with nitrogen culture.

The following list comprises all the varieties best suited to general gardening. We have ceased to catalogue others that would only mislead the gardener.

When in doubt what to plant in your young orchard, study the bean market, and decide to plant either Common Limas, Blackeyes, Pink, Lady Washington, Navy, or Tepary Beans. Inoculate the seed with Nitrogen Bacteria; this will add both humus and nitrogen to the soil, benefit the trees, and add thirty to fifty dollars per acre to your income, with a minimum in outlay of cash and labor.

BEANS—(Continued)

Tepary, Lady Washington, Small White, Black-eye, or Pink.—These are the beans of commerce, and should be grown on large acreage. It is easier to sell a carload than to sell one ton.

Write for price of seed, which fluctuates with the market.

Write for quantity prices on all beans.

BUSH BEANS—Round Green Pod Varieties.

Early Refugee or 1000 to 1.—An all round favorite for the summer months. Round pod, medium size, tender, desirable for table and cannery. It is a favorite with the market gardener, because it is a good shipper, a good seller, and very prolific. Plant from April to August. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.75 f. o. b. here).

Stringless Refugee.—This variety is a decided improvement over the old Refugee in that it is entirely stringless, somewhat larger pods and more prolific, which is claiming a great deal, for the Refugee bear has long been considered one of the most prolific of all string beans.

(Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.75 f. o. b. here).

Stringless Green Pod.—One of the best varieties for first early spring planting. It is very prolific and tender, a great favorite with market gardeners for a quick maturing crop. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

BUSH BEANS—Flat Green Pod Varieties

Canadian Wonder.—Flat pod, of good flavor, not stringless, but otherwise tender. Very hardy. Desired above all others by gardeners growing on the foothills for winter shipping, because of its luxuriant growth and continuous bearing of long straight pods. Plant in September, October, November, December and January, according to your locality. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here).

Six Weeks.—A strong, rapid grower, which matures quickly. Flat pod. Only desirable for forcing. Plant in February and March, also early in September and October. (Pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

French Mohawk.—Long oval pod, very tender and prolific. Matures in six weeks. Desirable for a profitable short crop, as only two months is required from seed time to the end of the crop. Plant every month from March to October. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here).

Dwarf Horticultural.—Desirable both for green and dried beans. Stringless and of excellent flavor. It is of Italian origin and is very popular with the Italian population. (Pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 25c prepaid) (10 lbs. \$1.20 f. o. b. here).

BUSH BEANS—ROUND YELLOW POD VARIETIES

Stringless or Refugee Wax.—This bean has become a favorite with the market gardener because of its hardy growth and enormous yield of tender, round stringless pods of excellent flavor which sell readily. Plant from April until September. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.50 f. o. b. here).

Prolific Black Wax.—Pod round, straight, five to six inches long. Decidedly the most desirable for mid-summer gardening. Plant from April to August. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

BUSH BEANS—FLAT YELLOW POD VARIETIES

Davis Kidney Wax.—Good bearer; pods are long, rustless and hardy; very tender when young. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c) (10 lbs. \$2.50 f. o. b. here).



Early Refugee Bean



Refugee Wax

FLAT YELLOW POD BEANS—(Continued)

Our Golden Wax.—Long, flat pod, rich golden yellow, stringless. This variety is so superior to other strains of Golden Wax that we have discarded all but this. Plant early in April to August. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

Michigan White Wax.—A half round golden yellow pod not so long nor as straight as the Ventura Wax, but of excellent quality for eating, very prolific and specially recommended to market gardeners for fall planting, because it ranks with the most profitable for growing, for selling and for keeping. It is a good long distance shipper; is hardier and withstands wet and cold better than most varieties of wax beans. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c) (10 lbs. \$2.00 f. o. b. here).

To improve your soil plant Windsor, Soja, Blackeye or Whippoorwill Beans. Sow from April 1st to Sept. 1st. Inoculate the seed with Ferguson's Nitrogen Fixing Bacteria.

If your soil is new, it needs nitrogen. If it is sandy, it needs both humus and nitrogen. The easiest and most economical way to supply both elements by one effort is to inoculate your bean and pea seed with Ferguson's Nitrogen-Fixing Bacteria. One fifty cent bottle will inoculate all the beans and peas usually required to plant a family garden.

Ask for our Garden Manual with your first order. It is full of information pertaining to the garden. It is free with a fifty cent order.

Ventura Wonder Wax.—Nearly all agree that this is a wonder indeed. Long flat pod, very prolific; bears early, and continues nearly all summer; planted in September, if not too cold, bears until January, being rust proof. This bean was introduced by us in 1900, and has been the market gardener's favorite since that time. Plant from February to October. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Stringless

Greenpod

Write for quantity price as prices fluctuate.



Ventura Wonder

PROFIT FROM VEGETABLES

Truck Farmers Near Town Have Big Advantage in Retailing

Since the establishment of municipal markets in various parts of the city and a free license to the producer, allowing the retailing of fresh vegetables and small fruits, poultry and dairy products. The road to success depends largely upon the small farmer living on a good wagon road, within five miles of the city, can build up a profitable trade for all he can produce of fresh vegetables, fruits, poultry and dairy products. The road to success depends largely upon the ability of the grower to furnish a good article in season, give honest measure and to have polite, obliging manners. Politeness, honesty and quality of produce goes a long way in making and holding custom. Vegetables for the retail trade may be allowed to become fully ripe; for the wholesale market they must be gathered when not quite ripe. Cabbage, turnips, beets, carrots and salsify roots gathered fresh from the garden are tender and well flavored. Any one accustomed to eating freshly gathered vegetables will readily give an extra price for such.

POLE BEANS SUPERIOR KENTUCKY WONDER



Superior Kentucky Wonder

until frost. The beans are tender, and in flavor equal to the best. They should be sliced before cooking, same as the popular Scarlet Runner. If you want shade, be sure to plant these beans and you will have both shade and an abundance of beans.

The picture shows the growth of this bean the second year from planting. It bore a few beans all winter and the new growth was in bloom early in April. The vines were much more prolific the second season. This bean is very desirable where a shade is wanted quickly, and very valuable for the table, but should be cooked when quite young.

Price—(Pkt. 5c) ($\frac{1}{4}$ lb. 20c) (1 lb. 70c), prepaid.

The Arbor bean will grow two crops of beans each season. When the first crop is harvested, allow the vines to nearly die for lack of water; then irrigate. In a remarkably short time new growth will begin, and soon a wonderful bloom will appear. Apply water frequently, because the blossoms fall quickly if allowed to suffer for water during the heat of summer.

We have been growing this bean on our trial grounds for two years, and are now convinced it is superior to any of the other Kentucky Wonder types offered by us.

The illustration on this page is from a photograph of a single matured vine showing its immense prolificness. The large size pods fill perfectly and in the "snap" stage are deep green color, meaty, stringless and of delicious flavor. Vines continue to bear immense quantities throughout the season if kept picked closely. When allowed to ripen the shell beans of pure white color are most excellent for winter use. It is a pole snap bean that no home garden can afford to be without. It's the one pole bean for any garden and you will never regret planting it. It will prove a prize winner in any contest.

(Pkt. 10c) ($\frac{1}{2}$ lb. 25c) (1 lb. 40c).
Postpaid. (10 lbs. \$2.50 f. o. b. here).

THE ARBOR BEAN

This bean is new to the American people, but popular in Sunny Italy, where it is grown in many back yards over arbors to shade a porch or window. Within six weeks it will grow to a height of ten feet, and during the summer will exceed thirty feet, bearing edible beans at six weeks, and continues



Arbor Bean

BEANS—(Continued)

Kentucky Wonder Wax Bean.—It commences to bear when scarcely higher than the average bush variety, and keeps on producing until killed by frost. It is a rampant grower, one vine filling a pole with a mass of vines densely loaded with luscious beans. They are firm, entirely stringless, and when cooked deliciously rich and buttery. The seed is brown, closely resembling that of the Kentucky Wonder. Plant from April to August. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.50 f. o. b. here).

White Crease Back.—This variety is especially valuable for its extreme earliness, and its habit of perfecting all its pods at the same time. Vines small but vigorous, and, in good soil, wonderfully productive, bearing pods in clusters from four to twelve. Pods medium length, silvery green, of the best quality as snaps and stand shipping better than most sorts. The seed is small, oval, very white, and hard. It is an excellent bean to cook dry or to sell on the open market as the small white bean. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here).

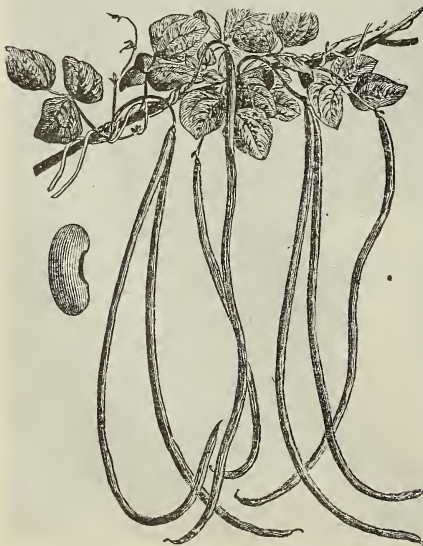
Yard Long.—A curiosity and good table bean. Pods over two feet long and very abundant. (Per pkt. 10c).

Scarlet Runner.—Ornamental as well as a good table vegetable. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c). Prepaid.

Lazy Wife.—Pods grow from six to eight inches long, entirely stringless, of a rich buttery flavor when cooked; retain their tender, rich flavor until ripe; a good white shell bean for winter use. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.75 f. o. b. here).



Kentucky Wonder Wax



Yard Long Bean

White Seeded Kentucky Wonder.—The old well-known Kentucky Wonder was considered perfection in the way of a tender prolific bean, but the White Seeded Kentucky Wonder excels the other in being more prolific, always four to six large beans on a stem. It is ten days earlier, which means money to the gardener. It is less susceptible to rust and mildew than the Brown Seeded Kentucky Wonder. The seed is pure white which makes it a profitable commercial bean. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

Kentucky Wonder.—Long, round pod. This is the most popular bean in Southern California, because here it grows to perfection; is, with the exception of the White Seeded Kentucky Wonder, far more prolific than any other variety, which, together with its other good qualities, makes it the market gardener's delight. Plant from April to July. Do not plant later than August, as it is very prone to rust during the month of September. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.40 f. o. b. here).

THE MONSTROUS BUSH LIMA BEAN

A Great Money-Maker

Two crops a year for many years. Originated in Orange County, Cal. Introduced by us in 1907. This picture shows actual size of the bean.

In addition to this we have numerous testimonials to the effect that we have not exaggerated when we claim this to be the largest most prolific, most profitable and best flavored Lima Bean now in existence. Like every other vegetable, it must have proper culture. Plant 6 feet by 6 feet, leaving one stalk in each hill. If convenient, plant in a sheltered place about April 1st. You will then be gathering beans during September and possibly until January, and when frost has destroyed the tender growth, prune as you would a grape vine. Soon new growth will appear and by May 1st you have a new crop as profitable as peppers or string beans or any other early vegetable. During July the vines will show age and become mildewed; prune as before and in October you will begin gathering your third crop. Continue pruning twice a year; irrigate and fertilize.

(Pkt. 5c) ($\frac{1}{4}$ lb. 15c) ($\frac{1}{2}$ lb. 25c) (lb. 40c postpaid) (5 lbs. \$1.50) (100 lbs. \$20.00 f. o. b.)

There is nothing more profitable in a city garden than a dozen stalks of this wonderful bean. It is a common occurrence for our city customers to tell us of its great productivity and excellent flavor.

One home gardener writes us that from one pound of seed planted in 1912 he gathered forty-two pounds of dry beans, besides all the green beans the family could use, and in 1913 he planted five pounds, gathered 180 pounds dry beans, and the vines were then beginning to bear a second crop.

Mr. Conrad Schlender, Estero, Fla., writes: "I have tried your Monstrous Bush Limas for over two years. They do well as long as the dry season lasts. The last time I planted in late December, got a big crop in May, before the rainy season started. The heavy rains and hot sun finished them."

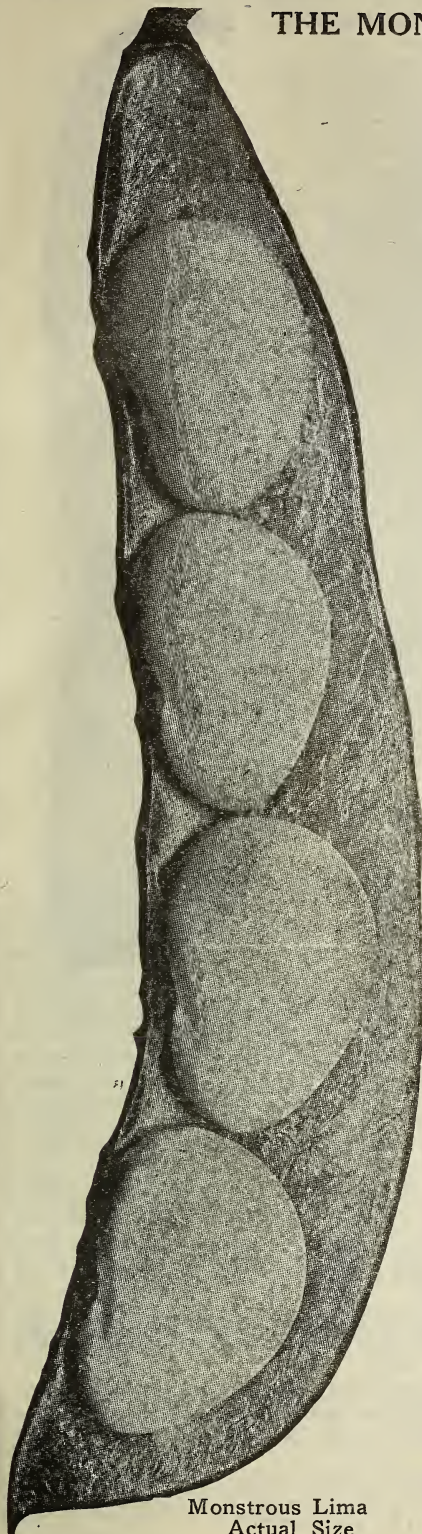
An application of the best grade of powdered sulphur would have prolonged the life of the vines, but they should have been pruned to allow a second growth.

Year after year we have new testimonials portraying the wonders of this wonderful bean. One grower near Redondo now claims to have picked more than seven hundred pods from one vine. Another Redondo grower realized \$260.00 off of $\frac{3}{4}$ of an acre from second crop during June and July, pruned the vines and began picking the third crop early in October.

LIMAS, BUSH VARIETIES

Burpee's Bush Lima.—This bean is very popular with the market gardener in all irrigation districts because it is earlier and more easily grown. There are no vines in the way when irrigating and cultivating. It is enormously prolific and keeps bearing a long time. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.75 f. o. b. here).

Henderson's Bush.—Small white Lima Bean, of excellent flavor and enormously prolific.

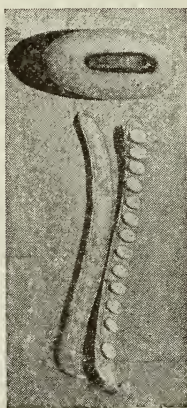


Monstrous Lima
Actual Size

Fordhook Bush Lima.—In order to get the best results, plant two feet apart in rows $3\frac{1}{2}$ feet apart. Although this bean has been offered for several years, it is comparatively a new variety. It is an improvement over the well known bush Lima because it is more prolific. It is a strong grower, more resistant to blight, and is more profitable to grow for the market because the pods remain green. This is of great advantage to the peddler, retailer and shipper. It has received universal praise. We recommend it to our customers for both home and market gardens. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

Improved Bush Lima.—This bean differs from the old bush variety in being ten days earlier. Will yield one-fourth more tonnage per acre. The pods contain four to five beans that are larger and thicker than the old bush lima. Where the Improved Bush Lima is known the old variety is no longer in demand. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.75 f. o. b. here).

Broad Windsor.—Grown on one upright stem with pods at every leaf, it is very prolific and quite hardy in Southern California. It is rapidly coming into favor as a table bean as it is quite delicious when properly prepared. (Pkt. 5c) (lb. 30c prepaid) (10 lbs. \$1.75 f. o. b.)



Sword Bean

Spanish Sword Bean

This bean is very popular in the West Indies and grows to perfection here. It is a bush variety and rampant grower. The pods grow fourteen to eighteen inches long. The beans compare favorably with the Broad Windsor, but are more palatable. It is a wonderful crop to grow for hog pasture or for green manuring. (Per pkt. 10c) ($\frac{1}{4}$ lb. 25c).



LIMAS, POLE VARIETIES

Write for quantity price.

Pole Lima.—The Pole varieties of Limas are far more profitable to grow than the Bush varieties; what they lack in earliness they make up in continuous bearing. They should be planted from April 1st until September 1st.

The Skillman Lima.—This bean has been the market gardener's favorite for many years. It is a cross between the Burpee's Bush and the common lima. It will produce five sacks more per acre than the common lima. Each year we carefully hand pick our seed stock, selecting only the true type of seed. There are no rattlers in the Skillman. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (1 lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

Large White Lima.—One of the best shell beans, either green or dried. Very prolific; pods large. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

King of the Garden.—Very prolific; large and desirable both for the home garden and for the market gardener. (Per pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.60 f. o. b. here).

Carpinteria.—This is just the lima for the market gardener to grow for main crop. It is early and large, and enormously prolific, without too much vine. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

Early Leviathan.—We recommend this variety to be planted where it may have a trellis to climb upon. It is the ideal lima for the home garden. It is very productive. The pods grow in clusters. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

The Lewis Lima.—This is the lima of commerce grown by the thousands of acres because this variety will mature its crop early enough to be well out of the way before the rainy season. (Pkt. 5c) ($\frac{1}{2}$ lb. 20c) (lb. 35c prepaid).

A NEW BUSH LIMA WITH A NEW NAME



The Los Angeles Wonder Lima

Just the bean that eliminates all that is objectionable in other limas. It grows a large pod containing four or five large beans of a delicious chestnut flavor on a spreading bush that grows twenty inches high, branching profusely, maturing a hundred or more pods, earlier than the common lima and does better under dry farming conditions because of its enormous root system.

It will yield half as many more sacks per acre than the common lima, and under the same conditions. We give it our endorsement and urge all lima bean growers to give it a trial, both for field and garden purposes.

We have only a limited quantity and cannot offer more than five pounds to a customer.

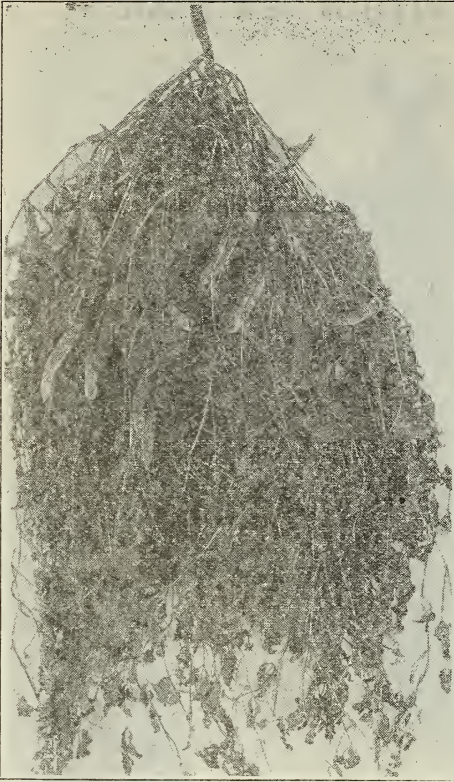
(Pkt. 10c) ($\frac{1}{4}$ lb. 30c) ($\frac{1}{2}$ lb. 50c) (lb. 90c) (5 lbs. \$4.00). Postpaid.

It is not expected that those who grow limas largely for commerce would buy extensively at these prices, but we do sincerely recommend that you buy one or more pounds to give them a fair trial. We are confident this lima will supersede the one now commonly grown, that instead of fifteen to twenty sacks per acre, the yield will be thirty to forty sacks per acre. Then, too, the bean is of much better quality for the table than the common lima. This fact will soon be recognized by canners and the consuming public. If the growers and shippers will advertise the superiority, the **LOS ANGELES WONDER** will increase their profits by more than fifty per cent.

Culture.—One plant only fifteen inches apart in rows three feet apart. Cultivate according to the moisture and condition of the soil.

Notice to all growers of limas. We urge you to buy sufficient seed now in order to give it a trial this season that you may know its merit and will be ready to buy more largely next season when we will have the Los Angeles Wonder Lima in large quantities at a reasonable price.

TEPARY BEAN



Tepary Bean. This plant matured nearly
• three hundred pods

The Tepary Bean comes down to us from the Aztecs who inhabited the Southwest long before the white man discovered America. The Agricultural Experimental Department has recognized its great merit as a drought resistant bean, and recommended it to be grown on the mesa lands where it is too hot and dry for our common varieties to grow. It is also recommended for a summer cover crop and soil renovator, as it needs no irrigation. It yields thirty to forty sacks of dry beans per acre. The vines should be handled when damp to avoid loss by shelling. The beans are like the small white navy, but smaller. However, for table use we give them our hearty endorsement. We have tried them, and believe them better than all others for baked beans.

What one grower says of it:

"A shell bean more prolific than the navy, which it resembles." A native of the most arid part of the Arid Southwest. Drouth-resistant. Grown by Indians for thousands of years without irrigation with an annual rainfall of 9 inches. Quick maturing. Sixty-five days from seeding to harvest. Available as a catch crop. New botanical family and immune to common bean diseases. Flavor, delicious and distinctive. Cooks well. Very nutritious. Has 11 per cent. greater specific gravity than navy beans and swells to 40 per cent greater bulk. A cheap seeding proposition as it takes only 20 lbs. to

the acre. Under date of Aug. 22nd, 1915, Mr. Adams of Pomona, reports:

Mr. Adams brought the Chamber of Commerce a single plant which bore 780 well-filled pods. He estimated that it would shell three-quarters of a pound of beans. The beans on his acre amounted to a ton shelled and would have been worth 5 cents a pound on the open market. By selling the most of them for seed he realized 10 cents per pound.

The redeeming feature of the tepary bean is that it is tremendously productive and that it will grow in a very dry climate, requiring little water. It will produce from \$60 to \$100 worth of beans per acre while the lima or navy bean will not grow farther inland than twenty miles with any degree of success, because of its need in the way of nitrogen from fogs.

Big Bean Crops [Local Correspondence]—Marian, Oct. 3.—The largest crop of Tepary beans ever produced in the San Fernando Valley has just been harvested on the J. A. Jepson ranch. Seven and six-tenths acres of land yielded 175 sacks of beans, more than twenty-two sacks per acre. This crop was grown without irrigation. On the same ranch 1088 sacks of Blackeye beans were produced on seventy-five acres, an average of 14½ sacks per acre.

Teparies Make a Record at Anaheim.—Following is the record of tepary beans: Planted May 1. Cultivated and irrigated as needed. Pulled vines August 16. Threshed August 21. Yield at the rate of 1750 pounds per acre. The beans were drilled about six to eight inches apart in rows two feet apart.—J. B. Neff.

(Pkt. 5c) (lb. 20c). Postpaid. Write for quantity price.

POULTRY DEPARTMENT

You will be interested to know the extensive line of incubators, brooders, supplies, poultry foods and remedies that we offer in these pages. If you want information concerning poultry and poultry supplies, write us. See later pages of this catalog.

TABLE BEETS

Culture.—Sow all the year round in drills ten inches apart on ridges (see page 17), thin out to three inches apart in the rows, or sow in plant-bed and transplant to any convenient spot in the garden. Water well once a week, keep the ground loose and the weeds out.

If the soil is in perfect condition, beet seed should germinate and show above ground within eight days. Should a rain fall and the ground become crusted, the sprout will decay. Beets are ready for table in about seventy days after planting.

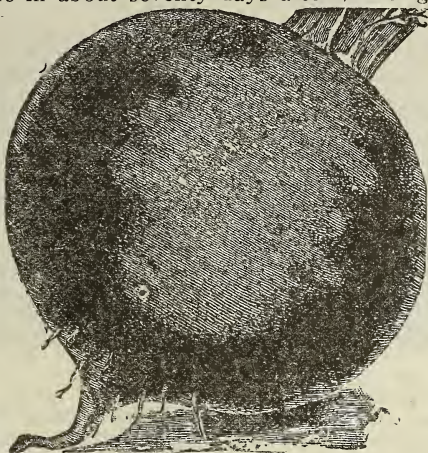
Grow table beets for the large shippers. They will net you \$300 per acre.

CRIMSON GLOBE BEET

This splendid variety has now been grown quite extensively in many sections of the country and the many good reports received from old customers indicate that it gives most thorough satisfaction. It is of medium size, generally about three inches in diameter, very handsome in shape, with a remarkably smooth surface. It has a very small tap-root. Gardeners prefer it for summer planting because the large foliage protects the beet.

Price—(Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.

Eclipse.—Is a favorite for the family garden, very sweet, tender and of fine texture. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.



Crimson Globe

Extra Early Egyptian.—The market gardener's favorite. On account of its beautiful appearance, earliness, and excellent flavor. (Pkt. 5c) (per oz. 15c) (per $\frac{1}{2}$ lb. 60c) (per $\frac{1}{4}$ lb. 40c) (lb. \$1.25).

Early Blood Turnip.—Of large growth. Flesh very tender and retains its blood-red color when cooked. On account of its tall leaves it is a favorite summer time beet with market gardeners. (Per pkt. 5c) (per oz. 15c) (per $\frac{1}{4}$ lb. 35c) (per $\frac{1}{2}$ lb. 60c) (per lb. \$1.00) postpaid.

Half Long Blood.—Smooth, growing to good size; color dark red; top small, of upright growth. (Per pkt. 5c) (per oz. 15c) (per $\frac{1}{4}$ lb. 40c) (per $\frac{1}{2}$ lb. 70c) (per lb. \$1.25) postpaid.

OUR BASSANO

Our Bassano Beet excels all other varieties for table use. Its delicious flavor, entire absence of fibre, smooth symmetrical shape and small root puts it in a class by itself for all-round good qualities. The market gardeners have recognized this for years, and many will have no other. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (1 lb. \$1.00) postpaid.

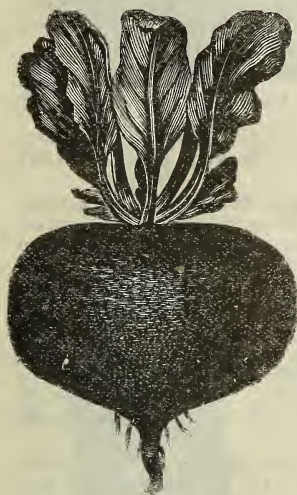
Detroit Dark Red.—This is an ideal beet for all purposes. It cannot be excelled for the table; free from all fibre and very sweet. It is the best of all for pickling. Even the tops are good when pickled. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (1 lb. \$1.00).

A Word to Gardeners About "Bunch Goods."

This term is applied to vegetables that are tied in bunches, viz.—beets, carrots, radishes, turnips, parsnips, bunching onions, salsify, kohl rabi, and spinach. Every one of the above are all-the-year-round vegetables, and every one may be cultivated as lettuce, (see page 17). The growing of these vegetables is not only for Los Angeles consumption, but they are shipped with other vegetables in car loads to all parts of the United States. The tops are cut off for shipping.

Keep in mind that Southern California is the winter garden of the United States. Therefore make your big planting of these vegetables, also lettuce, cabbage and cauliflower, in August, September, and October.

See our Columbia planter, it is just the thing with which to plant beets. It will drop a definite quantity of seed the proper distance apart, thus avoid thinning out and unnecessary waste of seed.



Bassano

STOCK BEETS

Write for price when a quantity is wanted.

Read inside front cover page.

Culture.—May be sown from October to May in drills three feet apart. Thin out to stand six inches apart in rows. Keep well cultivated; 8 lbs. of mangle, or 10 lbs. of sugar-beet seed will plant an acre.

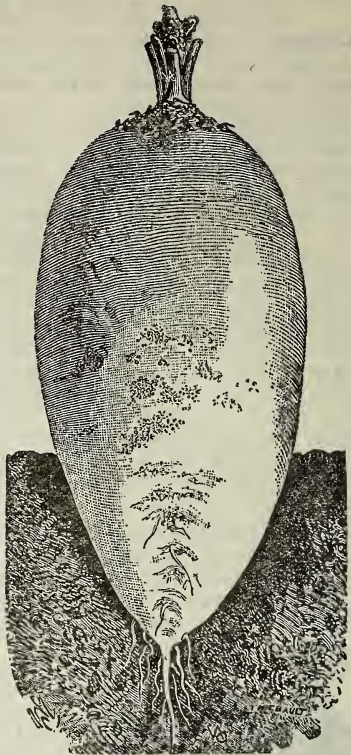
HALF SUGAR ROSE BEETS

A distinct type of Sugar Beet, producing not only a good crop, but roots of giant size and richest feed quality. It has yielded 55 tons per acre, several tons per acre more than the heaviest producers of other sorts on the list. They have a small top, and are easily trimmed. The roots are heavy, but are so easily harvested that they may be up-rooted by a push of the foot. The flesh is white, solid, tender and very sweet and imparts a rich, pleasant flavor to dairy products, when fed to milch cows. Our Half Sugar Rose is a profitable Stock Beet to grow. (Per pkt. 5c) (½ lb. 25c) (lb. 40c) (10 lbs. \$3.00) postpaid.

Thirty to forty tons per acre of stock beets is no unusual yield.

Giant Yellow Intermediate.—A large variety always in favor with dairymen because it is rich, healthful to the stock, yields large tonnage per acre, and easily gathered. (Pkt. 5c) (½ lb. 25c) (lb. 40c) (10 lbs. \$3.00) postpaid.

Klein Wanzleben—(Sugar Beet). This variety is without question the best in cultivation. Not the largest in size, but the richest in saccharine.



Half Sugar Rose

It will fatten hogs as quickly as grain. (Pkt. 5c) (½ lb. 25c) (lb. 40c) (10 lbs. \$3.00) postpaid.

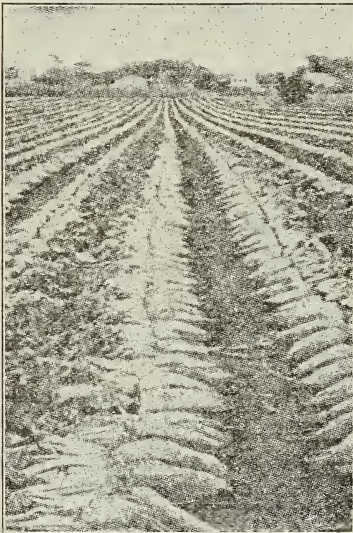
Mammoth Long Red Mangel.—The largest Stock Beet. Yields 40 to 50 tons to the acre. Will grow in land containing more alkali than any other beet! All stock except horses eat it readily. (Pkt. 5c) (½ lb. 25c) (lb. 40c) (10 lbs. \$3.00) postpaid.

Golden Tankard Mangel.—Contains more sugar and less water than any other Mangel. Rich in milk-producing qualities, hence a favorite with dairymen. Horses will eat it. (Pt. 5c) (½ lb. 25c) (lb. 40c) (10 lbs. \$3.00) postpaid.

Sludstrup.—This variety is more extensively grown in Holland by dairymen than any other. Its uniform growth of large well-shaped beets rich in saccharine, its record for producing rich milk and sweet butter, has made it the popular beet of that country.

We are always on the lookout for something better to offer our trade. We are sure you will add dollars to your dairy by

planting the Sludstrup. (Pkt. 5c) (½ lb. 25c) (lb. 40c) (10 lbs. \$3.00) postpaid.



Sludstrup

Note.—Prices on half pound and pound quantities include postage or expressage prepaid. When sent otherwise deduct 10 cents per pound or fraction thereof. If desired sent by Parcel Post, necessary postage should be added. See our Parcel Post Schedule on cover page. If quantities are desired, do not fail to write for special prices, as all field seeds are subject to market fluctuations.

(SEE CASSAVA ON PAGE 8)

BEET-SWISS CHARD

White Swiss Chard.—Grown for its leaves only; one of the best early greens. Cook the leaves as you do spinach and the stems in cream as asparagus. Leaves grow to enormous size, 20 inches to 2 feet in length. The plant is almost perpetual if kept trimmed, but it is better to have a new crop every year. The tender leaves make it a desirable plant for poultry greens; much more desirable than alfalfa, because it can be grown with less care and in any convenient place about the premises. Try it for your hens.



A Row of Chard

(Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.

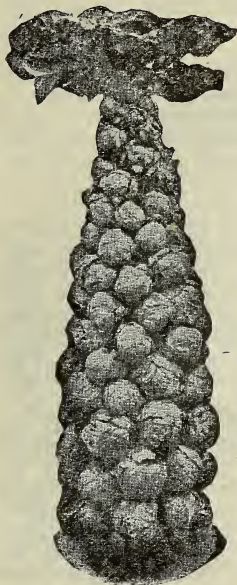
BROCCOLI

Culture.—Same as Cauliflower.

Early Purple Cape.—Resembles the Cauliflower, but is hardier and more easily grown. Heads purplish brown in color, always close and compact. Fine flavor.

Excellent for pickling. (Pkt. 5c) (oz. 35c) ($\frac{1}{4}$ lb. \$1.00) postpaid.

Large White.—Tender and delicious flavor. Every home garden should include this. (Pkt. 5c) (oz. 35c) ($\frac{1}{4}$ lb. \$1.00) postpaid.



Brussels Sprouts

BRUSSELS SPROUTS

Culture.—Same as Cabbage.

A. & M. MATCHLESS

The increasing demand for this delicious vegetable of the cabbage family has spurred us on to look for something better than has hitherto been offered on this market. We have succeeded in securing a medium dwarf variety that bears larger heads, and every joint a head. Be sure to ask for the Matchless. (Pkt. 10c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) postpaid.

Dwarf Improved.—Produces on the stem compact sprouts resembling miniature cabbages. A delicious vegetable; always commands a high price, because of its scarcity. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) postpaid.

Our seeds can be depended upon to grow because they are carefully tested before being offered for sale.

Our seeds are the best that grow because they are planted and grown especially for us, and we get the best of the crop.

For aphid, spray with Blackleaf 40.

Direction: One tablespoonful to two gallons cold water. Add $\frac{1}{8}$ lb. soap.

A Word About Our Egg Plant Seed

Spangler Bros. of Kern Co. sent one egg plant to the San Francisco Exposition and received this letter:

"Only Kern County can exhibit such specimens as you have grown. Nothing here that will compare with yours, not even half size. Those were the largest I ever saw. They are on the show case tied with blue ribbon."

The Stimson School garden, Los Angeles, was awarded a \$20.00 prize, and among their exhibits was an egg plant that measured twenty-one inches in circumference. This school planted our seeds.

CHINESE CABBAGE

A Neglected Opportunity

Why the local gardeners have not gone more earnestly into the growing of this delicious cabbage is beyond our comprehension, and why the shippers have so long neglected this opportunity to add thousands of dollars to the exports from this state is little short of stupid, when wide-awake Californians are never known to have let an opportunity get by.

Hundreds of carloads of this Chinese Cabbage are being shipped to Eastern markets from Florida and Michigan, which shows that it has an all year round market in the East, while here, the home of the Chinese Cabbage, we have neg-



A Row of Chinese Cabbage

lected it, where we have always grown a strain that far surpasses that hitherto grown in the East. There they have marketed a loose-leaved variety and sold it as **celery cabbage**. They are now awake to the short leaved, solid headed strain we have, and it is called Chinese Cabbage. One grower from Florida writes that his field yielded **thirty tons per acre**. Think of it! Thirty tons against ten tons of Winnigstadt, and sold at a higher price.

Wake up to a good thing! Flood the Los Angeles market in order that our home people may become acquainted with it, and compel the shippers to handle it. Grow Chinese Cabbage and the demand for it will surprise you. Every home garden should have it. Grow it as you do lettuce, transplanting ten inches apart. (Pkt. 10c) (oz. 60c) ($\frac{1}{4}$ lb. \$2.00) ($\frac{1}{2}$ lb. \$3.25) (lb. \$6.00) postpaid.

CABBAGE

Culture.—The secret to grow hardy plants is to thoroughly prepare the soil in the plant bed. Loosen the soil to a depth of eight or ten inches, pulverizing well. Sow in drills not too freely, about one-half inch deep, press the soil firmly over the seed; this is important. In about six weeks transplant in rows three feet apart, one foot in the row for Winnigstadt, eighteen inches for large-heading varieties. Keep the crop well watered and cultivated for when growth is checked the seed head matures and bursts forth as soon as moisture is again applied. This accounts for much cabbage going to seed. Early varieties mature about three and one-half months after transplanting, late varieties in about five months.

Should there be a cold spell when the thermometer lingers below 25 degrees, just at the time the cabbage begins to head, you may expect twenty-five per cent of your crop to shoot to seed.

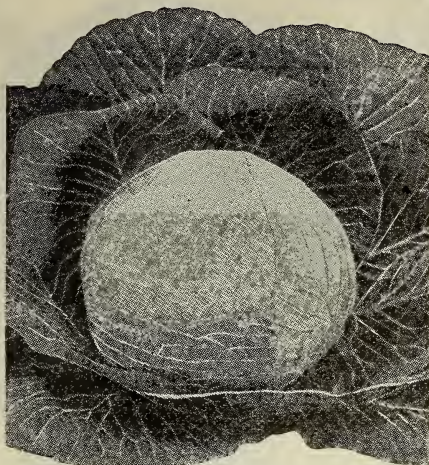
Read This.—In the spring of 1914 Samuel Wilkes marketed one of the finest crops of Winnigstadt cabbage he had ever grown. In the fall of 1914 he sowed seed carried over from the previous year, and from which seed the excellent crop was grown. In February, 1915, his crop was a failure to such an extent that he made no attempt to market it. But his brother, who planted from the same seed bed a month later, marketed in March one of the finest crops he ever had.

A cold spell injured Samuel Wilkes' cabbage just as it was beginning to head. All February cabbage growing in low places last year showed damage by cold.

For the Cabbage Worms.—We do not hesitate to recommend Paris Green to be used up to two weeks before marketing the cabbage, because the spray only reaches the outer leaves that are not eaten, and because within two weeks the elements neutralize the poison. Also when only one tablespoonful of Paris Green is mixed with four gallons of water and kept well agitated there could not possibly be poison enough on a head of cabbage to even make any one sick.

For Aphis.—Spray with Black Leaf 40. Directions: One tablespoonful to two gallons of water. Add about $\frac{1}{8}$ lb. of soap.

COPENHAGEN MARKET



Copenhagen Market

Copenhagen Market.—Our European grower has given great praise to this variety. It is grown more extensively for the markets of Northern Europe than any other variety. It excels because of its extreme tenderness and delicious flavor, which is compared with cauliflower. We give it urgent recommendation to growers for the home market and for home gardens.

(Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.50) (lb. \$4.50) postpaid.

Hollander.—Is one of the best of all the hard heading varieties. The heads are thick, round, of medium size and as solid as a rock; of good flavor and heads well in our winter climate. It is a desirable sort for gardeners. (Per pkt. 5c) (oz. 35c) (¼ lb. \$1.25) (½ lb. \$2.25) (lb. \$4.00) postpaid.

American Drumhead Savoy.—The best of all the Savoys. Short stump, large size, solid head. (Per pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50) postpaid.

Improved Red Drumhead.—Heads of deep color and remarkably solid. Excellent for slaw. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (lb. \$3.50) postpaid.

A. & M. EARLY DRUMHEAD

Year by year this desirable sort becomes more and more popular. It is very early, tender, crisp, and just the right size for the dealer. Truckers like it because every stalk produces a head. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.25) (lb. \$2.25) postpaid.

As both worms and aphids are nearly always present at the same time, use a combined spray prepared as follows: Blackleaf-40, two table-spoons; soap, ¼ lb. arsenate of lead, ¼ lb.; water, four gallons.

All Seasons.—The heads are extremely solid, round, flattened on top and ready to market nearly as early as Early Drumhead, while considerably larger in size. It is called "All Seasons," because it is as good for autumn or winter as for early summer. (Per pkt. 5c) (oz. 35c) ¼ lb. \$1.15) (½ lb. \$1.85) (lb. \$3.50) postpaid.

Large Late Flat Dutch.—The standard sort for late crop. A large, sure header. (Per pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.25) (lb. \$2.00) postpaid.

Henderson Early Summer.—A good medium-sized early flat head, very desirable for the table. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (lb. \$2.75) postpaid.



A. & M. Early Drumhead

AUTUMN KING

For four years this Giant Cabbage has astonished all who have seen it at the market. Heads weighing from forty to fifty pounds are not uncommon. It is tender and of excellent mild flavor, ideal for sauerkraut, and it will yield more tons of good cabbage per acre than any other variety. (Pkt. 5c) (oz. 30c) (¼ lb. 90c) (½ lb. \$1.60) (lb. \$3.00) postpaid.

Also note the extensive list of garden tools, orchard and farm requisites, fertilizers, insecticides and sprayers. Everything for the ranch and garden, with instructions from planting of seed to marketing the crop.

Write for particular information.

CABBAGE—(Continued).

Danish Ballhead.—Round and solid as a ball, tender and of excellent flavor. A very popular variety on the local market. (Pkt. 5c) (oz. 45c) ($\frac{1}{4}$ lb. \$1.50) ($\frac{1}{2}$ lb. \$2.50) (lb. \$4.50) postpaid.

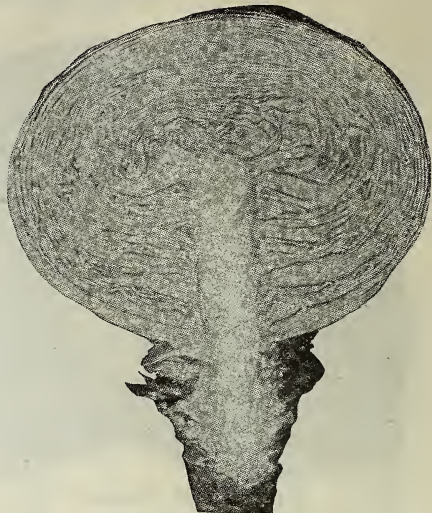
SCOTT'S CROSS CABBAGE

Scott's Cross is one of the best to grow for shipping. It is a cross between the Winnigstadt and the flat Dutch. It promises to outrank the Winnigstadt, but up to the present time there has not yet been sufficient seed to meet the demand. The heads are very solid, will average eight to ten pounds. It is a sure header and almost proof against the Black Aphis. Yields much heavier than Winnigstadt and sells easily to the shipper, and to the consumer, because of its attractive appearance. (Pkt. 10c) (oz. 80c) ($\frac{1}{4}$ lb. \$2.35) ($\frac{1}{2}$ lb. \$4.00) (lb. \$8.00) postpaid.

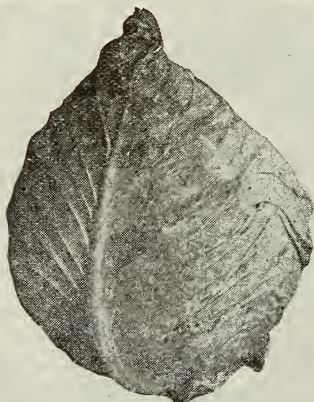
The introduction of this cabbage into the Southwest means millions of dollars to the growers. An ordinary average yield of Winnigstadt per acre is eight to ten tons. Scott's Cross will average twelve to fourteen tons of a better grade. This means about fifty dollars per acre more at no greater expense. The additional price of the seeds amounts to \$1.50 per acre against a gain of fifty dollars per acre.

WINNINGSTADT CABBAGE

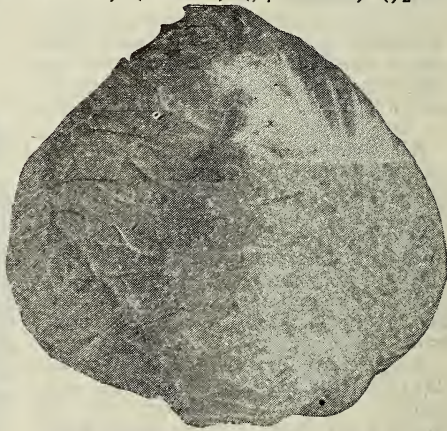
No other vegetable listed in our catalog has retained its popularity so continuously and for such a long time as our Quedlinburg strain of Winnigstadt Cabbage, introduced by us in 1896. It is now, and has been ever since that date, the most popular cabbage grown on this Coast. It is popular because it is early, solid, good flavor, sure header, and good shipper. (Pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.25) (lb. \$2.25) (5 lbs. \$9.00) postpaid.



Danish Ball-Head



Winnigstadt



Scott's Cross

A Word About Our Garden Manual.

The very commendable common sense system now adopted by many schools throughout the Southwest has suggested to us the idea of giving to the teachers and the pupils the benefit of the knowledge gathered in our twenty-two years of experience with gardening in the Southwest. We have therefore put into brief form but comprehensive information suitable to the requirements of pupils in their garden work as beginners.

The manual is now being distributed in many cities without charge to all pupils of appreciable age. We want all pupils of such age in all schools of the great Southwest from California to Texas, Nevada and Utah to have this manual. This book is as valuable to the newcomer and the beginner as it is to the pupil, and they are just as welcome to it if they will but ask for it, with an order to the value of fifty cents.

Page 17 of this catalog gives an idea of the contents of the Manual.

CAULIFLOWER

Cauliflower is grown in large quantities. Southern California ships thousands of cars annually from November to April during each season, and the returns are of a very satisfactory nature. The industry is on a solid basis and growing each year. Do not plant cauliflower seed between March first and June first in Southern California, as the hot weather in summer is almost sure to destroy any cauliflower that is advanced so far as to begin heading.

Culture.—Prepare the soil as for cabbage. Seed may be sown from June to the following March. Transplant when the plants are six to seven weeks old. When the stems have become hardened in the bed they will be likely to head prematurely. Set out the plants 18 inches apart, in rows of 3 feet apart. Cauliflower should be kept growing constantly, as it may be injured by a check in any period of its growth, and go to seed; hence, irrigate freely. One ounce of seed produces 2,000 plants; six ounces to plant one acre.

CALIFORNIA PEARL CAULIFLOWER

This variety is a favorite from California to New York, because of its excellent shipping qualities. It originated here and has made Southern California famous for her excellent cauliflower. The California Pearl is thoroughly adapted to a semi-tropical climate and is particularly suited for shipping because of the flower being completely enveloped within spiral curled leaves, which protect the flower from injurious exposure to rain, sunshine or frost, but particularly from injury in packing and in transit. It retains its fresh appearance longer than any other variety. It is decidedly the shippers' favorite. It is the gardeners', the dealers' and the consumers' favorite. To be packed for shipping it is only necessary to cut the stem at the base of the head, and the leaves about eight inches above the head. This leaves foliage enough to cover the crown without wrapping in paper. These heads are packed two layers in a crate (16 inches deep), with the base at the top and bottom, the crowns facing in the center, usually 24 heads per crate.

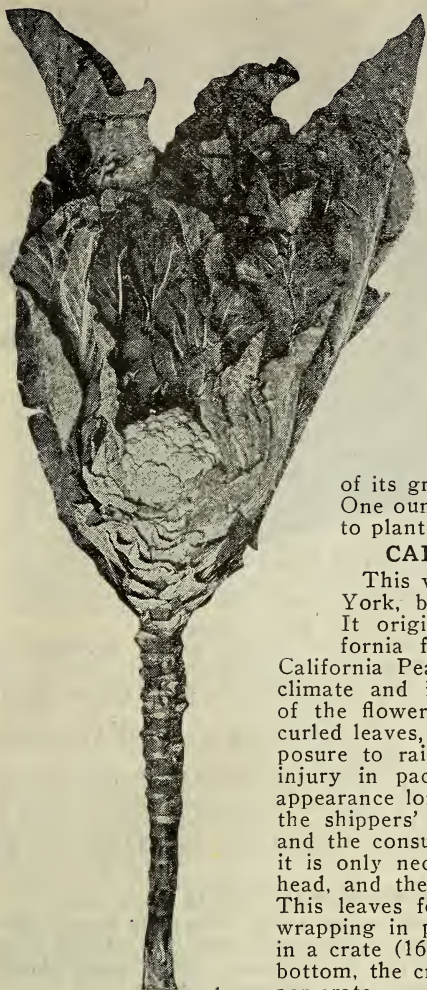
The small grower may plant at any time from May until February, but for profit the shipper should carefully pursue instructions given with each variety.

When you consider that the amount of cauliflower shipped from California each year runs into thousands of carloads, valued at nearly \$1,000,000, and practically all of it is the California Pearl, the value of this type is of so great importance that we are proud to have been the introducers of it. At the time of the introduction, about the year 1900, we had only the late variety that required seven months from the time of planting seed. Soon by selection we developed one to mature in five and one-half months. We now have a strain of the Pearl type that matures in four and one-half months.

Extra Early California Pearl attains a height of only two feet; plant seed in May and June. Transplant in six to eight weeks. Set plants fifteen inches apart in rows two and one-half feet apart. (Pkt. 15c) (¼ oz. 65c) (oz. \$2.00) (¼ lb. \$6.00) (lb. \$20.00) postpaid.

Medium Early California Pearl attains a height of three feet. Plant seed from June 1st until November. In six to eight weeks transplant twenty inches apart in rows two and one-half feet apart. (Pt. 15c) (¼ oz. 60c) (oz. \$1.75) (¼ lb. \$5.00) (lb. \$16.00) postpaid.

Late California Pearl attains a height of four to five feet. Plant seed July 1st to March 1st. In six to eight weeks transplant two feet apart in rows three feet apart. (Pkt. 10c) (¼ oz. 50c) (oz. \$1.50) (¼ lb. \$4.00) (lb. \$14.00) postpaid.



California Pearl
Cauliflower

CAULIFLOWER—(Continued).

Do not be impatient for the heads to appear. They will grow to mature size in two or three weeks from time of starting to head.

Mr. O. W. Billingsley, of Florida, writes under date of January 29th, 1915: "Kindly let me know if the Extra Early California Pearl Cauliflower completely envelopes the flower with curled leaves like your Late, which I must say is a wonder. I am going to plant entire crop to it next year."

Extra Early Snowball.—Our seed, grown in Holland, has proven perfectly satisfactory for the past twelve years. Planted in June it can be marketed in November. It is the best early cauliflower yet offered by any seed house. We have one customer who has bought ten pounds of this seed for twelve consecutive years. He grows it in peat lands and always plans to market his crop from November 20th to January 1st.

(Pkt. 25c) (¼ oz. 75c) (oz. \$2.50) (¼ lb. \$8.00) (½ lb. \$14.00) (lb. \$25.00) postpaid.

Improved Algiers.—Next to California Pearl this is probably the best late variety. It should not be planted until July 1st in Southern California, as it will not head up well until the cold weather of January or February. (Pkt. 10c) (oz. 80c) (¼ lb. \$2.50) (lb. \$8.00) postpaid.

California Mammoth.—Medium early. Is the largest variety grown anywhere in the world. It is not uncommon to attain 16 inches in diameter, while 10 and 11 inches is the average. It is of California origin. Pkt. 10c) (oz. \$2.00) (¼ lb. \$6.50) (lb. \$20.00) postpaid.

Autumn Giant.—Heads large, firm and compact, thoroughly protected by foliage. (Pkt. 10c) (oz. 80c) (¼ lb. \$2.50) (lb. \$8.00) postpaid.

Dry Weather Cauliflower.—Dry Weather Cauliflower merits the confidence of all growers as an all year round variety. We give it special recommendation for the first early and late planting. It requires rich soil and good cultivation, but will withstand more drought than any other variety. (Pkt. 25c) (oz. \$2.50) (¼ lb. \$8.00) (lb. \$25.00) postpaid.



Extra Early Snowball

CABBAGE WORMS AND CABBAGE APHIS

The best method of controlling these worms is to spray the plants before they are half grown with arsenate of lead and soap prepared as follows: Arsenate of lead (paste), three ounces; soap, ¼ lb.; water, four gallons. This spray should be applied whenever the worms become abundant enough to justify it.

The best method for controlling the plant lice is to spray the plants with tobacco and soap mixture prepared as follows: Blackleaf-40, two tablespoons; soap, ¼ lb.; water, four gallons. The soap is necessary in order to make the spray spread evenly and penetrate the covering of the lice.

READ THIS

This Catalog comprises a list of all vegetables and farm seeds offered by us, all of which have been tried and proven to be adapted to climatic conditions of the Southwest and Mexico. BUT always have in mind, each season, even each month requires not only different varieties of seed but different strains of the various varieties. For instance, New York Special Lettuce is the best of all when planted from August 1st to February 1st, but planted at other times is very inferior while Marblehead and Iceberg Lettuce are best suited to the Summer months. This applies only to the climate of the Southwest. These varieties do not grow profitably in the East. What is true of lettuce will apply also to potatoes, beans, melons, onions and many other vegetables.

It is our knowledge of these conditions and our eagerness to impart this information through these pages that makes this catalogue more valuable to the gardener and rancher of the Southwest and Mexico than any other.

Read all foot notes; you will sometimes find the information you are looking for. Be sure to ask for our garden manual. It is free with your first order for seed, to the value of fifty cents.

Do not destroy this catalogue: there is too much valuable information in it.

CARROTS



Culture.—May be sown all the year round. Till the soil deeply and manure heavily. Cover seed from one-half to one inch in depth. Sow in drills ten inches apart on ridges (see page 17) and thin out to two inches apart. Four pounds of seed will sow an acre; one ounce to 100 feet of drill. Carrots are ready for use in eight weeks after planting, and remain edible for six months.

A. & M. Early Gem.—Somewhat resembles the Guerande or Oxheart, but is more uniform in shape, of finer texture and almost entirely free from the core usually found in other varieties. Flesh deep red, very tender and delicious in flavor. The roots generally attain from four to five inches in length and about three inches in diameter, although they have been grown to nearly double these dimensions. For bunching, the handsome appearance is a marked advantage over all other varieties. It is a favorite with many market gardeners.

(Pkt. 5c) (oz. 15c) (¼ lb. 50c) (lb. \$1.50) postpaid.

Guerande, or Oxheart.—Beautiful shape and color. The roots generally attain four or five inches in length and about three inches in diameter. Quality first rate, very tender, like the Early Gem, is the market gardener's favorite.

(Pkt. 5c) (oz. 15c) (¼ lb. 50c) (lb. \$1.50) postpaid.

Early French Forcing.—A small sort, but desirable on account of its extra early habit. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (lb. \$1.50) postpaid.

Danvers Half Long.—The roots are smooth and of a rich, dark orange color. One of the best sort for a main crop, because it remains edible in the field longer than other varieties.

(Pkt. 5c) (oz. 15c) (¼ lb. 40c) (lb. \$1.25) postpaid.

Chanteney.—Flesh is a deep golden orange color, always smooth and fine in texture, very tender. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (lb. \$1.25) postpaid.

Improved Long Orange.—A deep orange colored variety adapted for farm or garden culture. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (lb. \$1.00) postpaid.

Half Long White Belgian.—Is raised exclusively for stock. Grows to a very large size; is easily gathered. Makes splendid feed for cattle, horses and hogs. Known to yield forty tons per acre. Will keep four or five months after pulling. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

See Large Yellow Belgian.—Is similar to the above, but with a light orange color; said to be richer, but does not keep so well. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

Half-Long Giant White.—The largest of all stock Carrots, and desirable because it does not grow to a great depth, and although six inches in diameter, there is no hard core. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

Mastedon (Cow Horn).—Desirable because it stands well above ground, thus being easily harvested. Although six inches in diameter, there is no hard core. We give the Mastedon special recommendation to dairymen. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

Plant the Early Gem Carrot by the acre for the shippers. One acre will yield 600 sacks and should sell for 75 cents per sack.



Oxheart Carrot

CELERY

Orange County claims \$500,000 for her 1914 celery crop.

Culture.—Sow the seed from Jan. 1st to April 1st, in drills six inches apart, not too thick in the row to secure stalky plants. In June when the plants are strong, transplant to furrows three feet apart and six inches deep. Set the plants six inches apart in the furrows, as the plant grows fill the earth toward the plant to secure proper bleaching. Never allow dirt to rest on the heart of the plant. Never work in celery when it is wet with rain or dew.

Spray frequently with Bordeaux.



White Plume

for the Eastern market. It withstands the cold winters much better than the White Plume variety. It is a nice size for crating and its rich golden yellow makes it desirable for the market. Our seed is imported and has given entire satisfaction the past twelve years. It is reliable. (Pkt. 10c) (oz. \$1.50) (¼ lb. \$5.00) (½ lb. \$8.00) (lb. \$15.00) postpaid.

Flavoring Celery.—Per (lb. 50c) postpaid.

Smooth Prague, Celeriac.—A large celery flavored root used extensively for flavoring soups, pickles, etc.; also relished sliced as a salad with pepper and vinegar. It is also used to flavor chicken and potato salad. (Pkt. 5c) (oz. 20c).

From C. C. Lee, New Mexico: "I have found your seed to be the best planted this year. Have seven thousand celery plants ready to transplant from 2 oz. of Dwarf Self-Blanching Celery seed.

Golden Self Blanching (California grown)

Many of our largest celery growers in California and throughout the United States have for several years been planting California grown Golden Self Blanching celery. We were slow to offer this variety because of unsatisfactory results attained by some local growers, but it is now clearly shown that these results were from improperly grown seed. The seed we now offer was grown by an expert whose seed is now accepted by all who have used it as fully up to the imported. We now offer it to you for the first time, with our full recommendation. (Pkt. 10c) (oz. 60c) (¼ lb. \$2.00) (lb. \$6.00) postpaid.

For particular information, address a letter to us asking what you wish to know. Too many failures are the result of following a general rule that does not apply to your particular condition. Write us and avoid such failures.

What and when to plant, see inside of back cover page.

Superior stocks are necessary to the prosperity of the market gardener. The inferior article may be more attractive at the beginning, because it costs less, but the superior seed gives the most valuable product. You are bound to get the best vegetables from our seeds. We sell to market gardeners who must have only the best. No other seed house on the Pacific Coast caters to the market gardener as we do. The cheapest is never the best. The best is always the cheapest. Plant Aggeler & Musser's Reliable Seeds and insure success.

Giant Pascal.—It is a green top, much superior to the California green top. It is a great favorite in the eastern gardens. (Pkt. 5c) (oz. 25c) (¼ lb. 85c) (lb. \$2.50) postpaid.

California Giant White Plume.—We have now the grandest strain of White Plume Celery ever offered to the market gardener. It is indeed a curiosity to all visitors to the market, as you will believe when you know a bunch of 12 stalks weighs 64 pounds, is solid and crisp with a decidedly salty flavor derived from the alkaline soil in which it was grown. On the peat lands it attains its highest perfection. (Pkt. 5c) (oz. 25c) (¼ lb. \$1.00) (lb. \$3.00) postpaid.

PARIS DWARF GOLDEN SELF BLANCHING

This is the variety so extensively grown in the peat lands of Southern California

CORN

Note—Prices on half pound and pound quantities include postage or expressage prepaid. When sent otherwise, deduct 10 cents per pound. If desired sent by Parcel Post, necessary postage should be added. See our Parcel Post Schedule on cover page. If large quantities are desired, do not fail to write for special prices.

Culture.—Plant from February 15th to September 1st in hills 18 inches apart, in rows three feet apart. Allow two stalks to the hill, break off all side shoots; cultivate after each irrigation until the corn shades the ground; irrigate every two weeks until in the milk, then once or twice a week, and this will produce a solid tight husk, which will prevent the worms from doing much damage.

We are ever on the lookout for something better than that which we have. We are constantly trying out new varieties that show merit, but we studiously refrain from offering to our customers anything new unless it is better than that which we have. It is this policy that has kept the Oregon Evergreen so prominently before you for twelve years as the money-maker for the market gardener.

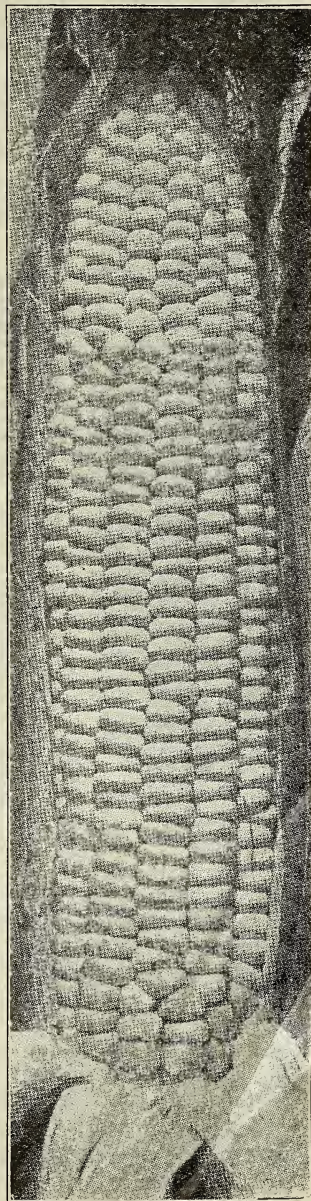
Read what follows.

A. & M. OREGON EVERGREEN

Oregon Evergreen Corn now has the endorsement of every gardener that grows for the Los Angeles market. We are safe to say that any gardener growing this will show to his customers its superiority over all other sweet corn. This is the twelfth year since we first offered this new and distinct variety. The demand has grown each year until it is now practically the only variety offered on the Los Angeles market. This excellent sweet corn has made wide progress in popularity during the season just past. It leads all other varieties at Portland, Oregon. The peddlers will have no other and one no longer hears the consumer complain about the poor quality of the California sweet corn. The advantages of this corn over all others are its earliness, its large size, rarely less than eight inches long, clear of husk. The grains are full to the tip. The husk is very thick and folds so tightly over the grains that the worm does very little damage, compared with other varieties. Because of this thick husk it is desired by the peddler and the grocery man, because it can be held over two days before it appears old or wilted. It is very productive, averaging three good ears to every stalk, often bearing five marketable ears. (Pkt. 5c) (1 lb. 30c) postpaid. (10 lbs. \$1.25) (100 lbs. \$10.00) f. o. b. here.

A. & M. EARLY ADAMS

This is a blend between the Oregon Evergreen and the Eastern Extra Early Adams. The superiority of this strain over the former eastern-grown Adams is shown in its earliness, large size and sweetness. It is nearly as good as the Oregon Evergreen, and is earlier and hardier. It is one of the many good things that originated here. Two years ago when frost destroyed about all early vegetables, many gardeners plowed under their Early Adams, thinking it was destroyed, but one large grower near Los Angeles for some reason did not disturb his field, and was surprised to see it revive and produce a good crop, as though undisturbed by frost. This grower was selling corn three weeks earlier than others, and demonstrated that frost will not destroy this variety when quite young. (Pkt. 5c) (1 lb. 25c) postpaid; (10 lbs. \$1.25) (100 lbs. \$9.00) f. o. b. here.



Oregon Evergreen

Country Gentleman.—A delicious sweet corn. The ears are somewhat smaller and less showy than the coarser varieties, but for private family use, where quality is preferred to size, it is excelled only by the Golden Bantam. The cob is very small, giving great depth to the kernels. The great merit of "Country Gentleman" is its fine quality. It matures in ten weeks. (Pkt. 5c) (1 lb. 25c prepaid (10 lbs. \$1.25 f. o. b.))



Country Gentleman
Corn

Extra Early A. & M. Evergreen.—Our eastern grower of corn seed recommends this so highly we have decided to give our customers the benefit of any advantage in earliness this variety may have over the old favorite. It has all the sweetness, size and quality of the Stowell's with the advantage of being earlier. (Pkt. 5c) (lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Large Adams.—This is the best market variety to plant in August and September for late crop. It will mature in 56 days. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Stowell's Evergreen.—If planted at the same time with earlier varieties and at intervals of two weeks until July 1st, it will keep the table supplied until November. It is hardy and productive, very tender and sugary, remaining a long time in a fresh condition suitable for cooking. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Early Minnesota.—An excellent sweet corn of extra early habit. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Early Crosby.—Second early. Remarkably productive grower with good-sized ears. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Early Mammoth.—Produces the largest ears of any early sort. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Late Mammoth.—One of the finest varieties for main crop. Good quality, very productive. Desired for the home garden, but the husk is too thin for the market. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Black Mexican.—One of the best sweet corns for this section. Deliciously sweet and tender and very productive. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Golden Bantam.—Probably the very earliest variety grown. Very sweet, none better for the home garden for first early. (Pkt. 5c) (1 lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here).

White Mexican.—Has all the good qualities and sweetness of the Black Mexican, but more desirable for the table because it has a pure white grain. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.25 f. o. b. here).

Hints to the Market Gardener.—Plant Early Adams in February. Plant Oregon Evergreen every two weeks from March 1st until August 1st. From August 1st until October 1st plant Large Adams. For the home garden plant Country Gentleman and Golden Bantam every two weeks from March 1st until October.

See Field Corn and Forage Plants

CHICORY

Large Rooted.—The roots, dug in the fall, dried, cut in thin slices, roasted and ground, are used largely as a substitute for coffee. Seed should be sown quite thinly in shallow drills early in the spring. When well started, thin out to stand two or three inches apart in the row, and give good cultivation all summer. Per (Pkt. 5c) (oz. 10c) (¼ lb. 40c) (lb. \$1.25) postpaid.

COLLARDS

The Collard is a old-time favorite, adapted to all parts of the South, and as a producer of "greens" for boiling in winter and spring it has no equal. It will pay you to have a collard patch just to feed the chickens.

Southern Georgia.—This variety is the old-time favorite. Stands all sorts of adverse conditions without injury. Is very hardy. In many places where the soil is too poor to grow cabbage, the collard grows easily and makes a good substitute bbage. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (lb. \$1.00) postpaid.

CHAYOTE



Chayote Seed

See front cover page

Cultural instructions mailed with each order

The Chayote is no longer an experiment. It has now become an article of commerce. It may be found on sale at every grocery store throughout the season, which lasts from October until March.

The vine is a rampant grower. The first year from seed it will grow twenty to thirty feet. Destroyed to the ground by frost, it soon sends out new growth, and during the second season will extend vines forty or fifty feet in every direction. During September it starts blooming, having a small white insignificant flower. Within four weeks the fruit is large enough for the table. One vine in two years if properly trellised will produce more than one thousand fruit.

Cultural directions.—One fruit envelopes one seed, which sprouts from the large end. Plant where you intend it shall grow. Cover only the large end, leaving the small end exposed. Or, let the fruit lie around until it has well sprouted, and then plant the seed, leaving the sprout well above ground. Water freely and do not be

alarmed if frost should destroy it. A new shoot will soon appear. Give it abundance of water throughout the hot summer season.

Because of many complaints of failure to get them started we have them already rooted. Per seed not rooted, at the counter, 10c; packed and mailed, one seed 25c; additional seeds 15 each. Rooted and sprouted, one vine packed and mailed 30c; each additional vine 20c.

Receipts.—Parboil, chop and casserole with tomato, onion and green peppers.

Fry as egg plant.

Prepare as summer squash.

Use small ones, without peeling, boil until tender, cut in half, put a small lump of butter, a little sugar, salt and pepper on each one. Put in oven a few minutes.

For old ones. Peel and cut into cubes and boil; when done, drain and then put lump of butter in frying pan and season. Let simmer until butter burns. Just before serving, put tablespoonful of vinegar on them.

Parboil young ones and serve as salad with mayonnaise dressing.

CULINARY PLANTS AND ROOTS

Write for quantity price

Prepaid		Doz.	100	Prepaid		Doz.	100
Artichoke	.....	\$1.50	\$10.00	Horse Radish, New			
Asparagus	.....	.40	2.00	Bohemian	.....	.35	\$2.00
Celery	.....	.20	.75	Pepper	.....	.20	1.00
Cabbage	.....	.20	.75	Rhubarb, Giant Winter, f.o.b.	.....	1.25	8.00
Chives, per bunch	.....	1.00		Sweet Potato	.....	.20	.75
Cauliflower	.....	.20	.75	Tomatoes	.....	.20	.75
Horse Radish, common	.....	.20	1.00	Egg Plant	.....	1.00	4.00

We aim to have on hand throughout their proper seasons, plants indicated in this list, also to have the popular varieties of each, and the prices on all varieties are the same. At the above price of rhubarb, the plants will have crowns one-half to one inch in diameter, which is the best size for transplanting. These will have marketable stems within six weeks.

CRESS

Culture.—Sow curled or pepper grass thickly, in shallow drills, every two or three weeks. It should be cut often, and it will continue to grow. It is used not only for salad, but on the breakfast table and for garnishing.

True Water Cress.—Should be sown in damp soil or if a stream of water can be utilized, it would be much better. It will also thrive well in damp cold frames. Rightly managed, its culture is very profitable. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (lb. \$3.50) postpaid.

Pepper Grass—(Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c).

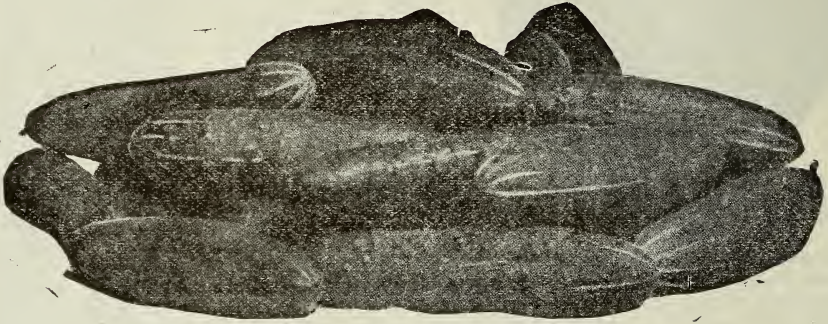
Corn Salad.—Excellent for greens. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

CUCUMBERS

Culture.—Plant from March to October in hills 4 to 6 feet each way, 8 to 10 seeds in a hill. Cover half an inch deep. When danger of insects is past, thin out the plants, leaving 5 or 6 of the strongest in each hill. It is ready for the table in six weeks from planting seed. One ounce of seed will plant 50 hills; two pounds to the acre.

Klondike.—We first catalogued this cucumber five years ago, with the result that it proved highly satisfactory. It is very similar to the Long White Spine. Many gardeners insist that it is better. Gardeners prefer it because of its dark green color and medium size. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

Davis Perfection.—This is the ideal cucumber. Long, slender, dark green, tender and crisp. It is the best all around cucumber yet offered for the family garden, the market garden and the hot house. Do not hesitate to plant this variety, whether you plant a dozen hills or a larger acreage. (Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 60c) (1 lb. \$1.75) (5 lbs. \$7.50) postpaid.



Davis Perfection White Spine

At the Stimson School, Los Angeles city, on a garden plot 5 feet by 6 feet, 756 cucumbers were gathered.

LEMON CUCUMBER

At last after years of advertising and effort to educate the home gardener to grow the Lemon cucumber in preference to the common long green type, we can now say that at least half the people are awake to the superiority of this delicious salad, and the other half will soon regret not having tried it earlier. Every one who has tried it is unanimous in its praise and would not think of omitting it from the spring garden. It is the color of a lemon when ready to use, and similar in shape, being less pointed at the ends.

Plant four or five hills for a family garden. Cultivate same as other cucumbers, water freely and you will have four times as many cucumbers as any other variety will produce.

Mr. Dennis, of Orange County, found eager buyers at the Long Beach city market for his entire crop.

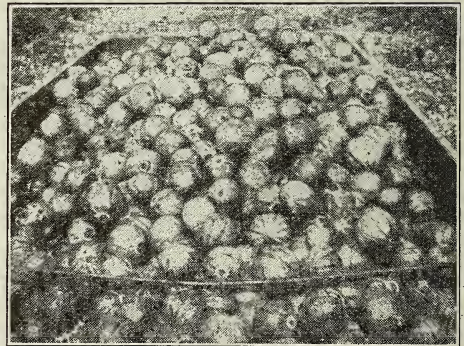
Mrs. Morse, of Arizona, writes that she sold three dollars worth of cucumbers grown from ten cents worth of seed, besides using all they wanted.

(Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 90c) (1 lb. \$1.75) postpaid.

Gherkins.—For pickling. (Pkt. 5c).

ITALIAN CUCUMBER.—The Prize Winner.—This is the largest of all cucumbers, often thirty inches in length. Should be used when quite young; it then has an excellent flavor. (Pkt. 10c).

Japanese Climbing Cucumber.—(Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 90c) (lb. \$1.50) postpaid.



Lemon Cucumber

NOTICE---HOTHOUSE GROWERS---NOTICE
TELEGRAPH-DAVIS CUCUMBER

The English Telegraph Cucumber is recognized as the best for hothouse growing, but it is next to impossible to obtain seed of it even at one dollar per one hundred seeds. In order to have a cucumber equally meritorious, we have hybridized the Telegraph with the Davis Cucumber, and believe we have something that excels the Telegraph.

Mr. Horace McDevitt of Los Angeles grew 284 cucumbers on eight vines, not one of which was less than 12 inches, and many were 20 inches long. He says they should be trained to grow on a trellis; because of their great length they will not grow straight on the ground. (Pkt. 10c) (1 oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.40) (1 lb. \$2.50) prepaid.

Arlington White Spine.—This is a favorite for early forcing outdoors. We have a special strain of this variety. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

Improved Long Green.—Dark green, firm and crisp, 12 to 16 inches long. Very extensively grown. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

Chicago Pickling.—This is without doubt the best variety for pickling on account of its fleshy crisp and excellent flavor and productiveness. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

A WORD ABOUT CUCUMBERS

Few vegetables are more profitable if you can produce them during the winter months. This can be done in a hot house or cold frame on a Southern exposure. The cold frame should be covered at night with muslin. In this way they can be marketed as early as May 1st. Planted from September 1st to 15th, in a sheltered place, will produce delicious cucumbers all through December and late into January. This has been done frequently, but so much depends upon the changeable climatic conditions each season that there is always a risk of failure, but it is worth a trial because the expense is small compared with the profit if you succeed. Six hundred dollars from one acre of cucumbers during the month of December is easily possible.

To prolong the vitality of your vines, pick all of marketable size every other day, and do not tread upon the vines when picking. To grow prize cucumbers, mix one-fourth pound of Wizard Fertilizer with the soil about the hill when planting, and more as the vine grows.

ENDIVE

Culture.—Seed may be sown any time during the year. When plants are well started, thin out to ten inches apart, or they may be transplanted. When plants have reached a good size, gather the leaves closely together and tie loosely in an upright bunch. This blanches the inner leaves in about ten days and adds to the crispness as a salad, as it renders the flavor mild and delicate. One ounce will sow 100 feet of row.

This plant furnishes an attractive and appetizing salad for the fall and winter months, or by repeated sowings a supply may be had nearly all the year round.

Green Curled.—Leaves are finely cut or lacinated, giving the plant a rich, mossy appearance, which is greatly enhanced when the centers are nicely blanched.

This is the variety generally preferred because it blanches to a beautiful golden yellow. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 70c) (lb. \$1.25) postpaid.

White Curled.—This beautiful variety does not need blanching to prepare it for use, the midribs being naturally of a pale golden yellow, the finely cut and curled leaves are almost white. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 85c) (1 lb. \$1.50) postpaid.

Batavian or Escarol.—Forms large heads of broad, thick leaves, which can be blanched for a salad or it will make excellent cooked greens, as well as being useful to flavor soups, stews, etc. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 70c) (lb. \$1.25) postpaid.



Green Curled Endive

EGG PLANT

Culture.—Egg plant seed germinates slowly and should be started in a hot bed. The soil should be one part leaf mold and one part sandy loam. It is important to secure a rapid and continuous growth. Set thirty inches apart, pinch off the larger leaves when transplanting.

New York Improved.—This variety has superseded all others, both for market and home use. The large size and high quality of its fruit and its extreme productiveness make it the most profitable for the market gardener. It is spineless, which is a great advantage in shipping. (Pkt. 10c) (oz. 40c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

Black Beauty.—Fruit large, symmetrical in shape and uniformly of a rich, dark purple color. Fruit matures a little earlier than our Improved Large Purple, but is not quite as large. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

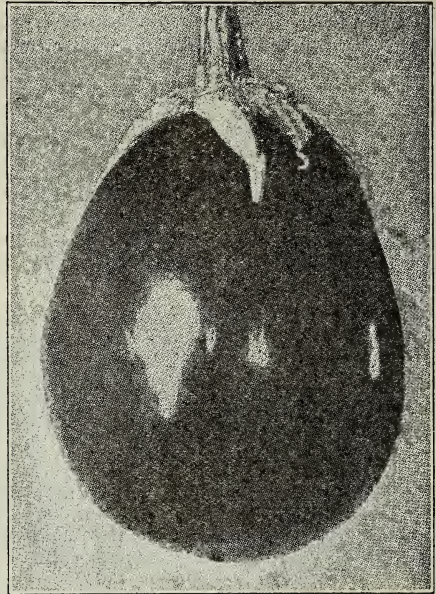
The Tree Egg Plant.—This variety is of medium size and extremely good shape, being particularly adapted to slicing, as there is no waste of material. It resists drought and bad weather to a wonderful degree, partly on account of its strong, upright growth. It bears its fruit sometimes one or two feet above the ground, thus escaping liability to rot.

(Pkt. 15c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

NOTICE:—Although frost may destroy the plant to the ground, it will sprout again from below the surface of the ground and produce an early crop the second season. Do not destroy your field because it has been frosted.

This book contains much valuable information; keep it. If you have not already received our garden manual, write for it.

Read inside front cover and page seventeen. Use Wizard Fertilizer for all vegetables at the rate of two pounds to one hundred feet of row. There is nothing cheaper or better.



New York Egg Plant

GOURDS

Culture.—Gourds are tender annuals, of trailing or climbing habit. The seed should not be planted until the ground is warm. Plant in hills and cultivate as cucumbers. Leave only three or four plants in a hill, and allow the vines to ramble or train over a trellis.

Dish Rag Gourd.—The peculiar lining of this valuable gourd gives it its name. The fruit grows about two feet long. The interior fibre is serviceable for a variety of household purposes, being used as a dish cloth, or sponge. The fibre is tough, elastic and durable. Start seed under glass in the North. (Pkt. 10c).

Orange or True Mock Orange.—A good old sort, the fruit often finding its way into the family sewing basket. A beautiful and rapid climber, quickly covering trellises. Fruit the size and shape of an orange. (Pkt. 5c) (oz. 15c).

Dish Rag Gourds

Dipper.—A well known and useful gourd. When grown on the ground the stem is much curved; but on a trellis the weight of the fruit makes the stem straight. This gourd is very much in demand. (Pkt. 10c) (oz. 25c).

Nest Egg.—Per pkt. 5c.

Ornamental.—Small, odd shapes and colors. Per pkt. 10c.

Mixed Gourds.—Per pkt. 5c.

Sugar Trough.—Large bowl shaped; used extensively by the native Hawaiians for culinary purposes. Per pkt. 10c.

South African Pipe Gourd.—When not trellised they grow with a uniform curved neck forming a pipe shaped gourd that colors like a merschaum and is as useful. Pkt. 10c.



HERBS

Culinary and Medicinal

Herbs in general, delight in a rich, mellow soil. Sow the seed any time throughout the year, in shallow drills one foot apart; cover lightly with fine soil, and when up a few inches, thin out to proper distances apart, or transplant into prepared beds. Care should be taken to harvest properly; do this on a dry day, just before they come into full blossom. Dry quickly in the shade, pack closely in bottles or dry boxes to exclude the air; this will insure their being preserved in good condition for future use. Varieties in the list marked * are perennials.

Other Leading Varieties

	Pkt.	Oz.		Pkt.	Oz.
Anise	5c	10c	*Lavender, Sweet	10c	20c
*Balm	5c	10c	*Peppermint	10c	...
Borage	5c	10c	*Rosemary	5c	25c
Burnet	5c	10c	Sage	5c	10c
*Caraway, lb. 50c	5c	10c	Saffron	5c	10c
*Catnip or Catmint.....	5c	10c	Summer Savory	5c	10c
Chervil	5c	10c	Sweet Marjoram	5c	15c
Coriander, lb. 50c	5c	10c	Sweet Basil	5c	10c
Dandelion	10c	50c	*Thyme	5c	25c
Dill	5c	10c	*Winter Savory	5c	15c
*Fennel, Sweet	5c	10c	Wormwood	5c	...

The supply of Culinary plants and herbs has not held up with the demand. There is room for a specialist in this line. See wholesale druggist and butcher supply dealers.

KALE

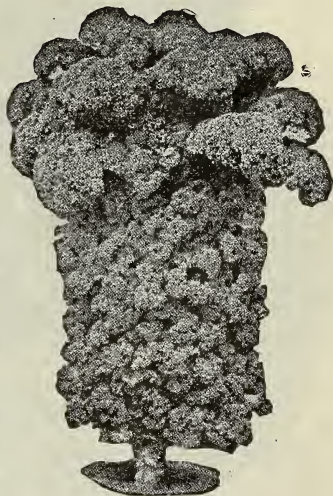
Culture.—Seed should be sown thinly in drills about the middle of June for the tall sorts; transplant the young plants twelve inches apart in rows three feet apart. Later in the season the dwarf sorts may be sown rather thickly in drills to furnish small heads to be cooked like spinach. One ounce to 100 feet of drill.

Dwarf German Kale.—German Green or Sprouts. The leaves are curly, bright green, very tender and delicate flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Tall Green Curled Scotch.—This makes a beautiful plant, about two-and-a-half feet tall. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (1 lb. \$1.00) postpaid.

Jersey Kale.—A tall variety with smooth leaves. Especially used for poultry greens. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (1 lb. \$1.00) postpaid.

Thousand Headed Kale.—Excellent for the table and for poultry green. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (1 lb. \$1.00) postpaid.



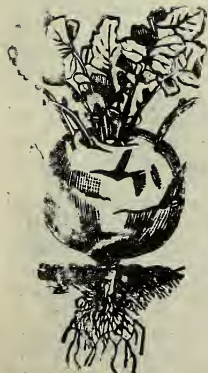
Tall Kale

KOHL RABI

Culture.—Seed may be sown every month in the year. Drill on ridges same as beets. (See page 5). Thin to three inches apart. An ounce of seed will produce 2,000 plants.

Early White Vienna.—The earliest sort, very tender, excellent for table use. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.00) (1 lb. \$1.75) postpaid.

Early Purple Vienna.—Similar to above, but has flesh of purple color. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.00) (1 lb. \$1.75) postpaid.



Kohl Rabi

LEEK

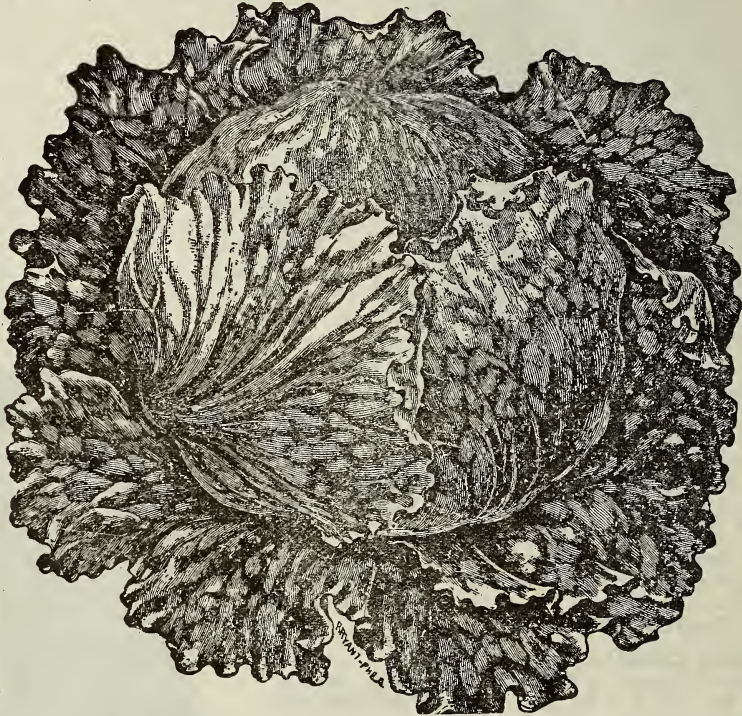
A. & M. Prizetaker

We believe in having the best of everything. With this idea always before us, we have secured this fancy strain of leek. It is large, white, tender and mild—the best in the world. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.25) (1 lb. \$2.00) postpaid.

LETTUCE

Curled Leaved Varieties

Culture.—Lettuce can be sown all the year round. All varieties attain their highest perfection during the months from November 1st to June 1st. It requires about three and one-half months from seed to maturity. Smooth leaved varieties seem to head better during the summer months, than the curled varieties. To attain the best results, lettuce requires a very loose, rich loamy soil. Planted in double rows, on ridges about 15 inches apart (See page 17) 10 inches apart in the row. Irrigate not less than once a week during the dry season. Be sure to cultivate after each irrigation. Use Wizard Fertilizer.



Los Angeles Market or New York Special

This is one of the many vegetables introduced by us which have become of great value to the growers of Southern California. Like the Pearl Cauliflower, Winnigstadt Cabbage, and Golden Self Blanching Celery, thousands of carloads of this lettuce are being shipped from Southern California, and many carloads from Southern Texas. This is surprising when only a few years ago we were requested by one shipper to get a lettuce that would stand shipping better than the smooth leaved varieties. We experimented with a curled variety and developed this hard headed type that weighs two to three pounds per head. We shipped the first crate to a friend near Philadelphia, Pa. It arrived in perfect condition and kept good on ice for a period of three weeks, until consumed. We then introduced this as the Los Angeles Market lettuce. It at once created a sensation with the growers, later with the shippers, when they learned it would carry to the far east as well as cabbage.

This Los Angeles Market lettuce was rapidly offered by other seedsmen in other parts under other names, such as Wonderful and New York, but as it was introduced from here and grows to perfection around Los Angeles during the winter months, and all carload shipments are made from here, the name Los Angeles lettuce is aptly applied to it by dealers and consumers everywhere in the United States from Los Angeles to Boston.

It is now grown extensively in Texas, and to considerable extent in Oregon. To succeed plant only from September 1st to February 1st. See our method of planting on page 17. (Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 70c) ($\frac{1}{2}$ lb. \$1.10) (lb. \$2.00) postpaid. Write for quantity price.

MARBLEHEAD

A lettuce of great favor in the East because of its delightful flavor, and because it there grows to perfection from early spring until late fall. For the Southwest it is our best summer lettuce, but like all other varieties with us, it attains its perfection during our winter months. Plant all the year round.

(Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.

Iceberg.—Large curly leaves of bright, light green, with a very slight reddish tinge at the edges. It has a delicious flavor. This is the best variety for a summer crop. (Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 60c) ($\frac{1}{2}$ lb. \$1.00) (lb. \$1.75) (5 lbs. \$8.00) postpaid.

Iceberg lettuce should not be planted on sandy soil during the summer months, because the refraction of the heat from the soil blights the under leaves, often to the heart of the lettuce.

Early Curled Simpson.—This is a very popular variety as a loose leaf lettuce. The leaves are large, thin, very tender and of very good quality. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Hanson.—Similar to the Iceberg, without the tinge of red. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

Smooth Leaved Varieties

California Cream Butter.—This lettuce is similar to the Big Boston. Is a good shipping variety. One gardener sold from one-half acre of this lettuce nearly three hundred dollars worth. It is of good flavor and beautiful in appearance. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 30c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Tennis Ball.—Similar to the California Cream Butter, except in size and without the tinge of red. It forms a solid head and is best for early spring. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Big Boston.—Very large, smooth-leaved solid-heading variety; grown more extensively throughout the east and south than any other. It is congenial to all climates, and while a fairly good shipper, it cannot compare in this respect with the solid-heading New York Special variety, but in flavor it probably excels all others. An excellent all year round lettuce.

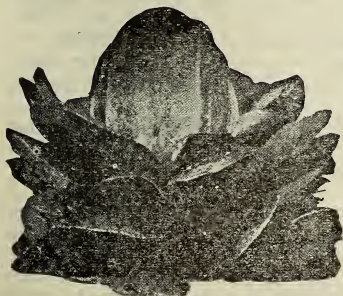


Big Boston

Price—(Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

May King.—Very similar to Big Boston, without the tinge of red. It is a good shipper and of excellent flavor. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.

Paris White Cos.—Upright, crisp and tender. Cos lettuce is becoming deservedly popular, and should receive the attention of market gardeners. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.



Paris White Cos

FOR ALL KINDS OF MELONS

Common Sense Talk About Protection Against Insects

There is just one sure remedy. Don't wait until you discover the little cucumber beetle at work and having destroyed half your field, and then wire to your dealer to send you something,—just anything to destroy the beetle and save your vines; then spend days spraying and replanting to repair what damage has been done. You never can regain the time lost,—the time that is so valuable to the early planter.

At the time you plant your seed, have pieces of wires 18 inches long cut from baling wire and pieces of cheese cloth 18 inches square,—that is, four pieces to the square yard. Arch the wires at right angles over the seed, and make a tent with the cloth over the wires, covering the edges with earth. Then don't worry until the plants crowd the tent, after which remove the cloth but do not thin out the plants until after several days when they have become hardened by exposure. This method will cost about \$10.00 per acre, and less time than it requires to combat the beetle, but you save your plants. The cloth may be used several seasons.

Next to the above method is to spray the vines with Paris Green, using one heaping tablespoonful to four gallons of water and keep it well stirred, which is very important.

FOR THE CUTWORM.—Use Cut Worm Killer, or mix Paris Green with bran and spread a circle around the plant.

FOR APHIS.—First keep the vines hardy by deep planting and proper cultivation, irrigation and fertilizers. Then if the aphis appears, which is unlikely, spray with Black Leaf 40, or bury the affected part with dust. Either way is a constant fight.

FOR MELON BLIGHT that is caused by a fungus at the root, spray the hill freely with Bordeaux so that the liquid will follow the stem several inches beneath the surface. This should be done as a precaution rather than as a remedy.

READ THIS. If you would prolong the life of your vines, make a path between the rows by training the vines to grow along the rows, and not across from one row to the other. Then at picking time do not allow the pickers to tread upon the vines. To do so makes many culls and shortens the life of the vines and lessens your profit about one-third.

CASABAS

(If interested write for our Casaba circular.)

The casaba is now at full zenith of popularity. Previously it was grown as a late melon to mature after the cantaloupe season. As a late melon its popularity was confined to a limited section near the Coast of Southern California. But it is now demonstrated that it can be grown in all semi-arid sections side by side with the early cantaloupes and watermelons. The carloads of large perfect casabas of the Winter Pineapple, Golden Beauty and Improved Hybrids, types that were shipped from the Imperial Valley during the past two seasons, have proven the value of the casaba as an early melon and good shipper equal to the watermelon and cantaloupe. Casabas are shipped to Los Angeles and San Francisco without crating, as are watermelons.

Our prophecy made more than ten years ago is now fully realized. We then stated that casabas would be shipped to Eastern markets in carloads, becoming one of California's many commercial products of great value. Stanislaus, Imperial and Los Angeles Counties are most conspicuous as shipping centers. More than one thousand carloads have been shipped from these points last season.

Grown in the Imperial Valley with early cantaloupes and watermelons, shipped without crating in the same car, it appears on the market the latter part of June and commands a much higher price per pound than watermelons. It at once finds as ready sale, as other melons, and continues in unabated demand until after the New Year, when all other melons have long since disappeared from the market.

Cultivate the same as muskmelons. Plant according to your locality, from February 15th until July 15th; for late shipping June 1st to July 15th seems to be the best time for planting.

Casabas may be taken from the vine as soon as they lose the green luster, but should not be eaten until the hard rind of the Pineapple and Golden Beauty will give slightly under pressure but the Hybrid is not at its best until the thumb can make an impression as in a mellow apple.

The best way to keep the casaba late into the fall is to gather them together on the hill and cover them completely with the vines, but do not pick them off the vine.

The casaba can be grown successfully throughout the Southwest.

Mr. John H. Nusbaum, of El Paso, Tex., writes: "I had good success and ready sale for the Golden Beauty, Santa Claus, Improved Hybrid and Winter Pineapple."

A. & M. IMPROVED HYBRID CASABA



The Prince of All Casabas.
Introduced by us in 1902.

The melon that made Los Angeles famous. This melon is now grown as extensively for a midsummer crop as the muskmelon, and finds as ready sale. It originated locally, and is as distinctly a Los Angeles product as is the Los Angeles Market Lettuce. Both have made Los Angeles famous. The local and travelling public are now fully awake to the delicious flavor of this casaba. For the home garden or for the market plant the Prince of All Casabas.

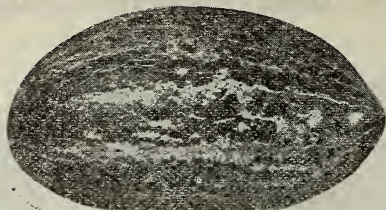
(Pkt. 10c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.35) (lb. \$2.50) postpaid.

A. & M. Hybrid.—This is a cross between the Winter Pineapple and the Montreal Muskmelon. It grows to very large size and is of delicious flavor. It is a rampant grower and yields enormously; as many as seventeen large melons were taken from one vine. It is profitable, early and late. Plant from March 1st until July 15th. (Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 65c) ($\frac{1}{2}$ lb. \$1.10) (lb. \$2.00) prepaid.

Winter Pineapple.—This is the first of casabas introduced into America. We have carefully maintained the purity of type so that it is now just as distinct as when introduced nearly forty years ago. This and the Golden Beauty are identical in all except color, which when mature is light green. The Winter Pineapple is more profitable as a late melon, therefore we recommend to growers near the Coast that it be planted during June. Our type of Winter Pineapple is round, selected for its good shipping qualities. (Pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75) ($\frac{1}{2}$ lb. \$1.35) (lb. \$2.50) prepaid.



Golden Beauty



A. & M. Santa Claus



Winter Pineapple

GOLDEN BEAUTY.—Introduced by us in 1905, it at once became popular locally. It is now grown more extensively throughout California than any other casaba because of its beautiful appearance, excellent shipping qualities, and delicious flavor. It is the casaba that made all California famous, as well as adding a million dollars to the wealth of the state each year. (Pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.35) (lb. \$2.50) postpaid.

JENNY LIND.—This beautiful casaba originated with Mr. J. S. Oestergard of Burbank. It was six years ago he hybridized the Winter Pineapple Casaba with the Jenny Lind Muskmelon. After several years of selection he pronounced this one a perfect blend. It is remarkably uniform in color, shape, and general appearance. It is very sweet, with a flavor decidedly like the Jenny Lind Muskmelon. It is a good casaba for local markets. The color indicates when it may be eaten. (Pkt. 10c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.35) (1 lb. \$2.50) prepaid.

A. & M. Santa Claus.—The name is appropriate to the melon. It is a delightful present to send to your Eastern friends at Christmas. It is of delicious flavor, beautiful in its mottled gold and black coloring, and readily keeps until January. We advise that it be grown more extensively for the local trade. The supply has not been equal to the demand for several years. (Pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.35) (lb. \$2.50) prepaid.

White African.—Large, cream-colored, hard rind, green flesh, excellent flavor and good shipper. It is a great favorite in Southern France, where it is grown in every home garden and stored in cellars until eaten. When wanted it is placed at a sunny window for a few days. It then becomes ripe and of delicious flavor. Why not do so here? Try it. (Pkt. 5c) (oz. 30c) ($\frac{1}{4}$ lb. 80c) (lb. \$3.00) prepaid.

White's Favorite.—If you grow for market or a family garden plant White's Favorite, it is just about as delicious as the Improved Hybrid Casaba. It is more prolific, ripens on the vine like a muskmelon. The peddlers will buy it in preference to any other because of its excellent flavor. His customers will call for it as soon as it appears. Plant every month from March first to July first. (Pkt. 10c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00) postpaid.

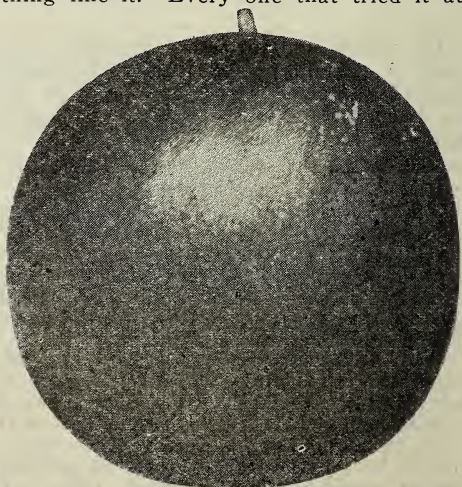
A. W. Pollock, of Loma Linda, writes: "The Improved Hybrid is surely the Prince of All Casabas. I never ate anything like it. Every one that tried it at my home went into raptures over it."

THE HUNGARIAN CASABA

This is quite distinct from the other casabas, and you will believe it has some special merit not possessed by the others or we would not have offered it to you. Its great merit is in its good keeping, good shipping, good looking and good tasting qualities. Round as a cannon ball, size of a cocoanut, yellow as an orange, hard and solid as a base ball. May be shipped to New York in November and served for breakfast on Washington's birthday to the delight of the consumer.

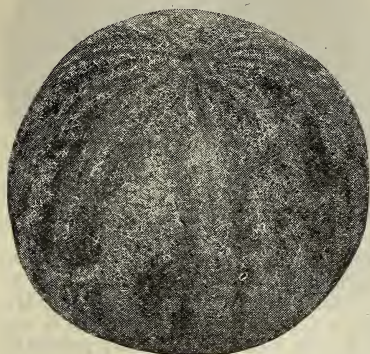
Size 6 inches in diameter. Wt. 4 lbs.

(Pkt. 10c) (oz. 50c) ($\frac{1}{4}$ lb. \$1.50)
($\frac{1}{2}$ lb. \$2.50) (lb. \$4.00) postpaid.

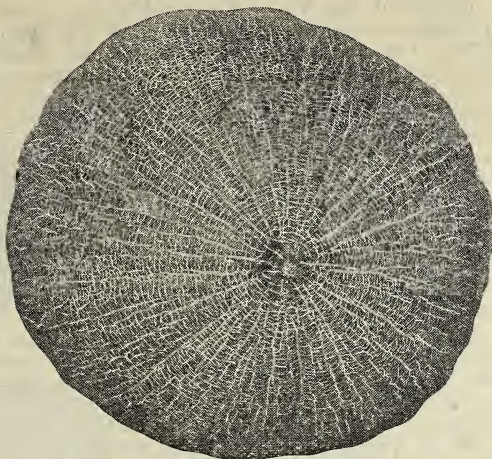


Hungarian Casaba

THE NEW MELONS



Rule's Choice



True Armenian

They are here to stay. They are a distinct type of melon just as distinct as the canteloupe or casaba. We unwittingly introduced a few years ago a melon of the Armenian type under the name of Rule's Choice. It at once created a sensation because of its excellent yet distinct flavor. We now offer the genuine Armenian Muskmelon.

Our seeds have been grown for us under our supervision, and the fields show absolute purity; but in order to maintain the delicious flavor of the new melon, it is necessary to intersperse the field with hills of a certain Pomegranate melon. This adds greatly to the quality of the new melons, but gives slight variation as to color and size. The grower who plants this melon should not do so to the exclusion of the canteloupe or casaba, but plant all three. It is in a class by itself.

Price of each (Pkt. 10c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00) postpaid.

MUSKMELONS

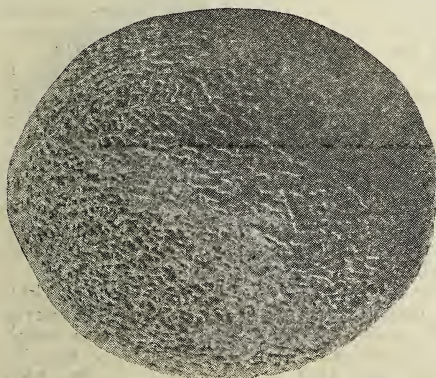
Our Selected Melon Seed.—Owing to our extensive trade with large melon growers and associations, we exercise every precaution possible to secure the best type of melons. Having procured the best seed obtainable, we have them grown especially for us. Our seed fields proved the wisdom of this method, for they showed the highest per cent of perfect melons.

Culture.—Sow in hills six feet apart in rows eight feet apart. If, however, the soil is rich, and irrigation is intended, or if the variety to be planted is of small growth, then we advise closer planting, five feet by six feet apart. Drop about 12 seeds to the hill in deep furrows; cover one or two inches, according to the moisture in the soil and time of planting. When the plants may be considered hardy enough, thin out, leaving two to the hill, and draw the soil about the plants until the roots are six to eight inches deep.

OUR GOLD LINED NETTED ROCK

This is the Rocky Ford with the tinge of yellow around the seed cavity bred up to the highest state of perfection from the rust-resistant strain. The heavy netting forms a rind so hard that it will ship to the far Eastern markets with practically no deterioration. The flavor outclasses all other strains of Rocky Ford. Turlock growers and shippers will have no other. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 90c) (lb. \$1.75) postpaid.

In offering this melon we are quite in line with our established policy of bringing to your attention only the varieties that have been tried, proven and known to be of exceptional merit. We did the experimenting, you take no risk. The Gold Lined Netted Rock is the best type of Rocky Ford melons.



Our Gold Lined Netted Rock

YELLOW FLESH VARIETIES

Improved Tip Top.—This melon is a greatly improved strain of the popular Tip Top. About the average size, with yellow flesh equal to or better in flavor. The improvement is in the hard, heavily netted rind, which makes it a good keeper and a good carrier. The rind of the old Tip Top is soft and quickly shows the effects of even the ordinary handling, so that the melon looks unsalable. This is very objectionable to the retailer. The Improved Tip Top is so solid and heavily netted that it withstands the common usage with no ill effect.

(Pkt. 10c) (oz. 25c) (¼ lb. 80c) (½ lb. \$1.50) (lb. \$2.50) postpaid.

No. 1 Rule's Choice.—This is but another strain of the Persian melon. It has for more than five years maintained its excellent flavor without interbreeding of the Turkish Pomegranate, which is considered necessary. Mr. E. D. Hall, Mr. A. Bergman, and many other growers say, "there is nothing equal to it; it is the coming melon." (Pkt. 10c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.

No. 2 Tip Top.—This melon is very popular at Long Beach, almost to the exclusion of any other variety. This is a fine, round melon of such attractive appearance as to always sell quickly in the markets. It is sweet, juicy and delicious. The flesh is firm, but not hard, and is edible almost to the rind. The melon is of medium to large size and is one of the best yellow fleshed sorts. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

No. 10 Yellow Flesh Columbus.—This excellent muskmelon originated here and was introduced by us three years ago. It at once became popular with the cafeteria and hotel trade, where the entire crop of the first year was consumed. The second year the peddlers discovered that it would carry two and even three days on their wagons without deterioration. The storekeeper, too, learned of its good keeping qualities, and the housewife learned to know that every melon is a good one, so that it is now one of the most popular muskmelons in the Los Angeles market. A slightly oval melon about seven inches in diameter, entirely without ribs, but roughly netted, color, outside light creamy, inside yellow. It is enormously productive and because of its solidity and heavy netting, it may be shipped in car lots without crating. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) postpaid.

No. 10.—Our Improved Burrell's Gem.—Has established itself as a standard melon. It is one of the biggest yielders. The shipper calls for it because it is solid and carries well in transit. The consumer wants it because of its excellent flavor. The growers all want our seed because we have the best strain. Many growers who bought of us last year have engaged their seed for next season. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

GREEN FLESH VARIETIES

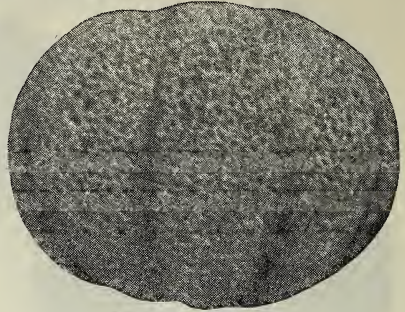
No. 3.—A. & M. Nutmeg.—This melon has now surpassed the Pineapple in popularity. Our largest growers are planting it exclusively. In appearance it is so similar to the Pineapple that many growers fail to notice the slight difference in shape and netting, but the greatest merit is its excellent flavor. ((Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

No. 8.—Pineapple.—This melon has long been the favorite because of its solidity, heavy netting, and fine appearance. The peddler likes it because it is a ready seller. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

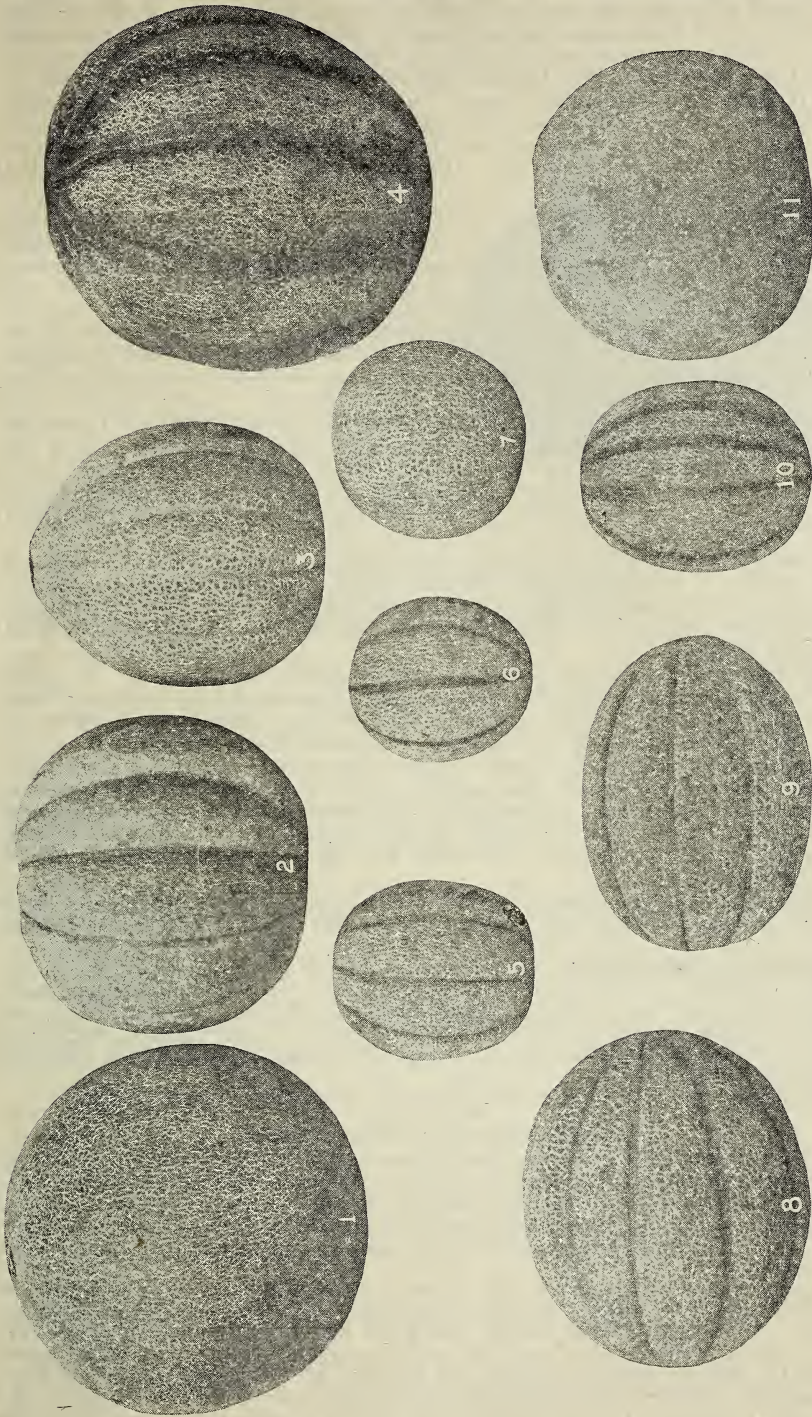
No. 9.—A. & M. Triumph.—Is similar to the Pineapple, but not so large. This is much in its favor, as gardeners are complaining that the Pineapple is too large. It excels the Pineapple, in the excellence of its flavor, and is two weeks earlier. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

No. 6.—Rocky Ford.—The flesh is light green in color, except next to the seeds, where it inclines toward a yellow. The flavor is exceedingly fine. The skin is regularly ribbed and thickly netted. It is a firm, solid melon and will carry in perfect condition for a week or more after its removal from the vine. It is a heavy cropper, and in wide favor as a market melon. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

No. 5.—The Davis.—This muskmelon is very popular in the San Francisco market. This popularity is due to its size, which is just about right. It may be properly described by saying it is a large Netted Rock, and will weigh nearly twice as much and with improved flavor if such is possible. They grow uniformly, and are heavily netted, slightly but plainly ribbed. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.



Improved Tip Top



No. 1, Rule's Choice or Armenian Melon; No. 2, Tip Top; No. 3, A. & M. Nutmeg; No. 4, Los Angeles Market; No. 5, Davis; No. 6, Rocky Ford; No. 7, Notted Rock; No. 8, Gautier Pineapple, No. 9, A. & M. Triumph; No. 10, Burrell's Gem; No. 11, Yellow Flesh Columbus. This picture is of the average type and shows the comparative sizes.

GREEN FLESH MELONS—(Continued)

No. 4.—Los Angeles Market.—This is the largest of all the Muskmelon family except California Giant, and we positively state that none will excel it in flavor. Gardeners object to its large size, but good profit will come to the grower who will plant it. It yields an enormous crop and all melons are very large and beautiful. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 85c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Large Hackensack.—Sometimes called Turk's Cap. A large, round melon, flattened at the ends and well ribbed. The skin is deeply netted. The flesh is green, of delicious flavor. It is a strong grower, and is very productive. An old standard melon, in favor with market gardeners. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Montreal Market.—Large size and delicious flavor. One of the best market sorts. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

No. 7.—The A. & M. Netted Rock.—Has established for itself such a reputation with large growers and shippers that it is no longer necessary to refer to it as something new, but to give it prominence as one of our specialties that has created a demand for itself in all the large melon growing sections in the Southwest and Old Mexico. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

California Giant.—The largest of all muskmelons, frequently weighing thirty pounds. It has green flesh of an excellent flavor. It finds a ready market. It is particularly good for spicing. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) (lb. \$1.25) postpaid.

No. 11.—The Columbus.—A green-fleshed melon. Its beautiful buff skin is covered with a very thick whitish netting; almost entirely free from ribs. The flesh is solid and thick, even at the blossom end, leaving only a small seed cavity. Can be safely shipped long distances. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Improved Osage.—This has for many years been one of the leading varieties in the East because of its earliness and excellent flavor. It is of medium size, salmon flesh, with green rind, similar to the well-known Burrell's Gem. Once a customer for Osage, always a customer. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Emerald Gem.—A very small delicious salmon-fleshed muskmelon. It would make a market gardener independent of all other growers if he would establish a trade with first-class hotels. The Emerald Gem would hold the trade. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

The Vineless Muskmelon.—This new variety is particularly suited for hot-house growing; the vines scarcely more than eighteen inches long; bears profusely of small muskmelons about the size of a large apple, heavily netted and heavily ribbed; green flesh of delicious flavor. Just the thing for forcing and ought to prove a money-maker for the first early melons. (Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 65c) ($\frac{1}{2}$ lb. \$1.20) (lb. \$2.00) postpaid.

Jenny Lind.—An old time favorite; small, heavily netted, well ribbed, very early and of excellent flavor. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.

Pomegranate, or Peach-Melon.—For Mangoes. (Pkt. 5c).

Cantaloupe growers in the Imperial Valley and elsewhere who plant large acreage should investigate our Columbia Seed Drill with Horse Attachment. It can be regulated to plant a fixed number of seeds a certain distance apart. Unlike all other hill-dropping planters, the number of seeds dropped into a hill is regulated by the cylinder used.

For smaller acreage use the Segment Corn Planter. See page 48.

A Word About Our Garden Manual.

The very commendable common sense system now adopted by many schools throughout the Southwest has suggested to us the idea of giving to the teachers and the pupils the benefit of the knowledge gathered in our twenty-two years of experience with gardening in the Southwest. We have therefore put into brief form but comprehensive information suitable to the requirements of pupils in their garden work as beginners.

The manual is now being distributed in many cities without charge to all pupils of appreciable age. We want all pupils of such age in all schools of the great Southwest from California to Texas, Nevada and Utah to have this manual. Let every teacher or school director who sees this article write us stating how many books are needed for their respective schools, and they will be forwarded free of all costs. This book is as valuable to the newcomer and the beginner as it is to the pupil, and you are just as welcome to it if you will but ask for it with a fifty cent order for seeds.

Page 17 of this catalog gives an idea of the contents of the Manual.

WATERMELONS

Culture.—Drop 8 or 10 seeds 10 feet apart in deep furrows. When the plants are large enough, thin out, leaving two vines to the hill. Draw the soil about the plants until the roots are 8 to 10 inches below the surface.

For Melon Blight.—Mr. Van Norman of San Gabriel says: "Cover the centers where the blight first appears, with soil. It gives new life to the vines and prevents the spread of the blight."

Read further instructions on page 48.

KLONDIKE

In our modest praise of the Klondike last year we thought it had almost reached the top of its popularity and could go no farther, but read what new praise has come to it this year. But first express the thanks of the consuming public to Mr. A. M. Mitchell, of Riverside County, for his unselfishness in giving to the world this elegant melon, which for flavor has not yet found its equal.

Last year when the melon season was at its best, many Eastern people visited the Los Angeles Market. It was a pleasure to us to cut a Klondike melon, for without exception the visitor always exclaimed with surprised delight. Here is one expression from Texas: "Why, I never tasted such a sweet melon in my life, and I have come from Texas and know what good melons are like, but this is the best I ever ate." We could quote a hundred such expressions. Here is one written to us by Mr. McAfee, Shelby City, Ky.: "I am sending you a very small order for melon seed. I grow only a small patch for home use, and to give my friends. For years I have experimented with melons, trying all the new kinds. I finally settled on the Kleckley Sweet as the **only** melon, but in 1913 some one sent me one of your catalogues, and I was so impressed with your description of the Klondike that I ordered a small quantity of seed for 1914. They were so fine (notwithstanding we had a severe drought) that I have come to the conclusion that it is far superior to the Kleckley, in size, quality, productiveness and flavor. Two of my neighbors in looking over my patch asked me if I had not piled them at one place. In this place there were eight melons within a radius of a yard. My friends to whom I gave melons pronounced them the finest they ever ate."

Now read what new laurels have come to it this season.

Mr. Standlee grew it for the first time in the Imperial Valley. He was so pleased with the result, read what he says of it as a shipper: "I just planted a small patch to try. I did not believe it would ship, but to my surprise it comes as early and shipped as well or even better, because it does not wilt down like other melons in shipping; then too, I can sell it more readily and at a higher price than my other melons."

One grower in the San Gabriel Valley has one hundred and ten acres in one square level field planted solidly to this melon. His hills are 20 feet by 18 feet apart, one plant to a hill, and the field is nearly covered with vines interlacing everywhere, and every hill yielding enormously of the largest sized Klondikes that ever came to the Los Angeles market. The grower, Mr. Richardson, on October 2nd, said: "I have now 200 tons of ripe melons. Up to the present I sold every melon. The cloudy weather this week stopped the sales a little, but the Klondike is a good keeper. Why, I have cut melons six weeks after they were taken from the vine and found them in perfect condition.

"But what's the use of talking. It has got them all skinned a mile. Why, now when the other fields are all in mine is yet in its prime."

For home garden or for shipping plant Klondike. The seeds are so small that one pound of Klondike will equal two pounds of other varieties. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.10) (lb. \$2.00) (5 lbs. \$9.00) postpaid.

Santiago.—This variety has many of the good qualities of the well known Chilean. It is a large, long, heavy melon; rind dark green with stripes of black. The flesh is deepest red and solid throughout, the edible portion extending to within half an inch of the skin. The rind is very hard and it is a good shipper. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.



Klondike

WATERMELONS—(Continued).

Plant your watermelons with the Segment Planter. It does the work easier and better than any other way. It must be a good melon planter, for every person using it recommends it to his neighbor. Since we first recommended it two years ago, we have sold nearly 1000 of these planters.

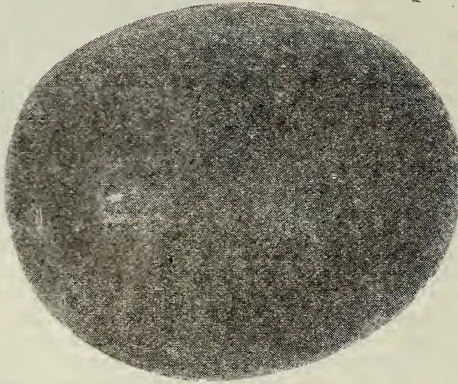
ANGELENO

Never in the history of watermelons has any variety grown into such prominence with shippers in so short a time as did the Angeleno. It was the first in the Los Angeles market, and every one was a ripe melon. The buyer was never disappointed, because it is not picked until the yellow shows slightly through the green. Stay with the sign when picking. The deep red flesh and excellent flavor of the melon commends it to the consumer, while the beautiful dark green color of the rind makes it attractive to the buyer.

Important Notice: Owing to the tendency of the seed of this melon to split open we advise all planters to soak the seed in water for only a few hours. It soon closes and is ready to plant, and every seed will germinate, but if planted before soaking, the seed fills with dirt and decays. Please heed this notice.



All large melon growers are now using the Segment Corn Planter—it does the work better. Price \$1.50. Can be mailed. Wt. 5 lbs., add postage.



Angeleno

Never before did we see such large melons coming into Los Angeles as the Angelenos this year. Forty and fifty pound melons were common. Do not think because of its thin rind it cannot be shipped. To prove it is not easily crushed, let any 150 pound man stand carefully upon it. This test is repeatedly resorted to. (Pkt. 5c) (oz. 15c) (¼ lb. 45c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$6.00) postpaid.

Black Seeded Angeleno.—The melon for the hotel and restaurant trade. We have only a few pounds of seed.

(Pkt. 10c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.



Tom Watson, Weight 80 lbs.

The Tom Watson has for several seasons been the most popular melon in the South. Its shape is similar to the Kleckley Sweet, but the color is a lighter green. Its great merit is in its earliness, good flavor, thin rind, and good keeping qualities, making it one of the best of shippers. It is popular in the San Joaquin Valley. Our seed stock was selected from perfect melons, and our field showed a perfectly pure strain. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

WATERMELONS—(Continued).

THE CHILEAN

This has been a favorite on the local market for nearly twenty years, and is likely to continue its popularity for many years to come. Its thin rind and delicious flavor commend it to the consumer, but its good shipping and selling qualities make it a favorite with the grower and dealer. It is very prolific and just a desirable size for the peddler to handle, and every melon is a good one.

White Seeded Chilean.—Preferred because of its large average size.

Red Seeded Chilean.—Preferred because of a sweet flavor peculiar to itself.

Black Seeded Chilean.—Preferred because of its earliness, short crop and black seed, which gives it preference at restaurants, hotels and cafeterias.

All Chileans are good regardless of the color of the seed, but the Black Seeded one is planted for early.

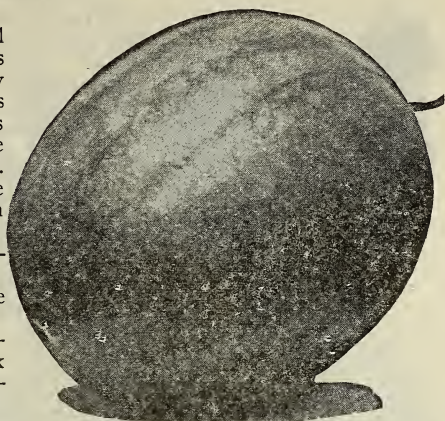
Mr. Frank Johns, from Riverside County, writes us: "I want your very best watermelon seeds. Those you sent me last year were good enough. I sold \$174.00 worth from $\frac{1}{4}$ acre. That is why I prefer good seed."

Price of all Chileans (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.

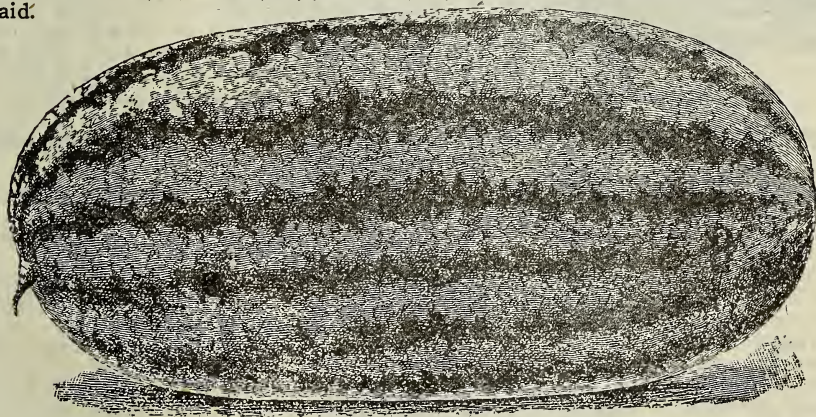
Rattlesnake.—Has long been a popular melon with shippers. It is a long melon, having a white rind, with dark green stripes. Flesh of excellent flavor. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) postpaid.

Yellow-fleshed Ice Cream Watermelon.—This melon is well known in the Los Angeles market. It grows to a very large size, is long in shape and the rind an even dark green. In quality it is simply delicious, sugary and of a rich flavor peculiar to itself. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 80c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

Kleckley's Sweet.—This is a good shipping melon. It is of medium size, a very green rind, with deep red flesh of delicious flavor. Our seed positively cannot be excelled. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 30c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.



Chilean



Florida Favorite

Florida Favorite.—This melon is very popular with shippers, because of its extreme earliness, and all round good qualities as a good shipper. In appearance it is similar to the Rattlesnake, the rind being considerably darker. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.

Citron, Large Green Striped.—Weighs from thirty to sixty pounds. Is better than pumpkin for stock. Allowed to lay in the field or piled in the barnyard will not be damaged by frost nor decay until the following summer. (Pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 20c) ($\frac{1}{2}$ lb. 35c) (lb. 60c) (10 lbs. \$5.00) postpaid.

Citron, Red Seed.—Small dark rind round melon, used for jam and preserving. It has an excellent flavor. (Pkt. 5c) (ob. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c) postpaid.

MUSTARD

Black or Brown.—(Pkt. 5c (oz. 10c) (lb. 40c) postpaid.

White.—Better for salad or culinary purposes. (Pkt. 5c (oz. 10c) (lb. 40c) postpaid.

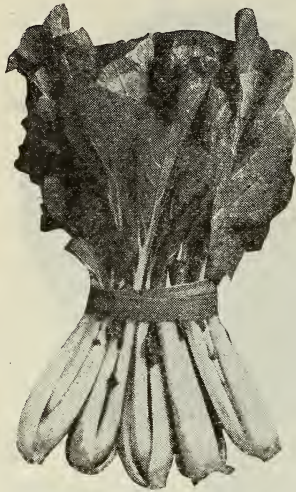
Southern Giant Curled.—The true curled-leaf variety so popular in the South for planting in the fall. (Pkt. 5c oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

Ostrich Plume Mustard is delicious as well as ornamental; the leaves resemble ostrich plumes, hence the name. (Pkt. 5c) (oz. 10c) (lb. 90c) postpaid.

Chinese White Mustard.—

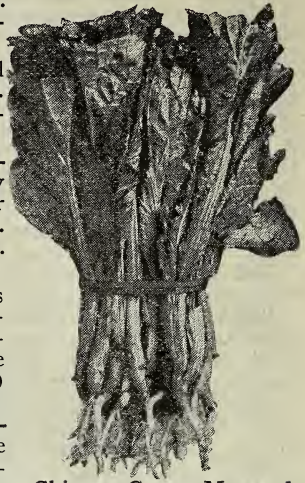
This is a delicious vegetable and flavors strongly of Brussels Sprouts, being less pungent than the American varieties. It is greatly relished by the Japanese and Chinese. (Pkt. 10c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) postpaid.

China Green Mustard.—This is an Oriental vegetable, and like the White Mustard, is grown all the year round, but like our American Spinach, thrives best in the winter season. Great quantities of it is dried and used for medicinal purposes. (Pkt. 10c) (oz. 35c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.50) postpaid.



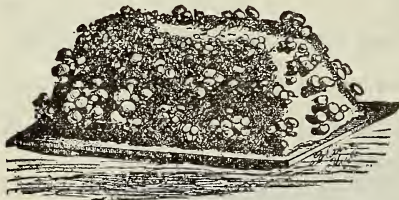
Chinese White Mustard

Chinese Green Mustard is a delicious vegetable and flavors strongly of Brussels Sprouts, being less pungent than the American varieties. It is greatly relished by the Orientals, and can be seen all the year round at vegetable stands kept by the Japanese and Chinese. (Pkt. 10c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) postpaid.



Chinese Green Mustard

China Green Mustard.—This is an Oriental vegetable, and like the White Mustard, is grown all the year round, but like our American Spinach, thrives best in the winter season. Great quantities of it is dried and used for medicinal purposes. (Pkt. 10c) (oz. 35c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.50) postpaid.



Mushrooms

MUSHROOMS

One of the most profitable crops for the outlay that can be grown. The market is sure, because the supply never equals the demand. Mushrooms can be grown in any dark room or cellar where the temperature can be kept at 50 to 75 degrees. The main conditions in mushroom growing are proper and uniform temperature and very rich soil. One pound of spawn is sufficient for a bed 2x8 feet. We have the very best spawn obtainable. If interested, write for circular.

Pure Culture Spawm—Brandywine.—Put up in bricks. Per brick, 25c; by mail 40c.

ONIONS

Culture.—No crop is so liable to variations by cultivation and soil as the onion. Having rich soil with too much irrigation will produce thick-necked scallions, while the same soil well drained would produce the finest onions. A sandy loam well fertilized is best.

Either drill the seed thinly in rows fourteen inches apart, or sow the seed in seed beds, and when the plant is as thick as a straw, transplant on ridges; set two rows on each ridge and four inches apart in the row. See page 17.

Irrigate in the furrow between the ridges to avoid flooding the onion, which causes the onion to perish readily, rendering it unfit to ship or to keep.

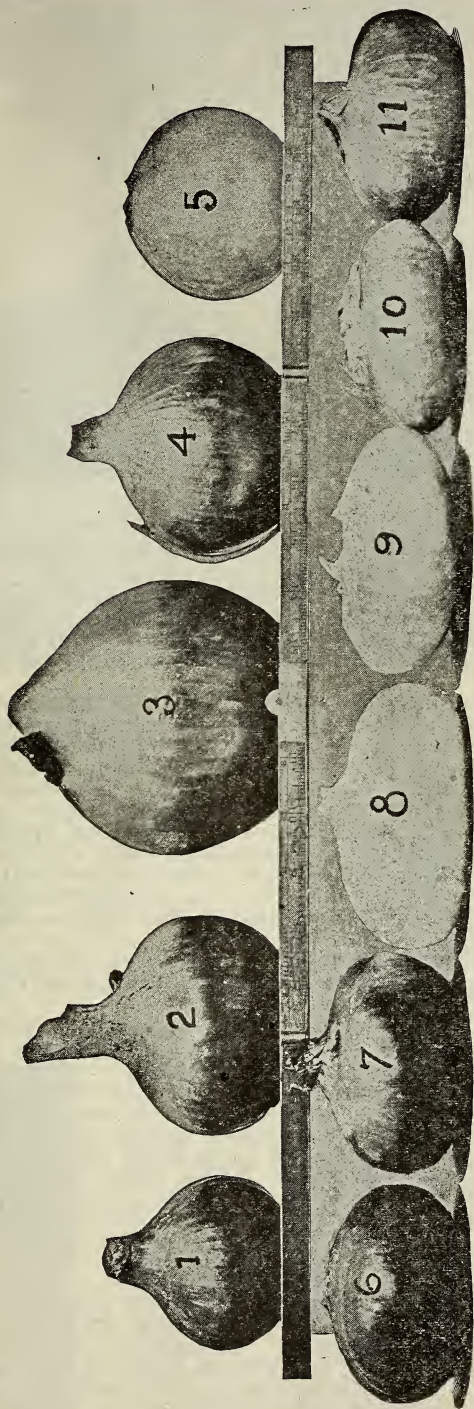
To succeed in growing onions it is highly important to make a proper selection of seed suitable to the time of planting. West of the Coast Range plant Early Queen onion in August. It will then attain marketable size in March and April. If, however, the weather during February and March proves to be cold and rainy, a large percentage will shoot to seed. We advise that you pinch off the seed stem close to the onion. It will heal with no damage to the onion. East of the Coast Range, where the temperature seldom goes below 25 degrees, plant the Crystal Wax or Bermuda onion in September. We advise planting all other varieties from October until April, selected according to the market in which they are to be sold, and the facilities for irrigating.

The consuming public prefers a white onion. The retail merchant wants a yellow onion because the white are too perishable. The shipper will handle the yellow, but prefers the brown because it is the best keeper.

The Southport White Globe is now popular because of its good keeping qualities.

Ask for our GARDEN MANUAL with your first order to the value of fifty cents.

California now easily leads the world for growing large onions, but some varieties are better suited to certain localities and soils than others. We have carefully studied these conditions and invite those who wish to grow onions and are yet unfamiliar with the conditions, to write us before selecting their seed.

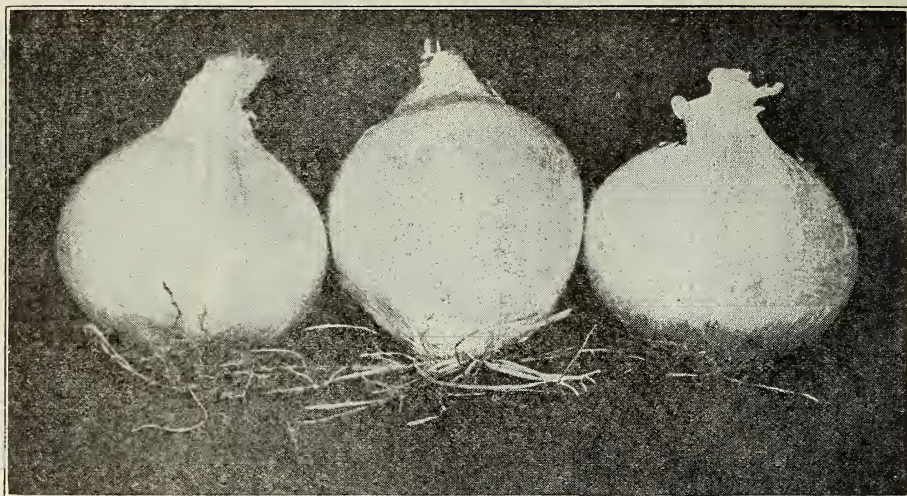


1. Australian Brown.
2. Ohio Yellow Globe.
3. Prizetaker.
4. Yellow Globe Danver.
5. Southport White Globe.
6. Yellow Flat Danver.

We claim our onion seed to be of the highest type as to germination and purity of type. When you wish to plant onions consult us as to when, how and what variety to plant.

7. Red Weathersfield.
8. New Queen.
9. White Portugal.
10. Crystal Wax.
11. White Bermuda.

ONIONS (Continued)



Southport White Globe

Southport White Globe.—It is silvery white in color, globe shaped in form, flesh of delicious flavor and a fine keeper. The very best variety to grow for bunch onions. (Per pkt. 5c) (oz. 45c) ($\frac{1}{4}$ lb. \$1.50) ($\frac{1}{2}$ lb. \$2.50) (lb. \$4.50). Postpaid.

White Portugal, or Silver Skin.—Under good cultivation the average diameter is from four to six inches. The thick skin is a clear silvery white, flesh snow-white, sweet and tender. (Per pkt. 5c) (oz. 40c) ($\frac{1}{4}$ lb. \$1.25) ($\frac{1}{2}$ lb. \$2.25) (lb. \$4.00). Postpaid.

New Queen.—Very similar to the Crystal Wax in appearance, but better adapted to the coast climate. For years it has been our best early onion. It attains mature size in March, at the time Bermuda onions arrive on the local market. The Queen onion may be sold locally at any time it is large enough, although it may be immature for shipping, giving you the advantage of about three weeks in earliness. (Per pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.25) (lb. \$2.25).

Crystal Wax.—This best and earliest of all white onions found a congenial climate in Southern California, and it now excels all our other white varieties for the early market. The Crystal Wax is now largely grown in the San Joaquin and Imperial Valleys, where it attains perfection. Plant the seed any time, September to February 1st, according to the instructions above. (Pkt. 10c) (oz. 40c) ($\frac{1}{4}$ lb. \$1.25) ($\frac{1}{2}$ lb. \$2.25) (lb. \$4.00). Postpaid.

Southport Red Globe.—This beautiful onion is rapidly coming into favor here. It keeps better than other red varieties. (Pkt. 5c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00). Postpaid.

Australian Brown.—Quick to mature; a good keeper; solid and heavy; an excellent onion for shipping. The skin is a light brown. Its solidity gives it great weight and a sack weighs several pounds heavier than a sack of other varieties. The onions are thin-necked and ripen very early in all soils. As the plant makes a very quick growth it matures the bulbs before the hot, dry summer weather sets in, and this in connection with its exceptional keeping qualities makes it a most profitable variety. (Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. \$1.00) (lb. \$1.75). Postpaid.

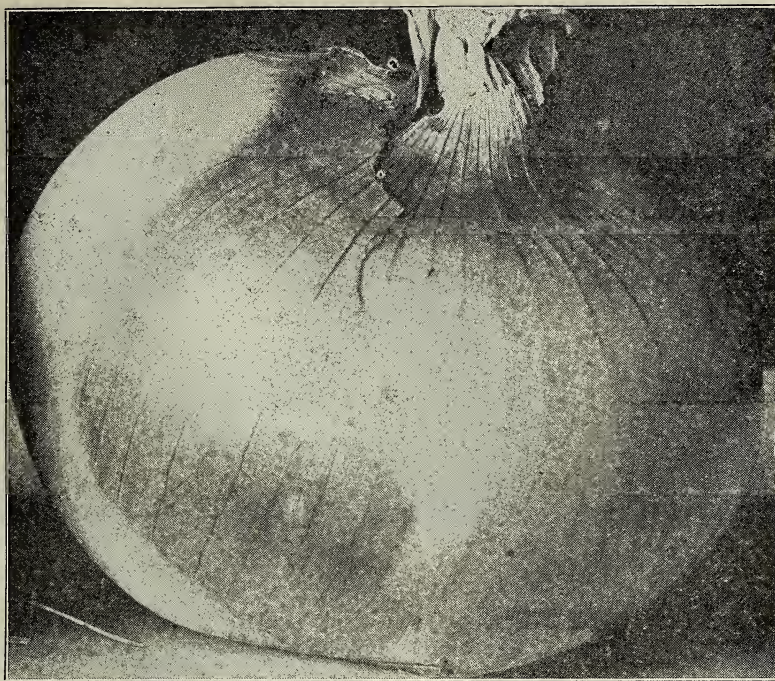
Prizetaker, the handsomest, largest Yellow Globe Onion.—A good keeper, of finest flavor, handsome shape and enormous size, many single onions having been raised to weigh five pounds or over from seed the first year. The Prizetaker grows always to a perfect globe shape with a bright straw-colored skin. (Pkt. 5c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00). Postpaid.

Yellow Flat Danver.—Similar to the Yellow Globe in color and quality, but somewhat flattened in shape, and is earlier. It is a fine large onion with a very small stem. (Pkt. 5c) (oz. 35c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00).

Ohio Yellow Globe.—This onion is the standard winter sort in many markets. The shape is almost globe form and the bulbs are quite large with thin necks. The skin is yellow, while the flesh is pure white, solid and of good quality. Its earliness makes it valuable for market. The crop is very uniform and ripens at one time. (Per pkt. 5c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00). Postpaid.

Red Wetherfield (Pkt. 10c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (1 lb. \$3.00).

ONIONS (Continued)



WHITE AUSTRALIAN ONION

More than ten years ago one of the large buyers and shippers of onions told us to try to secure a white onion that would be a good shipper. Of all the varieties then known, no white onion could be profitably shipped to Eastern markets. The White Australian was bred by gradual selection from the Australian Brown, which it resembles in shape, solidity, and good keeping qualities. It is not yet 100% pure, therefore you should expect some brown or yellowish onions.

The market prefers a white onion above all others, and this one should readily supercede, because it will remain firm on the market, and can be shipped to Eastern markets without loss from decay.

Price—(pkt. 10c) (oz. 40c) ($\frac{1}{4}$ lb. \$1.20) ($\frac{1}{2}$ lb. \$2.00) (lb. \$3.75) postpaid.

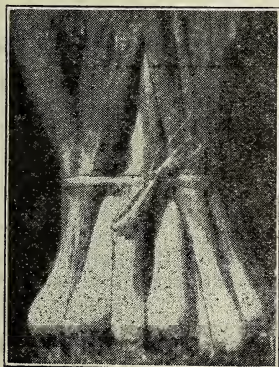
Yellow Bermuda Onion.—This is the standard variety for shipping. While it is known as the "White Bermuda," this name is misleading, as it is really a light straw color or pale yellow. We make this explanation, as many who grow it for the first time expect to find a pure white onion. (Per pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.35) (lb. \$2.50). Postpaid.

Etxar Early Red Flat.—This is the early onion grown in the Sacramento Valley for the San Francisco market, where it is in great demand. (Per pkt. 5c) (oz. 30c) ($\frac{1}{4}$ lb. \$1.00) ($\frac{1}{2}$ lb. \$1.75) (lb. \$3.00). Postpaid.

Bunching Onion.—Many think any white onion will do for a bunching onion, but this is not true. Our growers for fancy trade have learned that we have the best strain of seed for this purpose, and our sales amount to thousands of pounds each year. The picture shows a sample of what our seeds produce. They are just the right shape. (Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 50c) ($\frac{1}{2}$ lb. 90c) (lb. \$1.50). Postpaid.

Chives.—This species of onion is extensively used for flavoring. A small spot in the garden planted to Chives will supply a family the year round. (Per pkt. 10c) (plants, 1 bunch, 10c). Postpaid.

Multipliers or Shallots are always in stock from September 1st to January 1st. (Per $\frac{1}{2}$ lb. 25c) (lb. 40c prepaid).



Bunch Onions

IMPERIAL GARLIC



Common

Imperial

Comparative actual average size of each

The Imperial Garlic originated in the Imperial Valley, and is peculiarly adapted to that kind of climate. Like the Bermuda Onion, it matures quickly and must be harvested before the extreme heat of summer. Read what the originator says of it:

"In reply to your note regarding the superior points in this garlic,

1st.—It is 6 weeks or two months earlier than any I have ever tried; will mature in about five months from planting. Last season I planted October 21st and shipped the first April 7th, well matured. I bought 100 lbs. of the Large White and planted the same time. I harvested it June 1st, and got about one-half as much per acre, of an inferior quality.

2nd.—It will produce about as much again, bearing as high as forty cloves in a bulb, eighteen being the most in any other variety I tried.

3rd.—It comes up readily and grows all winter, and matures the first warm weather we have in the spring, while the other kinds will make but very little growth in cold weather. This garlic is the kind that will succeed in the hot valleys of Imperial, Coachella, Yuma, or in Texas, where the Bermuda Onion thrives, as the late varieties burn in the ground before they mature, just as all late onions do. I have tried fourteen different varieties, and nothing but the Bermuda will do any good."

W. E. HIXSON.

We will have no Imperial garlic until August 1st. September and October are the proper months for planting.

Imperial Garlic. (Per lb. 50c f. o. b. here) (10 lbs. \$4.00).

Common Garlic at market price.

ONION SETS

Australian Brown, Yellow Danver and Silverskin. (Per lb. 30c) prepaid. Write for quantity price.

The earliest onions are grown from sets planted in September. This brings them in the market in February and March, when prices are highest. About 250 pounds of sets will plant one acre, or four pounds of seeds is required per acre. Write for quantity prices on sets and seed, as the prices fluctuate.

A Little Hint to the Newcomer

You have purchased your land, but you are all at sea about seasons. What to plant and when to plant it is a puzzle; just turn to the inside of the back cover of this catalog, and you will find the answer. But that is not all; you want more advice. Well, just write us, stating the nature of your ranch with regard to the following conditions,—sandy, loam, adobe, swamp, mesa, foothill, irrigation, acreage, and proximity to market, are you a gardener or rancher. We may tell you to plant table peas in the fall from September to November. When they are marketed plant melons, blackeyes, or corn (as your conditions may suggest). When this crop is harvested plant potatoes. Thus you will have three crops in fourteen months. Such information is often a surprise to the newcomer, but the great Southwest is full of surprises and great possibilities.

OKRA GUMBO

White Velvet.—This well-known variety is the favorite with the market gardener and with the consumer. The pickle factory will have no other. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 60c). Postpaid.

Mammoth Long Podded.—Very productive, and is a good variety for the family garden. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 60c). Postpaid.

PARSLEY

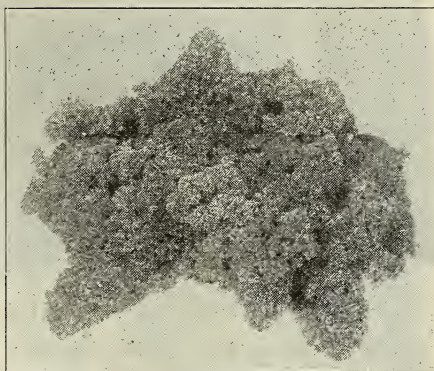
Culture.—Same as lettuce. (See page 17).

Champion Moss Curled.—Extra dark. Leaves crimped and curled, giving a most beautiful decorative appearance. (Per pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (1 lb. \$1.25). Postpaid.

Emerald or Dwarf Extra Curled.—Leaves tender, beautifully crimped; handsome, bright green color; very ornamental. (Per pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (1 lb. \$1.25). Postpaid.



Champion Moss Curled



Emerald Extra Curled

Extra Double Curled.—An old curled variety for garnishing. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (1 lb. \$1.25). Postpaid.

Hamburg Turnip Rooted.—Fleshy vegetable roots, for soups, etc. (Per pkt. 5c) (oz. 10c) (¼ lb. 30c) (1 lb. \$1.00). Postpaid.

READ THIS

The foregoing pages comprise a list of all vegetables and farm seeds offered by us, all of which have been tried and proven to be adapted to climatic conditions of the Southwest and Mexico. BUT always have in mind, each season, even each month requires not only different varieties of seed, but different strains of the various varieties. For instance, New York Special Lettuce is the best of all when planted from August 1st to February 1st, but planted at other times is very inferior, while Marblehead and Iceberg Lettuce are best suited to the summer months. This applies only to the climate of the Southwest. These varieties do not grow profitably in the East. What is true of lettuce will apply also to potatoes, beans, melons, onions and many other vegetables.

It is our knowledge of these conditions and our eagerness to impart this information through these pages that makes this catalogue more valuable to the gardener and rancher of the Southwest and Mexico than any other.

This catalog throughout aims to give you the information you want, and you will generally find it where it ought to be. If you do not find the information you want, write us stating what you want to know.

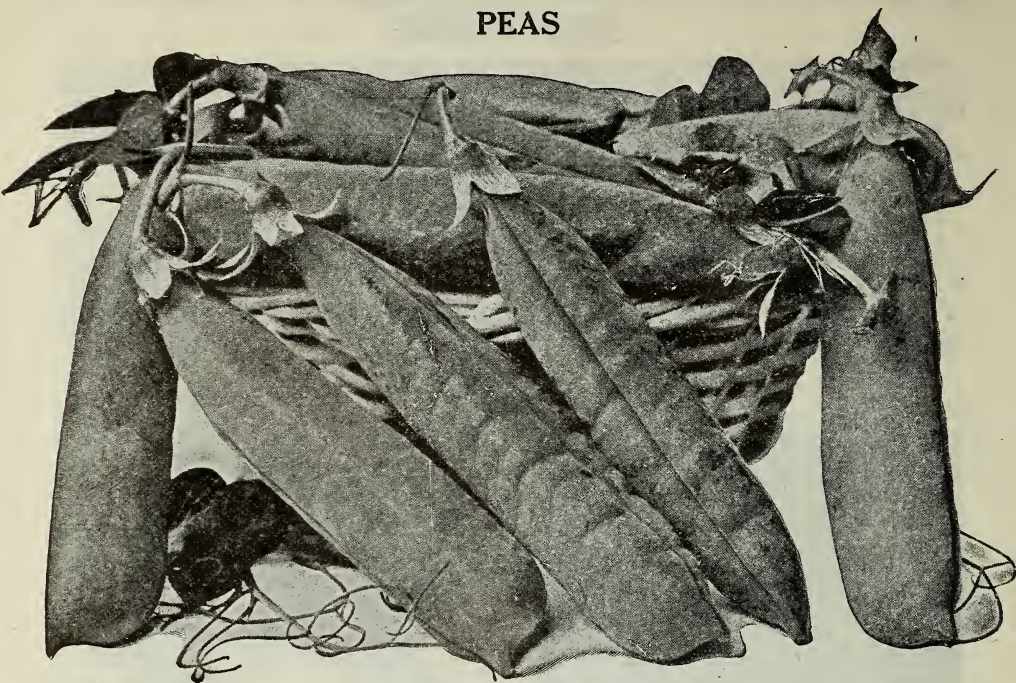
TESTED SEEDS ARE RELIABLE

We not only test our seeds for vitality, but we grow our leading vegetables to maturity to know they are true to name.

Testimonial: "The seeds you sent me came in due time. I sowed them and I think every seed must have come up. I can not say enough in praise as to the fertility of your seeds." Mrs. A. J. Savory, Bowles, Cal.

Notice—Read inside front cover page, the information to be found thereon is important. Read page 17, it will prove helpful to you.

PEAS



THE PRIDE OF CAHUENGA

John W. Gillingham, of Mendocino Co., writes: "We tried some of your Pride of Cahuenga peas last spring, and they beat any pea in growth; and off of a row about 40 feet long planted with $\frac{1}{2}$ lb. of seed, we gathered about 150 pounds of peas."

The popularity of this pea has made such strides that it is hard for us to keep up with the growing demand. Owing to its tendency to grow numerous branches, and to grow two pods on every stem, it is enormously productive. It grows to a height of eighteen inches and matures about as early as the Yorkshire. When you once grow the Pride of Cahuenga you want no other. The peas are sweeter. It is undoubtedly the best pea ever put before the public.

Price—(Pkt. 5c) ($\frac{1}{2}$ lb. 15c) (1 lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

American Wonder.—The earliest of all wrinkled peas. Of dwarf habit, growing from nine to eleven inches high, and producing a profusion of good-sized and well-filled pods of the finest flavor. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) prepaid; (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

Nott's Excelsior.—Although a few days later than the American Wonder, the pods will average fully one-third larger, containing 6 to 8 large peas, so closely packed together that they become flattened. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

Yorkshire Hero.—A very popular market pea in this section. Abundant cropper and excellent in quality. Height $2\frac{1}{2}$ feet. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) (10 lbs. \$1.20 f. o. b. here). Prepaid. Write for quantity price.

Stratagem.—A favorite in the San Francisco market. The pods are of a dark green color and remain firm several days after picking. A very strong grower; very prolific, pods of good size and well filled. Vines stand upright about $2\frac{1}{2}$ feet; an excellent variety. (Pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) prepaid; (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

Tall Telephone.—Vines vigorous, growing about 4 feet high, with large, coarse, light-colored leaves and producing an abundance of very large pods filled with immense peas which are tender, sweet and of excellent flavor. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) prepaid; (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

Premium Gem.—A dwarf variety very prolific and sweet. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) prepaid; (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

Gradus.—The largest of all extra early varieties; medium tall, quality superior to all other varieties. Price—(Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) prepaid; (10 lbs. \$1.50 f. o. b. here). Write for quantity price.

Dwarf Gray or Sugar.—(Edible pods.) Of extraordinary yielding qualities, and unsurpassed as an edible-pod variety. (Per pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c) prepaid.

A. & M. PERFECTION
New But Wonderful

Ideal for main crop, because it is very hardy and resists mildew to a remarkable degree. The foliage is a very dark green, grows two feet tall, branches wonderfully, enormously productive of large solid pods, similar to but longer than Stratagem. The peas are of excellent flavor, but the great merit is its ability to resist the summer heat. Therefore we recommend it for all year, but especially for late spring and midsummer planting at a time when other varieties fail. All who were fortunate enough to get some of these peas last season have already engaged their seed for next planting.

We cannot praise it too highly.

(Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.50 f. o. b. here).

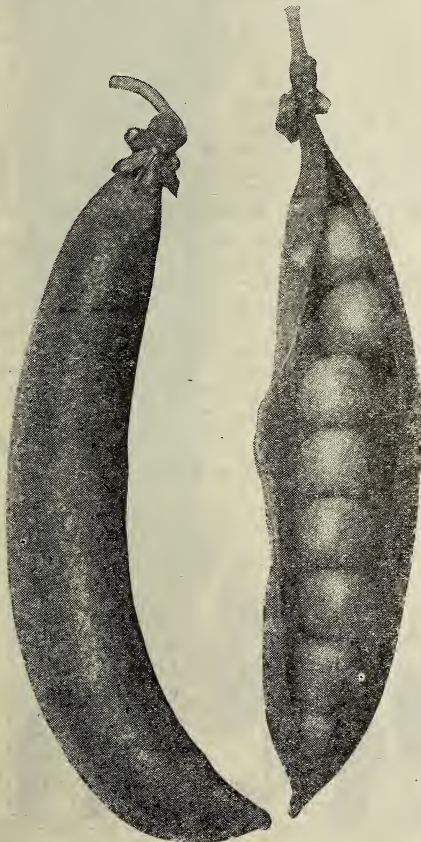
A. & M. SUPERIOR

In our continued efforts to bring forth something better than that which we have we offer for the first time our Superior Pea, which has proven by our experiments to be exceptionally hardy, an excellent medium early variety, maturing well ahead of the Yorkshire Hero, bearing large pods well filled with sweet peas; a good shipper. Grows two feet tall.

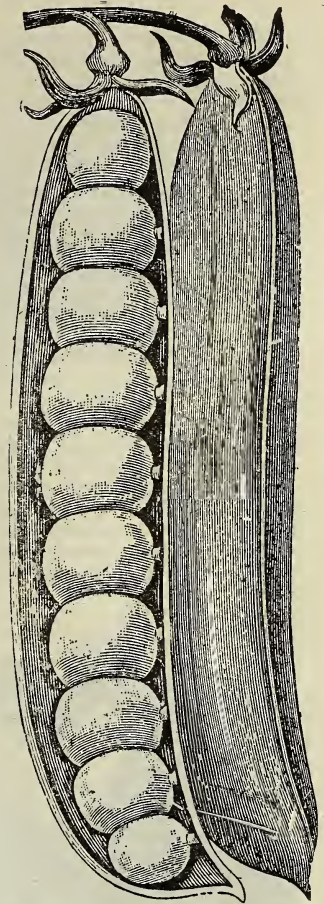
(Pkt. 10c) (½ lb. 20c) (1 lb. 30c) postpaid; (10 lbs. \$1.50 f. o. b. here).

ADMIRAL

This excellent variety was introduced locally two years ago with only a limited quantity to offer.



Admiral (actual size)



Perfection Pea (actual size)

Every grower who was fortunate enough to get some was extremely pleased at his good fortune. Has dark green foliage, profusely branching vines bearing abundantly of large well-filled pods of delicious sweet peas that mature in twelve weeks from planting. The picture is of pods grown on our trial grounds, and shows the shape and actual size of the pod. It has had two years trial, and every gardener that once grows it wants it again. That is its best recommendation.

(Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.50) f. o. b. here.

THE MARVEL

Among market gardeners there is always a race to have marketable peas early in the fall and late in the spring. It is the summer peas that brings the high price. The Marvel is just the variety for late spring, midsummer and early fall grower. The vines are very hardy and branching, bearing two pods on each stem. The pods are well filled and above medium size. The peas are very sweet.

(Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.50) f. o. b. here.

PEPPERS

The growing of peppers in Southern California ranks in importance with cabbage, cauliflower, casabas and celery. The dried chili is being shipped East in car lots. The green chili, Pimiento and Chinese Giant are grown all the year around for the produce markets throughout the United States, and hundreds of acres of Pimiento and Chili are grown under contract with large canners who ship the canned article to all parts of the world. The canned chili was unknown here until we introduced the Anaheim Chili and Pimiento.

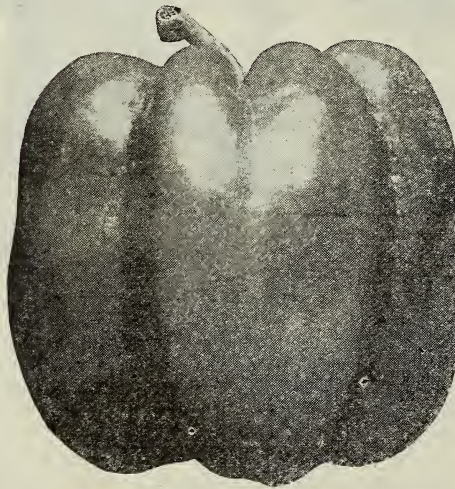
A word about the market. In 1913 dried chillies sold as high as twenty cents a pound, and were unobtainable at that price. The growers of Orange County went to extremes, with the result that the 1914 acreage was so enormous that the price of dry chili dropped to five cents per pound, and no buyers at that. Believing the market was over-supplied for several years, the acreage for 1915 was reduced to actual contract buyers, with the result that before the 1915 crop is gathered the market is bare and prices are likely to again go to twenty cents before the 1916 crop is gathered.

Green chillies in midsummer sell for about \$20.00 per ton, netting \$200.00 per acre. Dried chillies bring a normal price of 10c per pound, netting the grower about \$200.00 per acre.

Culture.—For early green peppers, sow seed in hot beds in December and January. Transplant as soon as weather and soil in your locality will permit. For main crop sow seed in February, March, and April, in hot bed. Pepper seed needs the heat of a hot bed to germinate it during these months. For fall and winter crop sow seed in out-door beds well prepared, during May, June, July, and August. Winter crops can be grown in places that are entirely frostless.

Orange County alone produced in 1914 \$75,000 worth of green peppers, and \$650,000 worth of dried peppers.

CHINESE GIANT



Chinese Giant Pepper

Chinese Giant.—A very large pepper of the Bull Nose type, often growing to five inches in diameter. This is the variety grown so extensively in frostless sections for the winter trade, when the grower gets as much as 20c per pound for the green pepper. One grower claims that his returns from five acres was \$4500. (Per pkt. 10c) (oz. 55c) (¼ lb. \$4500. (Per pkt. 10c) (oz. 60c) (¼ lb. \$2.00) (½ lb. \$3.00) (lb. \$6.50) postpaid.

Bell, or Bull Nose.—Do not confuse this with the Chinese Giant. The Bell Pepper is similar in shape to the Chinese Giant, much more prolific, but less than one-half as large, and on this account the gardener intending to sell his crop should not plant it, particularly to grow for the winter trade. We recommend it highly for the home garden.

(Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.50) (lb. \$2.50) postpaid.

MEXICAN CHILI

This chili is grown in Mexico more largely than any other, and is rapidly increasing in acreage here. It is not a rival to the Anaheim Chili or Pimiento, but is in a class by itself, on account of its extreme pungency. It is not canned, but is used almost exclusively for grinding and sold as cayenne, the trade of which is surprising. The enormous 1914 crop of Mexican Chili was sold out before the Anaheim Chili.

(Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.50) (lb. \$2.50) postpaid.



Mexican Chili

ANAHEIM CHILI PEPPER

The popularity of this Pepper continues to grow enormously. A few years ago known only to growers of Orange County, where it originated, it is now a staple article of commerce, superseding the extremely pungent Black Mexican pepper so popular in Old Mexico.



How They Grow

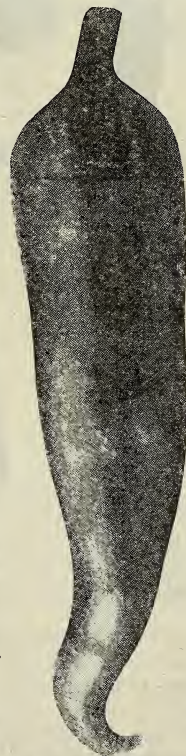
Our sales of Anaheim Chili seed in Arizona, New Mexico, Texas and Old Mexico have been surprisingly large. The seed we have was procured from selected peppers, and not one pod was less than seven inches long. We grow the peppers, and have the seed taken out on our own grounds, under our supervision. It is 100 per cent. pure. It is a safe crop to plant; it has no insect enemies; when dried it is not perishable. The price is rarely less than twelve cents per pound dried, and often double that figure.

The market for green chilies, too, is enormous, because of the large demand of the canneries who used the product of several hundred acres last season, and this industry is only in its infancy. The Anaheim Chili is desired above all others by the canner because of its fleshiness and slight pungency. Canned Chili was unheard of until we introduced the thickmeated Anaheim Chili.

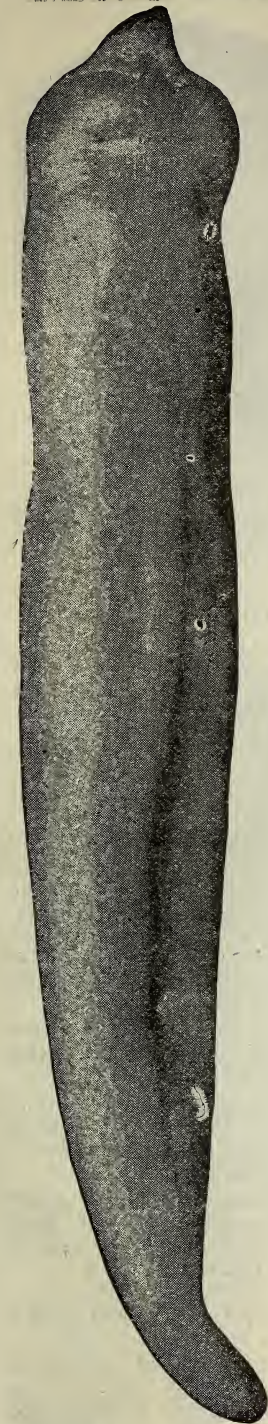
(Pkt. 5c) (oz. 25c) ($\frac{1}{4}$ lb. 75c) ($\frac{1}{2}$ lb. \$1.35) (lb. \$2.50) (5 lbs. \$12.00) postpaid.

There was such an enormous overproduction in 1914 that the sale of chili was not a matter of price, but simply no demand equal to the supply. This has resulted in great good to the industry, because growers and dealers alike sought new markets and carloads of dried chili was shipped to cities that never before used them, with the result that before the new crop was harvested the price advanced with a short 1915 crop, and there are promises for an enormous demand for the 1916 crop.

The average production per acre of green chilies is 10 tons per acre, valued at \$20.00 per ton, or one ton of dried chili seldom selling below 10 cents per pound. This is a nice side issue for the man with a small acreage if he need not hire labor.



American Paprika



Anaheim Chili
Reduced One-Quarter

THE AMERICAN PAPRIKA

The hottest pepper that grows. If it is stringency you are after, plant this Paprika. It is used extensively for culinary purposes under the name Paprika. It is in a class by itself. (Pkt. 10c) (oz. 50c) ($\frac{1}{4}$ lb. \$1.25) postpaid.

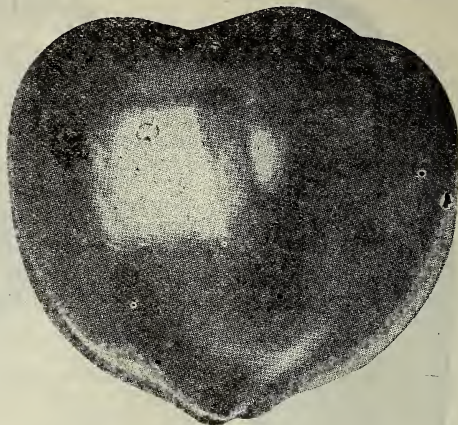
PIMIENTO

Our Seed is Pure

This pepper was introduced by us in 1911. It has already become one of California's many staples ranking with the Anaheim Chili as a canned product. One cannery used the entire crop from 200 acres of Pimientos. This is because of its lack of pungency and its firm, thick fleshiness, which permits of its being scalded and peeled. It should be grown largely in the family garden, because it is delicious with salads or stuffed, and a healthy food to eat when ripe as you would eat an apple.

Every home garden should have a row of this Pimiento. For salad, parboil it to remove the skin. Stuffed and baked it is far superior to all other peppers.

(Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) prepaid.



Pimiento

A. & M. Perfect Ruby King.—Ordinarily they grow from 4 to 6 inches long by 3 to 4 inches thick. Plant is of sturdy, bushy habit, and each one produces handsome fruit. This pepper is popular because of its solid, thick meat and mild flavor.

(Pkt. 10c) (oz. 35c) (¼ lb. \$1.00)
(½ lb. \$2.00) (lb. \$3.50) postpaid.

Red Cluster.—A very short heavy-set bush, almost a solid cluster of small peppers of 1 inch in length. (Per pkt. 10c) (oz. 30c).

Cayenne.—A long, slim pepper, rather pointed, and when ripe a bright red color. Extremely pungent. (Per pkt. 5c) (oz. 25c).
little bright peppers in sprays. A ma-

Tobasco.—The plants develop into large bushes, bearing profusely the little bright peppers in sprays. A mature pepper measures about one inch in length. These peppers are extremely pungent. (Per pkt. 10c) (oz. 25c).

Dwarf Chili.—Same as Tobasco, but twice as large. (Per pkt. 10c) (oz. 25c).

Creole, or Bird's Eye.—A distinct variety, fruit very small, about ¾ of an inch long and of very hot flavor. (Per pkt. 5c) (oz. 25c).

Chili Piquin.—Fruit very small, round, and exceedingly pungent. Used for seasoning and pepper sauce. (Price pkt. 5c) (oz. 25c).



1 Tobasco
2 Floral Gem
3 Small Chili

5 Chili Piquin
6 Cayenne
(Actual size)

This book contains much valuable information; do not destroy it, you will need it again.

What, When and How to Plant; 340 questions answered, on inside of back cover page.

If you desire particular information concerning any subject in this book do not hesitate to ask us. We shall be pleased to reply.

If you are living in a thermal zone, have a winter garden, not only for your own enjoyment, but for profit. Plant Chinese Giant Pepper, Cahuenga peas, Canadian Wonder beans, Monstrous Bush limas, A. & M. First Early tomatoes, Egg plant, and New York lettuce. Turnips. Beets. Carrots. Cabbage. Onions and Radish.

PEANUTS

Write for Special Circular.



Georgia Improved

Jumbo

Tennessee

Georgia Improved Peanut.—This variety is much superior to the ordinary Peanut, yielding fewer imperfect pods and combining earliness, productiveness and size; yields on ordinary land about 40 sacks to the acre. (Per lb. 25c, prepaid) (per 100 lbs., market price).

Tennessee Red.—Is an excellent variety, bearing three or four kernels to the pod. The kernels are of medium size and of good flavor. It is the favorite variety with the confectioner. (Per lb., 30c prepaid) (100 lbs. \$12.00 f. o. b.)

The Jumbo is by far the largest of all peanuts. It is a curiosity and commands a fancy price. On account of its vigorous vines and enormous crop of large tubers it is an excellent crop to grow for hogs, or to plow under for enriching the soil. (Per lb. 35c, prepaid) (10 lbs. \$2.50 f. o. b.)

PARSNIP

Our New French Parsnip.—Just right for the market gardener. The picture shows the actual size at time of marketing. It grows slightly larger, but it attains this size in ninety days, which is a full month earlier than other varieties. It is crisp and succulent. It will at once supercede all other varieties because of its all-round desirability. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 75c). Postpaid.

Devonshire.—This Parsnip was recommended to us by our European growers. Today it is the most popular Parsnip with our market gardeners. It is scarcely more than half as long as the Hollow Crown, but it is often three inches in diameter. Tender, and has an excellent flavor. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 75c). Postpaid.

New French
Parsnip
Actual Size

Hollow Crown.—Has long been a favorite in the family garden on account of its excellent table qualities. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 75c). Postpaid.



POTATOES

Owing to the enormous decline of the yield of potatoes to one-fifth that of five years ago, the Agricultural schools of California have given special study to this subject, and have held conventions throughout the state, giving lectures of instruction to farmers. This is a good work, and will result in much improvement. The State Legislature enacted a bill (No. 1573) entitled "an act to establish a standard for California certified seed potatoes, making a violation of this act a misdemeanor." Certified seed means that at the request of the grower, an official of the state will inspect the crop three times,—first during the blossom season, second just before maturing, and third after they have been harvested. If pure to type and free from disease, the grower will be given a certificate, and the potatoes may be sold as certified seed.

Our Imported seed is practically free from scab disease, but unless our local grown seed has been treated with Corrosive Sublimate, (four ounces dissolved with one quart hot water in earthen vessel, and diluted to 30 gallons water, immersed 1½ hours) or Formaldehyde (one pint to 40 gallons of water and immersed one hour), it is useless to expect to harvest clean potatoes, but this treatment does produce a clean crop.

Proper planting is to first prepare the ground by deep plowing and thorough pulverizing. Cut the potatoes two eyes to a piece. Then make a furrow eight inches deep, and while the soil is yet moist, drop the seed and cover at once about three inches deep when the ground is cold, and five or six inches deep in sandy soil when the ground is warm. Commercial fertilizer should be used. Sow it in the furrow just as the potato is coming up, and harrow the field crosswise. This will destroy all weeds and leave a level field. As the vines grow, cultivate but do not throw the soil toward the potato until after the tubers have started. This is to cause them to form deep in the ground, so that when they are properly hilled up the potatoes will be at least six inches below the surface. This will avoid the potato moth because it does not work much below the surface, only on exposed tubers. The eel-worm is more difficult to avoid, but we recommend a good heavy application of lime to the soil before planting.

For those who desire to improve their crop for seed purposes we have extra selected seed of each variety, which we offer at \$3.50 per hundred lbs., f. o. b. here. We have contracted to have grown for us two carloads of certified seed of the White Rose variety, the price of which cannot at the time of this writing be determined.

BLISS'S TRIUMPH.—This is a round red potato, is not a big yielder, but is the earliest potato we know of. It gets entirely ripe in nine weeks. The potatoes produced are always good size and are of exceptionally good quality. They have proven the most satisfactory for the desert country, where moisture is scarce and a quick crop is necessary. They make very small tops and the potatoes form very close together, hence they can be planted a foot apart in the rows and have room enough.

AMERICAN WONDER.—This is the most popular early variety in the Southwest. It is a long white potato resembling the Burbank. It gets entirely ripe in three months. On good land they make an enormous yield of fine potatoes of excellent quality. They set from fifteen to twenty-five potatoes to the hill, and it is not advisable to plant them on very poor land, as you will have too many small potatoes.

EARLY RED ROSE.—This is a long red potato about ten days later than the American Wonder. It is very desirable for selling in lug boxes on the early market and is better for poor land than the American Wonder.

EARLY WHITE ROSE.—This is the potato that is most popular for a general crop in Southern California, owing to its good yield of nice, smooth potatoes. It will grow on poorer land than the American Wonder and is two weeks later. It is one of the very best for the table.

BURBANK.—This is the best late variety, fully a month later than the White Rose. It sets heavily and yields a big crop on good land. We do not recommend them on poor land as they make too many small potatoes.

Potato Inspection.—All potatoes intended for seed purposes must be inspected by the County Horticultural authorities before they may be received and again before they may be shipped out. This is a great protection to the grower.

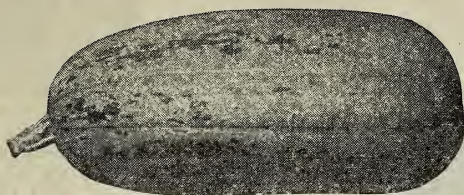
SWEET POTATOES

The handling of Sweet Potatoes for seed purposes has been unsatisfactory to our customers as well as to ourselves, on account of the perishable nature of the small Sweet Potato. We have decided to list only plants of which we will have a large supply, at lowest market price.

However, if you wish us to secure sweet potatoes for seed purposes we will do so at your risk; check or cash must always accompany the order, either for Sweet Potatoes or plants, no matter what your financial standing is.

We will have plants ready about March 1st of the following varieties: Yellow Jersey, Yellow Nanssemum. Price—(75c per 100, prepaid) (\$4.00 per 1000).

PUMPKIN



Mammoth Tours

Mammoth Tours is one of our best stock pumpkins, and a most prolific yielder on good soil. It produces a pumpkin at every other joint that will average fifty pounds, more or less, according to the richness of the soil. It is a very popular pumpkin where it is better known. Mr. Short, of the San Fernando Valley, says: "There is simply nothing like it for bearing." Mr. Richardson, of the San Gabriel Valley, says about the same.

(Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Cashaw, or Crookneck.—This excellent pumpkin ought to be planted more largely. It is the heaviest pumpkin for its size because of the small seed cavity. It is excellent for pies, and yields enormously.

(Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



Cushaw or Crookneck

Estampes.—We have the purest stock seed from which to grow this pumpkin. It is the heaviest pumpkin for its size that we know of; 100 pounds is not an unusual size for them to attain. It is the canner's favorite because of its thick, deep red flesh and the fine sweet flavor. It is without exception the best for dairy stock, and only the scarcity of the seed has prevented it from being more widely known. (Per pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

Kentucky Field or Large Cheese.—This variety is locally called Sweet Pumpkin, and is grown more than any other of its kind for stock, because it is a good keeper, notwithstanding it has a soft shell. It is fleshy and very sweet; also very good for pie, and is largely used for canning. On one large ranch in the San Fernando Valley there was planted a large acreage to nearly all the popular varieties; this one was unaffected by the hot sun, and remained in perfect condition while other varieties were sunburned and decayed quickly. (Per pkt. 5c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

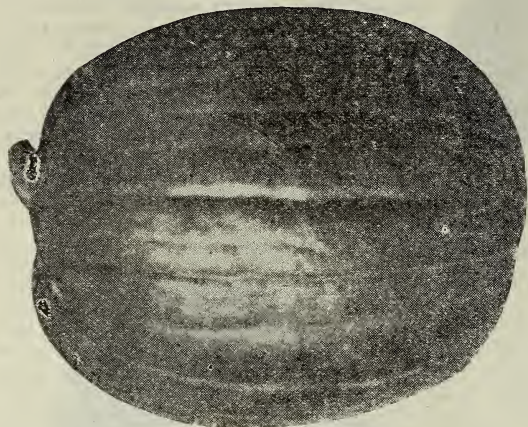


Kentucky Field or Cheese Pumpkin, Growing in a Young Orchard

Sandwich Island.—The most popular pumpkin in Ventura County. It is as hardy as a citron. A good one to plant where water is scarce. (Per pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

PUMPKINS—Continued

Connecticut Field (The Jack o' Lantern).—This is the pumpkin planted largely for the Hallowe'en and Thanksgiving trade, at which time they bring \$20.00 per ton, and two cents per pound, at retail stores. Twenty tons to the acre is no unusual yield. If the land has been manured liberally a full crop can be grown among corn. It is a most excellent keeper, and will be sure wealth to all who grow and feed it liberally. (Per pkt. 5c) ($\frac{1}{4}$ lb. 20c) ($\frac{1}{2}$ lb. 35c) (lb. 60c) postpaid.



Connecticut Field (Jack-o'-Lantern)

ered the pumpkins, so that none were exposed to the sun. They are uniform in shape and color, just like the picture, and weigh from three to five pounds. They are better for pie than any pumpkin you ever grew. The thin rind is almost as hard as a coconut. It will keep a year. It is just the thing to plant along a wire fence around a private garden, or for the gardener to grow for the market, or for the rancher to grow for the shipper. It is just what the shipper has been looking for and it is just what the peddler will want because it is just the size for the housewife to make two or three pies. It just fits anywhere. We planted the seed from only one pumpkin, and have but a limited quantity of seed. We reserved only one pound to grow our seed for next season, and in order that as

many people as possible may be benefited by this superb introduction, we are offering the seed only in 5c packets, of 12 seeds each, and 10c packets of 25 seeds. Our prophecy that New York Lettuce would be shipped in car loads is fulfilled. Our prophecy that casabas would be shipped in car loads is now realized. We now prophesy that the Seminole will soon rival the popular Hubbard Squash, the Cream Marrow, and the small Sugar Pumpkin. It will be shipped in greater quantities, and more generally used. We advise you to get a packet of seed and be among the first to be benefited.

(Pkt. 12 seeds 5c) (25 seeds 10c) postpaid.



Seminole

Japanese Pie Pumpkin.—(Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) (lb. 75c). Postpaid.

California Mammoth.—This is the large pumpkin so well known locally. As many as 20 tons have been taken from one acre. It not infrequently attains a weight of 200 pounds. (Per pkt. 5c) ($\frac{1}{4}$ lb. 20c) ($\frac{1}{2}$ lb. 35c) (lb. 60c). Postpaid.

Sugar or Boston Pie.—A small handsome variety, and very popular. The skin is a deep orange yellow; flesh fine grained and sweet in taste. Famous in Boston as a pie pumpkin. It sells better on our local market than any other variety, except the Jack o'Lantern at Hallowe'en time. (Per pkt. 5c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.



Sugar or Boston Pie

ROSELLE

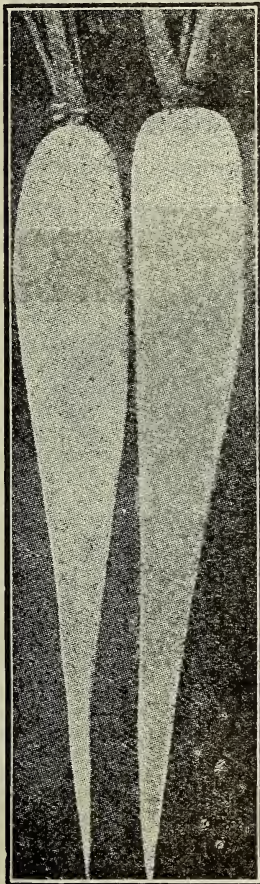
Culture.—Sow seed early in April, in the field, four feet apart, in rows six feet apart. Cultivate as Okra. There is an early and a late Roselle. Be sure to get the early variety because the frost is almost sure to destroy the late variety before it matures. We offer only the early variety.

Roselle or Lemonade Plant—Is an annual plant that has been sufficiently tested to indicate its great value and to warrant more extended cultivation. The fruit is used for making jelly and jam. The jelly is superior to guava or currant, and is labeled as "Queensland Jelly," is shipped from Australia to all parts of Europe. It is easily grown from seed if planted after the ground is warm; grows rapidly, resists drought and is very ornamental. Every home garden should have a row of this ornamental and useful plant. (Per pkt. 10c) (oz. 50c) $\frac{1}{4}$ lb. \$1.50) ($\frac{1}{2}$ lb. \$2.50) (lb. \$4.50). Postpaid.

NOTE.—Our local growers are not up with other localities in advertising and educating the public to the uses of roselle. One grower in Texas has thirty-five acres. The local demand has never yet been fully supplied, and only a few people even heard of it. Someone ought to get busy.

We have been advised by a lady from Texas, also one from Cuba, to remove the seed pod, the jelly is thus greatly improved. The calyx is an excellent substitute for cranberry sauce or pie.

Having received numerous inquiries how to use Roselle, we have decided to insert the answer here. Pick the pods that grow at the junction of each leaf. Boil them until soft and strain through a cloth. Add $\frac{1}{2}$ pint of sugar and the juice of $\frac{1}{4}$ of a lemon to each pint of juice, and boil again until it jells.



Long White Icicle

RADISH

Culture.—Seed may be sown the year round in California. Radishes thrive best in light, sandy loam, made rich with manure. Sow in drills, 10 inches apart. An ounce of seed will sow a hundred feet of drill, 10 pounds to the acre.

Early Scarlet Turnip.—One of the earliest and best sorts for forcing; its color is very handsome; flavor very mild, crisp and juicy; stands a great amount of heat without becoming pithy. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 70c). Postpaid.

French Breakfast.—A splendid variety, medium-sized, olive-shaped, very crisp and tender; of a beautiful scarlet color. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.

White Tipped Scarlet Turnip.—An early variety of medium size and excellent flavor, and of a very handsome appearance. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.

Epicure Radish.—Ready for the table within three weeks; always crisp, a delightful relish. The small round red and white radishes make a pretty showing. (Pkt. 5c) (oz. 10) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.

Chartiers.—A distinct, exceedingly handsome and attractive sort; color of top is scarlet rose, shading into pure waxy white at the tip. Attains a large size before it becomes unfit for the table. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.

Early Long Scarlet.—Very brittle and crisp; color a bright scarlet; small top. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.

Long White Icicle.—For the home garden we consider this a most excellent table variety. Its extreme earliness, beautiful pure white appearance, excellent flavor and crispness should make it a favorite everywhere. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.

Crimson Giant Turnip.—A variety extraordinary in that, while growing to an unusually large size, it is always tender, crisp and of mild flavor. It remains in perfect condition a remarkably long time, and, unlike other forcing varieties, does not become pithy even

when twice their size in diameter; root turnip shaped; color a beautiful crimson carmine; flesh firm, crisp and tender. Per (pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.

RADISHES—Continued

ALL SEASON RADISH

A new one from Japan called "Tokishiraza," meaning all-the-year. It is a very large, long, snow-white radish; deeply rooted, does not extend above the soil, hence it is always tender and crisp and has a delicious flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00). Postpaid.

Japanese Summer Radish.—This radish was introduced here by the Japanese several years ago. Its beautiful white color and mammoth size attracts great attention. It is very tender and the flavor is excellent and mild. It attains perfection in California, growing twenty-six inches in length and three inches in diameter. It is a profitable radish to grow, as it sells readily and is relished by all. Per (pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00). Postpaid.

Japanese Winter Radish.—This was introduced in the same manner as the Japanese Summer Radish, which it resembles except in size. It is more crisp and of better flavor in the winter season. It is pure white, grows about eight inches long and not as tapering as the larger one. Per (pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00). Postpaid.

China Rose.—A delicious radish, crisp, with little tendency to become pithy. A beautiful coloring from light red at the top to almost pure white at the tip. It is a good seller and is in great demand by the vegetable peddlers. Per (pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. 90c). Postpaid.

California Mammoth.—Pure white; the flesh is tender, sweet and crisp, keeps well. Plant from September 1st to January. Per (pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 50c) (lb. 90c). Postpaid.

Round Black Spanish....Skin black, flesh white, or firm texture.

Per (pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

Long Black Spanish.—A delicious, crisp winter radish. It sells well at the market. Per (pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

Large White Chinese Stump Rooted—This is a winter radish of deliciously sweet flavor; can be eaten as a turnip as it is without stringency. The Chinamen use this variety exclusively. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 60c) (lb. \$1.00). Postpaid.

Half Long Scarlet.—This variety should be more popular because it is just the right size for table use, not too large, never pithy, but always crisp and sweet. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c).

Mixed Radish.—This mixture, consisting of almost every known variety of radish, is deservedly popular throughout the country because it grows radishes suitable to each season and to every condition of soil. You are sure to have them early, medium and late; small, medium and large—something all the time. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 75c). Postpaid.

A WORD ABOUT RADISHES.—Few people realize how easily radishes can be grown and how healthful they are. A piece of ground three feet square or a strip here and there about the garden can by proper selection of seed, continuous planting and cultivation, grow more than enough for the family. Any child can grow them, and by selling them at the nearest market place, can earn enough money to pay the grocery bill for the family.



All Season



China Rose

HORSE RADISH

Common Variety, Roots.—(1 doz. 15c; by mail 20c) (100, \$1.00) (1000, \$8.00).

New Bohemian Horse Radish.—A valuable recent introduction of the U. S. Department of Agriculture. It is a much more rapid grower than the old variety in general use and is therefore ready for use a great deal earlier. Its large, white roots may be raised in almost any soil. The quality of this horse radish is far superior to the old variety. **Roots**—(Doz. 35c). Postpaid. (\$15.00 per 1000 f. o. b. Los Angeles.)

Why will you allow Los Angeles buyers to import several carloads of horse radish from the East each season when you can realize \$400.00 to \$600.00 per acre? It is an easy crop to grow and inexpensive.

See our Columbia planter and be convinced it is the most economical as well as the most reliable seed sower on the market. For cut worms use **Cut-Worm Killer**.

RHUBARB

Culture.—Sow the seed any time from February 1st until July 1st, in drills two feet apart, in order that you may cultivate with a horse cultivator. Within five months after sowing the seed, the Wagner's Giant variety will be large enough to market, even though the roots are not larger than your thumb. Transplant at any time when the roots are large enough. Rhubarb requires a rich sandy loam, well drained. Never flood the crown nor bury it with soil. Therefore plant it on ridges or on the sides of an irrigating ditch. In our hot climate partial shading is beneficial. If you can do so, plant it in an orchard, setting the roots three feet apart, but if in a sunny place, set the roots 18 inches apart, that the leaves of one plant will shade the crown of another.

Winter Crimson.—Might be more appropriately called All Seasons Rhubarb. It thrives luxuriantly all the year round, but is better during our winter months than in the summer. To get the best results, apply large quantities of stable manure and water freely. The seed is scarce and the price much higher than common varieties.

(Pkt. 10c) (oz. 80c) ($\frac{1}{4}$ lb. \$2.50) ($\frac{1}{2}$ lb. \$4.25) (lb. \$8.00). Postpaid.

WAGNER'S GIANT RHUBARB

This is a new strain, propagated by J. B. Wagner, and has the same general characteristics as the Winter Crimson Rhubarb, excepting that it grows four times as large. The stems often weigh $1\frac{1}{4}$ pounds each. I have picked at one time from a single plant sixty full-grown stems that weighed 30 pounds, or one-half pound per stem. This variety has all the good qualities of the Crimson Winter, does not run much to seed—hence they must be propagated by subdividing the crowns. Parties who get plants now will surely reap a rich harvest, as it is bound to take the place on the market now occupied by other winter sorts as soon as plants can be secured. The stems are as tender as any known plant, do not have to be peeled, are not coarse or stringy, cook readily, are of good color, but not so red as the Crimson Winter.

(Pkt. 20c) (oz. \$1.00) ($\frac{1}{4}$ lb. \$3.00) ($\frac{1}{2}$ lb. \$5.50) (lb. \$10.00). Postpaid.

RHUBARB ROOTS

Winter Crimson.—(10c to 25c each) (\$1.25 per dozen). Postpaid.

Wagner's Giant Seedling.—(25c each) (\$2.00 per dozen). Postpaid.

READ THIS TESTIMONIAL. "I have very successfully grown Wagner's Giant Rhubarb from the seed for the last three years. At present the plants are in fine shape with lots of edible stems and has been plucked all summer, while my summer varieties are all dormant.
Mrs. H. M. Hoge, Monterey Co., Cal."



Wagner's Giant

SQUASH

Culture.—Seed should not be planted until all danger of frost is past. Plant in hills 5 feet apart for bush varieties and 8 to 10 feet apart for running sorts, putting 6 to 8 seeds to the hill, finally leaving but 2 plants. One ounce of the bush varieties for 40 hills, or of the larger seeded varieties 15 hills, 2 or 3 pounds to the acre.

Green Warted Hubbard—This is the squash that is popular everywhere, and Southern California ships annually about 70 carloads to Eastern cities. The local bakeries consume annually about 400 tons. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb \$1.00). Postpaid.

Fordhook Squash.—This is a most desirable squash for either summer or winter use. The vines are of strong, vigorous growth and wonderfully productive. Fruits oblong in form, eight to ten inches in length, slightly ridged; smooth, thin, yellowish skin; flesh very thick and of a light yellow color. If gathered young for cooking, no other squash approaches it in flavor, while if allowed to ripen on the vine they can be stored and will keep in excellent condition until late the following June.

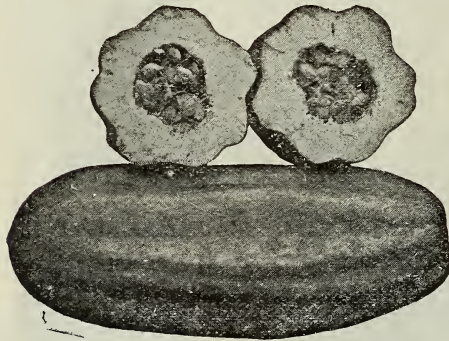


Green Warted Hubbard

Either for baking like sweet potatoes or making pies during the winter, the quality is very fine. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 30c) ($\frac{1}{2}$ lb. 50c) (lb. 90c). Postpaid.

Golden Hubbard.—The flesh is of a deep golden yellow—a much richer color than the Hubbard—fine grained, cooks very dry, and has excellent flavor. In its keeping qualities it is fully equal to the green variety. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.

Pike's Peak or Sibley.—An excellent winter squash. Fine grained and superior in flavor and keeping qualities to the Hubbard squash, but not so well known. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.



English Cream Marrow

English Cream Marrow.—It is as sweet as a sweet potato, and has none of that pumpkin flavor. It is good any way it comes on the table, and is better than Hubbard Squash for pie. It is 6 to 8 inches long and half as thick. (See picture.) Decidedly firm, it will keep from one season to another. (Per pkt. 10c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 75c) (lb. \$1.25). Postpaid.

Acorn.—Every home garden should have a few hills of this delicious squash. For table use or for pies it is unsurpassed, uniform in shape and bright red color makes it a desirable ornament for the table.

Receipt.—Remove the blossom end, take out all the seed, and bake in an oven. When baked, remove the edible portion, season and serve in the shell. In this way it looks like a huge acorn, and is quite ornamental. —(Pkt. 5c) (oz. 20c) ($\frac{1}{4}$ lb. 60c) ($\frac{1}{2}$ lb. \$1.00) (lb. \$1.75).

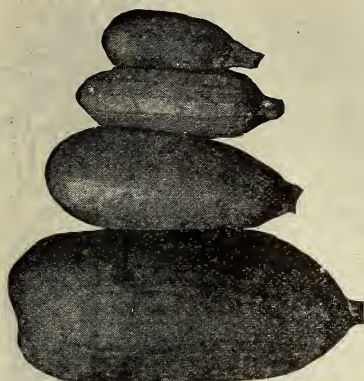
Money in Growing Squash and Pumpkins.—The canners consume enormous quantities. They use principally the Estampes and Large Cheese pumpkins, paying about \$4.00 per ton. Next to the canners are the bakers, who use Hubbard Squash and Small Sugar, paying about \$10.00 per ton.



Acorn Squash

SQUASH—Continued

Italian Squash.—Is a bush variety, and should be planted 5 feet apart. It should be used when quite young. When served it has a rich creamy flavor not equalled by any other squash. Some gardeners have made considerable money making a specialty of it. For the family garden we would recommend its use instead of the small white bush scallop, because of its excellent flavor. (Per pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 40c) ($\frac{1}{2}$ lb. 75c) (lb. \$1.25). Postpaid.



Italian Squash



Banana

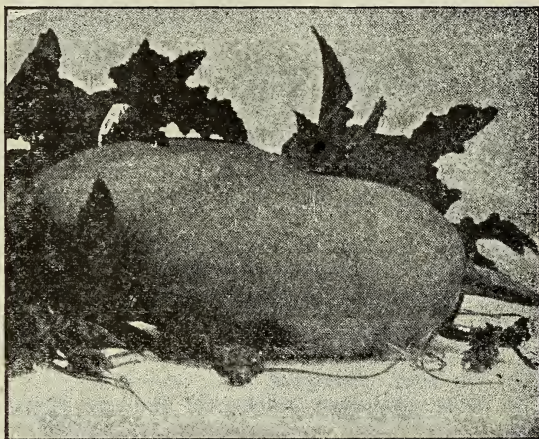


Summer Crookneck

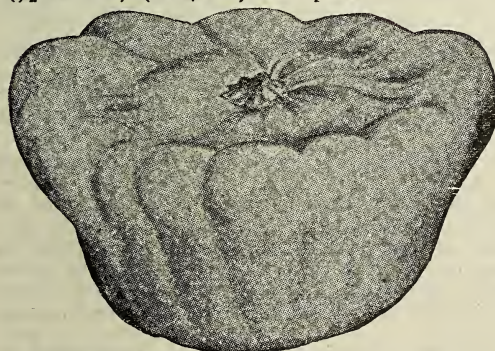
Banana.—The squash grows from one to two feet in length. The skin varies from a bright yellow to a dark olive green.

Flesh firm and solid, of beautiful orange-yellow and excellent quality. Mr. E. L. Van Ripper says it is the sweetest of all squashes and wishes everyone to try it. It keeps from one season until another. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.

Long White Marrow.—This is exceedingly delicious as well as the most prolific of all English Marrows. Steamed when quite young or fried as egg plant it is equal to egg plant itself. The squash is about 12 inches long when mature and has a light creamy color. (Per pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.



Long White Marrow



A. & M. Improved White Bush Scallop
(Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.

If in doubt when to plant and what to plant, see the inside of last cover and for particular information, write us stating just what you want to know. Read inside front cover.

For mildew and other diseases of squash and cucumber vines spray frequently with a weak solution of Bordeaux Mixture. A cupful applied to the root when the vine is six inches or longer will prevent root disease.

A. & M. Improved White Bush Scallop.—As will be seen by the picture, this squash is similar to the well known White Bush Scallop, but it is more elongated toward the blossom, which makes it more desirable from the gardener's point of view. It looks better and sells more readily. It is very prolific. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (lb. 75c). Postpaid.

Golden Summer Crookneck.—The popular well known Crookneck. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 30c) ($\frac{1}{2}$ lb. 50c) (lb. 85c). Postpaid.

Boston Marrow.—Fresh, bright orange or rich salmon color; for sweetness and excellence, is unsurpassed.

SALSIFY

Culture.—Sow the seed in the spring in drills one foot apart and one inch deep, thinning out plants to four inches. It succeeds best in light, well-enriched soil. One ounce of seed for 50 feet of drill.

Long White.—Favorite market variety and the best flavored. (Per pkt. 5c) (oz. 10c) (¼ lb. 50c) (½ lb. 90c) (lb. \$1.50). Postpaid.

Mammoth Sandwich Island.—A larger and superior variety. Mild and delicately flavored. (Per pkt. 5c) (oz. 10c) (¼ lb. 70c) (½ lb. \$1.25) (lb. \$2.00). Postpaid.

SORREL

Broad Leaved.—This is the best variety. (Per pkt. 5c) (oz. 20c) (¼ lb. 40c) (lb. \$1.25). Postpaid.

SPINACH

Culture.—Sow in drills, one foot apart, and for succession, every two weeks; as it grows, thin out for use, keeping clean of weeds. It grows the year round in California. One ounce of seed for 100 feet of drill; 20 pounds to an acre.

A. & M. Summer Success.—For several years we have endeavored to secure a type of spinach that would prove profitable to grow in summer time, and after several trials this one proved the greatest success. With moist, loamy or peat land the A. & M. Summer Success will grow leaves 14 inches long. The leaves are very meaty and crisp. (Per pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

Prickley Seeded, or Winter Spinach.—This variety thrives best in the coldest weather, and is the money-maker for the market gardener. Our seed is imported from Holland, and for ten years has given entire satisfaction. The leaves are large, fleshy and very tender. (Per pkt. 5c) (oz. 10c) (½ lb. 35c) (lb. 60c). Postpaid.

Round Summer.—Leaves thick and fleshy, not as large as the winter variety, but better for summer growing in damp land. (Per pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

A. & M. Improved Thick-Leaf Spinach.—This new variety is one of our valuable introductions and has proven its superiority over all other varieties for beautiful large thick-leaved bunches that bring double the returns to the grower; sells more readily to the peddler and pleases the housewife. For canners no other variety is equal to it. Price—(Pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

Long Standing.—This is a good sort for market gardeners because it is slow to shoot to seed, and the quality is equal to the best winter variety. (Per pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

Bloomsdale.—Large green thick savory crumpled leaves; grows luxuriantly, producing twelve to fifteen tons per acre. (Pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c). Postpaid.

With California far in the lead as a seed growing section, we are having comparatively little inconvenience because of the turbulent conditions abroad, yet in the item of spinach seed, the entire United States is woefully short, and no relief in sight until we can grow our own supply for next season, unless Holland will permit the seed now in her warehouses to be exported. We have ten tons stored at Enkhuizen, and many other seed houses in America were caught in a similar situation. What is here said of spinach is true of many other seeds, but thanks to a few pioneers in the business, California can now supply us with nearly every variety of seed we need.

All America and Europe are now looking to California for seed so essential to the life and prosperity of a nation. Our export business in seeds is indeed surprising, and the new varieties of seeds that almost imperceptibly grow to enormous proportions, for instance California is now acknowledged foremost in onion, celery, cauliflower, casaba, radish, peas, beans, sweet peas, and about every variety of flower seeds listed in this catalog.

It was the cheapness of some European seed that deterred California growers from enlarging their list of crops. Present conditions abroad will permanently benefit the California seed grower.



Salsify

TOMATOES

Culture.—Tomatoes do best on light warm, not over-rich soil, and success depends upon securing a rapid, vigorous and unchecked growth during the early part of the season. Sow in hot-beds from 6 to 8 weeks before they can be set out of doors, which is when danger from frost is past. Transplant carefully and cultivate well as long as the vines will permit. In order to have tomatoes the greater part of the year, plant different varieties at different times. Unless frost and excessive rains kill vines, you will have ripe tomatoes all the year. Tomato-growing in Southern California ranks equally with cabbage and celery. While a large percentage are shipped to Eastern cities, most of them are used by our local canneries. Before purchasing your seed, always secure our advice as to the variety, stating whether for shipment, canning, or for the local market.

The time of planting and variety depends altogether upon your local conditions. If in a frostless place in the foothills or other protected location, plant seed of the A. & M. First Early, in December and again in August.

For the midsummer market, plant seed of the San Jose Cannery variety during February and March. For the cannery, plant seed of the Stone variety during April and May. For late fall shipping, plant seed of the Stone and Hummer Globe in June and July.

The market gardener who will plant Ponderosa, San Jose Cannery and Boulder, will find ready sale for all he will bring to the market.

A. & M. FIRST EARLY

For Home and Market

Let us give a little history of early tomatoes. Just twenty years ago the Early Richmond was the earliest and hardest tomato known to the local seed trade. It was wrinkled and sour, but of fairly large size throughout the winter. This was superseded by the Atlantic Prize, a smoother but smaller tomato. Chalk's Early Jewel came next, an excellent variety in all respects except it was too soft for shipping. The Earliana succeeded, and is yet advanced by many seedsmen as the best first early tomato. We introduced the A. & M. First Early in 1909, and from that time to the present it has superseded all other early varieties throughout Southern California, and is continually growing in popularity here and elsewhere. For a first early money-maker, it has no equal in the tomato line. We cannot give it too much praise. The growers are not looking for a better one. It is good enough.

(Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00). Postpaid.

Some testimonials for the A. & M. First Early:

Mr. E. L. Howell writes on July 1st, 1914: "I have given the tomato culture scientific study for a number of years, with the intention of making tomato growing a life business. I decided to have the **best only**. I have tried the following eight leading varieties for earliness, productiveness, and flavor. (Here he named eight leading early varieties from other seedsmen.) They all fade before the A. & M. like a shadow before the sun. I have counted 250 tomatoes on one vine six weeks after transplanting. Last year I counted 320 tomatoes on one vine."

Mr. J. P. Maschmeyer, Kings Co., Cal., writes: "I have eight seedsmen's books before me, but I have made my choice with you for my tomatoes. I find your A. & M. First Early the best tomato on the market for this part of the state for early. I have had such big crops on my vines that I could not see the bottom tomatoes when ripe. You may not believe it, but my tomatoes were piled up 6 and 7 inches thick on the ground on the vine, and I find they did best on my heaviest ground. My first ripe last year here were May 18th."

SAN JOSE CANNER

For several years growers in the San Joaquin Valley have recommended this tomato. We are not moss-backs, but we are slow to offer our trade any new thing that we are not thoroughly familiar with so that we can give it our endorsement. We have tried this tomato, and can say it is far superior to the Stone for the market gardener's main crop, because it is just the tomato for the table. It is not sour, but a delicious meaty tomato. Just the thing that will sell ahead of the other fellows at the market. It is large, prolific and deep red. (Pkt. 5c) (oz. 40c) (¼ lb. \$1.00).

A. & M. HOME TOMATO

Large, smooth, almost seedless, mild flavored, pink color, and enormously prolific. Two or three vines so trellised that they may grow ten feet high and nearly as wide will provide more tomatoes than any family can use, and the quality is delicious. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00). Postpaid.

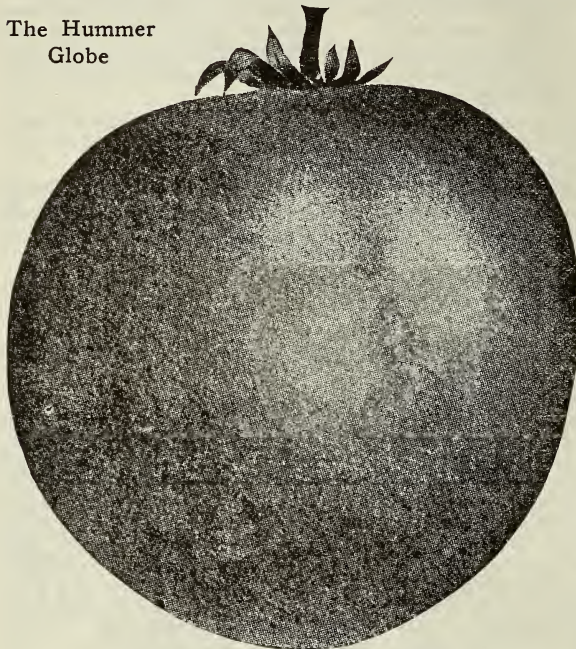
TOMATOES—(Continued)

PONDEROSA, or BEEFSTEAK

The popular large pink tomato, also locally known as the Beefsteak. Our strain of Ponderosa is exceptionally smooth for that variety. It originated with the late John Trapp, Sr., who, when asked how he obtained such a smooth Ponderosa, replied that he went into the garden every morning and smoothed out the wrinkles.

(Pkt. 5c) (oz. 35c) (¼ lb. \$1.25) (½ lb. \$2.00) (lb. \$3.50). Postpaid.

The Hummer
Globe



Hummer Globe.—We consider this one of the finest tomatoes for the market gardeners. It is early, solid, smooth, good size, bright red, and enormously prolific with abundant foliage to protect the fruit from scalding. As a shipper it cannot be excelled, even by the popular Stone tomato.

Price—(Pkt. 5c) (oz. 30c) (¼ lb. \$1.00) (lb. \$3.50). Postpaid.

Earliana.—The plants are quite hardy, with rather slender branches and moderate growth, well set with fruits, nearly all of which ripen very early in the season. The tomatoes are bright red and close together in clusters of five to eight; all of medium size, averaging 2½ inches in diameter. (Per pkt. 5c) (oz. 25c) (¼ lb. \$1.00) (lb. \$3.50). Postpaid.

Dwarf Champion.—(Tree tomato)—Has long been a favorite midsummer tomato.

Pink in color, smooth and solid, making it a good shipping variety. This has proven very satisfactory in Arizona. Its dense foliage protects the fruit from sunburning. (Per pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50). Postpaid.

A. & M. SECOND EARLY
For Home and Market
THE BONNIE BEST

This is the first year we have offered you the Bonnie Best. We have tried it out thoroughly and it has proven satisfactory. We have done the experimenting, and because it has great merit, we now recommend it to you as the best second early.

We describe it as being as prolific as the First Early, smooth and solid as the Stone, but not so large. The mild flavor like that of the First Early makes it especially desirable as a salad.

(Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00). Postpaid.

A. & M. MAIN AND LATE CROP TOMATO
For Market Near and Far—The Tomato for Canning
THE NEW IMPROVED STONE

This is the most popular tomato in Southern California. Fully one thousand acres are planted to this variety exclusively for shipping to Eastern points after other tomatoes have been destroyed by frost. For this purpose the seed is planted about June 15th, and the tomato brought to full size about October 1st, after which it gradually ripens as wanted for shipping. The tomato is of good size, bright red, solid and smooth, enormously productive. Our seed was grown apart from any other variety and we confidently say no more perfect field of Stone Tomatoes ever grew anywhere than the field from which our seed was taken. (Per Pkt. 5c) (oz. 25c) (¼ lb. 80c) (½ lb. \$1.35) (lb. \$2.50). Postpaid.

The Boulder.—Grown side by side with the Stone, the only difference is the enormous size of the fruit. We have received numerous testimonials praising it, none unfavorable. Mr. S. J. Murdock of Westminster says of it: "I never saw anything to approach it in productiveness and all round good qualities." (Per pkt. 5c) (oz. 40c) (¼ lb. \$1.25) (lb. \$4.00). Postpaid.

TOMATOES—(Continued)

Coreless.—A bright red, globe tomato; very desirable for the family garden, almost without seed or core. (Per pkt. 5c) (oz. 40c) (¼ lb. \$1.25) (lb. \$4.00). Postpaid.

To prevent blight, use Bordeaux Mixture after each rain. It is a good tonic for the vines.

Golden Beauty.—A large yellow tomato of delicious flavor, and when preserved with a slight flavoring of lemon, is better than preserves made of any other tomato, because it lacks the strong tomato flavor. It is an excellent variety for salad. (Per pkt. 5c) (oz. 35c) (¼ lb. \$1.00). Postpaid.

Yellow Egg.—Excellent for spicing and preserving. Small yellow egg-shaped tomato of mild flavor. (Per pkt. 5c) (oz. 25c).

Dwarf Stone. (Tree tomato.)—Large, red, smooth and solid. The stalk is upright, with dense foliage protecting the fruit from the heat of the sun. It is a desirable tomato to grow in the interior valleys. Price—(Pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50).

Chalk's Early Jewel.—Excellent early tomato for home or nearby market; very prolific, red, smooth, and desirable size. Its mild flavor makes it desirable as a salad. Price—(Pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50).

Red Pear Shaped.—Used for preserving and spicing. (Per pkt. 5c) (oz. 25c).

Grape Tomato.—It makes an attractive arbor vine with a profusion of delicious fruit for preserving. (Per pkt. 5c) (oz. 25c).



Grape Tomato



Grape Tomato

Cherry Tomato.—The fruit clusters are somewhat like the Grape Tomato, but are larger, about the size of a large cherry. (Per pkt. 5c) (oz. 50c).

Ground Cherry.—Grows like a tomato; fruits like a tomato, but the small fruit is enveloped with a husk. It is good for preserves. (Per pkt. 5c) (oz. 30c).

TURNIPS

Ask for our Garden Manual. It is free with a fifty-cent order for seeds.

Culture.—(See page 28.) Turnips may be sown broadcast on damp sandy soil, or in drills as beets and carrots. Drill in rows ten inches apart, not too thick in the row. The Purple Top Globe variety is now leading in popularity because of its mild flavor and its adaptability to our summer climate.

Early Purple Top Strap-Leaf.—A very popular variety in this section for either family or market use; large size, white, purple above ground; flesh fine grained. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

Early White Flat Dutch.—An early white-fleshed strap-leaved variety; for quick growth, mild flavor and excellent quality. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

Early White Globe.—A large, round turnip, with sweet flesh. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c). Postpaid.

Extra Early Purple-Top Milan.—(Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25). Prepaid.

Golden Ball or Orange Jelly.—A rapid grower of excellent flavor; bright yellow color; good keeper and a superior table variety or for stock. (Per pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (1 lb. 75c). Postpaid.

Improved Purple-Top Rutabaga.—The best of the Swede Turnips. Very hardy and productive; flesh yellow, is very solid, sweet and well flavored. (Per pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (1 lb. 60c). Postpaid.



White Flat Dutch



Early Purple-Top Strap-Leaf 60c). Postpaid

Grow turnips all the year round, but they are better, more crisp and sweet when grown during the winter months. Plant Globe varieties in summer because of the large tops, which affords protection from the heat of the sun, and flat varieties in winter time, because of the short tops.

TURNIPS—(Continued)

Purple-Top Globe.—Solid, very sweet, slow to get pithy. The very best variety for the summer season. Indeed, the best for any season, but slower to mature than the Strap-Leaf. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (1 lb. 75c). Postpaid.

Snowball.—Next to the Purple-Top Globe in popularity, but preferred by many because of its beauty and excellent flavor. It is slow to get pithy in the summer, but always crisp during the winter. (Per pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (1 lb. \$1.00).

14 Top Turnip.—This is a good turnip, but prized chiefly for its tops, which are cooked as greens. Also used as pasture for stock. (Per pkt. 5c) (oz. 10c) ($\frac{1}{4}$ lb. 25c) ($\frac{1}{2}$ lb. 40c) (1 lb. 75c). Postpaid.



Purple Top Globe

A NEW TURNIP—THE DANISH BORTFELDER

The largest of all turnips attains the enormous size of twenty-four inches long and six inches in diameter, without getting pithy. Easy to gather because half its growth is above ground. It is succulent, tender, and as good as the smaller varieties for the table or for fattening stock.

(Pkt. 5c) (oz. 15c) ($\frac{1}{4}$ lb. 35c) ($\frac{1}{2}$ lb. 60c) (lb. \$1.00). Postpaid.

PACKET SEEDS



Look for this case. If your dealer does not carry Aggeler & Musser Seed Co.'s packet seeds, request him to get them, because we do not put our seeds out on commission. Commission seeds are put up and placed on sale throughout the country in August, long before new crop seeds are harvested. Therefore the seeds are at least one year old before they are put into packets. Our packets are never put up until the new crop seed has been delivered. You are sure to get fresh seeds when you buy from the AGGELER & MUSSER SEED CO.'S CASE.

FOR CLEANING SEEDS

We have the most complete and best equipment in the city for cleaning and re-cleaning seeds of all kinds and of every description. At an expense of several thousand dollars we have installed three Clipper fanning mills, one suction cleaner, and the lately invented Meyers Gravity Separator, which is the last word in cleaning machinery. All cleaners are driven by an electric motor. Look over our extensive list of poultry supplies remedies and requisites.

INSECTICIDES

Notice—Poisonous insecticides may not be sent by mail.

All insecticides are more or less poisonous. Many are in liquid form put up in tins or glass. To send these by mail, extraordinary care must be given to the packing, which necessarily adds much to the weight, and therefor the postage may seem out of proportion to the purchase price.

On bulky items where the postpaid price is not mentioned, we prefer to send by express, and shall do so unless requested by you to do otherwise.

If wanted by parcel post, add sufficient money to the given price to cover postage. Estimate liquids plus packing at the rate of 4 pounds to the quart, or 14 pounds to the gallon.

See parcel post rate on inside of front cover page.

Prices on some items fluctuate and are subject to market changes.

A. & M. ANT POWDER.—Will drive ants out of your garden. It is particularly good for hot-beds, and is quite harmless to young plants if applied judiciously, that too much powder is not allowed on the plants. Sold in bulk.

Price—(1 lb. 25c) (5 lbs. \$1.00) 10 lbs. \$1.50) f. o. b. here. Cannot mail.

ANT EXTERMINATOR, TALBOT'S POWDER.—Valuable to apply in the house for roaches, as well as in the garden for ants. Put up in paper shakers.

Price—(3 ozs. 25c) (6 ozs. 50c) (12 ozs. \$1.00). Add 10c each size for packing and postage.

ARSENATE OF LEAD.—(Paste) A poison to destroy insects that eat the foliage. It is often applied mixed with Bordeaux. Dilute three pounds of Arsenate of Lead to fifty gallons of water. Put up in tin.

Price—(1 lb. 50c) (5 lbs. \$1.25). Cannot mail.

ARSENATE OF LEAD.—(Powder) Used the same as paste.

Price—(½ lb. 25c) (1 lb. 50c). Cannot mail.

"BLEACK LEAF 40"—(Sulphate of Nicotine). The best insecticide to eradicate plant lice of every description wherever they may appear, or it may be used as a wash for animals affected with skin diseases. There is no better spray for chicken houses. Diluted according to directions it is non-poisonous and may be safely applied to all vegetables. Dilute two teaspoonfuls to one gallon of water. Add a little soap to insure adhesion to the foliage. In tin.

Price—(1 oz. 25c) (½ lb. 75c) (2 lbs. \$2.50). Add postage.

BLUE STONE.—(Sulphate of Copper). Applied in time it will prevent mildew and all fungus diseases. Dissolve one pound with hot water in a wooden or earthen vessel. Then dilute to six gallons of cold water. Sold in bulk. Price—(1 lb. 20c) (7 lbs. \$1.00). Price fluctuates. Ask for quantity price. Cannot mail.

BORDEAUX MIXTURE.—(Paste). The great preventive of mildew, blight, fungus, root disease and rust, particularly on potatoes, celery, tomatoes, or wherever they may appear. One quart should be dissolved in a wooden or earthen vessel with hot water, diluted to twelve gallons of water. In tin (1 qt. 50c). Add postage.

Price—(1 qt. 50c). Add postage. In tin.

Formula for fifty gallons of Bordeaux Mixture.—Slack with water five pounds lump lime, then dilute to twenty-five gallons. Dissolve 5 pounds Blue Stone in a wooden or earthen vessel with hot water; dilute to twenty-five gallons. Mix equal parts when wanted.

BORDEAUX MIXTURE.—(Powder). Price—(1 lb. 35c) (5 lbs. \$1.50). Add postage.

BUG DEATH.—(Powder). Poison for slugs on roses, or for any insects that eat foliage wherever they may be found. Sold in bulk.

Price—(1 lb. 25c) (5 lbs. \$1.00.) Cannot mail.

CREOLIUM.—(Liquid). For aphid, thrip, red spider, mites in chicken houses, and skin diseases on animals. Directions.—For tender plants dilute to 99 parts water. Add a little soap. Sold in tin. Price—(½ pt. 35c) (1 qt. \$1.00). Add postage.

CARBON BI-SULPHIDE.—(Liquid). For exterminating gophers, squirrels, ants or any vermin that live under ground. Directions: Saturate cotton or other absorbent, put deep into the hole and close all openings. For ants, pour into the opening. For weevil in grain, put grain into any airtight chamber; for one hundred cubic feet of space use one quart of Carbon Bi-sulphide; saturate it into any absorbent so that it will evaporate quickly; close the chamber tightly for three or four hours. It is not necessary to remove the grain from the sacks.

Notice!!! Danger!!! It is very combustible. More dangerous than gasoline. Therefore do not smoke or have fire anywhere near while handling Carbon Bi-sulphide. (1 qt. 50c) (1 gal. \$1.50) (5 gals. \$6.00). Cannot mail.

FORMALDEHYDE (Liquid).—For destroying the germs of smut on grain, of scab and rhizoctonia on potatoes, dilute one pint to forty gallons of water. Submerge potatoes one half hour, and grain only long enough to moisten it. (Pint 50c) (qt. \$1.00). Cannot mail.

INSECTICIDES—(Continued)

GOPHER CANDLES.—Similar to fire-crackers, and safe to handle. Put in gopher or squirrel runs, light the fuse, and close all openings. The fumes will kill the vermin. (Per bundle of twelve, 50c). Add 10c for packing and postage.

GOPHER-GO (Poison Grain).—Very popular because it is easy to apply and does the work. Drop some grain in the gopher run early in the morning when the hole is open. Do not disturb the opening. In a few minutes it will be eaten. If the first time fails, try again. Sold in paper packages. (10 oz. 25c) (22 oz. 50c) (3½ lbs. \$1.00) (10½ lbs. \$3.00). Cannot mail.

HELLEBORE (Poison Powder).—For all insects that eat the foliage. Put up in paper. (½ lb. 25c). Cannot mail.

KILL-SCALE EMULSION (Liquid).—For scale and lice, for any sucking insects on plants or in chicken houses. (1 gal. 60c). Cannot mail.

KILL-SCALE SOAP.—Use same as for Kill-Scale Emulsion. (2-lb. piece. 25c). Add 10c for packing and postage.

LIME, HYDRATED (Powder).—A disinfectant. All insects will avoid it. It is good for the soil in plant beds and good for the plants. Put in box about the chicken house, that the fowls may dust in it. (10 lbs. 25c) (50 lbs. \$1.00). Cannot mail.

—LIME (Lump).—For white-washing and for making Bordeaux. Sold by the drum, about one barrel, \$2.00 each, f.o.b. here.

NICO-FUME (Liquid).—For aphid in hot-houses. Similar to but is more volatile than "Black Leaf 40," which should be used on out-door plants, while Nico-Fume should be used in greenhouses and hot-beds. Either spray or fumigate by vaporization, by inserting red-hot iron into the liquid. Sold in tins. (¼ lb. 50c) (4 lbs. \$5.50) (8 lbs. \$10.50). Add postage.

NICO-FUME (Paper).—Sold in tins of 24 sheets. One sheet is sufficient to fumigate 100 cubic feet. It is an easy way to rid greenhouses and hot-beds of aphid, and chicken houses of lice and mites. Directions printed on each package. (Per package \$1.00) Postpaid.

Nikoteen (Liquid).—30 per cent strength for spraying, strongest, purest and most economical. Death to Aphid or Green Fly, Red Spider, Mealy Bug, Thrip and many other forms of Flower, Fruit and Vegetable Lice. An extract of tobacco, containing about 30 per cent nicotine. A most effectual, economical and safe remedy for fumigating greenhouses. Use a scant teaspoonful to 1½ pints of water for each pan, which is sufficient, when vaporized by placing a hot iron in it, for 600 square feet of floor space. Price—(Pint bottle, \$1.50; prepaid, \$1.75).

PARIS GREEN (Powder).—Sure death to all insects that eat foliage. Mix with Bordeaux when desired. To four gallons water add one tablespoonful and keep well agitated. For cut-worms, mix one tablespoonful to ten pounds bran and spread around the base of plants. Put up in paper. (¼ lb. 15c) (½ lb. 25c) (1 lb. 50c) (5 lbs. \$2.00). Cannot mail.

RESIN WASH (Liquid).—For all kinds of scale and fungus. (1 qt. 30c) (gal. 50c) (5 gal. \$2.00). Cannot mail.

SLUG SHOT, HAMMOND'S (Powder).—For bugs and worms that eat foliage. (1 lb. 15c) (5 lbs. 50c). Cannot mail.

SQUIRREL POISON, MOORE'S (Grain).—For gophers and squirrels. Sold in tin. (1 lb. 35c) (3¼ lbs. 75c) (6½ lbs. \$1.25). Cannot mail.

SQUIRREL POISON, FINLEY'S (Grain).—For gophers and squirrels. Sold in tins. (1 qt. about 2 lbs. 35c). Cannot mail. (5 gallons weighing about 42 lbs. \$4.00) f.o.b. here.

SPRA-SULPHUR POWDER is a superior and efficient form of sulphur for destroying SAN JOSE and other SCALE INSECTS and all FUNGUS Diseases that can be controlled in the dormant season, and as a Summer Spray for APPLE SCAB, APHIS LARVAE, MILDEW and other Fungus troubles.

Directions.—For Winter Spraying when trees are dormant, use 10 pounds Sprasulphur to 50 gallons of water. For control of Scale and fungus diseases. For Summer Spraying when trees are in leaf, to control Apple Scab, Aphid Larvae, Mildew, etc., use 1 pound to 50 gallons of water.

When Arsenate of Lead is added for codling moth and all chewing insects, make your sulphur solution first, then add Arsenate of Lead, using 2 pounds of the paste, or ¾ pound dry, to the 50 gallons solution.

Price—(1 lb. 45c prepaid) (10 lbs. \$2.50) (25 lbs. \$4.00) f. o. b. Los Angeles.

SULPHUR (Powder).—The Anchor Brand is the best. (Per lb. 10c) (50 lbs. \$2.00) (1 sack weighing 110 lbs. \$3.25) f.o.b. here. Cannot mail.

"SHURE-KILL" (Liquid).—The only spray that has as yet been found to destroy red scale as well as other scale. It is recommended by the best of authorities as entirely satisfactory for red scale. (1 gal. 50c) (5 gals. \$1.50) (1 bbl. \$12.00) f.o.b. here.

INSECTICIDES—(Continued)



STERLINGWORTH CUT WORM KILLER

It is a non-poisonous powder, (except in large quantity), so alluring that cut worms are attracted to it.

Birds and fowls that eat the dead cut worms are not killed. One pound protects 175 plants in hills, and 150 lineal feet when in rows. Read carefully the directions. Price—(1 lb. box 25c) (5 lb. tins \$1.00) (25 lb. drums \$4.00). Cannot mail.

See Sterlingworth Poultry Remedies

SULPHO-TOBACCO SOAP.—Used as a spray for aphids, thrip, mites, and as a wash for skin diseases on animals. (Small size 10c) (Large size 25c). Add 5c each for postage and packing.

TOBACCO DUST (Powder).—For aphids and small insects in plant beds and poultry houses. (1 lb. 15c) (10 lbs. \$1.25). Cannot mail.

TOBACCO STEMS.—For fumigating greenhouses. (1 lb. 15c) (10 lbs. 60c). Add 5c per pound for packing and postage.

(Bale, about 100 lbs., at \$3.75 per hundred pounds) f.o.b. here.

TANGLEFOOT (Paste).—Apply to trees to protect from ants and rabbits. Put up in tin. (1 lb. 30c) (3 lbs. 85c) (10 lbs. \$2.65) (20 lbs. \$4.80) ..Add postage.

WHALE OIL SOAP.—For scale and fungus. Sold in paper. ($\frac{1}{4}$ lb. 10c) ($\frac{1}{2}$ lb. 15c) (1 lb. 25c). Add 10c per packet for packing and postage. (50-lb. case \$5.00).

FOR PEAR AND WALNUT BLIGHT

WARNOCK TREE PAINT.—For Pear Blight, San Jose Scale, Walnut Blight, Peach Borers, Fungus diseases of grapes, and all other orchard pests, including rabbits and other vermin. Warnock Tree Paint taints the bark and sap with acidulous Pine Tar rendered harmless to the tree. No insect or bacteria can absorb this tainted sap and live. No vermin can eat the tainted bark. It is applied by painting thoroughly the trunk of the tree from the branching of the roots just beneath the ground to the branching of the limbs, so that the sap will absorb the paint and become tainted with the remedy, so objectionable to all insect life, but harmless to the tree. The reasonableness of the proposition, with the hundreds of testimonials, convinced us that it possesses such merit that it will meet the demand of California orchardists and vineyardists, and save them thousands of dollars and possibly prove the total eradication of tree diseases and pests.

Every person who owns a home in California is interested in this remedy. If you are interested, write for circular on the subject. Directions accompany each package. Apply at any time except when the tree is wet. Put up in tins.

Price—($\frac{1}{4}$ gal. \$1.10) ($\frac{1}{2}$ gal. \$1.65) (1 gal. \$2.70) (50-gal. barrel \$2.40 per gal.) f. o. b. here.

Keep your walks and driveways clear of weeds.

HERBICIDE LIQUID.—Destroys the roots. Price—(lb. 50c). Cannot mail.

To destroy insects on your flowers without injury to the plants.

READENA.—Sold in tins. Price—(lb. 50c). Cannot mail.

Destroy worms and other vermin from your garden. Use **ELECTRIC WORM ERADICATOR.** It brings all such pests to the surface and destroys them. Sold in tin. Price—(lb. 50c). Cannot mail.

Directions attached to each package.

Poisonous insecticides may not be sent by mail. When they are included with an order for seeds we prefer to ship the entire order by express and will do so unless you request us to do otherwise.

FERTILIZERS

All prices f. o. b. here

WIZARD FERTILIZER—Register No. 68

By authoritative analysis one ton of Wizard contains: 12 times more Nitrogen, 10 times more potash, 50 times more Phosphoric Acid than one ton of manure.

Wizard is always the same, is soluble and free from any filler, has all the plant food elements, it is uniform, odorless, will keep indefinitely, can be used perfectly in a drill, and will not leach out of the soil.

The amount used in comparison to others makes it the cheapest on the market in price, because only half as much of Wizard is required to attain results.

Directions: For the small gardens, use two pounds to 100 feet of row on all vegetables. For large gardens, use 200 lbs. per acre. For lawns, use 25 lbs. to 1200 square feet. For potted plants, a scant teaspoonful.

Sold in 2-lb. pkgs., 25c per pkg. Add 15c for packing and postage.

25-lb. bags, \$1.75 f. o. b. here.

GYPSUM—(What It Does)

"It has an indirect fertilizing value which is mainly due to the fact that it has the power of changing unavailable forms of plant-food, especially potash, into available forms.

"A heavy dressing of Gypsum will greatly improve any heavy soil, rendering it lighter and more easily cultivated, and relieve the tendency to crust and bake."

RABBIT MANURE.—Dried and pulverized; is odorless. Just the thing for lawns, gardens, trees or potted plants. Price—(25 lbs. 60c) (50 lbs. \$1.00) (100 lbs. \$1.75) f. o. b. here.

Bradley Lawn Fertilizer.—Price—(\$2.50 per 100 lbs.) (50 lbs. \$1.25).

A. C. W. Lawn Fertilizer.—Price—(\$2.50 per 100 lbs.).

Sheep Manure.—Price—(\$1.75 per 100 lbs.).

Leaf Mold.—Fine for mixing in soil for potting house plants. Per sack 75c.

Armour's Plant and Fern Food.—Excellent fertilizer for house plants. An odorless fertilizer. Put up in 2½-lb. cans. Per can, 25c. Add 15c for packing and postage.

We have always on hand the best fertilizers for each practical purpose. For lawns, orchards, berries and vegetables. Consult us when you want fertilizer.

Nitrate of Lime.—Runs 13% Nitrogen in a form that is immediately available to the growing tree. This Nitrogen is extracted from the air by means of electricity and put into Lime. In casks weighing about two hundred and fifty pounds. Per cask, \$7.50.

Nitrate of Sode.—15% Nitrogen also immediately available to the crop. Not advisable to get all your nitrogen from this source on account of the Soda content. Price fluctuates. Write for price, stating quantity wanted.

Super Phosphate.—17½% available Phosphoric Acid. Most readily available form and about two-thirds soluble. Per 100 lbs., \$2.50.

Bone Meal.—3½% Nitrogen and 16% Phosphoric Acid. Neither of these two elements are immediate in their action. If put in soil in the Fall some results will show the following Spring. Slow but sure. Per 100 lbs., \$2.50.

Tankage.—5% Nitrogen and 5% Phosphoric Acid. The nitrogen content will show results in two to three weeks. The Phosphoric Acid is from Bone, results as stated above. This is a Packing House product. Per 100 lbs. \$2.75.

Dried Blood.—12 to 13% Nitrogen. The most readily available form of organic Nitrogen. Quick and lasting in effects. Packing House product. Per 100 lbs., \$4.00.

No. 4 Mixed Fertilizer.—4% Nitrogen, 10% Phosphoric Acid, 1% Potash. A complete fertilizer containing all the ingredients necessary for a quick active growth. Per 100 lbs., \$2.50.

Lawn Fertilizer.—2½% Nitrogen, 5% Phosphoric Acid, 1% Potash. A complete fertilizer that will give quick and very lasting results; if applied twice a year will keep your lawn green all the time. 100 lbs. to 1500 square feet. Per 100 lbs., \$2.50.

Pure Fish Fertilizer.—7% Nitrogen, 4% Phosphoric Acid. Purely organic, an excellent fertilizer for all purposes for an active green growth good for two full crops. Per 100 lbs., \$3.50.

On all Fertilizers write for prices on any quantity up to car loads.

Look over our list of books on page 194. You will find just the information you have been wanting. We have books on almost every subject pertaining to agriculture, horticulture and poultry. The most complete of these books on agriculture are by Professor E. J. Wickson, of Berkeley, entitled "California Fruit and How to Grow It," \$3.20 postpaid; and "California Vegetables," \$2.15 postpaid. "Fertilizers," by Gregory, 30c postpaid.

Ferguson's Nitrogen Fixing Bacteria and Farmogerm

"Living Nitrate Factories for Field and Garden."

Four ounces properly applied to the seed for an acre of ground will put as much nitrates into the soil as can be obtained in two tons of high grade commercial fertilizer, with less labor and less expense.

This means profitable crops on poor or sandy soils, restoration of wornout lands, increased crops on good lands.

WHAT THESE NITROGEN-FIXING BACTERIA WILL DO

1. These bacteria furnish the best and most valuable fertilizer in the world, in unlimited quantities and at only a nominal cost of money or labor.
2. They take nitrogen from the air, convert it into nitrates available for plant food, and then give it to the plant. In return the plant supplies them with carbohydrates, thereby enabling the bacteria to grow and reproduce themselves at an almost incredible rate.
3. They increase crops, under ordinary conditions from 25% to 60%, with no extra work. They make possible profitable crops on absolutely barren soil, such as sea sand or even coal ashes. They also improve the crops on good farm land.
4. They store up on the roots of plants the excess nitrates which the plant does not use. This is done in the form of nodules, varying in size from a mere speck to about a half inch in diameter. Official reports show this reserve supply of nitrates thus stored in the ground has been in some tested cases equal to 850 pounds per acre, or more nitrates than are contained in several tons of the average commercial fertilizer.
5. They gather moisture from the air at the same time they gather nitrogen, and also make it available for the future use of plants. This enables an inoculated field to withstand some droughts or dry seasons that would otherwise destroy the crop.
6. They work night and day making money for the farmer.

Do not apply the bacteria to the seed in the sunshine or expose to the sunshine to dry after mixing. Remember that strong sunshine kills every form of bacteria. The best results are obtained when planting is done in the early morning or late afternoon or on cloudy days. If you drill the seed in you can plant any time.



Showing Nitrogen Bacteria

Available for Clovers, Alfalfa, Beans, Peas, Vetches, Lupines, Soy Beans, Burr Clover, Peanuts and all Other Legumes.

FERGUSON'S COMPOSITE CULTURE—(Prices prepaid)

One acre size.....	\$2.00
Five acre size.....	6.00
Garden size.....	.50
Fifty acre size.....	55.00
One hundred acre size.....	100.00

FARMOGERM (Prices prepaid)

One acre size.....	\$2.00
Five acre size.....	6.00
Garden size.....	.50
Fifty acre size.....	55.00
One hundred acre size.....	100.00

"1st. I measured off three plots about twenty feet square. In one of these I got some soil from an alfalfa ranch.

"2nd. I got a plot and spaded it and did not put anything in it.

"3rd. I put some of that Nitrogen-Fixing Bacteria and sowed the seeds.

"In the last or the third one we had the most nodules and it produced fully twice the amount that the others produced. By this experiment I came to the conclusion that every farmer raising alfalfa should inoculate his soil with Ferguson's Nitrogen-Fixing Bacteria before sowing his seeds.

"Yours truly,

H. Takahashi, Los Angeles."

THE GREATEST SOIL RENOVATORS

The sowing of nitrogen-gathering plants for green manuring has become popular because of the excellent results attained and because of its cheapness as a fertilizer that its use is almost universal not only for orchards, but for fields, particularly where melons are to be planted.

If your land is sloping, you need a cover crop to prevent eroding during the rainy season.

If your land is lumpy and dry, lacking life, it needs humus and nitrogen.

If your soil is sandy and fails to retain moisture, it lacks humus and nitrogen.

If your soil is of clay and bakes hard and crusts readily, it needs humus and nitrogen.

If you have just taken up a homestead, your soil is new and not in condition for general cropping. Therefore you want to do the best thing you can to put the soil into good chemical and physical condition as quickly as possible. To do so, plow just as soon as you can after the first rain of the season and harrow soon after each rain until ready to plant. If during fall or early spring, plant hardy legumes for pasture and green manuring to be plowed under for a summer crop. Plant Melilotus, Burr Clover or Vetch. If for a permanent pasture, plant alfalfa. These are all nitrogen-gathering crops and will enrich your soil with nitrogen and humus, but to get the best results inoculate the seed with Nitrogen-Bacteria.

If your planting is delayed until spring or summer, plant Cow Peas, Soja or the Broad Windsor Beans or the Tepary Bean. (See page 28.)

MELILOTUS INDICA (Sweet Clover)

The Citrus Experiment Station at Riverside, Cal., has recently issued a valuable pamphlet on Melilotus Indica, written by Mr. W. M. Merty, in which is given the details of experiments covering five years. It will thrive luxuriantly with less moisture and on poorer and harder soils than most other legumes. It sends down a big tap root opening up the soil for irrigation. It produces a big crop of Nitrogen and is a big yielder of humus if plowed under when the stems harden. It will grow five feet high in four months from seed in the coldest part of winter. It is an annual, therefore easily eradicated (if plowed under before seed matures). Will yield 10 to 15 tons of green material. Will thrive in any kind of soil. Plant any time during the year. It will be ready to plow under in four or five months after planting. If drilled, use 20 pounds of seed per acre; if broadcast, 25 to 30 pounds per acre, and cover very shallow, about one-half inch being the best depth. If sowed broadcast, cover with a brush, not a harrow. Write for quantity price.

At the Citrus Experiment Station, Riverside, the tests of cover crops have been made by planting potatoes, corn, sugar beets on the test plots after the cover crop has been plowed under in the springtime for green manure. Land on which common vetch had been plowed under gave an increased yield of 28.7 per cent., burr clover 30.4 per cent., Canadian peas 43.4 per cent.; but this sour clover, or Melilotus indica, showed an actual average increase of 64.8 per cent. This is nearly half again as great as it has been possible to obtain by plowing under cover crops of rye or barley and applying, also, 1092 pounds of nitrate of soda, or 1188 pounds of dried blood per acre. This bitter clover is also practically immune from the aphid and will stand more frost than any other cover crop.

In walnut and deciduous orchards, where late spring plowing is possible without injury, this sour clover may be planted as late as December 15.

White Canadian and Blue Peas.—These excellent soil renovators are well suited to our local conditions. They are hardy enough to withstand the rainy season. They absorb alkali if not too excessive. A luxuriant crop can be grown when planted after January 1st. Price on application.

Vetch.—Should be sown early, August or September, to secure a good growth before the cold weather of January. While it is very hardy, it requires a longer season than some of the other crops. It is a very satisfactory crop for renovating the soil, because it is a great nitrogen-gathering plant. Price on application.

Whip-Poor-Will Cow Peas.—This Southern Cow Pea has proven to be very satisfactory in this climate. It is a summer forage crop, or just the thing to grow in the late summer to plow under to enrich the soil for a crop of winter vegetables. Price on application.

Burr Clover.—The native Clover, and one of the best nitrogen-gathering crops and very satisfactory for orchards. There is an increasing demand for Burr Clover, and the seed is very scarce and hard to obtain. It is the very best cover crop for poor or dry land, as it needs but little moisture. Quantity price on application.

Broad Windsor.—Sometimes called Horse Bean. Grows upright on a single stem, bearing a profusion of large well-filled pods. The roots are enormously productive of nitrogen. We especially recommend it to hog ranchers. It withstands 28 degrees of temperature. Price on application.

Soja Beans.—Excellent for summer forage for hogs or to plow under.

CLOVERS

Write for quantity prices on all varieties.

Common Alfalfa.—Our standard clover is probably the most reliable source of income of any of our field crops. If you have horses you want alfalfa. If you have cattle, hogs or chickens alfalfa is the main food. You cannot ranch successfully without alfalfa. Write for samples and prices on quantity as the market is constantly changing. Chilian, our common, Alfalfa.—(Per lb. 25c) (by mail 35c).

Peruvian.—Each year adds to the popularity of this wonderful variety. We have never introduced anything in the seed line that gave such entire satisfaction. Its unusual rapid growth, quick recovery after cutting, and continued growth through the winter in favorable climates, results in the production of one or two more cuttings of hay each year than are yielded by the alfalfa commonly cultivated. The explanation for this is found in the difference in the location of the zero point of growth in the Peruvian and in ordinary alfalfa. The temperature at which Peruvian alfalfa ceases to grow is 48 degrees Fahrenheit, while that of common alfalfa is 57 degrees Fahrenheit. The repeat orders and the testimonials we are receiving from those who were fortunate enough to obtain some of this seed the last five years is further proof of its remarkable superiority over other varieties in a mild clim-



Peruvian Alfalfa ate. Price—Per (lb. 35c) (by mail 45c) (100 lbs. \$26.00).

So quickly has the Peruvian Alfalfa become popular that last year, only the fifth season since its introduction, we sold more seed of the Peruvian than of the Common. Once a grower of Peruvian, always a grower. Many customers that bought last season have already engaged their supply for this season. One large grower has already sowed 2½ tons of Peruvian seed. Another grower has four hundred acres ready, intending to sow Peruvian.

Mr. McClure of Clearwater, says the dairymen will pay a higher price for his Peruvian, and will not take the common when the other is obtainable.

J. H. Williams of Compton, Calif., planted last January 40 acres of Peruvian Alfalfa, and says that in the future he will plant no other kind.

He is just now cutting the fifth crop from the 40 acres, and he would be glad to have us refer any one to him, as he can highly recommend Peruvian Alfalfa.

Spangler Bros. of Bakersfield, says: "We have been cutting our Peruvian alfalfa all winter, while the common was dormant from November until April."

Write for further testimonials on Peruvian Alfalfa. We feel that the greatest service we can render to the rancher who intends to plant alfalfa is to induce him to plant the Peruvian. It is past the experimental stage. We stake our reputation as expert seedsmen that the Peruvian Alfalfa is superior to all other varieties.

Red Clover.—This is the variety grown extensively in the Eastern states, generally mixed with Timothy which adds greatly to its value for hay. Price—Per (lb. 04c postpaid) (10 lbs. \$2.50). Write for quantity price.

Melilotus Alba (White Blooming Melilotus) (Bokhara).—This is a valuable addition to the farm as a forage crop. When quite young, it may be pastured or cut and cured for hay. This should be done just before the bloom appears. It is harder than alfalfa, more drouth-resistant, and better for renovating the soil. It may be cut twice the first season and three or four times the second season, yielding 2500 to 3000 lbs. of hay each cutting. It is as easy as alfalfa to eradicate, is biennial. Hence it must be seeded every second year. On account of its hardness to resist extreme cold, heat and drouth it is grown largely in the middle west for pasture. It is highly recommended by the department of agriculture. Price—Per (lb. 40c) (by mail 50c). Write for quantity price.

Alsike or Swedish Clover.—This is one of the hardiest varieties known. It is perennial and does not winter kill. It will do better on moist land than any other variety of clover, and is suitable for either hay or pasture. When sown with other grasses, it forms a thick undergrowth and greatly increases the yield. Write for quantity price. Price—Per (lb. 30c) (by mail 40c).

Burr Clover.—See page 87. If you desire any clover not listed here, ask for it.

SUDAN GRASS



Sudan Grass in Antelope Valley

Culture.—Sudan grass may be grown either drilled, in cultivated rows, or broadcasted. If planted in cultivated rows, the rows should be as close as possible and yet permit of easy cultivation. In 30-inch rows 2 to 3 pounds of seed per acre is ample, and under conditions of low rainfall this method is recommended. Under irrigation, 18-inch rows are preferable and three to four pounds of seed per acre is sufficient.

For broadcasting six to eight pounds of seed per acre should be used. The seed should not be sown until the ground is warm, that is about the time for planting corn. The young plants will withstand slight frosts without injury.

It grows luxuriantly on strong alkali soils. On the ranch of the Montana Land Co., near Alamitos, Sudan Grass planted in mid-summer on alkali land grew luxuriantly together with alkali weed, and where no other weed would grow. It is difficult, however, to get a good start under such conditions, but once started it grows profusely. Write for price.

The successful growing of Sudan Grass in the Southwest has been fully demonstrated last season. Testimonials from enthusiastic growers have been numerous, and not one has reported any discouraging feature.

Fifty to one hundred stems to each stool is the rule. They are from the thickness of a straw to that of a pencil, are succulent and relished green or dry by all stock.

Harvesting the Crop.—The hay should be cut as soon as the grass is fully headed, and early cutting is especially advisable where two or more cuttings per season are expected. The grass can be cut with a mower, but more conveniently with a binder, especially in dry regions, as the hay cures very readily in bundles.

The value of Sudan Grass to the rancher is even greater than alfalfa. It will yield 12 to 16 tons per acre in one season; can be baled as hay and the dry hay is relished by all stock.

Many of our best farmers planted Sudan and every one is very enthusiastic over the value of the new grass, which will likely prove the most valuable crop introduced into this country in years.

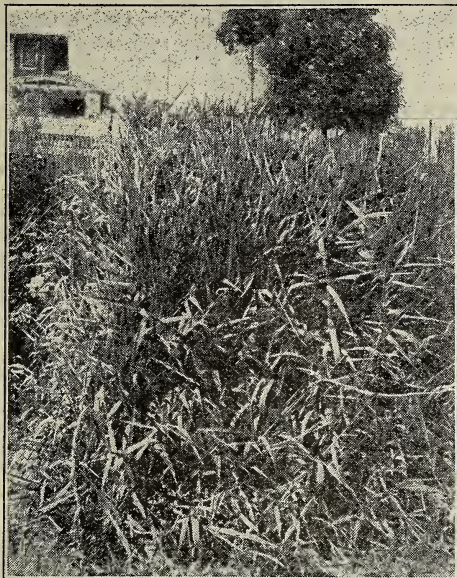
"Sudan Grass Without Irrigation."—L. A. Times.

Ontario, Aug. 15.—That Sudan grass, which is hailed by prominent agriculturists as the coming stock feed of America, can be grown successfully in the Ontario section, has just been strikingly demonstrated by John H. Baker, a prominent dry rancher of this city.

Part of the result of Mr. Baker's experiment is on exhibition at the Ontario Chamber of Commerce. Lacking just two hours of being fifty-three days from the time he sowed the seed on his dry ranch to the south of Ontario, Mr. Baker at random pulled up the product of a single seed of the Sudan grass. It stands more than six feet high and from the one seed came more than forty-eight separate stalks, and there are more coming. The grass was grown without any irrigation whatever and received practically no attention.

Mr. Baker is more than pleased with his experiment and expresses the belief that the first crop will run four tons to the acre for sixty-days' growth. Then, according to the government experts, it will be possible to harvest three or four crops from the same roots. Mr. Baker expresses the belief that the Sudan grass will supplant alfalfa. Write for price.

PARRA GRASS



Parra Grass the second season without irrigation, grown in a vacant lot in the City of Los Angeles

establishing a good pasture by the time the onto it.

Mr. Horace Metcalf, who has been growing it for five years in Los Angeles County, and is familiar with it in Mexico, states: "It does not go to seed in this climate. It may be cut three times in one season and produce twenty tons of hay per acre for the season. It cannot become a pest on dry land, but on wet land it would be difficult to destroy it. It cannot be drowned or destroyed by overflow. It is just the thing for damp or irrigated lands. We cannot recommend it too highly for a permanent pasture on damp land.

Para Grass for Gun Clubs.—Just the thing to plant around the edges of lakes during the summer as the water recedes. It will take root and grow luxuriantly by the time the lakes are again flooded, and continue to grow under water, thus making a permanent and ever-increasing pasture for ducks, wild or tame.

We offer a limited quantity at 25c for 25 stems by mail postpaid, 100 stems for 75c postpaid, 1000 stems \$3.00 f. o. b. Los Angeles.

Paspalum Dilatatum.—From Australia. Just the thing to reclaim marsh lands, and equally good to survive drought. It has been to the Australian dairymen what alfalfa is to the California dairymen. It survives extreme cold, and in Southern California it grows the year round, thus insuring green pasture all winter.

Mr. Sullivan, dairyman of El Monte, planted it on land too wet and soft to allow his cattle to pasture upon it. Alfalfa would not survive. He sowed Paspalum on ridges between alfalfa checks. The first season only demonstrated it would grow throughout the winter. The second season proved its worth. It had seeded to a wonderful degree. The seed grew, taking root among the weeds and devil grass, choking out everything in its way. The dense tufts of grass made a thick mat capable of supporting the cattle. Mr. Sullivan cut it three times during the season, each time getting about one ton of dry hay to the acre. The stock relish it fully as well as alfalfa. It makes a fine hay free from any wood. It is as easy to eradicate as timothy or any other bunch grass. Seven pounds are required to plant an acre. Price—(\$1.00 per lb. prepaid). Write for quantity price.

Italian Rye Grass.—Excellent for damp land; grows rapidly; makes good hay, but is at its best in moist, low lands. It grows continuously until allowed to run to seed. Dairymen having moist land should avail themselves of this valuable pasture. Price—(Per lb. 25c prepaid) (100 lb. \$10.00). Write for quantity price.

Australian Rye Grass.—Very similar to Italian Rye Grass, but will resist more drought. It survives the dry season and starts new growth when the rains set in. Price—Per (lb. 25c prepaid) (100 lbs. \$10.00). Write for quantity price.

Parra Grass.—The grass for marshy land. This grass comes from Vera Cruz, Mexico, and is not propagated from seed, but from the stems that are doubled and planted where wanted. All stock relish it; it is sweet and succulent, and when established, will stand any amount of pasturing or cutting for hay. It thrives best on heavy wet or damp land. We have a limited amount of the grass which we procured from Vera Cruz. It was sent us like a sheaf of wheat, wrapped in bur'ap, was fourteen days in transit, yet every stem took root when planted. It multiplies rapidly. The experimental patch on our trial ground demonstrated it will withstand considerable alkali. If well watered until the latter part of June it will remain green the balance of the dry season, and if cut as late as August it stools wonderfully and grows without irrigation. With the same amount of irrigation usually given alfalfa, Parra Grass may be cut as often and yield much more hay. There can be no better pasture for the dry season, with or without irrigation, provided it has a good start.

It is just the crop for overflow lands because it will grow under water, thus land is dry enough to turn the stock

RHODES GRASS

Something new from South Africa. This grass has been thoroughly tested in Australia and in Florida, where it grows luxuriantly on the sandy lands near the Coast, yielding ten tons of hay per acre. It is comparable to the Timothy so highly valued in the Eastern states.

Prof. Maiden, the Government Botanist of Australia, says of the Rhodes Grass: "It is ideal for ensilage. It yields five tons per acre."

"It smothers Nut Grass. It is a good grass for green food. It is an excellent grass for hay. It is a rapid grower. It has fibrous roots so that it is not likely to be a nuisance, since it can readily be eradicated if required. The seeds germinate readily. It runs six to eight feet, and then grows erect. It is very palatable to stock. If it has any objectionable features I do not know of them, and, therefore, I have recommended experiments with it in many parts of the State. Experiments that have already been made, prove that it will stand the fierceness of frosts, and the seed has not been found at all injurious to stock; in fact, the animals like it."

It is just the grass for a dry hot country. Sow ten pounds of seed per acre.

Price—(\$1.00 per lb.) postpaid. Write for quantity price.

TEFF GRASS

This is a native of Abyssinia, where it is said to be largely cultivated in the hill country as an article of diet. It was introduced into South Africa some years ago, where it has proved of immense value for fodder, and it should be equally serviceable to our farmers here, being one of the best varieties that can be grown for a summer hay crop. It is a grass of remarkably quick growth, if there is sufficient rain to enable the seed to germinate. It has been cut for hay in seven weeks from the time it was sown, and when sufficiently grown to shade the ground, its growth is simply phenomenal. It will give two or more cuttings in a short season, and in South Africa, on cultivated land, it has attained a height of four feet, and produced three tons of hay per acre. According to analysis it is most nutritious, and contains 8.2 per cent of albumenoids, 68.1 of starch, and 2.8 of oil, etc. Cattle, horses, sheep and pigs devour it greedily. One farmer declares that his cattle will leave green lucerne for it, whilst a prominent dairyman avers that his milk supply was largely increased by feeding Teff. It will thrive on any ground, wet or dry, but soil of a porous, sandy nature is most suitable. It will grow luxuriantly where lucerne will not live, and being so well adapted to withstand drought, it should prove one of the finest fodder grasses yet introduced into this country.

With the above recommendation we procured some seed and distributed it among several growers in widely separated places and requested reports. Mr. W. J. Graham of Groveland, Cal., reports the following:

"The sample of Teff Grass you sent me last spring and requested me to send a report, I planted in a very dry spot not far from my house. It grew and thrived on the dry ground better than any grass I ever saw. It stayed green until the latter part of August. The test was not what it should have been because it was impossible for me to keep the chickens and turkeys off of it. They left the oats, wheat and alfalfa and came to it. They preferred it to any other grass or alfalfa growing here. I planted it the latter part of March, but had no chance to save any seed and it grew thrifty until July. It attained a height of about 15 inches, but as I said before, it grew under an awful handicap. I'll order twenty or twenty-five pounds this coming spring, and plant in a field away from the house and give it a thorough test. I think it just the grass for a hot dry summer."

The seed is smaller than German Clover. Three pounds should be sufficient to plant an acre. Sow in March.

(Per lb. \$1.50) postpaid.

Australian Rye Grass.—Used by some instead of Kentucky Blue Grass. It makes a very pretty lawn, but is coarser and not permanent. It must be renewed every three or four years. Price—(Per lb. by mail 40c).

Timothy.—Does very well in moist land and will mature a fine crop of hay in 110 days from seed. We do not recommend it for Southern California. Per lb. 25c prepaid. Write for quantity price.

Bermuda Grass.—Excellent for pasture meadows, but a pest on the farm or in the garden. Withstands drought and grows luxuriantly when irrigated. Sow 10 pounds per acre. Will stand more pasturing than any other grass we know of. Price—Per (lb. 65c) postpaid. Write for quantity price.

Alfalfa.—(*Erodium Cicutarium*).—One of the most nutritious of plants. All stock relish it, even prefer it to most any other forage. Like Burr Clover, it is native to Southern California, and would be more prevalent were it not so difficult to gather the seed. It requires five pounds of seed to plant one acre. A few pounds of seed scattered over a range would within two years have the place well covered with alfalfa. Price—Per lb. 85c, prepaid. Write for quantity price.

GRASSES—(Continued)

Salt Bush (*Atriplex Semibaccatum*).—This is the common Salt Bush; will grow on any soil, even in the strongest alkali, and will thrive luxuriantly for years without rain, absorbing its moisture from the air. Plant the seed on any waste land and turn the place into profit. All stock eat the tender growth in the spring, but do not relish the matured growth in the fall. It may be easily eradicated by one plowing.

Price—Per (lb. 85c) postpaid. Write for quantity price.

Orchard Grass.—Price—Per (lb. 40c prepaid). Write for quantity price.

A WORD ABOUT GRASSES

We offer on these pages 12 grasses, each one of which requires certain conditions of soil and climate, but each one is valuable where conditions are favorable to its growth. But for general conditions such as we have throughout the southwest we have placed Sudan Grass at the head of the list. Rhoades Grass may prove to be equal to Sudan, but it is yet in the experimental state. It is claimed Rhoades Grass will continue growing with less moisture than any of the other grasses except Salt Bush. For permanent all year pasture plant Paspalum, Italian and Perennial Rye grasses. When in doubt write us about it.

NON-SACCHARINE CROPS FOR GRAIN AND FORAGE

All prices are subject to market change

If wanted by mail add the necessary postage. See inside front cover page

EGYPTIAN WHEAT



A Field of Egyptian Wheat Grown at McFarland, Cal.

Although introduced only a few years ago, it is now quite generally grown. Each year it becomes more popular because it never disappoints the planter. It can be cut six weeks from planting, and once a month during the entire summer, or two crops of grain may be harvested and yet grow a good crop for pasture. The picture shows what it will do in the San Joaquin Valley. Mr. E. S. Cook, of Imperial Valley, says: "It will grow as thrifty on alkali soil as on any other. It produces from two to three tons of seed per acre. It can be ground into flour or used for stock feed; it is especially adapted to chicken feed, and is an excellent egg producer."

It requires five pounds of seed to sow an acre. Plant as you would Kaffir Corn: We have numerous testimonials that it grows well in strong alkali soil.

Gentlemen:—I send you under separate cover a head of Shallu, the Egyptian Wheat. I produced enough seed last year to plant 20 acres, putting it in as a second crop on June 20.

We wet the ground thoroughly, listed 6 pounds of seed to the acre, cultivated twice, irrigated twice, which was one time too many; it grew marvelous, each seed stooled out from 2 to 10 stalks, and made canes 15 feet high, each cane having a head.

We picked out an acre at random, measured it, cut the heads and weighed them and there was 7300 pounds, will not shrink much in the threshing, and is about the biggest crop I ever raised. All classes of stock take to the stalks readily, there are 40 tons of fodder to the acre.

Dwarf Milo made 2700 and Yellow Dent Corn 3000 pounds per acre right alongside of it, and the same care and water. I remain, GEO. A. ALKIRE.

Sow five pounds of seed per acre. **Price—Per (lb. by mail 25c) (10 lbs. \$1.00).** Write for quantity price.

FETERITA

No new thing is offered in this catalog until after it has been thoroughly tried. That is why we receive so many favorable testimonials each year. But of the many non-saccharine sorghums offered in this book none have proven more popular from the start than Feterita, on account of its astonishing growth after it becomes well rooted. Every testimonial received expresses astonishment at its rapid growth and early maturing.

The grain has about the same feeding quality as Egyptian Corn or Milo Maize; yields from two to three tons of grain per acre and is a month earlier than Milo Maize. It is bothered very little by birds as they are unable to shell it out and waste it. The seed is more susceptible to cold than other sorghums, therefore should not be planted so early, nor should it be planted in cold, damp soil.

The Riverside and Orange County growers report it far ahead of the common non-saccharine crops. Mr. Clutter, of the Antelope Valley is foremost in its praise. He says that for both the excellence and abundance of forage it cannot be excelled when cut young, and for grain it is equal to any in quality, but ahead of others for yield and earliness. Two crops can be raised in one season, the second crop from the seed grown on the first crop.

The second growth stools wonderfully, producing several tons of excellent forage for pasture or for ensilage. It thrives luxuriantly on soil so alkaline that field corn will not thrive. The heads are upright. Cultivate as Kaffir Corn. Eight pounds of seed is sufficient to plant an acre drilled. Price—Per (lb. 25c prepaid) (10 lbs. \$1.00). Write for quantity price.

A WORD ABOUT SORGHUM

Mr. Atmore, of Piru, Cal., is authority for the following statement: "For more than twenty years I have planted sorghum about the first of April; about the time it is well seeded I have some hogs ready to fatten for the market. I turn the hogs into the field of sorghum every day toward evening. In this way they eat all they want without waste, and about the time it is all gone the hogs are ready for market. This is all the feed they get for fattening. Saves me much labor, and the exercise is healthful for the hogs. I sow one acre of sorghum for every ten hogs."

TEXAS SEEDED RIBBON CANE

(Also called Gooseneck Cane)

In Texas it has been planted principally to make syrup; but experiments have demonstrated that of all varieties of sorghum none can compare in yield with the Seeded Ribbon Cane, which has yielded about fifty tons of fodder per acre, against 15 tons of other varieties. It grows ten to fifteen feet high, with abundant foliage.

Why should you be satisfied with ten tons of ensilage per acre, when with the same expense you can grow forty tons? Drill in rows $3\frac{1}{2}$ feet apart, using ten pounds of seed per acre.

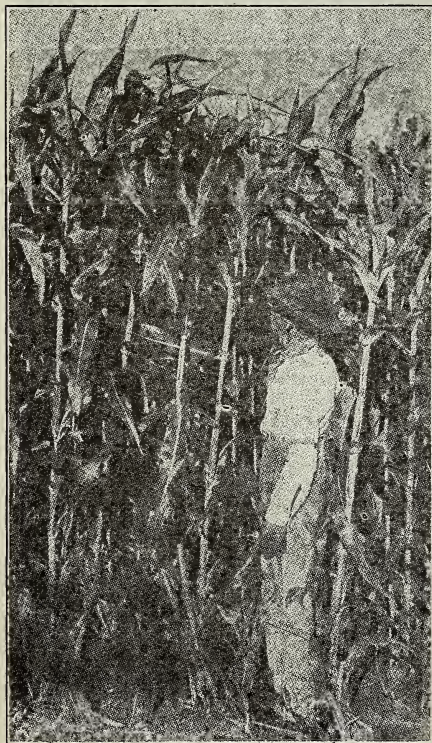
Write for prices.

RED TOP SORGHUM

This is considered the best variety of all the sorghums. Because of its luxuriant foliage, abundant stooling of tall succulent canes, and large percentage of saccharine it is better for forage or ensilage, and the large compact heads of grain which readily separates from the chaff adds to its value as food for stock. Wherever the Red Top is known its popularity supercedes all other sorghums. Write for prices.

AMBER CANE

This variety of sorghum has long been the favorite in this section, and has always proven highly satisfactory because of its luxuriant foliage, succulency and enormous tonnage of rich fodder. Write for prices.



Texas Seeded Ribbon Cane

NON-SACCHARINE CROPS FOR GRAIN AND FORAGE

Dwarf Milo Maize is much preferred to the tall variety because it stools wonderfully and matures a large head of seed on each stool, producing as much as 3500 pounds of grain per acre, and the stalk being shorter and having more foliage, makes it more desirable for fodder. Dairymen find that the cows will give more and richer milk when fed on it. It is the right crop to plant in young orchards because it will not shade the small trees.

We have Dwarf Milo Maize grown from pedigreed stock. For the past three years the heads were carefully selected in the field before harvesting. Now we have a strain that grows about four feet high and produces forty per cent more than it did three years ago under the same climatic and soil conditions.

Per (lb. 25c postpaid) (10 lbs. \$1.00) (20 lbs. \$1.50) (50 lbs. \$2.50) (100 lbs. \$4.00)
 F. O. B. Los Angeles.

White Milo Maize.—It is said to be more drouth resistant than any other non-saccharine forage plant. It will mature a crop of grain with one irrigation. It will yield nearly as much grain as Feterita and equal to it in food value. Price—Per (lb. 25c prepaid) (10 lbs. \$1.00) (20 lbs. \$1.50) (50 lbs. \$2.50) (100 lbs. \$4.00 f. o. b.

Kaffir Corn.—Grows similar to the Milo Maize except the head is upright instead of hanging over like Milo Maize and Egyptian Corn. It will yield two to three thousand pounds of grain per acre. Sow 8 pounds of seed per acre drilled. Price—Per (lb. 20c prepaid) (10 lbs. \$1.00). Write for quantity price.

Egyptian Corn.—Like the preceding fodder crops, it is grown chiefly for the foliage to pasture when young, but yields largely of grain. The chief merit of these fodder crops is in their hardness to produce fodder and grain with almost no rainfall or irrigation. Sow eight pounds per acre drilled. Price—(Per lb. 20c prepaid) (10 lbs. \$1.00). Write for quantity price.

Sorghum.—The first thing a good California farmer will do when settling upon a new homestead is to plant sorghum to supply feed for his stock. Within four weeks from the time of planting he can begin to cut fodder. It is claimed that as high as 10 tons of green fodder have been grown per acre each cutting. It can be cut several times during the season if not allowed to get too high, and makes a good sweet hay. Sow 100 pounds per acre broadcast for best results. Price—(Per lb. 20c prepaid) (10 lbs. \$1.00). Write for quantity price.

MILLET

German Millet.—Produces from 4 to 5 tons of hay to the acre, or from two to three thousand pounds of seed. Seed grown in moist land will mature a heavy crop of hay without irrigation. Yields two crops in a season. Sow 20 pounds to the acre. Price—Per (lb. 10c) (8 lbs. 50c).

Common Millet.—It is an annual grass, its luxuriant leaves being very juicy and tender, are much relished by all stock. It makes a very good hay. Sow 30 pounds to the acre. Price—(Per lb. 10c) (8 lbs. 50c).

Pearl Millet or Pencilaria.—Cannot be excelled for fodder when cut quite young when it is tender. When mature the fodder is too coarse and is injurious to stock. The grain is of little value. Price—Per (lb. 20c) (10 lbs. \$1.50).

Pearl Millet or Pencilaria.—Cannot be excelled for when mature the fodder is too coarse and is injurious to stock.

Hungarian Millet.—It germinates readily and stands great drought. Has numerous succulent leaves, broad and over a foot in length. Furnishes an abundance of green fodder, relished by all kinds of stock. Sow 40 pounds to the acre. Price—(Per lb. 10c) (10 lbs. 75c).

Hog Millet.—Grows rapidly and abundantly. Hogs pastured on Millet need no further fattening. It attains perfection anywhere in the Southwest. Price—(Per lb. 10c) (10 lbs. 75c).



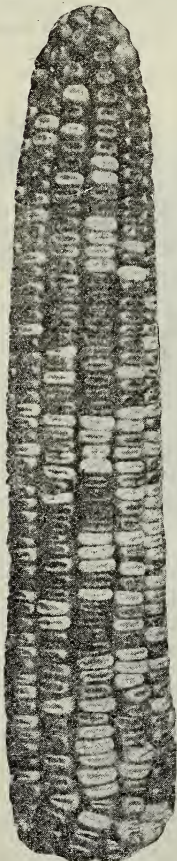
German Millet

FIELD CORN

We are listing only those varieties that have been tried here and have proven highly satisfactory. Prices of all varieties of field Corn subject to market change. Per (10 lbs. 50c) (25 lbs. \$1.00) (100 lbs. \$3.50) f. o. b. Los Angeles.

Tuxpam.—This is the popular variety in Southern Texas and in Mexico. Our seed is local grown and without irrigation. It grows taller than our common varieties, bearing one and two very large ears of white dent corn, which is very sweet when in the milk. Considering the enormous growth this corn made on dry sandy soil, we believe it would prove to be ideal on damp land both for dry corn and for ensilage. It is a late maturing variety on that account, and because of the enormous tonnage of green fodder we give it special endorsement for ensilage.

SQUAW (See picture).—This variety is very popular in the Imperial Valley and in Texas. Mr. Wright, our grower, says: "I am astonished; it is the best corn I ever grew. It was very late when I planted it. It is tall and has two to four large ears on every stalk. It is a dent corn but not as hard as common corn. The husk is so tight the worms have done no damage. You cannot recommend this too highly."



Squaw Corn

Orange County Prolific.—This white dent variety is strictly a California product and will surpass in amount of fodder or grain any other variety we ever offered. It will readily yield one hundred and ten bushels of grain to the acre; from four to nine fully developed ears to the stalk. We have only a limited quantity; therefore it would be to your advantage to order early. (10 lbs. 50c) (25 lbs. \$1.00) (100 lbs. \$3.50) f. o. b. Los Angeles.

WHITE

Champion White Pearl.....	110 days
Wisconsin White Dent.....	110 days
Iowa Silver Mine.....	100 days
Red Cob Ensilage.....	100 days
Hickory King.....	110 days

YELLOW

Reid's Yellow Dent.....	100 days
Golden Beauty.....	100 days
King of the Earliest.....	100 days
Pride of the North.....	90 days
Improved Leaming.....	100 days
Iowa Gold Mine.....	100 days
Minnesota King.....	100 days
King Philip Yellow Flint.....	90 days

Read This.—Our Pride of the North and King of the Earliest varieties are the most dependable. They are always a sure crop because of their extreme earliness, and they surprise the grower because of the great yield of grain.

Red Cob Ensilage should always be planted by dairymen for the silo, and sweet corn for forage.

POP CORN

Rice.—Sharp pointed grain is preferred by vendors, but is not profitable to grow here at usual prices because of the devastations of the worm. Per (lb., by mail 20c) (10 lbs. 75c) f. o. b. here.

Pearl.—This is the variety so extensively and profitably grown locally. It yields enormously and at three cents per pound is very profitable, but for several years the grower has received four cents per pound for the entire crop. Per

(lb. by mail 20c) (10 lbs. 75c) f. o. b. here.

Yellow.—Large smooth grains of Golden Yellow color, it pops large, and has excellent flavor and is the most profitable to grow, but does not sell as readily as the Pearl. Per (lb. by mail 20c) (10 lbs. 75c) f. o. b. here.

About Corn.—More than 2,000,000 bushels of corn is produced in California annually, yet this is scarcely half enough to meet the local demand. This condition ought not exist because there is ample acreage under irrigation with soil suitable for growing corn beside the large acreage near the Coast where corn can be grown without irrigation. Where corn cannot be irrigated plant the "King of the Earliest" variety.

GRAIN

With our up-to-date facilities for cleaning all kinds of seed, we aim to have all field seeds as clean and free from fowl seeds as it is possible to make them.

Grain and other field seeds that pass in the open market as clean will often show ten per cent or more of broken grain, fowl seeds, chaff and dirt. Should our prices appear higher than others, you will find upon investigation that they are cheaper, because of the purity of the seed.

BARLEY (Sow 80 lbs. per acre)

We aim always to have the best it is possible to procure. We cannot fix a price because of the fluctuations of the market.

Bearded Barley, Beardless Barley and Bald Barley. Write for prices.

OATS (Sow 70 lbs. per acre)

Texas Red (Rust Proof)—This is the only variety that is profitable to plant here. We have this on hand during the planting season.

Texas Red Oats—Grown in Texas.

Texas Red Oats—Grown in California. Write for prices.

WHEAT (Sow 60 lbs. per acre)

Turkey Red.—One of the best for milling, because of its hard, flinty grain.

Sonora.—Generally grown in the interior, thirty miles or more from the coast.

Defiance.—Grown almost exclusively near the coast because it is more nearly rust-proof than any other variety.

Durum or Macaroni.—Highly recommended by the United States Agricultural Department because it withstands drought, and is better adapted to dry farming on mesa lands. It has proven this claim in many places in the arid sections of the country. One grower from Weld County, Colo., writes: "Not a drop of water save a slight rain did my Macaroni Wheat have, yet it yielded 48 bushels to the acre."

—Price—(Per lb. 10c; by mail 20c) (10 lbs. 75c) (20 lbs. \$1.50) (100 lbs. \$5.00).

SPELTZ (Emmer Wheat) (Sow 80 lbs. per acre)

A grain for dry lands, introduced from Russia. This is a remarkable grain, and should receive the attention of all farmers. It is a species of drought-resisting wheat, and not inclined to rust. It will produce a fair crop under almost any condition of climate, but grows best in dry prairie regions with hot summers, giving excellent results. Thrives on poor land or stony ground. The Experimental Stations of both the Dakotas report that it resists drought better than oats or barley. All animals eat it greedily, and are fond of the straw. No matter how dry the season, speltz is sure to head. You will have grain even if you have but little straw. Sow 70 to 80 lbs. per acre very early, same as barley or oats.

Price—(\$4.00 per 100 lbs. f. o. b. here). Write for quantity price.

RYE (Winter) (Sow 50 lbs. per acre)

Grown extensively for early winter pasture, green manuring, and for the straw which is valuable for many commercial purposes. Write for prices.

SILVER HULL BUCKWHEAT (Sow 40 lbs. per acre)

Blooms longer and matures earlier than other varieties; grain of a beautiful light gray color with very thin hull. The bloom is exceptionally good for bee pasture.

Price—(Per lb. 10c) (10 lbs. 60c) (100 lbs. \$5.00) f. o. b. Los Angeles.

Russian Flax will undoubtedly grow as luxuriantly in the Imperial and San Joaquin Valleys as it does in San Luis Obispo County, where it is at its best and yields about two tons of seed per acre. This at a normal value of \$2.25 per hundred pounds, f. o. b. San Francisco, means \$90.00 per acre to the grower, less the freight. This is better than wheat and corn, and no more expensive to grow. Sow 40 pounds of seed per acre. It requires the same culture as barley.

Price—(20c per lb. prepaid). Write for quantity price.

Common Buckwheat.—It is now demonstrated that buckwheat is one of the best cover crops to grow during the summer months. The soil is always moist where shaded with buckwheat. Sow the seed any time after April 1st, about 45 pounds per acre. Within ten weeks it will have matured seed; plow under; the seed will within ten weeks mature another crop. Thus with one sowing of seed you can plow under four crops. It will not survive the winter. Therefore it is necessary to sow once a year. When necessary we advise irrigation about time of maturity, and plow under as soon after irrigating as the soil will permit. Price on application. If you have an apiary, sow buckwheat.

Rice growing as an industry is now established in certain sections of California. It is now only a matter of local conditions.

If interested write to United States Department of Agriculture at Washington, D. C., for Farmer's Bulletin No. 688, and Circular No. 97.

The variety, now accepted as the best for California, is the **Wataribune**, an early variety imported from Japan.

Price—(Per lb. 20c prepaid) (10 lbs. 80c). Write for quantity price.

FIELD CROPS

When field seeds are desired by mail, add the required postage. See inside front cover page.

GROW HEMP, RAPE, SUNFLOWER AND CANARY SEED

The high price now prevailing will justify the planting of large acreage to these crops. With conditions that are likely to prevail in Europe beyond the time of planting next season's crop, it is sure the price of bird seed will greatly advance, thus making it certain that it would prove profitable to those who will plant large acreage to any of these crops. Each one of them is easily grown and easily harvested, but plant at least fifty acres, in order that you may have a carload of grain, or unite with your neighbors to grow a carload.

Many of these crops should be planted during December and January.

If interested, write us at once for particulars.

Mammoth Russian Sunflower.—Single heads measure 15 to 22 inches in diameter, and contain an immense amount of seed, which is highly valued by all farmers and poultry breeders who have tried it as an excellent and cheap food for fowls. It is the best egg-producing food known for poultry. It can be raised cheaper than corn, and is destined to be an article of great value. Every farmer should plant some of the seed in any waste piece of ground any time from early spring up to the middle of July. Three pounds of seed will plant one acre.

Price—(1 lb. 20c prepaid)... Write for quantity price.

Rape.—Thousands of sacks of rape are imported each year, while it grows wild in some localities of Southern California. It is a profitable and easy crop to grow, and harvest. If interested see us about it.

Price—(Per lb. 20c postpaid). Write for quantity price.

Improved Evergreen Broom Corn.—This Broom Corn grows about eight to ten feet high, stands up well and is entirely free from crooked brush. The fibre is long and fine. Its great value is that it will not get red in the field before it is cut, but it is strictly a green variety of brush, commanding high price. It grows to perfection in all sections of Central and Southern California, back from the coast.

Price—(Per lb. 15c) (10 lbs. \$1.00). Write for quantity price.

Dwarf Evergreen Broom Corn is more desirable than the Tall in a locality where a strong wind prevails. It is also less trouble to harvest, while the yield is nearly the same as the Tall variety. **Price**—(Per lb. 15c) (10 lbs. \$1.00). Write for quantity price. Do not buy cheap seed; it has no pedigree.

Write for special circular on Broom Corn Culture. It is free.

Canary.—This can be grown quite successfully here. It is just as easily grown as barley, and requires the same cultural treatment. Several carloads are imported each year into Los Angeles, all of which has come from Europe. The consumption throughout the United States is enormous. All of this could be grown in California. It is worth fifty to eighty dollars per ton to the grower. If interested, write or see us about it. **Price**—(Per lb. 20c postpaid). Write for quantity price.

Hemp.—What has been said here of Canary is applicable also to Hemp. There is additional reason why you should plant hemp largely. If you will grow two hundred or more acres you can sell it right at the field for fibre, netting you fifty to sixty dollars per acre. It is easily grown and requires about 100 days to mature a crop. It requires sixty pounds of seed to plant an acre, and should be sown in February or March. If interested, write or see us about it.

Price—(Per lb. 20c postpaid). Write for quantity price.

Turkish Tobacco.—Grown quite extensively in some parts of California.

Samson is the larger and coarser variety; **Kavala** the finer. Both are in demand, as each serves its various purposes in manufacturing.

Sow seed Feb. 1st broadcast in a seed bed. Do not rake or cover; only roll it or tamp it with a board. When five leaves show and are three or four inches high, it is ready to transplant. Transplant eighteen inches apart in rows three feet apart.

Price of seed—(Per pkt. 10c) (1 oz. \$1.00) prepaid. One ounce of seed is sufficient for two acres.

Cotton.—Now a staple crop in California.

Egyptian.—A tall long staple cotton, largely grown in the Imperial Valley, and is now one of the standard varieties. Our seed was grown in Imperial County from a thoroughly acclimated strain of Egyptian Cotton.

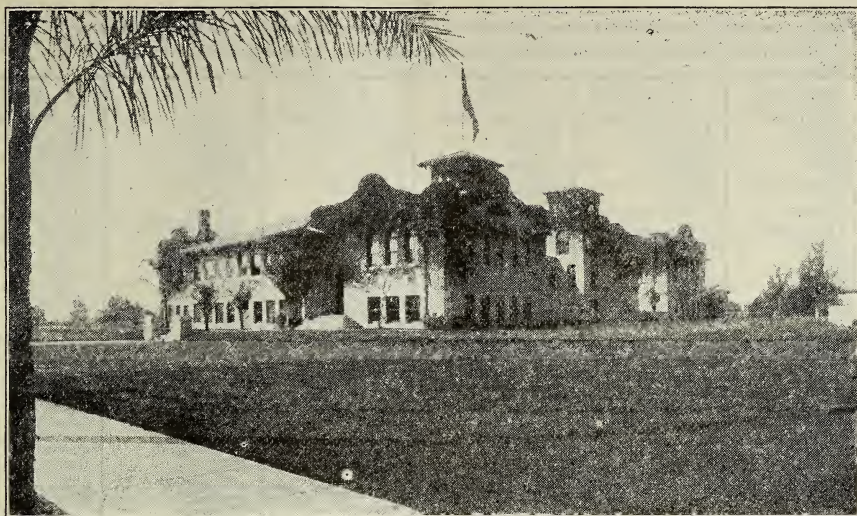
Price—(Per pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$2.00 postpaid).

American Long Staple Peeler.—This variety was recommended to Imperial growers by millmen of the Mississippi Delta. It has proven congenial to Imperial County and found to produce a cotton that sells at a special price because it can be used for larger bolt stock. The yield is from 1 to 1½ bales per acre.

Price—(Per pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$2.00 postpaid).

Write for quantity price.

GRASS SEEDS FOR LAWNS



A perfect lawn from our seed at the Montebello High School

Hints on Lawn Making.—Lawn grass seed may be sown the year round in California. In making a new lawn the soil should be carefully cultivated to the depth of one foot, and prepared to the desired level, and well rolled, after which a light raking will prepare it for the seed. If the soil is poor it should be enriched with some good commercial fertilizer. Sow the seed carefully and even, using one pound to cover an area of 250 square feet; rake in well and roll. Water frequently with a very fine spray.

Fertilizing the Lawn.—To keep up the beauty of a lawn, it will be necessary to feed the grass well. You cannot expect it to retain that depth and richness of texture and color which characterizes it while young, after the elements of plant food have been exhausted.

Ask for Wizard Fertilizer.—Price—(\$1.75 for 25 lbs.), which is sufficient for 1200 square feet of lawn. No odor, no dirt. See other fertilizers, page 86.

Fancy Kentucky Blue Grass.—The purest and best lawn seed. Produces a lasting and beautiful effect. We sell only the finest quality of this seed.

Price—(Per lb. 35c prepaid).

White Dutch Clover.—Makes a showy effect much quicker than the Blue Grass. In conjunction with the Blue Grass, however, it forms the finest and closest turf.

Price—(Per lb. 70c prepaid).

Lippia Grass.—Similar in appearance to clover. Very hardy; rarely needs water. It trails close to the ground, seldom needs cutting, and is almost indestructible; particularly desirable for parks, terraces and lawns in the country where water is scarce, for it keeps green throughout the summer season. It is propagated by transplanting. Sold in flats. One flat will be required to set about 300 square feet.

Price—(Per flat \$1.00) f. o. b. here.

We give particular attention to the quality of our LAWN GRASS SEED. Our Kentucky Blue Grass and our White Clover is always tested thoroughly before we purchase it.

A WORD

The beautiful lawns of Southern California cannot be excelled anywhere in the world. In few places can a new home become so quickly surrounded with luxuriant vines, trees, shrubbery and flowers. This climate will accomplish more in one season than five seasons of Eastern climate. It is a pleasure to plant here, for there is something blooming all the year round. But it requires skill and intelligent aid to direct nature to produce a profusion of beautiful colors at all times.

CALENDAR FOR PLANTING FLOWERS

The same cultural instructions that apply to vegetables generally will apply also to flowers.

The following table shows what varieties may be planted each month of the year.

JANUARY Sow Seed	FEBRUARY Sow Seed	MARCH Sow Seed	APRIL Sow Seed	MAY Sow Seed	JUNE Sow Seed
Antirrhinum Centaurea Calliopsis Celosia Chrysanthemum Salvia Sweet Peas Transplant Carnation Petunia Pansy Stocks Shasta Daisy Verbena Bulbs Anemones Cannas Callias Dahlia Easter Lilies Gladoliolus Narcissus Ranunculus	Antirrhinum Asters Calliopsis Celosia Chrysanthemum Salvia Sweet Peas Transplant Carnation Petunia Pansy Stocks Shasta Daisy Verbena Bulbs Callias Cannas Dahlia Gladoliolus Tuberoses	Asters Balsam Centaurea Dianthus Marigold Nasturtium Snap-Drageon Sweet Peas Zinnia Transplant Aster Celosia Centaurea Calliopsis Salvia Shasta Daisy Verbena Bulbs Callias Cannas Dahlia Gladoliolus Tuberoses	Ageratum Balsam Cosmos Cosmos Centaurea Coreopsis Celosia Daisies Nasturtium Poppies Snap-Drageon Zinnia Transplants Asters Antirrhinum Centaurea Calliopsis Chrysanthemum Celosia Bulbs Amaryllis Cannas Dahlia Gladoliolus Tuberoses	Carnation Cosmos Coreopsis Candytuft Centaurea Daisies Digitalis Forget-me-nots Gaillardia Marigold Nasturtium Phlox Petunia Poppies Salpiglossis Scabiosa Transplant Asters Antirrhinum Centaurea Calliopsis Chrysanthemum Celosia Salvia Bulbs Amaryllis Cannas Dahlia Gladoliolus Tuberoses	Carnation Cosmos Coreopsis Candytuft Cineraria Centaurea Digitalis Gaillardia Marigold Phlox Petunia Poppies Salpiglossis Transplant Ageratum Balsam Carnation Cosmos Centaurea Coreopsis Celosia Daisies Hollyhock Snap-Drageon Violets Zinnia Bulbs Cannas Gladoliolus
JULY Sow Seed	AUGUST Sow Seed	SEPTEMBER Sow Seed	OCTOBER Sow Seed	NOVEMBER Sow Seed	DECEMBER Sow Seed
Antirrhinum Cantebury Bells Centaurea Cosmos Lobelia Pansies Stocks Transplant Carnation Cosmos Coreopsis Candytuft Centaurea Daisies Digitalis Forget-me-not Gaillardia Marigold Phlox Petunia Salpiglossis Scabiosa Violets	Columbine Calendula Cantebury Bells Cosmos Lobelia Pansies Pinks Primula Petunia Verbena Transplant Carnation Cosmos Coreopsis Candytuft Cineraria Centaurea Daisies Digitalis Galliardia Marigold Phlox Petunia Salpiglossis Scabiosa Violets	Carnation Columbine Calendula Candytuft Forget-me-not Pansies Stocks Sweet Peas. Xmas Transplant Antirrhinum Cantebury Bells Centaurea Cosmos Lobelia Pansies Stocks Violets Bulbs Callias Freesias Iris Climbing Vines Australan Pea Cobea Scandens Kudzu Vine Moon Flower Passion Flower Smilax Virginia Creeper	Coreopsis Centaurea Cineraria Forget-me-not Larkspur Pansies Stocks Sweet Peas Transplant Cineraria Columbine Calendula Lobelia Pansy Pinks Primula Petunia Verbena Bulbs Anemones Easter Lilies Freesias Hyacinths Iris Narcissus Ranunculus Tulip	Carnation Centaurea Larkspur Pansies Sweet Peas Stocks Transplant Carnation Columbine Calendula Candytuft Forget-me-not Pansies Stocks Bulbs Anemones Callias Easter Lilies Freesias Hyacinths Iris Narcissus Ranunculus Tulips Mignonette may be shown all the year round	Sweet Peas Transplant Coreopsis Centaurea Cineraria Larkspur Pansies Stocks Bulbs Anemones Callias Cannas Easter Lilies Freesias Hyacinth Iris Narcissus Ranunculus Tulip Border Plants Alyssum Ageratum Bergonia Coleon Geranium Shasta Daisy Verbena

The above table is not comprehensive, but suggestive as to what flowers may be planted each month of the year. Everywhere in this book we have endeavored to impart information that may prove valuable to the beginner and the new-comer and we invite all to write for information on any subject pertaining to gardening, particularly in the vegetable line. See inside of back cover page for information concerning vegetables, what to plant and when to plant it.

Keep this catalogue; you will need it constantly throughout the year. Tell your neighbors to write for one.

For Cut Flowers

Acroclium	Eschscholtzia	Pansy
Antirrhinum	Gaillardia	Penstemon
Aquilegia	Geranium	Phlox
Aster	Gladoliolus	Poppy
Calendula	Gypsophila	Pyrethrum
Calliopsis	Hellanthus	Rhodanthe
Campanula	Hunnemania	Salpiglossis
Centaurea	Larkspur	Scabiosa
Carnation	Lupinus	Stock
Chrysanthemum	Lychnis	Sweet Pea
Coreopsis	Marigold	Sweet Rocket
Cosmos	Matricaria	Sweet William
Dahlia	Mignonette	Sweet Sultan
Delphinium	Myosotis	Verbena
Dianthus	Nasturtium	Wallflower
		Zinnia

For Shady Places

Anagallis	Matricaria
Anemone	Mimulus Moschatus (Musk)
Antirrhinum	Mimulus (Monkey Flower)
Aquilegia	Myosotis (Forget-me-not)
Asperula	Nemophila
Auricula	Oenothera
Bergonia, tuberous	Pansy
Cantebury Bells	Polyanthus
Coreopsis	Pansy
Daisy, Double	Schizanthus
Delphinium	Torenia
Flax, Scarlet	Violet
Foxglove	

CALIFORNIA THE LAND OF FLOWERS

There are no more satisfactory flowers than those grown from seed, especially the easily grown and brilliant flowered annuals. The beautiful shrubs and lilies, of course, have their place, but are far more expensive than a paper of seed which will furnish a large number of plants with usually enough for one's garden and some to spare.

This page is intended to aid you in the selection of your seeds that you may have flowers all the year round, and for every purpose.

Tender or Greenhouse means the plant will not stand the least frost. All such must be planted late in spring (May) or in a greenhouse.

Half Hardy means the plant will stand any light frost, but needs protection against very cold weather. These should be planted in the spring (March and April), not in the fall.

Hardy means the plant will stand considerable frost, or practically all we have on the Pacific Coast. These may be planted in the fall or in the spring (October to May). If sown in the fall they will come into bloom earlier than if sown in spring, even if the plants do not make much progress during the cold weather.

Annuals are plants that bloom the first year from seed, and the plant dies after one season. Tender annuals must be sown in spring (April to June) and hardy annuals may be sown in either spring or fall (October to May).

Biennials are plants that bloom the second year from seed, and the plant dies after blooming. In California many of these will bloom the first year if sown early. Sow under same conditions as perennials.

Perennials are plants that bloom the second year from seed, and the plant lives and blooms during successive years. If sown in early spring (February to April 15) many perennials will bloom the first year from seed. Tender and half-hardy perennials are best sown in spring after frost is over (April 15 to June). Hardy perennials are best sown in the late summer and early fall (July to October) for next year's flowers.

LISTS OF FLOWER SEEDS FOR SPECIAL PURPOSES PERENNIAL PLANTS

Antirrhinum, Aquilegia, Asters (hardy sorts), Bellis, Canna, Campanula, Carnations, Chrysanthemums (hardy sorts), Coreopsis, Delphinium, Dianthus, Digitalis, Gaillardia (hardy), Geranium, Gypsophila, Paniculata, Heliotrope, Hollyhocks, Lobelia (hardy sorts), Matricaria, Myosotis, Pansy, Phlox (hardy), Pinks (hardy), Poppy Iceland, Poppy Oriental, Primrose Pyrethrum, Sweet William, Verbena, Violet, Wallflower.

EDGING AND BORDER PLANTS

Abronia, Ageratum (dwarf), Alyssum Sweet, Bellis, Candytuft, Centaurea "Dusty Miller," Lobelia, Mignonette, Myosotis, Nasturtium (dwarf), Nemophila, Pansy, Portulaca, Snap Dragon (dwarf), Sweet William, Sweet Peas (dwarf), Violet.

PLANTS FOR BEDDING AND IN MASSES

Adonis, Agrostemma, Amaranthus, Antirrhinum, Asters, Bachelor's Button, Balsam, Calceola, Calendula, Calliopsis, California Poppy, Campanula, Canna, Castor Beans, Carnation, Chrysanthemum, Clarkia, Cosmos, Coxcomb, Delphinium, Digitalis, Four o'Clock, Gaillardia, Geranium, Heliotrope, Lantana, Larkspur, Linum, Mignonette, Nicotiana, Nigella, Phlox, Petunia, Pinks, Poppy, Salpiglossis, Salvia, Scabiosa, Sunflower (fancy), Stocks, Sweet Sultan, Sweet William, Verbena, Wallflower, Zinnia.

CLIMBING PLANTS

Bignonia, Canary Bird Flower, Clematis, Cobea, Cypress Vine, Gourds, Japanese Hop, Hyacinth Beans, Ipomoea, Ivy, Maurandia, Morning Glory, Nasturtium, Sweet Peas, Thunbergia, Wistaria.

PLANTS SUITABLE FOR POTS

Abutilon, Ageratum, Asparagus, Begonia, Calceolaria, Carnation, Cineraria, Coleus, Cyclamen, Daisy "Shasta," Daisy "Paris," Fuchsia, Geranium, Gloxinia, Heliotrope, Lantana, Mignonette, Mimosa, Mimulus, Petunia (double), Primrose, Smilax, Stocks, Violet.

FLOWER SEED LIST

(Arranged Alphabetically)

ABRONIA (Sand Verbena).—A hardy annual, trailing in habit, about nine inches high, bearing verbena-like clusters of flowers, which are very fragrant. A native of California. Thrives in dry situations, and is valuable for rock-work or hanging baskets.

Umbellata.—Rosy lilac. Pkt. 5c; oz. 50c.

ADONIS (Floss Adonis, or Pheasant's Eye). A hardy annual of easy culture, growing about one foot high. Leaves fine-cut and feathery; flowers crimson. Seed should be sown in the autumn. Pkt. 5c.

AGERATUM (Floss Flower).—A hardy annual of easy culture, especially valuable for bedding, as it is literally covered with blossoms all summer. Sow the seed early in the spring, either in boxes to transplant, or out of doors, and thin to four to six inches.

Bine Perfection.—Deep blue, one foot high. Pkt. 5c; ½ oz. 45c.

Mexicanum, Imperial Dwarf Blue.—Eight inches high, flowers blue. Pkt. 5c; oz. 60c.

Mexicanum, Imperial Dwarf White.—Eight inches high, flowers white. Pkt. 5c; ½ oz. 30c.

Little Dorrit.—A perfect mass of blue flowers; plant is six inches high and a foot through. Pkt. 5c; oz. 25c.

ALYSSUM (Maritimum).—A fragrant, hardy annual, having the odor of honey, and bearing spikes of small white flowers in great profusion throughout the summer and autumn. Useful for borders or early bedding flowers. Sow the seed early in spring.

Common Sweet Alyssum.—One foot high, very sweet honey fragrance. (Pkt. 5c) (oz. 25c).

Little Gem.—Three to four inches high; fine for borders. Pkt. 5c.

Saxatile.—A yellowish perennial variety. Pkt. 5c.

AGROSTEMA (Rose of Heaven).—A hardy perennial, blooming the first season if the seed is sown in the autumn. Plant grows one to two feet high; flowers resemble Dianthus in bright colors, and are borne on long, slender stems.

Mixed colors, pkt. 5c.

AMARANTHUS.—Hardy annuals, grown especially for their brilliant foliage.

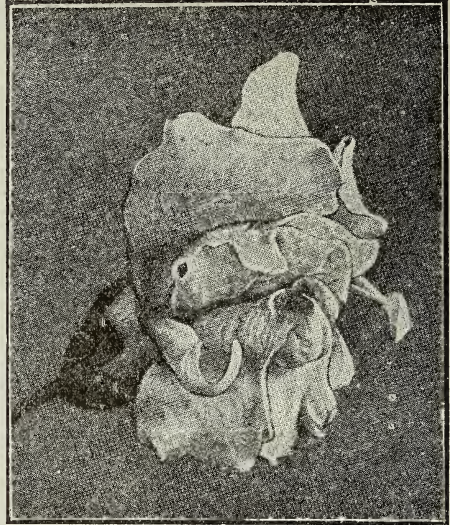
Candatus (Love Lies Bleeding).—Light yellowish-green foliage; long, drooping crimson flower spikes. Plants grow three to four feet high. Pkt. 5c.

Tricolor (Joseph's Coat).—Plants grow three feet high, with brilliant leaves in variegated red, yellow, green, etc. Pkt. 5c.

AMPELOPSIS, QUINQUEFOLIA.—See Virginia Creeper.

ANGEL'S TRUMPET.—See Datura.

ANTIRRHINUM (Snapdragon).—Antirrhinum thrive in almost any soil, and should receive more attention. It is undoubtedly one of the best cut flowers which can readily be grown from seed, while for bedding or borders they are unsurpassed.



Antirrhinum Double White

Antirrhinum Double White.—Quite a new departure in the class of tall, large flowering snapdragons is here offered. Out of the mouth-like aperture in the flowers between the upper and lower lips, emerge abnormal fantastic petals which give a double and beard-like aspect to the very large bloom. Pkt. 15c.

Majus, Album.—Tall. Flowers of large size, pure white. Pkt. 5c.

Majus, Fire King.—Tall. Resplendent coloring of rich yellow and scarlet crimson. Pkt. 10c.

Majus, Grandiflora.—Tall. Mixed; including all the new colors. Pkt. 5c.

Majus, Queen Victoria.—Striking variety, sending up numerous long spikes of pure white flowers. Excellent for cutting. Pkt. 10c.

Majus, Stratum.—Tall. Spikes of beautiful striped flowers. Pkt. 5c.

Nanum, Black Prince.—Semi-Dwarf variety. Extremely rich color, which makes a splendid contrast with the lighter varieties. Pkt. 10c.

Nanum, Queen of the North.—Semi-dwarf. An extremely beautiful pure white variety, well adapted for small beds or borders. Pkt. 10c.

Nanum, Tom Thumb.—Mixed. Pkt. 5c.

AQUILEGIA.—A hardy perennial, growing about two feet high and bearing an immense variety of colors on long, smooth stems.

California Hybrida.—Large yellow flowers, orange spurs; an improvement on our native sort. Pkt. 10c.

Coerulea (Rocky Mountain Blue Columbine).—Fine deep blue and white; long spurs. Pkt. 10c.

White, Spurred.—Pure white with long spurs. Pkt. 10c.

Single Mixed (A. Vulgaris).—Pkt. 5c.

Double Mixed (A. Vulgaris).—Pkt. 5c.



Aquilegia Long Spurred

Long Spurred Hybrids Mixed.—Showy. Pkt. 10c.

Skinneri (Mexican Columbine).—Very handsome and quite distinct; spurs and petals long, crimson and light green. Pkt. 10c.

ARCTOTIC (African Daisy).

Grandis.—Large pearly white Marguerite-like flower, with delicate mauve center surrounded by a narrow golden band. The whole plant is covered with white down. Half hardy annual. Height 2 feet. Pkt. 5c.

ASPARAGUS

Plumosus.—A tender perennial for green-house or potted plant use, with long, fine feathery foliage. The sprays, when cut, retain their freshness in water from three to four weeks. Seeds start slowly and should be soaked in water before sowing. (Pkt. 10c) (100 seeds 50c).

Sprengeri (Emerald Feather).—An early, easily grown, feathery-leaved variety, with drooping branches. The best variety for hanging baskets. (Pkt. 10c) (100 seeds 50c).

ASTERS.—A popular half-hardy annual produced in a great variety of classes and an almost endless number of colors. The tallest grow about two feet high, and some varieties of dwarfs are not over three inches high. The best method of culture is to sow the seed in boxes about January 1st, and transplant about April 1st to 15th. The seed can be sown, however, in the row where the plants are to remain, thinning them from six to twelve inches apart, according to variety.

Dwarf Chrysanthemums.—Compact and free flowering, admirably adapted for edging. Height, 1 foot. Mixed. Pkt. 10c.

Globe Flowered.—Quilled flowers and branching habit. A showy class for mixed borders, large and free flowering. Height, 2 feet. Mixed. (Pkt. 10c) (½ oz. 50c).

German Quilled.—Fine variety of quilled flowers. Height, 2 feet. Pkt. 10c.

Giant Hohenzollern.—Excellent, robust class with enormous flowers of most refined shape, unsurpassed for cutting and exhibitions. Mixed. Pkt. 10c.

Giant Comet.—Elegant flowers, resembling the finest Japanese Chrysanthemums. Unrivalled for table decorations. Height, 18 inches. Mixed. (Pkt. 10c) (oz. \$1.75).

Hercules Aster, Rosy Lilac.—The Hercules type, having long, curly petals, which droop and twist gracefully from the center, and are so dense and full as to resemble one of the finest chrysanthemums; five to six inches across. It needs, however, fine, rich soil to bring out its greatest beauty. Pkt. 25c.

Ostrich Plume Pluto.—A splendid new strain, large massive flowers of the deepest blood red, excellent for cutting. Pkt. 15c.

Snowball.—A splendid Aster of dwarf symmetrical habit, not more than 12 inches in height. The pure white double flowers are imbricated, of extraordinary size, and are indispensable for exhibitions. Pkt. 10c.

Triumph.—Excellent Paedony-flowered Aster, of Tom Thumb habit. Large incurved flowers of dark scarlet. Pkt. 10c.

Truants Paedony Flowered Perfection. Large incurved flowers of the brightest colors. Height, 2 feet. Mixed. Pkt. 10c.

Victoria.—One of the finest classes for exhibition; flowers very large as the petals curve outward instead of folding in; the Victoria makes a splendid contrast to the Paedony flowered varieties. Height, 18 inches. Mixed. Pkt. 10c.

Queen of the Market.—One of the earliest blooming varieties, blossoming frequently in July. Of spreading habit, 8 to 10 inches high. Blossoms medium sized, and the petals curve outward. Mixed, pkt. 10c.



Aster Ostrich Plume Pluto

Ostrich Plume.—Extremely graceful Aster, with large, loose feathery heads, unrivalled for table decoration, flowers double and semi-double. The branching habit makes this a conspicuous border plant. Height, 18 inches. Mixed. Pkt. 10c.



Branching Asters

Giant Branching.—The tallest and best florist's variety, and we heartily recommend it as the very best type of Aster we have. The plant grows 18 inches high and about 18 inches in width, and the blossoms, which are large and full-petaled, are borne on long stems or branches. The most satisfactory type of all Asters, since it is not only a showy bedding flower, but owing to its long stems and large blossoms, is valuable for bouquets. Comes into flower late in the autumn. Best colors:

Carmine,
Lavender,
Pink,
Rose,
(Pkt. 10) (oz. \$1.00).
White,
Crimson,
Light Blue,
Purple.

AUSTRALIAN PEA VINE (Dolichos Lig-nosus).—A rapid growing evergreen climbing perennial, flowering freely in large clusters of rose flowers. For covering arbors, trellises, etc., they have no superior. Pink (pkt. 5c) (oz. 25c).

BALSAM OR LADY'S SLIPPER.—A tender annual, with brittle stems and foliage. Grows about 12 inches high. Flowers both single and double, in bright colors and variations; are wax-like and very attractive. The individual blossoms floating in a dish of water exhibit their beauty to the best advantage.

Improved Camellia Flowered.—In its extraordinary size, perfect form and brilliant colors, this fine strain of balsams surpasses all others. Height, 18 inches. Finest mixed. Pkt. 5c.

Rose Flowered.—Handsome double flowers in form resembling a rose. Height, 18 inches, fine mixed. Pkt. 5c.

Spotted.—Large semi-double flowers well adapted for borders, fine mixed colors. Pkt. 5c.

BACHELOR'S BUTTON. See *Centaurea*.

BALLOON VINE, OR LOVE-IN-A-PUFF. Climbing annual, with small inferior flowers. The seed pods are curiously swelled or puffed, and are quite attractive. (Pkt. 5c) (oz. 15c).

BEAN (Scarlet Runner).—A popular climber; the seed is edible and much esteemed. Flowers scarlet; beans black and lake splashed. (Pkt. 5c) (½ lb. 15c) (1 lb. 25c).

BIGNONIA (Trumpet Vine).—Magnificent hardy perennial climber, with brilliant scarlet or yellow flowers; a most ornamental and effective covering for walls, houses, etc. 30 feet. Pkt. 5c.

BORDER PINKS.—See *Dianthus Plumarius*.



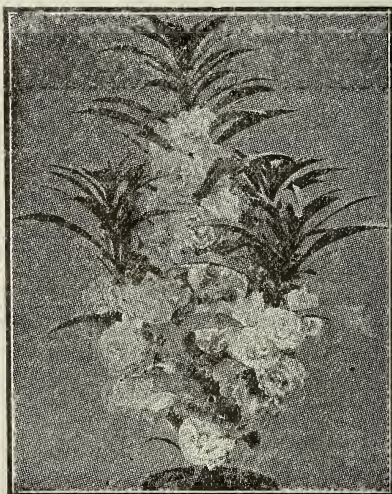
Bellis (English Daisy)

BELLIS PERENNIS (Double Daisy).—A hardy perennial, blossoming freely all spring and summer. Plant is about four inches high and is valuable for borders. Is much sown in lawns.

Extra Double White, or Snowball.—A clear white variety. (Pkt. 10c (1-8 oz 65c).

Longfellow Double.—Mixed. (Pkt. 10c) (1-8 oz. 50c).

Double Pink.—(Pkt. 15c) (1-8 oz. 75c). our flower seeds are of the best quality that money and experience can produce.

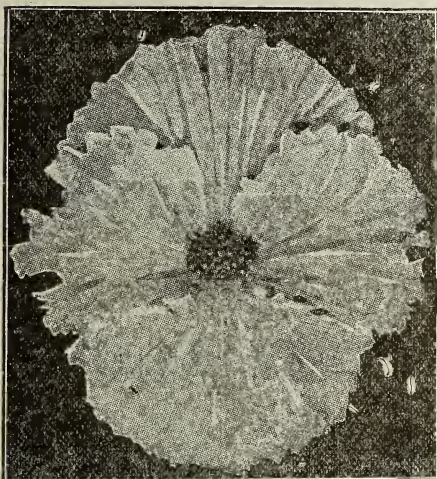


Balsam

BEGONIA.—Tender perennial, usually grown in the green-house. Some varieties are especially attractive on account of their foliage, but most varieties have exquisitely beautiful wax-like flowers, both single and double. The seed is very small and rather difficult to germinate. It is also very expensive, some strains being worth far more than their weight in gold.

Begonia Hybrida Gigantea Crispa.—The flowers are of enormous size, varying in color from pure white to dark purple. The petals are curled wavelike, the bursting buds are folded and ruffled in such a peculiar fashion that they present the appearance of a large double flower. **Pkt. 15c.**

Fibrous-Rooted Varieties.—For outdoor culture, having beautiful leaves and bearing clusters of small, waxy flowers. **Pkt. 25c.**



Begonia Gigantea Crispa

CANNA.—See Bulbs, Page 14.

CANNA.—Mixture of the popular varieties. Red and yellow flowers. Plants have large ornamental leaves. **Pkt. 5c.**
Crozy's Varieties.—Mixed. New large-flowered and free-blooming sorts. **Pkt. 5c.**

CASTOR OIL BEAN (See Ricinus)



Calceolaria

Persicifolia Grandiflora Hybrids.—Including pure white and various pleasing shades of mauve, blue, purple and some elegant, semi-double flowers. Height 2 ft. **Pkt. 10c.**

CANDYTUFT (Iberis).—A hardy annual, growing about 6 to 18 inches high, according to the variety. The blossoms are borne on variously long spikes, and the newer varieties are quite large flowering and very fragrant. Of easy culture and valuable for bedding or massing.

Amara.—Large, pure white flowers. **Pkt. 5c.**

Coronaria Empress.—Large trusses of pure white flowers, the finest candytuft yet raised. **Pkt. 5c.**

Umbrella Carmine.—Large carmine colored flowers. **Pkt. 5c.**

Umbrellata Hybrida.—Mixed, including the best large flowering varieties. **(Pkt. 5c) (oz. 25c).**

Umbrellata Purpurea.—Exceedingly showy and effective variety, bearing large spikes of dark crimson flowers. **Pkt. 5c.**

CALCENDULA (Pot Marigold).—Very hardy annual, one foot high, blooming freely practically the whole year round. Is of the easiest culture and is desirable for rather inferior soils, where less sturdy flowers do not thrive. A medicinal extract resembling arnica is made from the flowers.

Double Mixed.—A good mixture of 8 or 10 different shades of yellow, some clear colors and some shaded and striped. **(Pkt. 5c) (oz. 15c).**

Meteor.—Large double yellow flowers, striped with orange. **Pkt. 5c.**

Prince of Orange.—A fine deep orange. **Pkt. 5c.**

CALCEOLARIA.—A tender perennial, used largely in greenhouses and conservatories. Bears a large profusion of small, pocket-shaped flowers, many of which are beautifully tigered or spotted. There is a great variety of shades and colors in various markings.

Grandiflora.—Large-flowered, self-colored, profuse flowers. **Pkt. 25c.**

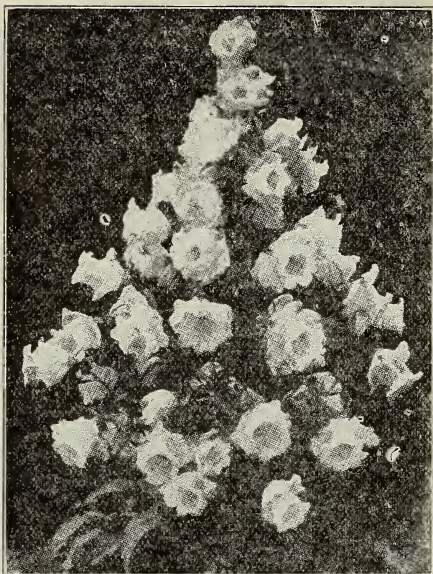
CALLIOPSIS (See Coreopsis)

CALIFORNIA POPPY (See Eschscholtzia)

CANARY BIRD FLOWER (Tropaeolum Canariense).—A tender, climbing annual of the nasturtium family. Blossoms have curiously winged petals and are light yellow. **(Pkt 5c) (oz. 50c).**

See Flowering Bulbs on pages 13 and 14.

See Geraniums on page 15.



Campanula

CANTERBURY BELLS (*Campanula Medium*).—A hardy perennial, blooming the second year from seed, or the first, if sown early. Grows about three feet high.

Calycanthema.—Improved mixed, a combination of the finest and most delicate colors in cultivation, including single, double and cup and saucer varieties, height 2 ft. **Pkt. 5c.**

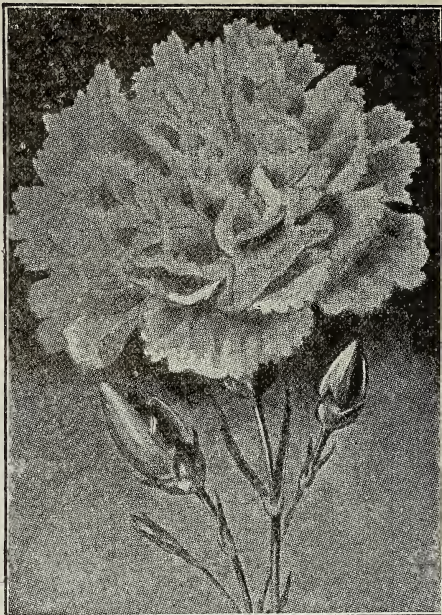
Medium.—Choice selection of pleasing colors single mixed. **Pkt. 5c.**

CARNATION.—Our strain of these popular flowers is unsurpassable in beauty and variety of coloring, also in their delightful fragrance. For largest, richest flowers, we recommend their culture in pots of rich soil or small, shallow boxes. Cover the seed lightly, and shade from the strong rays of the sun. When the young plants are two or three inches high, they may be transplanted out into small beds. Shade and water them until established. Then they can be planted out in well-prepared beds, 12 to 18 inches apart. While the weather is cool, the ground should be mulched about 2 inches deep with well-rotted manure. This will not only help to retain the moisture in the ground, but also supply nutriment to the plants. The seed may be sown any time between March and September.

Chaubaud Earliest French.—From the ease with which this fine carnation can be flowered as an annual it has attained a popular position, and will continue to hold a foremost place in the garden. The beautiful fringed double flowers make a brilliant display of attractive coloring in the open and are greatly prized in borders and for table decoration. Mixed colors. **Pkt. 15c.**

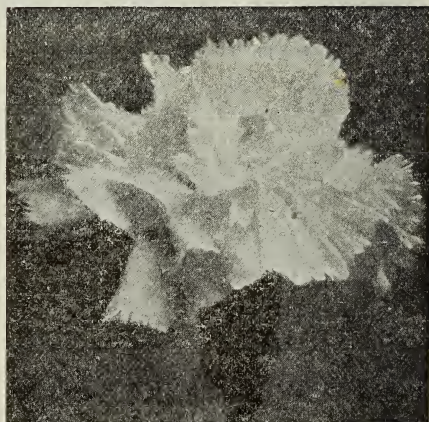
Early Flowered Vienna Dwarf.—Extra early flowered strain of compact habit. Invaluable for bedding on account of the extremely free blooming habit of the plants. Colors varied and flowers mostly double. **Pkt. 10c.**

Marguerite, Mixed Colors.—Very varied; gives a large percentage of fine double flowers. (**Pkt. 10c.**) (1-8 oz. **20c.**)



Carnation Duchess of Saxony Coburg Gotha

Carnation Duchess of Saxony Coburg Gotha.—Giant flowering carnation of a pure white color, freely produced and each bloom standing on a firm, long, erect flower stem. The great merit of this new variety is that it produces its exquisitely scented flowers within six months from date of sowing, saving all the trouble of wintering the plants. **Pkt. 20c.**



CARNATION (Marguerite Pure White)

Grenadin Scarlet.—A valuable early-flowering variety coming quite true to color and producing an exceptionally large percentage of sweet scented double scarlet flowers of a most telling color. **Pkt. 10c.**

Germania.—An excellent companion to the preceding and producing very large double flowers of a deep rich canary yellow. **Pkt. 15c.**

Marguerite Pure White.—An exquisite sweet scented fringed flower of pure white color. Invaluable for bedding or indoor decoration. **Pkt. 10c.**

CELOSIA (Cockscomb).—Very ornamental and strong plants, producing magnificent spikes of feathery looking flowers. They succeed well in the garden and make very attractive pot plants.

Empress.—A handsome strain, large and compact heads; color splendid crimson. Pkt. 15c.



Celosia Empress

Glasgow Prize.—A greatly improved strain with immense heads borne on sturdy robust plants of dwarf habit. The color is a rich crimson, excellent for borders. Pkt. 15c.

Pyramidalis Plumosa.—Handsome pyramidal form bearing long feathery plumes in brilliant colors. Mixed. Pkt. 5c.

Thompsoni Magnifica.—A very fine selection of the popular feathered Celosia containing many pleasing shades of color carrying from pale yellow to the deepest crimson. Pke. 10c.

CENTAUREA.—A hardy annual, embracing a number of species, some being grown only for their foliage. All varieties grow from 1½ to 2 feet high. Sow the seed early and transplant in March. Excepting the white leaved sorts, all make excellent cut flowers.

Double Blue.—A vigorous semi-double plant, having a remarkable lasting quality when cut. Pkt. 10c.

Cyanus Emperor William.—The rich, deep blue Bachelors Button. Pkt. 5c.

Candidissima or True Dusty Miller.—Broad silvery-white foliage useful for bedding. Height 1 foot. Pkt. 15c.

Imperialis.—A magnificent large flowered type exquisitely fringed and delightfully scented. The flowers are at least twice the size of the older varieties and retain their freshness in water a long period and are well adapted for cutting. Height 3 feet.

Imperialis Pure White.—Pkt. 10c.

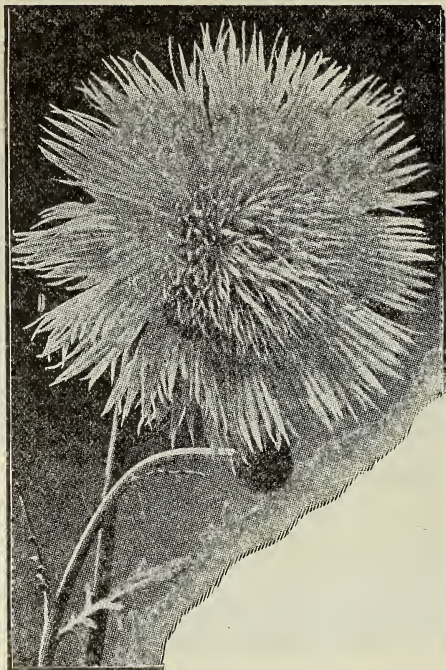
Imperialis Yellow.—Pkt. 10c.

Imperialis Lavender.—Pkt. 10c.

Moschata or Sweet Sultan.—A well known type in white, yellow, lavender and purple blossoms.

Fine Mixed.—A combination of various colors. Pkt. 5c.

Suaevaelena.—Bright, yellow... flowers. Pkt. 5c.



Centaurea Imperialis

Imperialis Mixed.—Pkt. 10c.

Odorata Marguerite.—Deservedly popular, pure white flowers of the Imperialis class. Pkt. 5c.

Odorata Light Blue.—Shows sweet-scented flowers of clear mauve color. Pkt. 5c.

Odorata Mixed.—Including white and various shades of yellow, mauve, blue and purple. Pkt. 5c.

CHRYSANTHEMUM.—There are many widely different classes of this flower in the hardy or garden varieties, both single and double, and the perennial varieties, chief of which is the double or florists' varieties, highly prized in the autumn and winter.

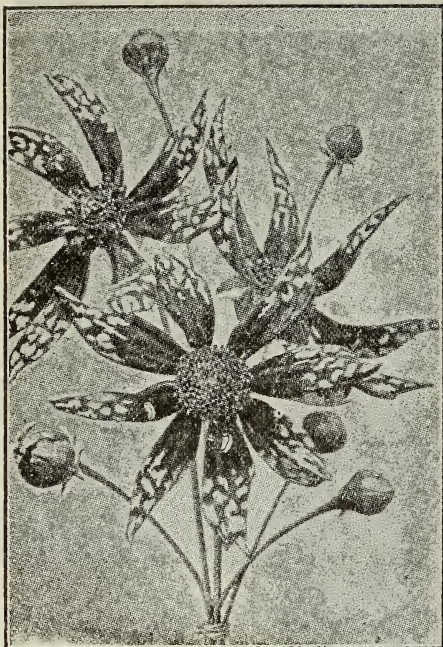
Bridal Robe.—Of very compact and upright habit and not exceeding 10 inches in height, double pure white flowers. With their short closely-set petals the flowers recall the finest forms of very large flowering double Daisies. Pkt. 25c.

Carinatum.—Single mixed, comprising a wide range of attractive colors. Pkt. 5c.

Carinatum Hybridum.—Dwarf double mixed, produce a diversity of colors, including many new and attractive shades. Pkt. 5c.

Coronarum Compactum Fl. Pl. White Pearl.—A vigorous-growing class of a branching habit, bearing large, pure, white, double flowers, invaluable for cutting as they retain their freshness for a long period in water. Pkt. 25c.

See our list of books on page 127. Some of them will interest you.



Calliopsis Tiger Star

CALLIOPSIS RADIATA TIGER STAR.—A rich and continuously blooming annual with pretty, peculiar flowers. The leaflets of each flower are twisted like those of the well known Cactus Dahlia. Toward the center they show a vivid reddish brown coloration, the outer part being brilliant golden yellow tinged. The plants reach a height of about 8 inches and form round compact bushes which are throughout the summer literally covered with pretty flowers. **Pkt. 10c.**

Tintoria.—Showy, yellow and brown flowers, height 2½ to 3 feet. **Pkt. 5c.**

CINERARIA.—A tender perennial, grown principally in the greenhouse, but can be grown in the garden in summer. Seed should be sown in summer, and the greenhouse requires only moderate heat. Plants grow from 1 to 2 feet high and bear clusters of large, single flowers of bright colors. Will do well in a partly shaded location.

Cineraria Hybrida Grandiflora.—The mixture includes every conceivable shade of pink, carmine, crimson and blue, varying to violet, as well as pure white, and blue and white. The flowers are of immense size. **Pkt. 35c.**

Hybrida.—Choice mixed; splendid strain of compact growth, bearing large exquisitely colored flowers. **Pkt. 25c.**

CLARKIA.—A hardy annual of easy culture, growing about 18 inches high and bearing bright rose, white, or purple flowers in great profusion. Native of California. Seed sown in the fall will give early blossoms in the spring. Seed can be sown almost any time. **Double Mixed, pkt. 5c. Single Mixed, pkt. 5c.**

CLIANTHUS DIAMPIERI (Glory Pea of Australia).—One of the most gorgeous flowers in existence; the flowers are pea-shaped, of a brilliant scarlet color with intense black center; requires a dry, warm soil and little water; 2 ft. high. Soak seeds in hot water before sowing. **Pkt. 15c.**

CLEMATIS, Large Flowered Mixed.—A popular hardy perennial climber. An old favorite and justly so, for there are few garden climbers that give more satisfaction. **Pkt. 10c.**

Paniculata.—A very fine hardy climber; leaves bright and glossy green; flowers small and hawthorn scented, and just covering the plant when in bloom. Excellent for covering trellises, cemetaries or fences. **Pkt. 10c.**

COBEA SCANDENS (Cup and Saucer Vines).—A climber of rapid growth; very valuable for covering trellises, arbor, trunks of trees, etc. Will cling to any rough surface, often attaining a height of 30 to 40 feet in one season.

Scandens Purpura.—Large bell-shaped purple flowers. **Pkt. 10c.**

Scandens Alba.—Pure white. **Pkt. 10c.**

COIX LACHRYMAE ("Job's Tears").—Curious ornamental grass with broad, corn-like leaves and seeds of a light slate color. Valuable for winter bouquets with everlasting flowers. Strings of handsome beads are made from the seeds. Hardy annual; three feet high. **(Pkt. 5c) (oz. 30c).**



Coleus

COLEUS.—These beautiful and ornamental foliage plants, producing the most attractive colors are a most interesting subject to grow from seed. To watch the foliage change into a variety of colors as it grows day by day, is wonderful. **Pkt. 15c.**

COLLINSIA.—A free-flowering and easily grown annual, growing from 1 to 2 feet; flowers white, crimson, purple, etc. A California wildflower. **Mixed, pkt. 5c.**

CONVOLVULUS (See Morning Glory).

When selecting your flower seeds refer to pages 100 and 101.

COREOPSIS.—Also known as Calliopsis, will grow luxuriantly in any situation and are most useful, affording a constant supply of richly marked flowers for cutting. All varieties are annuals with the exception of *C-Grandiflora*.

Drummondii.—Large, rich, golden yellow flowers with chestnut-brown centers produced in abundance. Height 18 inches. Pkt. 5c.

Lanceolata Grandiflora.—Produces a profuse and long-continued succession of large, bold, golden yellow flowers during the whole summer months. Seed sown in March will flower the same season. Height 2½ feet. Pkt. 10c.

Mixed.—A selection of the brightest and richest colored large-flowered varieties. (Pkt. 5c) (oz. 20c).

COSMOS.—A tender annual, with fine-cut, feathery foliage and large, showy blossoms. The late-flowering or giant type grows 5 to 6 feet high and its blossoms are larger than the early varieties. They bloom late in the fall, or about November 1st.

Late Giant Crimson.—(Pkt. 5c) (oz. 50c).

Late Giant Pink.—(Pkt. 5c) (oz. 50c).

Late Giant White.—(Pkt. 5c) (oz. 50c).

Late Giant Mixed Colors.—(Pkt. 5c) (oz. 50c).

New Gigantic Orchid Flowering Lady Lennox.—Size, 6 to 7 inches in diameter, with wide overlapping petals of an exquisite shade of shell pink. The flowers are on long stems, making them exceptionally desirable for cutting. Height 5 to 7 feet. Pkt. 10c.

CYCLAMEN.—A tender, bulbous perennial, used in greenhouses and window gardens. It is easily grown from seed. Sow in the fall or early spring.

Persicum Giganteum.—Flowers of extraordinary size. The leaves are proportionately large, marked with silver-grey. Extra choice mixed. Pkt. 20c.

Papilio, Butterfly.—Fringed flowers in all possible colors, as white with rose, rose with scarlet, crimson with violet, etc. Pkt. 25c.

Persicum.—Not so large as the Giants, but easier to grow. Choice mixed colors. Pkt. 10c.

Cyclamen Victoria.—A truly magnificent strain of Cyclamen, vigorous habit and floriferousness and elegant appearance. The lovely margins of the upper part of the fringed flowers displaying the softest and richest colors lends to a flowering plant a most enchanting appearance. In all possible colors—as white with rose, rose with scarlet, crimson with violet, etc., and the coloration of the margin always corresponds with that of the base of the flower. Pkt. 20c.

CYPRESS VINE (Ipomea Quamoclit).—A tender climbing annual with soft fern-like foliage and small star-like flowers. Choice mixed colors. (Pkt. 5c) (oz. 50c).

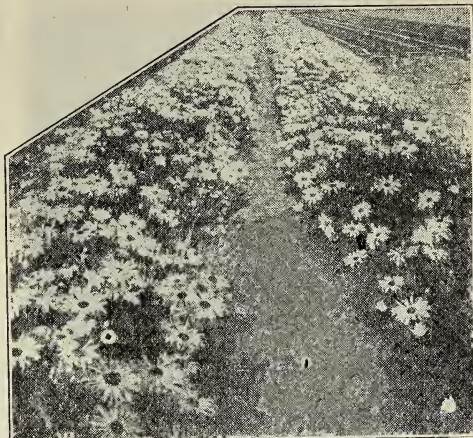
DAHLIA.—A popular summer and autumn blooming plant; is grown from seed or propagate from the bulbous roots. Sow seed early in hot-beds and transplant as soon as danger of frost is past.

Cactus.—Mixed, double, with pointed petals. Pkt. 10c.

Double.—Choice mixed colors in great variety and flowers of excellent form. Pkt. 5c.

Single Mixed.—Seed saved from the choicest varieties. Pkt. 5c.

Lucifer.—Early and extremely free-flowering strain of dwarf habit, with flowers of a rich dark red color, showing to great effect above the dark foliage. Makes a most attractive bed. Pkt. 10c.



Shasta Daisy

DAISY, SHASTA DAISY.—A fine perennial plant bearing large white single blossoms, with yellow centers. Soak seed in warm water over night before sowing. Pkt. 10c.

DAISY, DOUBLE (See Bellis)

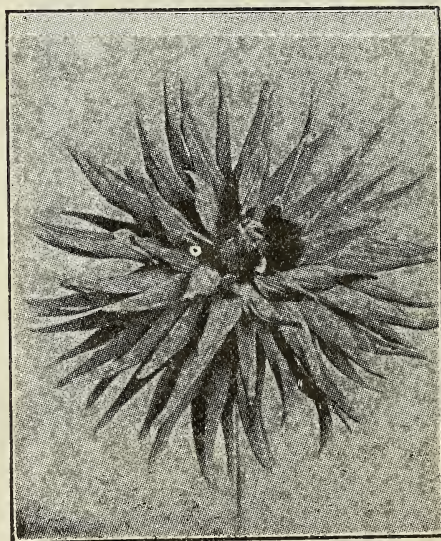
DATURA (Trumpet Flower).—Tender annual, growing about 3 feet high, flowers large and trumpet shaped.

Fasduosa - Huberiana.—Choice.. mixed colors. Pkt. 5c.

DELPHINIUM (See Larkspur)

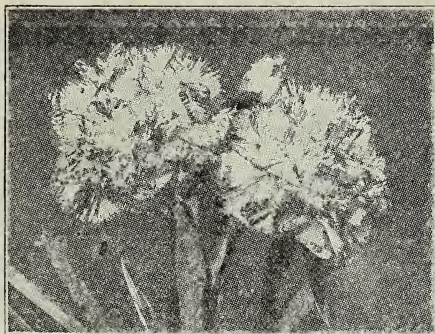
DIANTHUS, OR PINKS.—Hardy annuals, about 1 foot high, and bearing beautifully colored single and double blossoms in profusion all summer. Sow seed early in boxes and transplant, or sow in rows where the plants are to remain, and thin.

Chinensis Double.—Choice mixed. Largest double flowers of beautiful colors. Pkt. 5c.



Dahlia Cactus

DAHLIA BULBS.—See Page 16.

**Dianthus Plumarius**

Chinensis Double.—Choice mixed. Largest double flowers of beautiful colors. Pkt. 5c.

Count Kerehove.—Fine variety of large fringed flowers of beautiful color. Pkt. 15c.

Crimson Belle.—Velvety dark red. Pkt. 5c.

Eastern Queen.—Rose pink shade. Pkt. 5c.

Fireball.—Vivid scarlet flowers. Pkt. 5c.

Heddewigii.—Dougle mixed, fringed. Pkt. 5c.

Heddewigii.—Single mixed, fringed flowers. Pkt. 5c.

Laciniatus.—Single mixed. Pkt. 5c.

Laciniatus.—Double mixed. Pkt. 5c.

Mixture of Double and Single Pinks. This mixture contains the best of the Dianthus varieties. Pkt. 5c.

Mourning Cloak.—Large double flowers almost black in color, beautifully edged with white. Pkt. 5c.

Plumarius (Grass Pink).—Very hardy producing large fragrant double, semi-double and single flowers of varied colors. Pkt. 5c.

Snow Drift.—Large, pure white double flowers beautifully fringed. Pkt. 5c.

**Dianthus Mourning Cloak**

DUSTY MILLER (See Centaurea)

DIGITALIS, OR FOXGLOVE.—A hardy perennial, blooming the second year from seed. Grows usually about 3½ feet, although in very rich soil sometimes 6 feet. The bell shaped flowers are borne on long spikes, and come in shades of purple, lavender, rose and white, all spotted lightly inside the blossom. Thrive best in cool, shady locations. Fine mixed, pkt. 5c.

**Dimorphotheca Aurantiaca**

DIMORPHOTHECA AURANTIACA.—The Golden Marguerite. A rare and extremely showy annual from South Africa which has become a great favorite on account of its easy culture and beautifully colored flowers. Its Marguerite-like blossoms, produced in great profusion, are 2½ to 2¾ in. in diameter. These are a unique glossy rich orange gold, which brilliant coloring is rendered more conspicuous by the dark disk surrounding the black zone. Pkt. 10c.

DOLICHOS, OR HYACINTH BEAN.—Tender, climbing annual. Grows rapidly and is valuable for covering a trellis. Flowers in purple or white; are borne on long stems, the individual blossoms resembling the bean flower, and the ornamental pods resemble bean pods. Sow seed in open ground late in April.

Lablab.—Mixed. (Pkt. 5c) (oz. 15c).

EVERLASTING FLOWER (See Helichrysum)

EVERLASTING PEA (See Lathyrus Latifolius)

EVENING PRIMROSE (See Oenothera)



California Poppy

ESCHSCHOLTZIA OR CALIFORNIA POPPY.—A hardy annual, with fine-cut feathery foliage and beautiful velvety cup-shaped flowers. Grows from 1 to 1½ feet high and blooms profusely. Seed may be sown in the fall and any time thereafter till April, and blossoms may be had from early in January till late in summer. The beautiful State flower of California.

Burbank's Crimson Flowering.—Pkt. 10c.

Californicus.—The bright, orange-yellow common variety. (Pkt. 5c) (oz. 25c).

Crocea.—Pure deep orange. (Pkt. 5c) (oz. 25c).

Mandarin.—Blossoms are copper-colored outside and bright yellow inside the petals. (Pkt. 5c) (oz. 25c).

Mixture of all varieties.—(Pkt. 5c) (oz. 25c) (lb. \$2.25).

BUSH ESCHSCHOLTZIA (See *Hunne- mannia*)

FLAX (See *Linum*)

FEVERFEW (*Matricaria Capensis*). Called Double Feverfew. A plant growing 18 inches high and bearing profusely pure white, very double flowers. Pkt. 5c. See also *Pyrethrum* for edging varieties.

FLOWERING SAGE (See *Salvia*)

FOXGLOVE (See *Digitalis*)

FUCHSIA (*Lady's Eardrop*).—A well known plant of easy culture in pots for the conservatory, parlor decoration or the open ground. Start seed early under glass. **Double Mixed.** Pkt. 25c.

FOUR O'CLOCK (*Mirabilis*).—A hardy annual of easy culture, growing about 2 feet high. The plant is free flowering, bearing blooms of a great variety of colors and spikes.

Jalapa Marvel of Peru.—Mixed. (Pkt. 5c) (oz. 15c).

FORGET-ME-NOT (*Myosotis*).—A hardy perennial, growing 6 to 12 inches high. Small star-like flowers are borne in clusters on long stems; blooms the first year if seed is sown early. Thrives best in a cool, moist location.



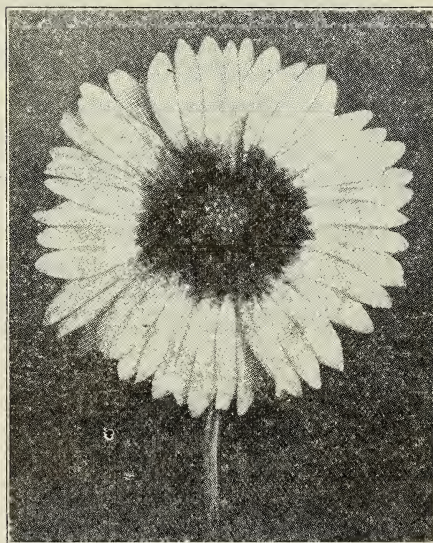
Forget-Me-Not

Alpestris.—Blue. Pkt. 5c.

Victoria.—Large flowers; bright azure blue with yellow center; plant symmetrical, dwarf and strong grower. Pkt. 10c.

GAUILLARDIA.—Beautiful show plant, remarkable for the profusion, size and brilliancy of its flowers continuing in bloom from early summer till late in the fall. Excellent for beds, borders, or for cutting. Should be sown where they are to bloom, height 18 inches.

Grandiflora.—Single perennial variety of varying shades of reddish brown and yellow. Pkt. 5c.



Gaillardia

Picta Lorenziana Double Mixed.—Large heads of bright yellow and red flowers. Very double, with quilled petals, suitable for bouquets. Pkt. 5c.

Picta.—Favorite bedding plant, producing throughout the summer numerous yellow and scarlet flowers. Pkt. 5c.



Geranium

GERANIUM.—A half-hardy perennial, flowering the first year from seed if sown early. A gorgeous flower of numerous shades of color bearing continuously renders this one of the most popular plants grown.

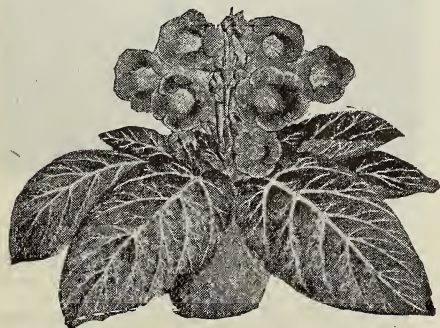
Large Flowers of Fancy Show.—This choice mixture includes many of the newest and finest sorts. **Pkt. 25c.**

GERANIUM CUTTINGS.—See Page 15.

GILIA.—A hardy annual growing one foot high, with white, lilac or rose-colored flowers. A native of California. For rock work or borders. Sow seed in the fall. Mixed. **(Pkt. 5c) (oz. 30c).**

GILLIFLOWER (See Ten Weeks' Stocks)

GLADIOLUS.—Well known magnificent plants, with sword-like leaves and long spikes of flowers of every conceivable color and shade. Many new and rare varieties are produced from seed. **Pkt. 15c.**



Gloxinia Ornamental Foliage

GLOXINIA.—Beautiful hot-house plants, with large, bell-shaped blossoms, which come in rich, velvety-deep, and bright colors, some of which are beautifully marked. Sow in the fall or early spring.

Hybridia Grandiflora.—Enormous flowers. **Pkt. 25c.**

Ornamental Foliage.—A new Hybrid foliage. The leaves are very large and vary from velvety brown to glossy purple. The enormous flowers, which appear in great profusion, are bright, rosy-carmine, with spotted white throats. **Pkt. 25c.**

GODETIA.—A hardy annual, ten inches high, of compact growth, satiny cup-shaped flowers in deep red, pink and white, shaded and blended. Valuable for bedding. Sow seed early in the year; grows wild in California.

Duchess of Albany.—Beautiful glossy, satin-white flowers produced in great abundance. Height 1 foot. **Pkt. 5c.**

The Bride.—Lovely white flowers suffused with rose, height 1 foot. **Pkt. 5c.**

Lady Albemarle.—A splendid variety. Flowers large and of intense glowing carmine-crimson, slightly edged with lilac. Height 1 foot. **Pkt. 5c.**

Lady Satin Rose.—Bright, rose-colored flowers having glossy satin-like petals. Height 6 inches. **Pkt. 5c.**

Whitewax.—Highly effective variety with brilliant carmine flowers. Very freely produced on compact plants. Height 1 foot. **Pkt. 5c.**

Whitneyi Fulgida.—An extremely showy variety, flowers of a brilliant crimson-scarlet, with white center. Very striking and effective. **Pkt. 5c.**

Semi-Dwarf Mixed.—Including all the finest varieties. **Pkt. 5c.**

GOURDS.—Some varieties, besides being odd, are very ornamental.

Chinese Bottle.—A useful variety. **Pkt. 5c.**

Calabash-shaped.—Height 10 ft. **Pkt. 10c.**

Dipper or Siphon.—Can readily be made into a dipper. **Pkt. 5c.**

Dish Cloth, or Luffa.—The inside lining resembles a sponge; very useful. **Pkt. 5c.**

Mixed Ornamental Varieties.—**(Pkt. 5c) (oz. 25c).**

Nest Egg.—These resemble a hen's egg and are frequently used for nest eggs. **Pkt. 5c.**

Sugar Trough.—Useful for baskets or buckets, holding from two to ten gallons each. **Pkt. 5c.**

Turk's Turban.—Red, green, striped, etc. ornamental. **Pkt. 5c.**

GOLDEN-GLOW (See Rudbeckia)

GYPSOPHILA (Baby's Breath).—A hardy annual of easy culture. Grows two to three feet high, and bears a profusion of small star-shaped white and pink flowers.

Paniculata.—Fine for bouquets; white-flowers; perennial. **(Pkt. 5c) (oz. 60c).**

Elegans.—Annual white. Very largely grown by florists for use in bouquets. **(Pkt. 5c) (oz. 35c).**

HELLIANTHUS (See Sunflower)

Our garden manual is free with a fifty-cent order for seeds. Get it and read pages 19 and 20.

HELIOTROPE.—A half-hardy perennial, growing four to eight feet high. Small flowers, borne in graceful clusters and very fragrant. Blooms the first season from seed if sown early. Forms a large plant and requires a roomy situation.

Louise Delaux.—Flowers rose tinted. Pkt. 10c.

Queen Marguerite.—Purple blue. Pkt. 10c.

White Lady.—Pure white. Pkt. 10c.

Finest Mixed.—A mixture of the ordinary true types. Pkt. 10c.



Helichrysum

HELICHRYSUM (Everlasting Flower).

A free-flowering, hardy annual, growing four to five feet high and bearing beautiful straw-like flowers in a great variety of shades and colors. Makes a very handsome dried bouquet. Mixed. (Pkt. 5c.) (oz. 50c).

HIBISCUS.—A hardy annual, growing about 2 feet high, showing an ornamental class of plants with large, beautiful colored flowers; grows freely in common garden soil.

Africanus.—A showy, hardy annual, cream color with rich brown center. Height 2 feet. Pkt. 5c.

HOLLYHOCK.—A hardy perennial of upright, stately growth, five to eight feet high. The very double varieties are the most desirable, but the newer, semi-double, fringed types are also very popular.

Allegheny.—This unique and beautiful variety produces semi-double flowers about 3 inches across. The petals are crinkled and fringed like crumpled and shrinked satin. Pkt. 10c.

Chater's Superb Mixed.—Saved from a magnificent collection of fine named double varieties. Pkt. 10c.

New Annual Mixed.—Saved from the best trial varieties. Pkt. 10c.

HUMULUS, OR JAPANESE HOP.—A rapid-growing, hardy climbing annual with dense leaves. Will grow 20 to 30 feet in a season.

Japonicus.—Bright green foliage. Pkt. 10c.

Japonicus Variegatus.—Bright, variegated yellow, white and green leaves. (Pkt. 10c) (oz. 40c).



Chater's Superb Hollyhock

HUNNEMANNIA, OR BUSH ESCHSCHOLTZIA.—Known also as the Santa Barbara Poppy. An erect-growing, tender perennial, about two feet high. Foliage fine-cut, feathery blossoms, beautifully cup-shaped, bright yellow, and about three to four inches across. Stems, long and smooth. Pkt. 5c.

HYACINTH BEAN (See Dolichos)

IMPOMOPSIS.—Specially decorative, half hardy annual with brightly colored flowers and feathery foliage. Height 3 feet.

Elegans Choice Mixed.—Pkt. 5c.

IPOMOEA.—An extensive genus, including many well known garden flowers. Are tender climbing annuals, from 5 to 30 feet long. The seed of several varieties, especially the moon flower, should have the outer shell punctured and then soaked in water for twelve hours or more to germinate it.

Bona Nox (Evening Glory).—Rosy lilac flowers, expanding in the evening; of very rapid growth. Pkt. 5c.

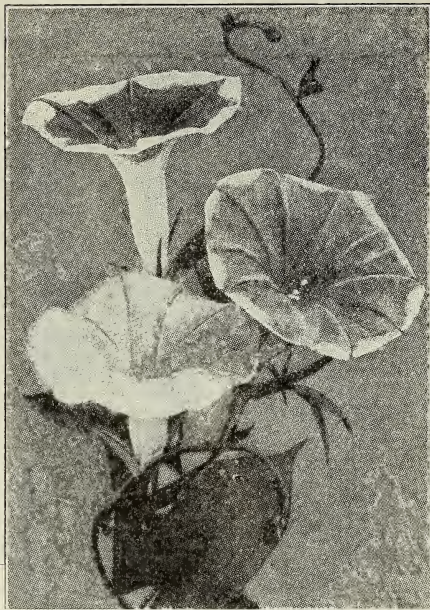
Coccoloba.—Brilliant scarlet flowers, with small foliage. Pkt. 5c.

Hederacea Grandiflora Alba.—Large flowers of pure white. Pkt. 10c.

Leardi.—Violet and blue flowers. Pkt. 10c.

Mexicana Alba.—At night and during dull days the plants are covered with an abundance of large pure white flowers, 5 to 6 inches in diameter. Very rapid grower. (Pkt. 10c) (oz. 75c).

Rubro Coerulea.—Very large, sky-blue flowers. Pkt. 5c.



Japanese Morning Glory

IMPERIAL JAPANESE (See list under Morning Glory)

IPOMEA QUAMOCLIT (See Cypress Vine)

JAPANESE HOP (See Humulus Japonicus)

JOB'S TEARS (See Coix Lachryma)

KOCHIA TRICOPHYLLA (Summer Cypress).—A splendid ornamental annual plant, forming dense oval bushes, 2 to 2½ feet high, of small, feathery, light green foliage. As summer advances this changes to a carmine hue and finally to a fiery red. A very attractive plant at all times. Also called "Burning Bush." Pkt. 5c.

KUDZU VINE (*Pueraria Thunbergiana*). A new climber of great merit. This vine is one of the most rapid climbers there is, growing to 20 feet quickly. Called also Jack-and-the-Bean Stalk. Hardy perennial. (Pkt. 10c) (oz. 50c).

LARKSPUR, OR DELPHINIUM.—Beautiful, hardy border perennials with noble spikes of handsome flowers, very useful for cut flowers, etc.

HARDY PERENNIAL LARKSPUR

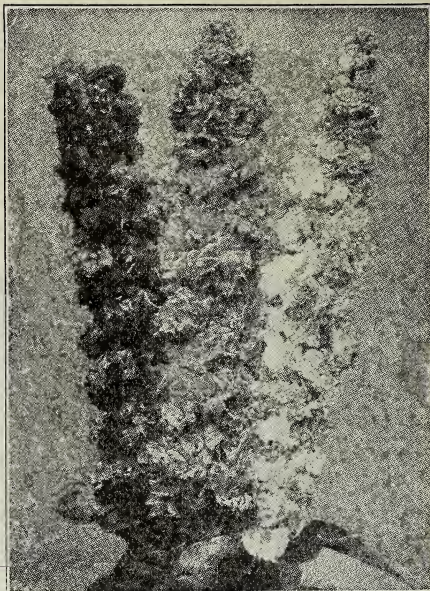
Cardinale.—Very beautiful strain with large handsome flower spikes of bright scarlet; height 4 feet. Pkt. 10c.

Elatum Hybridum Double Mixed. Large, handsome flower spikes, including the best of the new double and single varieties; height 3 feet. Pkt. 5c.

Formosum.—Rich blue flowers, exceedingly effective in borders; height 3 feet. Pkt. 5c.

Hybridum Single Mixed.—Very showy strain. (Pkt. 5c) (oz. 75c).

Sulphureum.—Long spikes of charming clear, yellow flowers; quite a distinct color among perennial larkspur; height 3 feet. Pkt. 15c.



Larkspur Mixed

LANTANA.—Tender perennial, growing from 2 to 3 feet high, bearing Verbena-like clusters of flowers, in orange, white, rose and other colors, excellent for bedding.

Choice Mixed.—Pkt. 5c.

LATHRYUS LATHIFOLIUS (Everlasting Pea).—A hardy, perennial climber of great beauty with elegant sweet pea-like flowers in great profusion; height 6 to 8 feet.

Red—Pkt. 5c.

White—Pkt. 5c.

Fine Mixed.—(Pkt. 5c) (oz. 30c).

LAVATERA (Tree Mallow).—A showy hedge plant, growing about 6 feet high and covered with shrimp-pink, cup-shaped flowers. Sow in May in the open ground and thin young plants to 12 inches apart.

Trimestric Alba.—Beautiful large, glossy, pearly-white flowers. An effective contrast to the pink (*Rosea*) Valuable for borders. Pkt. 5c.

Trimestric Rosea.—Magnificent variety of a brilliant rosy-pink. Extremely useful for cutting, the blooms remaining in beauty for a long period. Pkt. 5c.

LEPTOSYNE MARITIMA (See Dahlia). Along the seashore of Southern California grows this very bright yellow wildflower. The plant is about two feet high and has succulent divided foliage. Flowers three to four inches across; annual. Pkt. 5c.

LINUM, OR SCARLET FLAX.—A hardy annual, about one and one-half feet high. Of slender and graceful appearance, with smooth stems and bright red flowers, which are borne in great profusion. Can be sown early out of doors, and thrives well in good soil.

Rubrum.—(Pkt. 5c) (oz. 15c).

LOVE-IN-A-MIST (See *Nigella*)



Lobelia Crystal Palace

LOBELIA.—A hardy annual and perennial. The annual grows four to six inches high, is of compact growth, and literally covered with small bright flowers. By cutting back the plants during the summer and giving plenty of water they may be kept in flower all summer. Used for ribbon work and borders or hanging baskets.

Bernard's Perpetual.—Flowers brilliant ultramarine blue, with a pure white mark at the base of each of the two lower petals; height 6 inches. **Pkt. 5c.**

Cardinalis Queen Victoria.—Beautiful perennial variety with vivid scarlet flowers and metallic crimson foliage; height 2 feet. **Pkt. 15c.**

Crystal Palace.—Undoubtedly the finest dwarf blue Lobelia for bedding. Plants very compact, profusely covered with rich blue flowers. Height 4 inches. **Pkt. 10c.**

Hybrida Amanda.—Blossoms, which open rosy-like and pass to a deep amaranth red, an intense shade from which the sharply defined pure white eye stands out in telling contrast. **Pkt. 15c.**

Royal Purple.—Dark, bronzy green foliage, flowers rich purple-velvet with clear white eye. A splendid variety for ribbon borders, window boxes, etc. Height 6 inches. **Pkt. 5c.**

LOVE LIES BLEEDING (See *Amaranthus Caudatus*)

LUPINUS, OR LUPINS.—Hardy native California annuals, in great variety, growing from one to three feet high and bearing spikes of pea-shaped flowers. Of the easiest culture. Sow in the open ground and thin to six inches apart.

Dunnett's Superbus.—Handsome spikes of flowers in yellow, purple and white; height 2 feet. **Pkt. 5c.**

Hartwegi.—A great improvement on the common Lupin; flowers blue and white. Height 2 feet. **Pkt. 5c.**

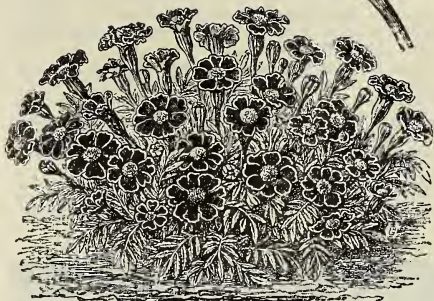
Hybridus.—Flowers ranging from pure white to golden yellow, and from palest mauve to richest purple, including many unusual and pretty shades. **Pkt. 5c.**

Hybridus Atrocineus.—The finest of all the genus; large spikes of scarlet, white-tipped flowers; height 2½ feet. **Pkt. 5c.**

LUPINUS—Continued.

Mutabilis.—Showy spikes of blue and white flowers; height 3 feet. **Pkt. 5c.**

Sulphureus.—Long stems of bright yellow flowers, dwarf branching habit; height 8 inches. **Pkt. 5c.**



Marigold Gold Ring

LYCHNIS (Jerusalem Cross).—Hardy perennial growing about three feet high and bearing bright-colored flowers in clusters. Of easy culture.

Haageana.—Orange, crimson and scarlet flowers. **Pkt. 5c.**

MARIGOLD.—A hardy annual, in dwarf and tall varieties, growing from 6 inches to 3 feet high. The flowers are various shades of yellow and brown. The tall varieties are very valuable for large bedding or background work, and the dwarf varieties for borders.

African Tail Double Orange.—Beautifully formed flowers of gigantic size and bright color; height 2½ feet. **Pkt. 5c.**

French Tall Striped.—The flowers have a yellow ground, with rich brown markings; height 2 feet. **Pkt. 5c.**

Gold Ring.—The color is a dark velvety brown, gracefully surrounded by a distinct gold ring. The compact, bushy plant flowers abundantly and is more lasting than any other annual. **Pkt. 10c.**

Legion of Honour.—Beautiful, free-flowering, single Marigold. Flowers bright clear yellow, blotched with rich brown. Admirably adapted for beds or ribbon borders; height 9 inches. **Pkt. 5c.**

Tall Double Lemon.—A charming shade of color; height 2½ feet. **Pkt. 5c.**

Tall Double Mixed.—A combination of the best varieties; height 2 feet. **Pkt. 5c.**

Dwarf Double Mixed.—Profuse flowering, and well adapted for a bedding display in autumn; height 1 foot. **(Pkt. 5c) (oz. 25c).**

MATRICARIA (Double Feverfew).—Bushy perennial garden plant, bearing quantities of white and yellow double button-like flowers; useful for cutting.

Golden Ball.—Very striking double golden yellow flowers; height 1 foot. **Pkt. 10c.**

Silver Ball.—Dainty, milk-white, fully double flowers, which make a pretty contrast with Golden Ball. **Pkt. 10c.**

MARVEL OF PERU (See Four O'Clock)

MAURANDIA (Giant-Flowering).—Beautiful climber for either garden or greenhouse decoration and for hanging baskets; gemmed with Gloxinia-shaped flowers of rich purple, white and rose, fully double the size of the older, well-known sorts. The plants from seed sown in spring will begin flowering by July and continue until frost. Mixed colors. **Pkt. 5c.**

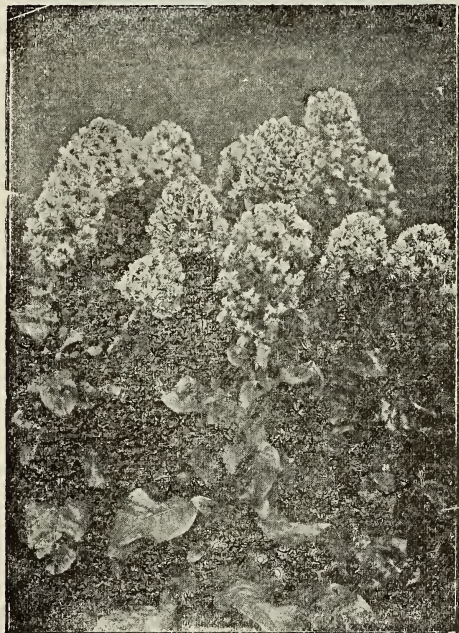
MIGNONETTE.—Hardy annual, growing 6 to 12 inches high and bearing pyramid-shaped spikes, exceedingly fragrant. Sow in the fall for early blossoms in the spring. Valuable for potting, bedding or border. The flowers are not attractive except for their fragrance.

Allen's Defiance.—Long spikes of whitish flowers and compact growth. (**Pkt. 10c**) (oz. 50c).

Grandiflora Amellorata.—Immense spikes of deep red flowers freely produced on sturdy plants of somewhat dwarf habit, height 15 inches. **Pkt. 5c.**

Gollath.—Robust growing variety with enormous spikes of red colored flowers; height 15 inches. **Pkt. 10c.**

Machet.—A dwarf compact variety, with large stubby spikes covered with copper-red flowers, etc. **Pkt. 5c.**



Mignonette

Parson's White.—A tall variety, with long spikes with silver-white flowers. (**Pkt. 5c**) (oz. 50c).

Sweet scented (Reseda Odorata).—**Pkt. 5c** (oz. 25c).

Victoria.—Flowers of a deep red color, well formed spikes; height 1 foot. (**Pkt. 5c**).

MINA LOBATA.—A fine annual climber which grows very rapidly to a height of 20 or 30 feet in a season. The leaves are of good size and dense, and the flowers are freely borne in clusters; orange red. **Pkt. 10c.**



Mimulus (Monkey Flower)

MIMULUS.—A half hardy perennial, growing from 6 inches to 1 foot high. Blooms freely and exists in a large variety of colors. For gardens in a moist, shady situation. Blooms first year from seed if sown early.

Cardinalis.—Scarlet flowered perennial; 18 inches high; useful for a border; free flowering. **Pkt. 10c.**

Moschatus, or Musk Plant.—Fragrant plant, with small yellow blossoms, spotted lightly with brown. **Pkt. 5c.**

Tigrinus, or Monkey Flower.—Large flowers of several colors, and spotted. **Pkt. 10c.**

MOMORDICA (Balsamina) (Balsam Apple).—A climbing annual, growing about 10 feet long. Has graceful and ornamental foliage, yellow flowers and warted golden yellow fruit, with large carmine-red seeds. Balsam Apple and Balsam Pear are climbers which thrive in hot locations, and are much planted around Bakersfield. (**Pkt. 5c**) (oz. 40c).

Charantia, or Balsam Pear.—Same as the Balsam Apple, but fruit is pear-shaped. (**Pkt. 5c**) (oz. 40c).

MOONFLOWER (See Ipomea Grandiflora Alba).

MORNING GLORY (Convolvulus Major) (See also, Ipomea).—Free flowering, beautiful climbers with rich and varied colored flowers, very useful for covering lattice work, verandas, etc., where they are exceedingly effective.

Imperial Japanese.—(**Pkt. 5c**) (oz. 25c).

Major Tall Mixed.—(**Pkt. 5c**) (oz. 15c).

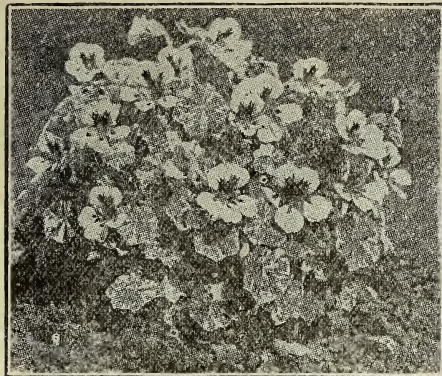
Minor Dwarf Mixed.—A beautiful hardy bedding and border plant, attaining a height of about 1 foot. (**Pkt. 5c**) (oz. 15c).

MOURNING BRIDE (See Scabiosa)

MUSK PLANT (See Mimulus Moschatus)

MYOSOTIS (See Forget-Me-Not)

See pages 83-84-85. Insecticides for all purposes.



Nasturtium Dwarf

NASTURTIUMS (Culture).—To grow Nasturtiums well and secure a fine display of flowers, it is necessary that the soil in which they are grown be very poor and dry, otherwise a superabundance of foliage will be produced to the exclusion of the flowers.

Dwarf or Tom Thumb Varieties.—Annual, 8 inches to one foot tall; useful for bedding and borders, flowering through the summer and also through the winter in location where they are not cut by frost.

Chameleon.—A most remarkable Nasturtium. The markings and colors of the flowers on a single plant vary from sulphur yellow to deep crimson, while others are beautifully spotted or marbled; height 1 foot. (Pkt. 5c) (oz. 15c) (¼ lb. 50c).

Crystal Palace Gem.—Primrose colored flower, blotched maroon; height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Empress of India.—Flowers crimson scarlet, foliage dark green. Height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

King Theodore.—The darkest dwarf variety, deep maroon, foliage very dark green. Height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

King of the Tom Thumbs.—Flowers scarlet, foliage dark green. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Lady Bird.—Flowers boldly marked with dazzling scarlet on a golden yellow ground. Splendid dark foliage, height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

New Scarlet.—Geranium-leaved, is of compact dwarf growth, bright scarlet flowers, leaves of unusual thickness; a plant desirable for beauty and also for its fine quality as a salad plant. (Pkt. 5c) (oz. 25c).

Othello.—Dark maroon flowers, height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Pearl.—Flowers creamy white, height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Ruby King.—Charming rose carmine flowers, dark foliage, height 1 foot. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Fine Mixed.—Combination of all the dwarf varieties; makes a grand display in a large bed. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Tall Varieties.—Climbing annuals, six to ten feet, of easy culture. Useful for covering fences, etc., and also very effective when allowed to run on the ground.

Butterfly.—Light yellow with blotch of deep red on the lower petal. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

NASTURTION (Continued).

Dunnet's Orange.—Deep orange marked with crimson blotches. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Chameleon.—A most remarkable Nasturtium. The markings and colors of the flowers on a single plant vary from sulphur yellow to deep crimson, while others are beautifully spotted or marbled. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Crystal Palace.—Bright orange scarlet with bronze markings. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Giants of Calif. Mixed.—This mixture is composed of the finest and most distinct varieties in this grand free flowering type. (Pkt. 5c) (oz. 15c) (¼ lb. 50c).

Midnight.—Flowers are a deep brownish red. The soft velvety texture of the petals being crumpled or partially folded. The foliage dark green. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Sunlight.—Flowers are clear golden yellow of the largest size. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

Tall Mixed.—Of many bright colors, very effective. (Pkt. 5c) (oz. 10c) (¼ lb. 30c).

NEMOPHILA, OR LOVE GRASS.—A hardy annual about six inches high. Has small, cup-shaped blossoms about one inch in diameter, in white and shades of blue.

Insignis Alba.—A pure white flowered variety. Pkt. 5c.

Insignis (Baby Blue Eyes).—Sky blue, with white eyes. Pkt. 5c.

Maculata.—White, with each petal spotted violet at tip. Pkt. 5c.

NICOTIANA, OR FLOWERING TOBACCO.—A half hardy annual, growing 3 feet high, with slender tubular flower. Belongs to the tobacco family. Requires plenty of room in the garden. **Affinis.**—White, and very fragrant. Pkt. 5c.

Grandiflora Purpurea.—Reddish-purple flowers. A robust ornamental variety, excellent for sub-tropical garden, height 5 feet. Pkt. 5c.

Sanderaca.—A new, large, flowering type, with various bright-colored blossoms. Pkt. 10c.

NIGELLA (or Love-in-a-Mist).—A hardy annual, one foot high, with finely cut foliage. Oddly shaped blossoms in blue and white, and curious seed pods. Of easy culture.

Miss Jekyll.—Long stemmed flowers which are of a clear corn-flower blue, elegant foliage, height 18 inches. Pkt. 5c.

OENOTHERA (or Evening Primrose).—An attractive hardy perennial border plant of dwarf compact habit, producing an abundance of bright showy flowers, in white, pale yellow, rose, etc. Of very easy culture, preferring a light, dry soil.

Fine Mixed.—Height 6 inches. (Pkt. 5c) (oz. 15c).

PENTSTEMON

Hartwegi Hybrida Mixed.—The large Gloxinia shaped blooms vary from pure white, pink, rose and crimson to mauve and purple, including many which are beautifully edged. Hardy perennials. Height 2 feet. Pkt. 10c.



SUPERB PANSIES

All our Pansy seed is obtained from the most noted European specialists. Pansies thrive best in a moist, shady location and in rich loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers later in the spring. The plants must be transplanted twice in order to get the largest flowers; once from the seed box to a chosen bed, and again to the open garden. This important for large size pansies; uses manure liberally. The blossoms are usually larger in the spring and again in the fall, and while they bloom freely all summer, the blossoms are small during the hot months.

Benary's Non Plus Ultra.—The richest mixture ever sent out. Contains the Blotched and Masterpiece varieties. **Pkt. 25c.**

BRIDESMAID GIANT.—Shades of white shining rose, blotched. **Pkt. 15c.**

Bugnots Superb Blotched.—Very beautiful class, of enormous flowers with broad blotches, many having the two upper petals finely lined, showing a great diversity of handsome and rare colors. **Pkt. 15c.**

Cassiers Large Flowered Blotched.—The largest flowered class of blotched pansies. An incomparable strain, producing many beautiful and rare varieties. **Pkt. 15c.**

Giant Eros.—This grand novelty produces very large flowers of a deep velvety brown color, with a broad golden yellow margin. The back of each bloom has the same broad margin as the front side, while the dark velvety center is shining through. **Pkt. 15c.**

Emperor Frederick.—Dark red, bordered with orange scarlet. **Pkt. 10c.**

Emperor William (Ultramarine Blue).—Of fine texture, very showy. **Pkt. 5c.**

English Mixed.—The old faced pansy plant of compact habit. (**Pkt. 5c**) (oz. 75c).

Faust (King of Blacks).—Large, well formed, glossy black flowers. The plants are compact and bloom for a long time. **Pkt. 5c.**

French Large Flowered Mixed.—An excellent strain. **Pkt. 5c.**

EXTRA FINE GIANT-FLOWERED PANSIES

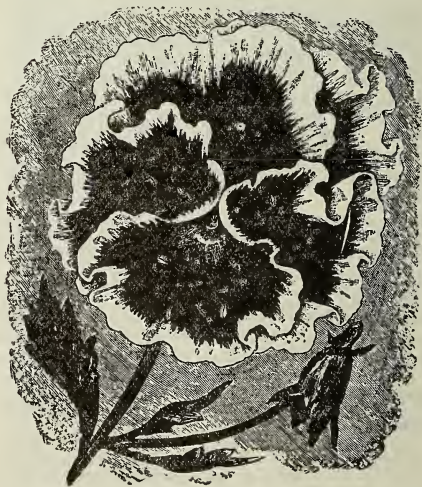
Giant Pale Blue.—Gigantic blooms of a delicate mauve-blue shade with paler center, freely produced on compact plants. **Pkt. 10c.**

Giant White (Black Eye).—Large well formed flowers with black center. **Pkt. 10c.**

Giant White.—Very large, well formed white flowers with dark purple eye. **Pkt. 10c.**

Giant Yellow (Black Eye).—Large handsome flowers of a rich yellow with black eye. **Pkt. 10c.**

Giant Prince Henry.—Darkest blue, very large beautiful flower. **Pkt. 10c.**



Pansy Psyche

Pansy Psyche.—Not many of the pansy varieties have such a winning appearance as Psyche. The characteristic five velvety, violet blotches are surrounded by a broad white edge. It is an ideal exhibition or market pansy. **Pkt. 15c.**

PANSY (Continued).



Pansy Giant Andromeda

Giant Curled Andromeda.—A charming strain of pansy with elegantly frilled flowers, some so full as to appear double. The color is a very delicate apple-blossom, generally showing a soft lavender blue or rosy lilac hue, rendered still more effective by a somewhat darker veining. The blooms are of immense size. Unusually true to color from seed. A decided acquisition. Pkt. 20c.

Lord Beaconsfield.—Purple-velvet upper petals shading off to a light tint. Flowers large. Pkt. 5c.

Masterpiece Exhibition.—The finest strain of pansies in cultivation, saved only from the largest and best shaped flowers of the richest colors which are elegantly curled and undulated, some so full as to appear double. Pkt. 25c.

Madam Perret.—Striking and distinct variety of unusually compact habit. The lower petals are generally of canary-yellow, white or rose-pink marked with purple or crimson. The upper petals bright red and deep purple or outlined with a margin of white. Pkt. 5c.

Odiar Casser Bugnot Mixed.—This mixture is unsurpassed. Contains the very best of each of the varieties. Pkt. 25c.

Odiar Mixed.—Extra choice; very fine strain of three and five blotched show pansies. Pkt. 5c.

Parisian Large Stained Mixed.—Beautiful improved strain of Trimardeau pansies, mostly white ground and fine blotched varieties. Pkt. 10c.

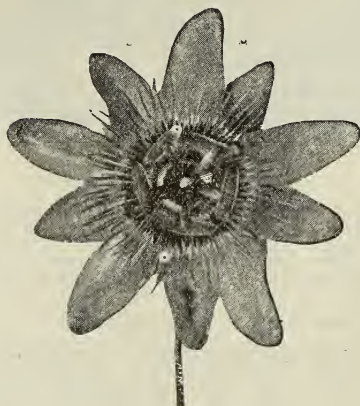
President Carnot.—Odiar type, white petals with violet blotch. Pkt. 15c.

Striped and Mottled.—Large flowers handsomely striped and mottled. Pkt. 5c.

Trimardeau or Giant Mixed.—A very showy class of vigorous compact growth, flowers of an enormous size, finest strain. Pkt. 10c.

Triumph of the Giant.—Very large frilled blooms. A great variety of rich and beautiful colors. Very showy class. Pkt. 25c.

Violet Purple.—Handsome flowers of a rich purple. Pkt. 5c.



Passion Flower

PASSION FLOWER.—A hardy perennial climber, very satisfactory for immense growth, as it will cover a porch of small cottage in one season.

Passiflora Edulis.—See page 7.

Aiba.—Pure white. Pkt. 10c.

Coernica Grandiflora.—Sky-blue. Pkt. 10c.

Pink.—Pkt. 10c.

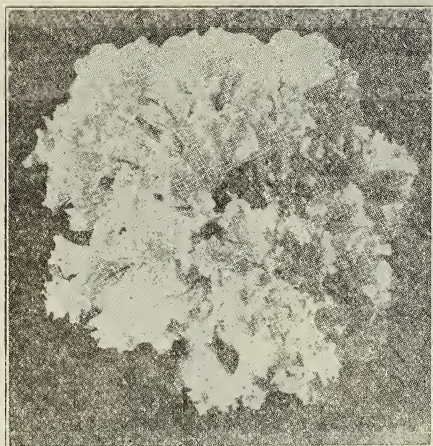
PETUNIA.—A splendid race of plants, rich and varied colors, and profuse flowering with their charming and tender looking flowers, they are very beautiful for groups in the open. For pot culture also, Petunias are almost unsurpassed. Sow seed early in spring, scatter thinly on an even surface and barely cover the seed with sand. If intended for the open ground plant out into a frame to be kept till planting-out time. If for pots, pot singly into small pots in strong rich soil mixed with sand and shift as the plants grow larger.

Fimbriata.—The most imposing Petunia yet introduced. Large finely imbricated flowers of a great diversity of charming colors. Pkt. 20c.

Giants of California Single.—The largest of all Petunias having gigantic flowers with beautifully veined throats. Pkt. 15c.

Grandiflora Single Mixed.—Exceedingly handsome and free flowering, containing the greatest variety of colors, yellow throated, veined and blotched. Very large flowers. Pkt. 15c.

Hybrida Fine Mixed.—The best Petunia for massing in beds and borders, yielding a profusion of brilliantly marked flowers. Pkt. 5c.



Double Fringed Petunia

Superb Double Fringed Mixed.—One of the finest strains of Petunias in existence. The double flowers are very large, full and symmetrically formed, having the edges of the petals beautifully fringed. **Pkt. 35c.**

PELARGONIUM. See Geranium.

PHLOX DRUMMONDII. Grandiflora.—A hardy annual, growing from six inches to one foot high and bearing beautiful, soft-petaled and brilliantly colored flowers all spring and summer. Fine for bedding and massing. Sow seed in the fall for early flowers.

Cuspidata (or Star Phlox Stella).—A flower a color which strongly resembles that of the popular dwarf sort Fireball. Excellent for dwarf groups and for pots. Height, 1 foot. **Pkt. 15c.**



Phlox Stella

Coccinea.—Habit similar to Alba. Color brilliant scarlet, flowers profusely. Height, 2 feet. **Pkt. 10c.**

Drummondii Grandiflora Alba.—Pure white flowers, very large and perfectly formed. Height, 2 feet. **Pkt. 5c.**

Drummondii (Dwarf Snowball).—A dwarf, compact and very free blooming Phlox. Flowers large and pure white. An excellent companion to Fireball. Height, 1 foot. **Pkt. 10c.**

Drummondii Fireball.—Habit similar to the Snowball; color brilliant red; flowers profusely. This and Snowball are two of the most effective varieties of Phlox in existence. Height, 1 foot. **Pkt. 10c.**



Phlox

Drummondii Dwarf Mixed.—A selection of brilliant colors, strongly recommended for beds, edgings or borders. **Pkt. 5c.**

Isabellina.—A splendid strain of Phlox; flowers of a soft primrose color. Height, 2 feet. **Pkt. 10c.**

Finest Mixed.—(Pkt. 10c) oz. 75c).

Perennial.—Indispensable for border plant. Seed saved from the finest bright colored flowers. Height, 2 feet. **Pkt. 10c.**



Poppy Charles Darwin

POPPIES.—The different varieties of poppies are always favorites for outdoor display and the cultivation of them being so extremely simple entitles them to a place in every garden. Seed should be sown where the plants are intended to flower, because it is difficult to transplant them with any measure of success. During March or April sow in rows or groups and thin to about 1 foot apart.

Admiral.—Large, pure white, single paeony flowered variety, with band of brilliant scarlet around the top. **(Pkt. 5c) oz. 35c.**



Poppy Shirley



Poppy King Edward

Alpinum (Alpine Poppy).—A charming little poppy with bright flowers resembling those of the Iceland Poppy, but the plants are more dwarfed. Excellent for sunny borders or rock work. Height 6 inches. (Pkt. 10c) (¼ oz. 75c).

Carnation Double Mixed.—Choice assortment of brilliant colors. Flowers very double and well fringed. (Pkt. 5c) (oz. 20c).

Charles Darwin.—Handsome flowers of a rich dark purple, with a large velvety black spot starting from the base of each petal. Pkt. 15c.

Danebrog or Danish Cross.—Very showy variety, producing large flowers of brilliant scarlet, with a silvery-white spot on each petal, forming a white cross. (Pkt. 5c) (oz. 30c).

Glaucum (Tulip Flowered).—Beautiful variety, producing flowers of the most vivid scarlet, effective for beds or masses. (Pkt. 5c) (oz. 75c).

King Edward.—With this new novelty we have added to the rich collection of single annual Poppies growing 2½ feet in height, deep scarlet, shaded crimson red of gorgeous effect, which is heightened by the large black blotch adorning each petal for half its length from the base. From this sable hue the yellow anthers stand out in appropriate contrast. Pkt. 15c.

Mikado.—Effective double poppy with deeply lacinated petals; white and rose above. (Pkt. 5c) (oz. 20c).

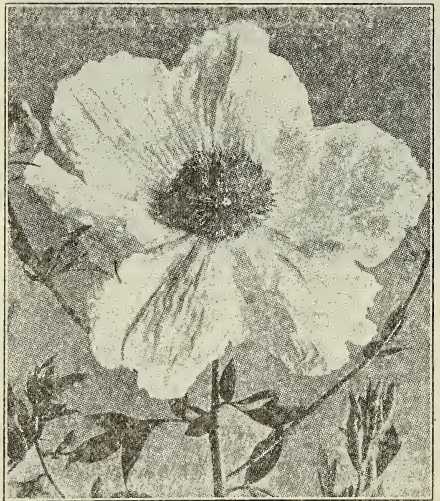
Nudicaule (Iceland Poppy).—A beautiful class of dwarf Perennial Poppies, which if sown in March will flower the same year. The blossoms are bright yellow, borne on slender stems about 1 foot high. Useful for cutting and the flowers exhale an agreeable perfume. Pkt. 5c.

Paeony Flowered Double Mixed.—Imposing double globular flowers. Well adapted for shrubberies and large borders. (Pkt. 5c) (oz. 20c).

Shirley.—The most charming poppy in cultivation. The blossoms are bright and showy and include an almost endless variety of colors, from pure white, pink, terra cotta, salmon, chamais, and rosy carmine, to brilliant crimson, many of the flowers being beautifully flaked or edged with white. (Pkt. 5c) (oz. 25c).

Virginian Poppy.—This new large flowering poppy of the annual class produces beautiful large, white flowers with fringed soft pink edge. Cut flowers in vases, etc., are of quite a charming effect, and are for this purpose especially recommended as they are very lasting when cut in the morning, as a color-showing bud. Pkt. 10c.

Mixed Colors.—(Pkt. 5c) (oz. 45c).



Romney's Coulterii

ROMNEYA COULTERII (California Tree Poppy).—Also well known as the Matilija Poppy; perennial. It is of value as a cut flower, lasting well in water, and its delicate primrose-like perfume is most acceptable. They never lose the crumpled folds that in the case of most poppies betoken newly-opened state. Flowers are four to five inches across, pure white, with a fine bunch of yellow stamens, resembling white, single peonies. Pkt. 10c.

LARGE PRIMULA, or CHINESE PRIM-ROSE.—Charming profuse blooming plants, indispensable for winter and spring decoration in the house. For a succession of blooming plants sow the seed from March to May and again in July or August. In planting, cover the seed lightly and keep moist, transplant when the second leaf appears and keep repotting the plants as they grow and increase in size.

Auricula.—Choice mixed, saved from all the best sorts, embracing many delicate and brilliant shades. **Pkt. 15c.**

Chinensis Fimbriata Mixed.—Beautiful fringed flowers of gigantic size and great substance. Foliage elegantly curled. **Pkt. 25c.**

Chinensis Stellata or (Star Primula) Mixed.—A distinct and beautiful class; will be found indispensable for general decoration work. **Pkt. 25c.**

Japonica Mixed.—Bright and snowy flowers, borne in whorls and stems 6 to 8 inches long. **Pkt. 10c.**



Pyrethrum

PYRETHRUM.—Handsome plants of easy culture. Invaluable for bedding purposes, especially for ribbon borders.

Golden Feather.—Fine compact habit of growth, with bright yellow foliage, largely used for edgings and ribbon borders. Height, 9 inches. **Pkt. 10c.**

Roseum.—A hardy perennial, with red petaled flowers radiating from a golden yellow center. Bubach, or insect powder, is made from the dry leaves. **Pkt. 5c.**

Seligionides.—A distinct form with moss-like foliage, quite as bright in color as the Golden Feather and does not flower until late in the season. Height, 6 inches. **Pkt. 5c.**

PORTULACA.—Beautiful race of dwarf plants for rock work or dry sunny locations, bearing bossy cup-shaped blossoms in brilliant colors.

Double Mixed.—Saved from the finest flowers only, and will produce a large percentage of doubles. **Pkt. 10c.**

Single Mixed.—Large flowers. (**Pkt. 5c**) (oz. 50c).

RICINUS (Castor Oil Plant).—Effective for semi-tropical gardens. Early raised from seed, and should be grown in deep, rich soil.

Cambodgiensis.—The main stem and leaf stalks are shining ebony, leaves large, regularly divided and richly colored. The foliage assumes different shades as the plant increases in size. Height, 3 feet. (**Pkt. 5c**) (oz. 15c).

Ricinus Gibsoni.—A very fine variety with rich, lustrous, red foliage. Height, 5 feet. (**Pkt. 5c**) (oz. 15c).

RUBBECKIA (Bicolor Superba)

Coneflower.—Fine free flowering annual variety, forming a dense bush and producing in great abundance on long stems its bright flowers. The disc is brown, the flowers golden yellow, with large velvety brown spots at the base. Very effective and useful for cutting. **Pkt. 10c.**

Lacinata.—A single, bright yellow perennial plant, blossoming in the late summer. Four to six feet tall. The double form, known as Golden Glow, is propagated by division of the root crown. **Pkt. 10c.**

SALPIGLOSSIS

Fine Mixed.—Highly ornamental half-hardy annual with large, veined, funnel-shaped flowers; much prized for cutting; very showy in beds or border. A bed of these beautiful plants is one of the most striking features of the garden during July and August. **Pkt. 5c.**

SALVIA, OR FLOWERING SAGE.—A tender perennial blooming the first season from seed and growing two or three feet high. The blossoms are borne on long stems in racemes or spikes, and are fragrant.

Patens.—Valuable for bedding; bright blue flowers. Height, 2½ feet. **Pkt. 10c.**

Splendens.—Gorgeous plants, with numerous flowers, which are displayed with striking effect against the deep green foliage. A bed of this flower is exceedingly beautiful during the autumn. Height, 2 feet. **Pkt. 5c.**

SCARLET FLAX. See Linum.

SCABIOSA, OR MOURNING BRIDE.—The tall flowers are especially adapted for cutting and massing in the garden. Annual (self-sown in California), 2½ to 4 feet high. These new flowers are double clear to the center, covering the thimble-shaped cone.

Tall Double Mixed.—Immense flowers; very double. **Pkt. 5c.**

Dwarf Double Mixed.—Beautiful colors; very effective. Height, 12 inches. **Pkt. 5c.**

Caucasia.—A highly decorative variety. Flowers large and of a soft mauve or heliotrope color. Height, 2 feet. **Pkt. 10c.**

Snowball.—Large head of lovely pure white flowers. Height, 3 feet. **Pkt. 5c.**

SCHIZANTHUS.—Very beautiful and interesting annuals. Indispensable for green house and conservatory decoration or outdoor culture.

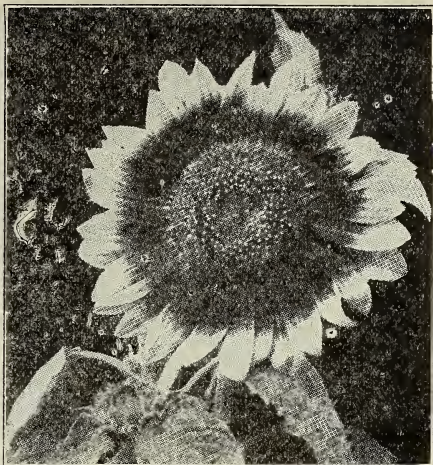
Wisetonensis.—Flowers large and of various pleasing shades. Height 2 feet. **Pkt. 5c.**

Finest Mixed.—A mixture of all the most showy varieties, height 2 feet. **Pkt. 5c.**

SENSITIVE PLANT.—An interesting plant, the leaves of which close when touched; elegant foliage; flowers pink. **Pkt. 5c.**

SUPER-SENSITIVE PLANT.—(ALMOST HUMAN.) A Botanical Curiosity.—So sensitive is this plant that if touched the leaves will fold and stems drop down. A lighted match being applied to one of the leaves, it will cause the whole plant to violently close up as if in pain. If a glass jar with a piece of cotton saturated with chloroform is placed over the plant, it will cause it to slowly sleep. At night the plant closes; at daylight it opens. The plant will grow to a height of from two to four feet, has beautiful green leaves and pretty pink flowers. **Price of seed, 5c per packet.**

SMILAX.—A climbing perennial, with beautiful, bright-green, glossy leaves, much esteemed for its long, delicate sprays of foliage. Largely used for decorating. Start seed under glass and transplant six inches apart. It requires strings or wires to climb on when very young. **Pkt. 5c; oz. 50c.**



New Red Sunflower

New Red Sunflower is a very apt description of this new variety. The plant is of freely branching habit, with well-shaped, dark-centered flowers of bright chestnut red, merging to yellow at the tips of the petals, height 6 feet. **Pkt. 25c.**



California Double Sunflower

STOCKS (Ten Weeks' Stocks, or Gilliflowers; Levoje).—The stock is one of the many popular plants used for bedding. For brilliancy and diversity of color, fragrance, profusion and duration of bloom it is unsurpassed. Hardy annual.

Apple Blossom.—The long spikes of apple-blossom flowers are produced on plants of compact habit. **Pkt. 10c.**

Empress Elizabeth.—Carmine pink spikes of double flowers. Height, 15 inches. **Pkt. 10c.**

Giant Almond Blossom.—Quick growth with flowers of a very large size. The color is white shaded carmine. **Pkt. 15c.**

Giant Beauty of Nice.—Branching; excellent for winter if sown in July or August. Delicate flesh pink spikes of double flowers. Height 2 inches. **Pkt. 10c.**

Giant Crimson King.—Long spikes, of a rich crimson color. **Pkt. 15c.**

Giant Queen Alexander.—Similar to the above except in color, which is rosy lilac. **Pkt. 15c.**

Mont Blanc.—This is indeed a wonderfully fine type of the largest white sweet-scented flowers. This variety can be cultivated either as a summer or as a winter stock, and owing to its unrivalled freedom of bloom will be found excellent for bedding or for culture. **Pkt. 20c.**

White Lady (White Empress Elizabeth) New, massive spikes of strikingly large and very double snowy white flowers. Height, 20 inches. **Pkt. 25c.**

SUNFLOWER (Helianthus).—Stately, hardy annuals of easy culture. The smaller flowered varieties being also useful for cutting.

California Double.—Large, massive, bright yellow flowers, height 6 feet. **Pkt. 5c.**

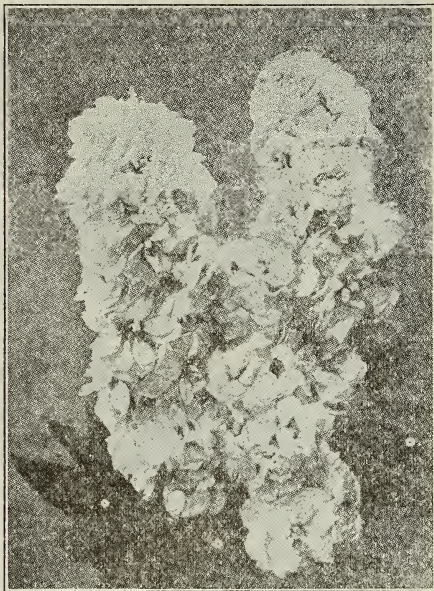
Double Dwarf.—Very attractive variety covered with an abundance of golden yellow flowers, height 3 feet. **Pkt. 5c.**

Miniature.—Very popular Sunflower of branching habit, producing in great abundance, small golden yellow flowers with black centers. Exceedingly valuable for cutting. Height 4 feet. **Pkt. 5c.**

SNAPDRAGON. See Antirrhinum.

STATICE (Sea Lavender).—Splendid hardy perennials, with tufted grass-like foliage, from which issue long stems terminating with large globular heads of rose pink flowers. Sometimes called sea pinks.

Suworowi.—Flowers bright rose color. Valuable for winter bouquets. **Pkt. 5c.**



Branching Stock



Othello Spencer

PERPETUAL, OR BRANCHING.—Cut and come again, 10 weeks; are especially valuable during summer and winter for cut flowers. They grow out numerous side branches, all bearing very double fragrant flowers.

Brompton or Winter Finest Mixed.—These varieties give a large percentage of double flowers of a pleasing combination of colors. Plants of a compact habit. Pkt. 10c.

Dwarf German Ten Weeks.—Finest mixed brilliant colors only. Pkt. 10c.

Giant Perfection Ten Weeks Mixed.—Branching habit; very large and full double flowers, the plants growing to a height of 15 to 18 inches. Pkt. 10c.

Large Flowering Dwarf Ten Weeks Mixed.—A fine type of the ordinary large flowered strain. A large percentage of the flowers coming double. Pkt. 10c.

Princess Alice.—Beautiful white flowers. Excellent for cutting. Pkt. 10c.

Perpetual or Branching Mixed.—Finest assorted colors. Pkt. 10c.

SWEET PEAS—GIANT SPENCER TYPE

Aggeler & Musser Selected Giant Orchid Flowering Sweet Peas.—A grand new class of Sweet Peas, having large, round open flowers of extraordinary size, often two inches across, with wavy standard and wide spreading wings. Bears profusely, often four flowers on a stem.

American Spencer.—Scarlet striped with white. (Pkt. 10c) (oz. 25c).

Asta Ohn, Spencer.—Soft pinkish lavender, self. Very large and wavy. (Pkt. 10c) (oz. 25c).

Black Knight, Spencer.—Deep maroon, very large. (Pkt. 10c) (oz. 25c).

Clara Curtis, Spencer.—Very large, wavy cream or light primrose. (Pkt. 10c) (oz. 25c).

Countess Spencer.—“Hybrid,” a very large flowered variety, a lovely shell pink but sports various shades of pink, rose and lavender. Flowers usually four on a stem. (Pkt. 10c) (oz. 25c).

Dainty Spencer.—White with pink wavy edges. (Pkt. 10c) (oz. 25c).

Elfrida Pierson Spencer.—Light pink or white edged and shaped. (Pkt. 10c) (oz. 25c).

Florence Morse Spencer.—Delicate blush with pink margin; very large and one of the best Spencer varieties. (Pkt. 10c) (oz. 25c).

Etta Dyke Spencer.—Very large wavy, pure white. (Pkt. 10c) (oz. 25c).

Geo. Herbert Spencer.—A large Spencer rose crimson, suffused with magenta. (Pkt. 10c) (oz. 25c).

Helen Lewis Spencer.—Bright orange salmon. Very large, beautifully waved. (Pkt. 10c) (oz. 25c).

King Edward Spencer.—Most beautiful and richest of all the red shades. This large beautiful waved flower stands by itself, a bright crimson scarlet. (Pkt. 10c) (oz. 25c).

Loyalty Spencer.—Bright blue striped on white. (Pkt. 10c) (oz. 30c).

Margaret Madison Spencer.—Beautifully waved, light blue. (Pkt. 10c) (oz. 35c).

Mrs. Hugh Dickson Spencer.—Beautifully wavy apricot on cream. (Pkt. 10c) (oz. 25c).

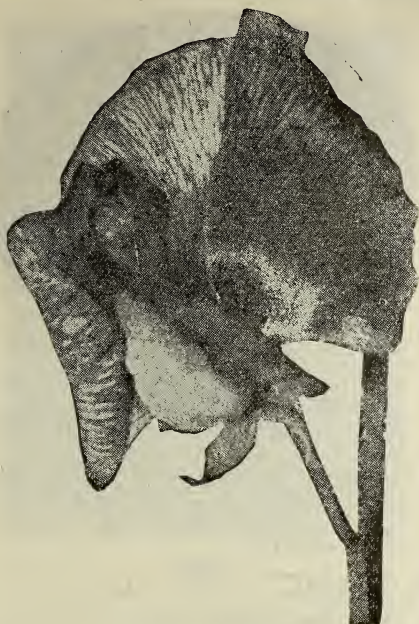
Mrs. Routzahn Spencer.—A beautiful blending of straw color, tinted with blush pink and shading to apricot and rose at edges. (Pkt. 10c) (oz. 25c).

Othello Spencer.—Deep rich maroon, very dark and adapted for many attractive combinations. (Pkt. 10c) (oz. 25c).

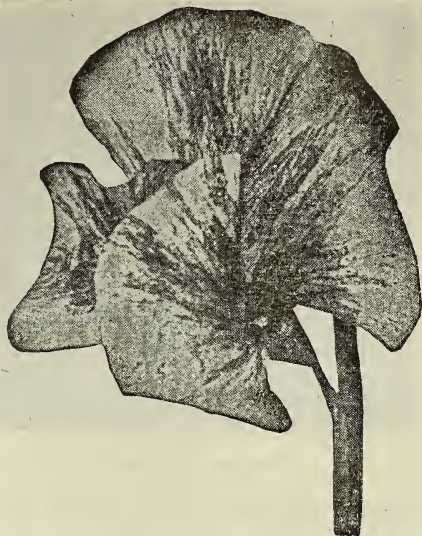
Queen Alexandra Spencer.—The nearest approach to a true scarlet. (Pkt. 10c) (oz. 25c).

Spencer Mixed.—A splendid mixture of all the different Spencer types. (Pkt. 10c) (oz. 25c).

Frank Dolby.—Fine pale mauve self, with wavy standard. (Pkt. 5c) (oz. 15c).



Queen Alexandra



Countess Spencer

SELECTED GRANDIFLORA TYPES IN SEPARATE SHADES

Blanche Ferry.—Rose standard, tinted with light pink. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Brilliant Blue.—A dark stain of navy blue. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Dorothy Eckford.—White, large shell-shaped. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Helen Pierce.—Clear blue marbled on ivory white, frequently called Gloxinia flowered on account of its speckled effect. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Henry Eckford.—Very large orange scarlet. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Hon. E. Kenyon.—A fine large primrose yellow. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

King Edward, Seventh.—Bright showy scarlet. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Lady Grisel Hamilton.—Delicate silvery lavender. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Miss Willmott.—Bright orange pink showing veins of deeper pink. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Othello.—Deep maroon, very large, finest type. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Prima Donna.—The most popular clear pink hooded. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Prince of Wales.—Popular rose colored. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Queen Alexandra.—The nearest approach to a true scarlet. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Mixture representing all shades.—(Pkt. 5c) (oz. 15c) (¼ lb. 40c) 1 lb. \$1.25).

UNWIN TYPE

A. J. Cooke.—Large mauve blue with waved standard. (Pkt. 5c) (oz. 15c).

E. J. Castle.—Fine carmine rose, waved standard. (Pkt. 5c) (oz. 15c).

Frank Dolby.—Fine Pale mauve self, with wavy standard. (Pkt. 5c) (oz. 15c).

Gladys Unwin.—Large frilled standard and open waves, pretty pale pink shade. (Pkt. 5c) (oz. 15c).

Nora Unwin.—Large frilled white flower. (Pkt. 5c) (oz. 15c).

CUPID OR DWARF SWEET PEAS.—The Cupid varieties are very showy and splendid for bedding. Height six inches. Plant the seed six inches apart.

Mixed.—(Pkt. 5c) (oz. 25c).

WINTER FLOWERING SWEET PEAS.—A valuable race of early flowering sweet peas, which from a September sowing will give an abundance of blooms from Christmas onward. On account of their delightful perfume, sweet peas are particularly welcome during the days of winter.

A. & M. Xmas Dark Blue.—Pkt. 5c) (oz. 25c).

A. & M. Xmas Lavender.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Pink and White.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Red.—(Pkt. 5c) (oz. 25c).

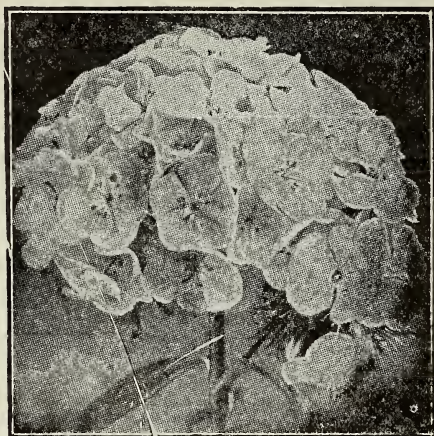
A. & M. Xmas Soft Pink.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas White.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Mixed.—(Pkt. 5c) (oz. 25c).

Perennial or Everlasting. See Lathyrus.

Our line of Sweet Peas is complete and cannot be excelled.



Sweet William



Zinnia Frandiflora Robusta Plenissima

SWEET SULTAN. See *Centaurea Moschata*.

SWEET WILLIAM (*Dianthus Barbatus*). A hardy perennial, blooming the second year from seed. Grows one to two feet high and bears its flowers in clusters, at the end of a stiff stem. The individual flowerlets are handsomely colored and marked. It makes a beautiful bedding plant, and is of easy culture.

Single Varieties, Mixed.—More attractive than the double. (Pkt. 5c) (oz. 25c).

Double Varieties, Mixed.—Pkt. 5c.

THUNBERGIA (or Black-eyed Susan).—A hardy climber, growing about four feet long, and valuable for low fences or hanging baskets. Prefers a sunny situation. Blossoms are buff, orange or white, with dark centers. Mixed. (Pkt. 5c).

TROPASOLUM CANARIENSIS. See Canary Bird Flower.

VERBENA.—A half hardy trailing perennial of easy culture. It is well known as a bedding or border plant, and the improved large flowered and fragrant strains make it a handsome cut flower for low vases.

Lemon Scented.—This favorite old sweet scented perennial may be readily raised from seed. Pkt. 10c.

Mammoth Flowered, Mixed.—(Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Mammoth Rose Queen (new).—Large brilliant rose. A splendid bedding plant. (Pkt. 20c).

Pink Shades.—Mammoth strains of rose and pink shades. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Pure White.—Mammoth strain. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Purple and Blue Shades.—Mammoth strain. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Scarlet Defiance.—Brilliant scarlet. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Vinea, or Madagascar Periwinkle.—A tender perennial, with ornamental foliage. Blooms freely the first year from seed. The trailing blue Vinea or Myrtle never seeds. See plant list. Mixed. Rose, Crimson, White, etc. Pkt. 5c.

VIOLETS.—Hardy perennials, blooming freely throughout the summer and autumn. Of easy culture.

Viola Cornuta Purple.—Fine, rich, purple. Pkt. 10c.

Viola Cornuta White.—Pure white flowers, freely produced. Pkt. 10c.

The Czar.—Large, fragrant, deep violet flowers. Pkt. 10c.

Princess of Wales.—Largest flowering deep blue. Pkt. 10c.

Single, Sweet-scented.—(Pkt. 10c) (oz. \$1.50).

VIRGINIA CREEPER (*Ampelopsis Quinquefolia*).—Perennial climber. Large leaves which color in the fall; also bears clusters of dark fruit; flowers inconspicuous. Very ornamental and easily raised from seed. Height, 30 feet. (Pkt. 5c) (oz. 25c).

VIRGINIA STOCKS.—A hardy annual, growing about 9 inches high; can be had in continuous bloom by sowing the seed at frequent intervals during spring and summer.

Red and White Mixed.—(Pkt. 5c) (oz. 15c).

WALL FLOWER.—These delightfully fragrant flowers are indispensable for every garden. Height, 18 inches.

Blood Red.—A fine strain of single dark red flowers. Pkt. 5c.

Early Paris Annual.—Light Brown. Pkt. 5c.

Double Mixed.—Pkt. 10c.

Single Mixed.—Pkt. 5c.

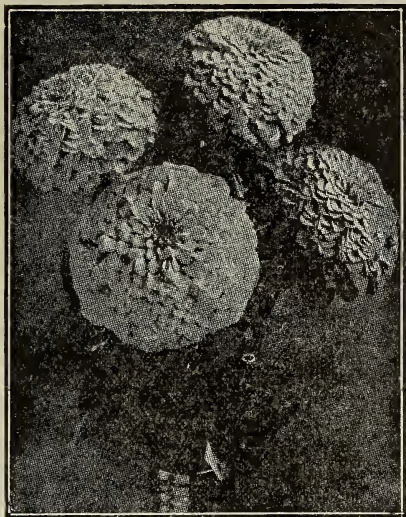
WISTERIA.—A tall, rapid-growing vine with feathery foliage and handsome flowers. The glorious blossoms, radiant in their inherent ornamental splendor, are profusely borne in long drooping clusters in mid-spring and gleam in soft tones of violet-purple.

Chinensis.—Violet purple. Pkt. 10c.

ONR CHOICE "WILD" GARDEN SEEDS.

To those who cannot bestow the necessary care required in a neatly laid out flower garden the "Wild Garden" presents a substitute which for its usual varied effect, for cheapness and small amount of labor necessary for its construction, has no rival.

"Wild Garden Seeds" are a mixture of over 100 varieties of hardy flower seeds. (Pkt. 5c) (oz. 20c).



Zinnia

ZINNIA.—For gorgeous summer and autumn display, there is nothing that can equal in effectiveness the improved, compact-growing, large-flowering Zinnias; grow only 2 feet high and bear flowers of immense size and of the most brilliant colors.

Elegans Single Mixed.—Pkt. 5c.

Giant Golden Yellow.—Pkt. 15c.

Haageana (Golden Star).—Pkt. 10c.

Giant Pink.—Pkt. 10c.

Giant Purple.—Pkt. 10c.

Giant Rose.—Pkt. 10c.

Giant Scarlet.—Pkt. 10c.

Giant White.—Pkt. 10c.

Tall Double Mixed.—The finest strain in cultivation; flowers large, well formed and the colors superb. Pkt. 10c.

Dwarf Double Mixed.—A valuable class only about fifteen inches high, very free blooming; flowers as large as the ordinary double Zinnia. Pkt. 10c.

DOUBLE GIANTS (Grandiflora Robusta Plenissima).—The largest variety in existence. The blossoms are globe shaped, very large and numerous colors. Plants are taller than other varieties.

Mixed.—Pkt. 10c.

AGRICULTURAL BOOKS

	Price.	Pstpd.		Price.	Pstpd.
A. B. C. of Agriculture, by Weld .....	.50	.55	Garden Helps, by Hall .....	.75	.85
Alfalfa, by Coburn .....	.50	.60	Gardening in California, by Lyon	1.00	1.10
Art of Propagation, by Jenkins .....	.25	.30	Gardening in Cal., Landscape and Flower, by McLaren.....	3.75	4.00
Asparagus, by Hexamer .....	.50	.60	Ginseng, Kain's Book on.....	.50	.60
Avocado Industry, by Popenoe. 15	.20		Insects and Insecticides, by Webb	1.50	1.65
Bean Culture, by Sevey .....	.50	.60	Irrigation Farming, by Wilcox	2.00	2.20
Cabbage and Cauliflower, by Allen .....	.50	.60	Irrigation for the Farm, Garden and Orchard, by Stewart.....	1.00	1.10
California Fruit and How to Grow It, by Wickson	3.00	3.20	Mushroom Culture, by American Spawn Co. ....	.35	.40
California Vegetables, by Wickson	2.00	2.15	New Onion Culture, by Greiner .....	.50	.60
1000 Questions in Cal. Agriculture Answered, by Wickson..	1.50	1.60	Onion Culture .....	.20	.25
Celery Culture, by Beattie .....	.50	.60	Peanut Culture, by B. W. Jones .....	.50	.55
Cereals of the United States, by Hunt	1.75	1.85	Potatoes, by Fraser .....	.75	.85
Chrysanthemums, by Herrington .....	.50	.60	Pruning, by Bailey	1.50	1.75
1905 Dry Farming, by Campbell .....	.50	.60	Rhubarb Culture, by J. W. Morse .....	.50	.60
1907 Dry Farming, by Campbell	2.50	2.60	Roeding's Planters' Guide	1.25	1.40
Farm Grasses of the United States, by Spillman	1.00	1.10	Soils, by Burkett	1.25	1.40
Fertilizers, by Gregory .....	.50	.60	Spraying Crops, by Weed.....	.50	.60
Flax Culture .....	.30	.35	Strawberry Culture, by A. S. Fuller .....	.25	.30
Forage Crops, by Shaw	1.00	1.10	Sweet Potato Culture, by Fitz. .....	.50	.60
Garden Beautiful in California, by Braunton	1.00	1.10	Talks on Manures, by Harris..	1.50	1.60
			Tobacco Culture .....	.25	.30
			Tomato, by Tracy .....	.50	.60
			Tomato Culture, by Root .....	.35	.40

LITERATURE FOR POULTRYMEN

	Price.	Pstpd.		Price.	Pstpd.
American Standard of Perfection (1915)	\$2.00	\$2.20	Poultry Houses and Fixtures .....	.50	.60
Artificial Incubation and Brooding .....	.50	.60	Poultry Architect .....	.50	.60
Barred, White, Buff, Plymouth Rocks .....	.50	.60	Poultry Remedies .....	.25	.30
Bantam Fowl .....	.50	.60	Profitable Poultry Farming....	.25	.30
Broilers and Squabs .....	.50	.60	Pacific Coast Rabbit Book .....	.25	.30
Capons for Profit .....	.50	.60	Rabbit Book, Caldwell's .....	.25	.30
Diseases of Poultry .....	.50	.60	Rhode Island Reds .....	.75	.85
Duck Culture, by Rankin .....	.75	.85	Successful Poultry Keeper	1.00	1.10
Ducks and Geese .....	.75	.85	The New Egg Farm	1.00	1.15
Leghorns, Brown, White and Buff	1.00	1.10	Turkeys, All Varieties .....	.75	.85
National Standard Squab	1.00	1.10	Two Hundred Eggs Per Year—How to Get Them .....	.50	.60
			The Wyandottes .....	.50	.60
			Western Poultry Book	1.00	1.10

BULLETINS

- Write to the College of Agriculture, Berkeley, Cal., for any of the following:
- Nos. 208. The Late Blight of Celery.
 - 239. Culture of Tomatoes in California with special reference to their diseases.
 - 240. Commercial Fertilizers.
 - 242. Humus in California Soils.

CIRCULARS

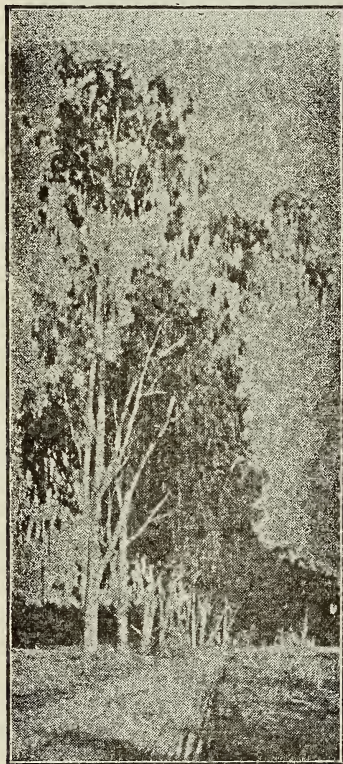
- Nos. 46. Suggestions for Garden Work in California Schools.
- 66. Insecticides and Insect Control.
- 98. Plowing and Cultivating Soils in California.
- 121. Some Things the Prospective Settler Should Know.

TREE AND SHRUB SEEDS

Deciduous Tree Seeds should be planted in this section in winter or very early in the spring, as most of these seeds lose their vitality very rapidly. The soil should be well prepared, rich and deep, and the seed should always be sown in drills, and ground kept thoroughly free from weeds. Evergreen tree seeds should be sown in boxes or pans thoroughly well drained, and should be protected from the sun by being placed under the shelter of a hedge or lath house. They are best sown in the spring or fall, and should be carefully transplanted when necessary.

EUCALYPTUS FUTURE TIMBER OF CALIFORNIA

We issue a pamphlet of instructions how to grow the trees from seed. The pamphlet is free to all who are interested in Eucalyptus. All prices on tree seeds are prepaid.



Eucalyptus Globulus

ity, and it is used in furniture, vehicles, agricultural implements, manufacturing. Also used for railroad ties, street paving blocks, and ship building; height, 200 feet.

(Pkt. 10c) (oz. 50c) (lb. \$5.00.)

Rudis (Desert Gum).—This tree is noted for its toughness, being used as an avenue and wind break, withstanding winds, heat and cold; height, 100 feet.

(Pkt. 20c) (oz. \$1.00) (lb. \$10.00).

Salinga (Weeping Gum).—Ornamental. Very graceful, drooping variety. Good for fuel; height, 75 feet. (Pkt. 20c) (oz. \$1.00).

Tereticornis (Gray Gum).—A rapid grower and erect. Wood durable and useful for shingles, flooring, piles, bridge work and street paving blocks, boat building and wheelwright work. It is also a good honey producer; height, 200 feet.

(Pkt. 15c) (oz. 75c) (lb. \$7.50).

Viminalis (Manna Gum).—A hardy, rapid growing variety and well suited to exposed situations. (Pkt. 15c) (oz. 75c) (lb. \$7.50).

We sell *Eucalyptus* nursery stock. Small trees 15 to 20 inches tall, grown in flats of 100 trees each of the following named varieties: *Tereticornis*, *Rostrata*, *Globulus* and *Corynocalynx*. Price—(\$1.50 per flat of 100 trees) (\$12.50 per 1000 trees).

Citridora (Lemon Scented Gum).—A fine ornamental tree with lemon scented foliage; also its timber is very useful; grows 150 feet high.

(Pkt. 15c) (oz. \$1.00).

Corynocalynx (Sugar Gum).—Very ornamental and useful. Highly valued in this vicinity because it stands more drought than any other variety we know of. Timber very durable and is used for railroad ties, telephone poles, etc., height, 100 feet.

(Pkt. 15c) (oz. \$1.00.)

Ficifolia (Scarlet Flowered Gum).—Ornamental, very showy, bright crimson; one of the most effective trees for avenue planting; height, 100 feet. (25 seeds, 25c) (100 seeds 75c.)

Globulus (Tasmanian Blue Gum).—Well known. One of the most useful of all and a very rapid grower, planted in warm countries on account of its malaria destroying qualities; the wood partakes of a very high polish resembling polished hickory when finished; also valued for wagon work; as for fuel it is one of the best, easily sawed and split; height, 150 feet.

(Pkt. 15c) (oz. 50c) (lb. \$5.00.)

Resinifera (Forest Mahogany).—This wood in grain and finish surpasses South American mahogany, and is one of the most beautiful woods in the world; is used for furniture and many other purposes; becomes in time almost as hard as Iron Bark; (grows to a large, straight tree; is the king of the stringy-bark varieties.

(Pkt. 20c) (oz. \$1.00) (lb. \$10.00.)

Robusto (Swamp Mahogany).—Thrives best on low grounds, especially near the coast; is remarkably healthy. Greatly used in this section of the country for avenue planting; height, 100 feet.

(Pkt. 15c) (oz. 60c) (lb. \$6.00.)

Rostrata (Red Gum).—Well known. A rapid grower. It will grow under a great variety of climates. The timber is unsurpassed for durability.

ORNAMENTAL EVERGREEN TREE SEED

ACACIA

The Acacias are all natives of Australia and Tasmania. The wood is valuable, they are all of rapid growth, and produce their various shades of yellow flowers in great profusion. For quick growth and shade-affording purposes, we know of no better tree. We specialize the *Melanoxylon* (Black Acacia), *Floribunda* (abundance of flowers) and the *Baileyana*.

Acacia Baileyana.—A very ornamental tree with glaucous green foliage. Flowers yellow, in racemes 3 to 4 inches long. One of the most beautiful of the Acacias for lawn and park planting; height, 20 feet.

(Pkt. 10c) (oz. 50c) (lb. \$5.00).

Cultriformis (Knife Leaved Acacia).—A beautiful species and of distinct character, forming a large shrub, with glaucous green leaves. When in bloom the plants present a splendid appearance on the lawn; height, 10 to 15 feet.

(Pkt. 10c) (oz. 35c) (lb. \$4.00).

Dealbata (Silver Wattle).—With beautiful silvery foliage; very ornamental for sidewalks and lawn planting; flowers canary yellow, fine for cut flowers; keeps well; height, 40 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Decurrens (Black Wattle).—A medium size tree; very useful for wind breaks; height, 30 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Floribunda.—An abundant bloomer and ornamental; very valuable for lawn, park, sidewalks; height, 20 feet. (Pkt. 10c) (oz. 40c) (lb. \$4.00).

Latifolia.—A handsome tree, thrives well along the seacoast; leaves broad, cat-tail yellow flowers; native of South Africa; height, 15 feet.

(Pkt. 10c) (oz. 40c) (lb. \$4.00).

Lophantha (Crested Wattle).—One of the most rapid growing for first temporary shelter; good for beach or dry places; height, 20 feet. (Pkt. 5c) (oz. 15c) (lb. \$1.25).

Melanoxylon (Blackwood).—A well uniformed tree. Being planted very extensively for sidewalk ornamentals, attaining a height of 50 feet.

(Pkt. 10c) (oz. 35c) (lb. \$3.50).

Molissima.—An abundantly blooming tree; very ornamental, suitable for lawns, sidewalks and parks. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Pycantha (Golden Wattle).—Of a drooping habit, rapid grower, well adapted for near the coast; height, 25 feet. (Pkt. 10c) (oz. 30c) (lb. \$3.00).

CONIFERA-CEDAR

Libani (Cedar of Lebanon).—A magnificent tree for lawn decoration; height, 75 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Cryptomeria Elegans.—A small, dense tree, with glaucous green foliage, changing in autumn to bronzy crimson color, which is retained through the winter.

(Pkt. 10c) (oz. 50c) (lb. \$5.00).

Japonica (Japan Cedar).—Large, slender tree, with a tapering trunk, covered with a reddish brown bark; thrives under any conditions; height, 75 feet.

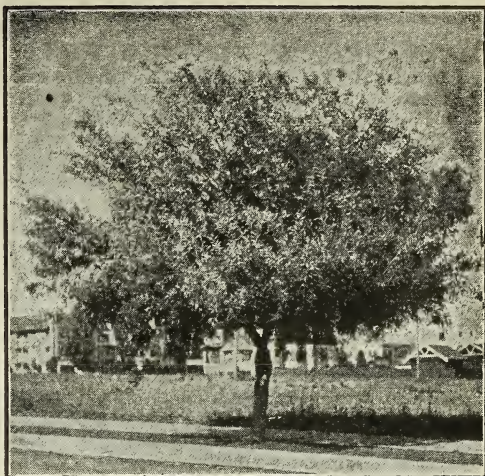
(Pkt. 10c) (oz. 30c) (lb. \$3.00).

Juniperus Virginia (Red Cedar).—A well-known ornamental tree, usually of pyramidal form and having beautiful red heart wood. Its timber has an aromatic fragrance and is very useful; height, 60 feet. (Pkt. 10c) (oz. 25c) (lb. \$2.50).

Libocedrus Decurrens (Immense Cedar).—A handsome, compact, growing tree, erect and distinct from any other; with a stout trunk, branches bright, rich, glossy green. Native of California and Oregon; height, 75 feet. (Pkt. 10c) (oz. 40c) (lb. \$).

Leptospermum Laevigatum.—This beautiful shrub does particularly well in California, and is very valuable for planting in masses and for filling up odd corners. It grows rapidly, and in the spring is laden with a profusion of white blossoms. (Pkt. 10c) (oz. 40c) (lb. \$4.00).

Read pages 83-84-85. Note particularly Warnock Tree Paint for destroying all insect pests and diseases of trees.



Acacia Baileyana

TREE SEEDS—(Continued)

CYPRESS

Cyressus Lawsonia (Lawson Cypress).—A native tree, with elegant, slender, drooping branches, leaves dark, glossy green tinged with a glaucous hue; height, 75 feet. (Pkt. 10c) (oz. 40c) (lb. \$4.00).

Macrocarpa (Monterey Cypress).—A California native, and one of the most desirable of evergreens; extensively used for hedges and wind breaks; height, 50 feet. (Pkt. 10c) (oz. 20c) (lb. \$2.00).

Guadelupensis (Blue Cypress).—Erect pyramidal grower, with glaucous foliage. Very ornamental for lawn; height, 50 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Sempervirens (Italian Cypress).—A European variety growing very erect. branches parallel with the trunk; deep green color. Very desirable for cemeteries and arches; height, 60 feet. (Pkt. 10c) (oz. 30c) (lb. \$3.00).

Pinus Canariensis (Canary Island Pine).—A handsome tree, of robust growth, with bright green foliage; growing almost as rapidly as the Monterey Pine; height, 100 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Insignis (Monterey Pine).—A very fine pine; native of California, being particularly well adapted to our coast counties, thriving in almost any kind of soil; height, 100 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Lambertiana (Sugar Pine).—The tallest of all California pines, presenting a very attractive appearance when young. Its timber is the most valuable of all our native pines; height, 150 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Sequoia Gigantea (California Big Tree).—The largest of all trees, probably the longest lived; rising like a tapering pyramid. The lower branches sweep the ground; an excellent ornamental tree, either for the coast or interior; height, 300 feet. (Pkt. 15c) (oz. 75c).

Sempervirens (California Redwood).—Well-known throughout the world for its famous redwood timber. Very ornamental and a rapid grower; of tapering pyramid habit; does remarkably well in any part of California; used for lawns and parks; height, 200 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

THUYA, ARBOR VITAE

Thuya Occidentalis (American Arborvite).—A native variety, and commonly known as the White Cedar; used for hedges, etc.; height, 50 feet.

(Pkt. 10c) (oz. 50c) (lb. \$5.00).

Orientalis Aurea (Chinese Golden Arborvitae).—One of the most elegant and popular. Very compact and regular habit, the foliage assuming a beautiful golden tint in spring; height, 10 feet. (Pkt. 10c) (oz. 25c) (lb. \$2.50).

Branchycton Acerifolium (Scarlet Flowering Tree).—Of fine, robust growth, with large, handsome foliage, producing masses of scarlet flowers; height, 40 feet. (Pkt. 10c) (oz. 30c) (lb. \$3.00).

Camphor Officialis (Camphor Tree).—A symmetrical and ornamental tree, thriving in poor soil; bright green foliage; extensively planted throughout Southern California as an avenue tree, also making a nice ornament for the lawn. This tree is a native of Japan and China. From this tree they extract the camphor of commerce. Attains a height in its native country of 50 feet. (Pkt. 10c) (oz. 25c) (lb. \$2.50).

Grivillea Robusta (Silk Oak of Australia).—A well-known shade tree throughout California, with fern-like foliage and flowers of orange color; and of rapid growth; height, 75 feet. (Pkt. 10c) (oz. 40c) (lb. \$4.00).

Viburnum Tinis (Laurstinum).—A well-known winter flowering shrub of great beauty, producing an abundance of white flowers; well adapted for hedges. (Pkt. 15c) (oz. 25c) (lb. \$2.50).

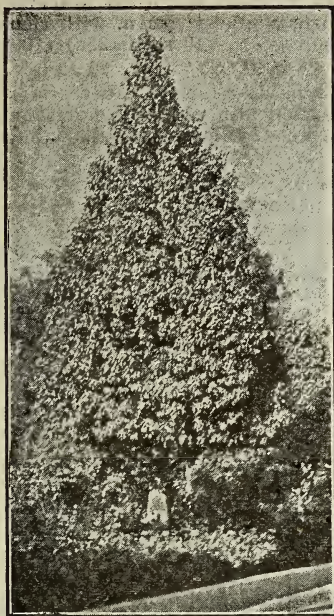
P. Illicifolia.—"California Cherry." A beautiful native shrub found in most of our foothills. It has pretty, holly-like foliage and small white flowers; very fine for single specimens and also makes a splendid hedge. Fresh seed from November to April. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

P. Integrifolia.—"Catalina Cherry." From Catalina Island. A tree of great beauty, leaves large, oval, rich, glossy green; very pretty as single specimens or as a street tree. Fresh seed from November to April. (Pkt. 10c) (oz. 15c) (lb. \$1.50).

READ THIS CONCERNING EUCALPYTUS

Mr. Wm. Malcolm of Alhambra, Cal., reports having planted on the hills near Puente 2000 trees each of the following varieties of eucalyptus: *Tereticornis*, *Globulus* and *Corynocalyx*. They were watered when planted, but not since, except by the season's rains. After five years the average growth of all is about fifty feet tall. The *Tereticornis* formed the prettiest and straightest tree; the *Globulus* showed the most luxuriant growth; the *Corynocalyx* at the top of the hill with the least moisture averaged up well with the others. All varieties showed an average diameter of four inches five feet above the ground. Mr. Malcolm is well satisfied with this growth.

TREE SEEDS—(Continued)



Sterculia Diversiofolia

Hakae Eucalyptoides.—A splendid ornamental evergreen tree, growing some 12 to 20 feet high, with a broad, dense growth having the appearance somewhat of a young Eucalyptus, with a very bushy top. Flowers are of a beautiful shade of pink, and bloom in clusters. (Pkt. 25c) (per 100 seeds \$1.50).

Jacaranda Mimosaefolia (Brazilian Jacaranda).—A handsome tree with fern-like foliage. Flowers blue or light violet, blooming in clusters early in the summer months. Greatly used as a street tree; very hardy in this vicinity; height, 40 feet. Pods containing from 20 to 40 seeds. (5c each) (per doz. 40c).

Ligustrum Japonicum (Japanese Privet).—A very large shrub with glossy dark green, leathery leaves; flowers white, form in clusters, followed by purplish blue berries. A very desirable hedge plant; stands trimming well. (Pkt. 5c) (oz. 15c) (lb. \$1.50).

Magnolia Grandiflora.—A native of the Southern states. One of America's most noble evergreens; foliage is thick, with a nice bright, waxy green; foliage underneath of brown velvet color; flowers of pure white; of immense size and fragrant; height, 75 feet. Fresh seed during the fall and winter. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Pittosporum Eugenioides.—Graceful form, light, bright green foliage. Is suitable for lawns, parks and tall garden hedges; height, 20 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Pittosporum Undulatum.—(Pkt. 10c) (oz. 40c) (lb. \$4.00).

Schinus Molle (Mexican Pepper Tree).—This ornamental tree has been one of the greatest attractions of Southwest California, with light feathery foliage and bright scarlet berries during the winter months. (Pkt. 5c) (oz. 10c) (lb. 75c).

Sterculia Diversifolia (Victorian Bottle Tree).—This magnificent street and avenue tree, as its effective and ornamental qualities are becoming established, continues to be in great demand. One great point in its favor is that the roots do not interfere with the pavements of the city streets, and this one fact adds to its charms. Its graceful, tapering habit of trunk and foliage have given it a supremacy over many other trees. Its foliage, which is bright, glossy green, is constantly changing shape. (Pkt. 10c) (oz. 60c) (lb. \$6.00).

DECIDUOUS

Acer Neugundo (Maple).—Large, fine, spreading tree of rapid growth, foliage ash-like, smaller than in other maples; a fine avenue tree; height, 75 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Catalpa Speciosa (Indian Bean Tree).—Very valuable for forest and ornamental planting; flowers white and purple; height, 100 feet. (Pkt. 5c) (oz. 25c) (lb. \$2.50).

Ceratonia Seligna (St. John's Bread).—A beautifully formed tree, with yellow flowers and edible saccharine pods which are very healthful; height, 30 feet. (Pkt. 5c) (oz. 25c) (lb. \$2.00).

Melia Umbraculiformis (Texas Umbrella Tree).—Of a very rapid growth; the top forming in the shape of an umbrella and very dense; greatly recommended for the hot and dry country; height, 40 feet. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

Robinia Pseudacacia (Black Locust).—A rapid growing tree with spreading branches; a valuable timber tree; lumber used for various mechanical purposes; flowers white, appearing in spring. height 70 feet. (Pkt. 5c) (oz. 10c) (lb. 75c).



Texas Umbrella Tree

PALMS AND DRACAENA

Areca Letuscens.—Native of the Mascareen Islands. One of the most graceful and beautiful palms in cultivation; the foliage is of a bright glossy green, with rich golden stems; adapted only to greenhouse or house culture. (10 seeds 25c) (100 seeds \$2.00).

Chamaerops Excelsa (Windmill Palm).—Native of China and Japan. Leaves fan-shaped, deeply cut. This is the hardest palm we have, and although it is not such a rapid grower as some, it makes a fine lawn palm and an excellent sidewalk palm; height, 20 feet. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

Corypha Australia (Australia).—One of the handsomest of the Fan palms; the fan-like leaves are dark green, supported upon brown petioles, which are armed at their edges with stout spines; hardy in Southern California. (10 seeds 10c) (100 seeds 75c).

Erythea Armata (Blue Palm).—Native of Lower California. One of the most exquisite Fan palms and very hardy; a pretty palm, especially suited to small gardens. (10 seeds 20c) (100 seeds \$1.50).

Phoenix Canariensis (Canary Island Palm).—The most graceful and the handsomest of our hardy palms; leaves pinnate and of a deep, dark green color; one of the most effective palms for a lawn and worthy of the attention of all admirers of the palm family. (10 seeds 10c) (100 seeds 75c).

Phoenix Reclinata (Dwarf Date Palm).—Native of South America; very graceful, drooping leaves; very handsome for avenue or lawn use. Makes a good pot plant. (10 seeds & 10c) (100 seeds 75c).

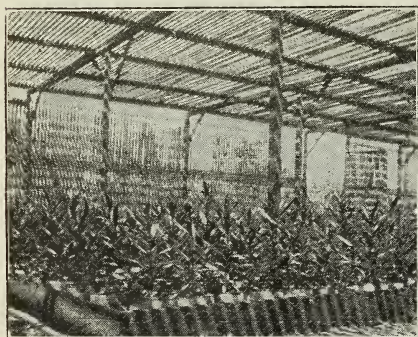
Seaforthia Elegans.—One of the most beautiful and one of the best in cultivation for the conservatory or greenhouse; perfectly hardy in Southern California. (10 seeds 10c) (100 seeds 50c).

Washington Filifera.—The well-known California Fan Palm, which first originated in San Bernardino county; may be seen throughout all Southern California; attains a height of 60 to 80 feet; always a large bunch of leaves hanging close to the trunk. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

Washingtonia Robusta.—This is a very distinct type from the preceding, although the leaves have the same shape and drooping tendency. (Pkt. 5c) (oz. 25c) (lb. \$2.50).

Dracaena Australia.—A palm-like tree with a stout branched stem from 15 to 20 feet in height, with flag-like leaves 2 to 3 feet long. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Dracaena Indivisa.—A more rapid grower than the preceding, with long, narrow leaves; fine for hall and porch decoration. (Pkt. 10c) (oz. 35c) (lb. \$3.50).



FRUIT TREE SEED

In the climate of Southern California all tree seeds should be sown in soil specially prepared and under the protection of a lath-house. When plants are 3 to 12 inches high, according to variety, transplant to the nursery, 8 or 10 inches apart in rows two feet apart. Peach, plum, apricot and walnut seeds may be planted in the nursery rows, but care should be exercised that only good seed be planted and not too closely. When the young trees are large enough and at the proper season bud to the desired variety. If inexperienced, write for our books on Art of Propagation, 30c, and Planter's Guide, 25c.

Wild Sour Orange.—We have on hand from January until May fresh seed from abroad. Price—(Per gallon \$6.00) (per bushel \$45.00). Price subject to market change.

Sweet Orange Seed.—California grown. (Per gallon \$3.00) (per bushel, \$23.00).

Myrobalan Plum.—Considered the best root stick. Price—(Per lb. \$1.00). Write for quantity price. One pound contains 100 seeds.

California Wild Walnut.—The best and hardest. Price—(Per lb. 25c prepaid). Write for quantity price.

Apricot.—(Per lb. 20c postpaid) (10 lbs. 50c f. o. b. here). Write for quantity price.

Apple, Cherry, Pear and Quince.—Write for price.

See Warnock Tree Paint, page 85. For Pear and Walnut Blight. A sure cure for all orchard pests.

NURSERY REQUISITES

On this page we can only hint at some of the lines we carry, trusting you will, if interested, write and inquire for more information. We carry a full line of Lawn Mowers, Garden Hoes, Pruning Knives, etc. Look to the index to find what you want.

The Expan Protectors

Made of oiled paper, perforated, are waterproof, tough, durable, and easily fastened; do not split or crack; will protect your trees from sunburn, rabbits, squirrels, and tree bores; can be taken off and put on again without injury.

Be sure to state the size and kind you want, and then we can fill your order correctly.

PRICES OF EXPAN PROTECTORS

Oiled Paper Per 1000		Black Per 1000			
12 in.	43 lbs.	\$ 8.50	12 in.	65 lbs.	\$ 7.00
14 in.	50 lbs.	9.75	14 in.	77 lbs.	8.25
18 in.	65 lbs.	10.50	18 in.	100 lbs.	9.00
24 in.	85 lbs.	12.50	24 in.	135 lbs.	11.00

YUCCA TREE PROTECTOR

Just the thing with which to protect the young trees and shrubs from the rays of the hot summer sun, from rabbits and other injury, being cheap and serviceable.

	Per 100	Per 1000
30 in. long, 7 in. wide.....	\$2.50	\$21.00
24 in. long, 7 in. wide.....	2.25	18.00
18 in. long, 7 in. wide.....	2.00	15.00
16 in. long, 7 in. wide.....	1.75	13.50
14 in. long, 7 in. wide.....	1.60	12.00
12 in. long, 7 in. wide.....	1.50	11.00
10 in. long, 7 in. wide.....	1.25	10.00



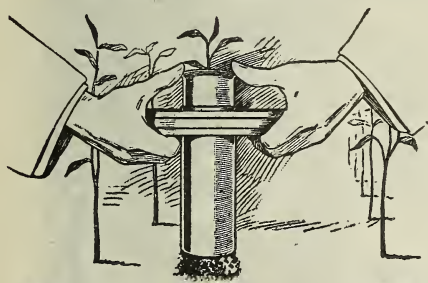
Expan



Yucca

THOMPSON'S TREE SUPPORT

Place the supports above projecting branches on the limb to secure them against slipping down. These supports are out of the way of everything. They are perpetual. There is no further expense after putting on.



Taken out of here - to be set in here
Transplanter

The proposition is simply to make opposite limbs support each other, or the center limbs to support the outer limbs, thus doing away entirely with the ordinary wooden prop. Price—(Per 100, \$1.50) (1000, \$13.50). Weight 10 to a lb.

TRANSPLANTER

A Transplanter that does the work without disturbing the roots. It first makes the hole where you wish the plant, then picks up the plant, root and all, without disturbing it, and sets the plant into its new location without checking its growth. A child can operate it. Just the thing for Eucalyptus growers and nurserymen. (Price—(50c) (by mail 60c).

GRAFTING WAX.—Price—(¼ lb. 20c) (½ lb. 30c) (lb. 40c). Prepaid.

Mr. Reeves of La Mirada is authority for the following convenient method of handling grafting wax: Melt the wax in a one-gallon lard bucket; suspend it in a five-gallon can of hot water. You are then ready for work, and your wax will remain pliable for half a day.

Look over our list of Poultry Samples and see the list of books we have on Agriculture and Poultry. You may see something you want. Keep the egg record—it is valuable.

Send 30c for "The Art of Propagation." It is valuable. See page 127.

Look over our list of sprayers. It is complete. You will find what you want.

See also our pages of insecticides, 83, 84, 85.

NURSERY REQUISITES—(Continued)

- Hanging Baskets (Clay).—(7 in. 20c each) (8 in. 25c) (10 in. 75c) (14 in. \$1.50).
- Wire Hanging Baskets.—(10 in. 25c) (12 in. 35c).
- Wire Wall Pockets.—(10 in. 35c) (12 in. 45c).
- Green Moss.—(lb. 10c) (bales, 80 lbs., 7c per lb.).
- Spagnum Moss.—(Per bale \$2.00).
- Budding Twine.—(Per ball 20c). Postpaid 25c.
- Budding Cloth.—(Per square yard 50c, prepaid).
- Raffia.—(Per lb. 20c) (10 lbs. \$1.90).
- Balling Twine.—(5-lb. ball 75c).
- Plant Stakes.—Square, painted green
 - 2 feet....35c per dozen 3 feet....50c per dozen
 - 4 feet....75c per dozen
- Pot Labels.—
 - 4 inch....15c per 100 5 inch....20c per 100
 - 6 inch....25c per 100 8 inch....75c per 100
- Tree Labels.—Copper wired and painted.—
 - 3½ inch.....35c per 100 \$1.65 per 1000

GARDEN TOOLS (See Picture)

- No. 1. Water's Tree Pruner, 4 to 10 ft., 75c to \$1.25.
- No. 2. Pond's Handy Garden Tool, 35c, by mail, 45c
- No. 3. Excelsior Weeder, 10c, by mail, 15c.
- No. 4. Tree Pruner, all sorts, from 75c to \$3.00.
- No. 5. Garden Trowels, all sorts, from 5c to 50c.
- No. 6. Grass Hooks, or Sickles, 40c, 50c and 60c.
- No. 7. Dibble, 50c, by mail, 60c.
- No. 8. Pruning Saws, double and single edge, \$1.00.
- No. 9. Havil's Weeder, 35c, by mail, 45c.
- No. 10. Hedge Pruners, \$1.75 to \$2.25 each.
- No. 11. Pruning Shears, from 35c to \$2.50 each.
- No. 12. Scuffle Hoe, 7-in., 60c, 12-in., \$1.00.
- No. 13. Ohio Wire Rake, 60c.
- No. 14. Hoe and Rake combined, 50c.
- No. 15. All Steel Rake, 50c to 60c each.
- No. 16. Warren Hoe, 75c.
- No. 17. Turf Edger, 75c.
- No. 18. Steel Spade, \$1.00.
- No. 19. Spading Forks, \$1.00 to \$1.25.
- No. 20. Potato Hooks, 75c to \$1.25.
- No. 21. Garden Hoes, from 4 to 10 in., 35c to \$1.00.
- No. 22. Steel Shovels, 75c to \$1.25 each.
- No. 23. Manure Fork, 75c, Hay Fork, \$1.00.

- Balling Spades.—\$1.75.
- Ladies' Garden Sets.—Made of best material. (Per set \$1.25).



Berry Hook.—Just the tool to trim blackberry, raspberry, dewberry and loganberry vines. No scratched hands. You cannot do the work well without this tool. Price—\$1.00.

EXPAN PAPER POTS

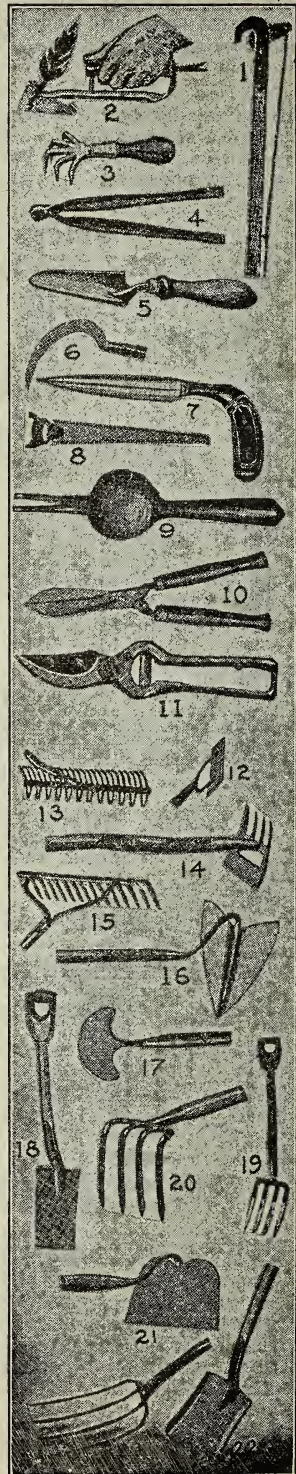
The most economical and convenient pot for all propogators of plants of every description. The pots as sold are made complete in standard sizes of 1½ inches square by 2 inches deep up to 3 inches square by 8 inches deep; folded and packed in bales of 100 and 1000. Price 100 Per 1000

Size	post-paid	f.o.b. here	Weight Per.1000
1½x1½x2 or 3.....	75c	\$3.00	11 and 17
2x2x3 or 4.....	85c	4.00	22 and 29
3x3x4 or 5.....	\$1.00	5.00	44 and 55

CLAY FLOWER POTS

Flower Pots—(2 in. 20c doz.) (3 in. 35c doz.) (4 in. 50c doz.) (5 in. 60c doz.) (6 in. \$1.00 doz.) (7 in. \$1.25 doz.) (8 in. \$1.50 doz.).

We are ever adding something new in this line. Therefore this list is incomplete. If you do not see here what you want, do not fail to ask for it.



LAWN MOWERS

We carry a complete line of Lawn Mowers, and aim always to have the best. The following is a list of what we have, with prices attached:

No. 1.—Capitol Lawn Trimmer and Edger.—Does what Lawn Mowers leave undone. Having one side without wheel, it can be run close to walls and trees, cutting grass clean and quick. Can also be used for trimming edges of walks, etc.; 4 steel blades, 6 in. wide. Price, \$6.00 complete.

No. 2.—Pennsylvania Low Wheel.—Generally called the low-wheel Pennsylvania. (12 in. \$9.00) (14 in. \$10.50) (16 in. \$11.00).

Pennsylvania High Wheel.—Ten-inch wheels, 4-blade cylinder, especially adapted for lawns that cannot be mowed very often or where the grass is coarse. (15 in. \$15.00) (17 in. \$16.00) (19 in. \$17.00).

No. 3.—Our All-Day Lawn Mower.—One of the best of the lower priced lawn mowers. (14 in. \$7.50) (16 in. \$8.00).

Philadelphia Lawn Mower.—Ball-bearing, with improved adjustment of bearings; fine blades. (14 in. \$10.00).

GARDEN HOSE

Owing to the general dissatisfaction of selling cheap and inferior hose, we have discarded all brands except those that have sold for a number of years and have proven satisfactory.

No. 4.—A. & M. Moulded Hose is equal in quality to the highest priced grades of any other make. None is superior. ($\frac{3}{4}$ in. 18c per ft.) ($\frac{1}{2}$ in. 16c per ft.).

Torrent Hose.— $\frac{3}{4}$ in., 20c per ft.

No. 5.—The Cooper Brass Hose Mender.—10c each, prepaid.

No. 6.—Brass Hose Couplings.— $\frac{1}{2}$ in. or $\frac{3}{4}$ in. Per pair, 25c, prepaid.

No. 7.—The Rose Nozzle, 60c, prepaid.

No. 8.—Boston Nozzle, 40c, prepaid.

No. 9.—Wood Hose Menders, $\frac{1}{2}$ in. or $\frac{3}{4}$ in., 15c per dozen, prepaid.

No. 10.—Twin Sprinkler, 35c, prepaid.

No. 11.—Wilgus Sprinkler, 40c, prepaid.

No. 12.—Sprinkling Can. (6 qts. 50c) (8 qts. 60c) (10 qts. 70c) (12 qts. 80c) Prepaid.

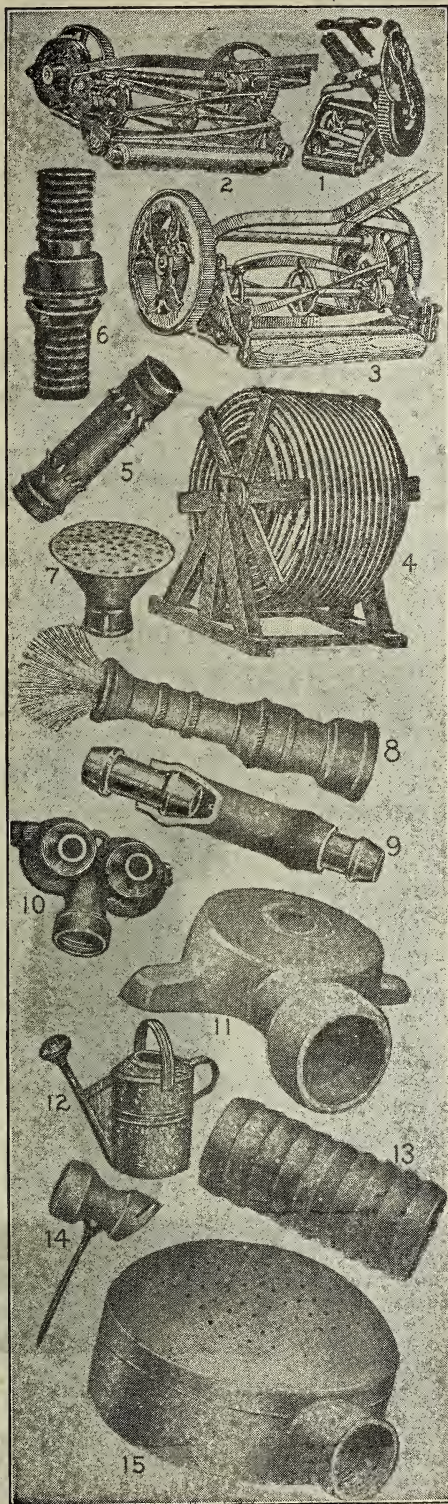
No. 13.—Brass Hose Menders—10c, prepaid.

No. 14.—Fan Sprinkler, 35c, prepaid.

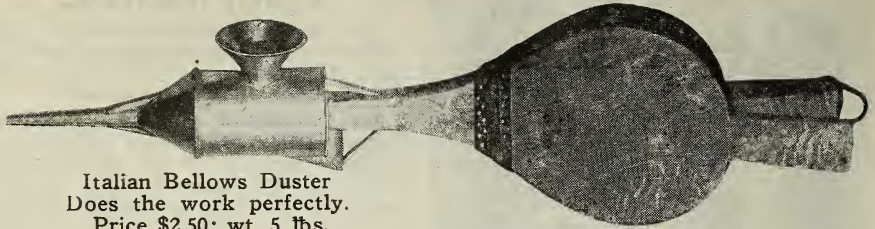
No. 15.—The Fountain Sprinkler, \$1.00. Prepaid.

We have sprinklers of every description. If you will describe what you want, we will send it to you.

All kinds of Hose Clamps, 5c per pair. Hose Nozzles, a large assortment.



POWDER DUSTERS



Italian Bellows Duster
Does the work perfectly.
Price \$2.50; wt. 5 lbs.

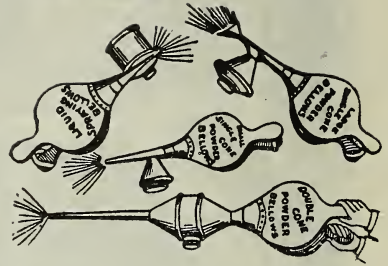
For house plants use
his blower



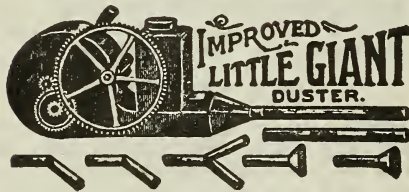
Powder Blower
Price 25c; by mail 30c



Sulphur Duster
Price 60c; by mail 70c



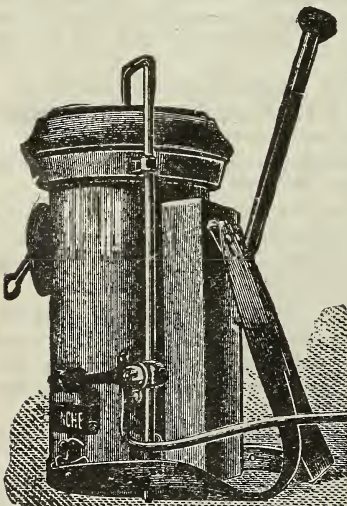
Powder Bellows
Small size 60c; large size \$1.50;
by mail add 20c



LITTLE GIANT DUSTER

The best dry powder gun; will distribute any dry insecticides and fungicides. Will do as much work in a day as a horse-power sprayer. Dusts two rows at once. Weight, packed, 15 lbs. Price—\$10.00.

THE VERMOREL "TORPILLE" SULPHURING MACHINE



The Vermorel

Without any doubt the Vermorel Sulphur Duster does the work perfectly. It has a carrying capacity of 15 pounds; it distributes the weight on the shoulders and back, leaving the hands of the man operating the machine free to work the pump and open up the vines.

The sulphur, violently projected by a powerful bellows, sends out of the paddle-shaped nozzle, which can be directed at will, dust as fine as mist, thus producing highest efficiency with least sulphur.

Price—\$18.00. Weight packed, 18 lbs.



Italian Sulphur Duster

The Italian Sulphur Duster.—Very similar to the Vermorel, slightly smaller and will serve the purpose quite as well. When in the market for a sulphur duster, give this one your consideration. We believe you will find it to your entire satisfaction. Weight, packed, 12 lbs. Price—\$12.00.

OUT-O-SIGHT MOLE TRAP

Mole Trap.—It is the best that has been patented. If properly placed over the runway it is sure to catch the mole, no matter which direction he travels. Louie Dick, a Chinaman, reported five moles the first week he had it. He says it has never failed to catch. Price—75c, by mail, \$1.00.

Macabee Gopher Trap.—This is the most convenient gopher trap yet put on the market. It is easy to set, and being small, it can be extended far down into the hole. 25c postpaid.

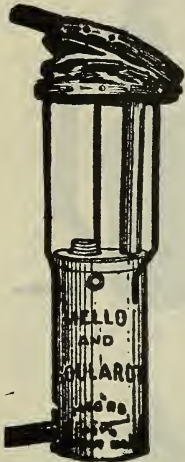
Box Trap.—Price—25c, by mail, 35c. You never fail to get your gopher when two traps are set in the opposite directions in the main run. Price—20c, by mail, 30c.



Out-O-Sight Mole Trap



Macabee



Eureka Squirrel Exterminators

EUREKA SQUIRREL EXTERMINATOR.—With the use of Carbon Bi-Sulphide this is the best and cheapest implement with which to eradicate the squirrel pests on your land. We can confidently recommend the use of this machine in vineyards, orchards, grain fields, pasture lands, etc. It is of simple construction, best galvanized sheet steel with a bellows attached. The working of the bellows causes the Bi-Sulphide in the machine to generate a gas which is forced through the hole or holes, not forcing in any liquid, but simply a gas from Bi-Sulphide, thus saving 75 per cent of the Carbon Bi-Sulphide bill over the old way of saturating balls of old rags or cotton. A colony of squirrels can soon destroy \$50 worth of vegetation. Six dollars expended for this Exterminator will destroy all the squirrels about your place. Price—\$6.00. Weight, crated, 12 lbs.

GOPHER SMOKER

Does the work of exterminating all your gophers and squirrels with no expense but your time and labor. Send for illustrated circular describing its operation. Price—\$10.00. Weight, 24 lbs., crated.

Easy Set Mole Trap catches them going and coming. A child can set it with perfect safety. Price 75c; prepaid, \$1.00.

Steel Jaw Traps, all sizes. Price—20c to \$1.00. When ordering state what game you wish to catch.



Gopher Smoker



Easy-Set Mole Trap

CARBON BI-SULPHIDE.—Price—(1 gal. \$1.50) (5-gal. can \$6.00). Cannot mail.
MOORE'S SQUIRREL POISON.—Price—lb. can 35c. Cannot mail.

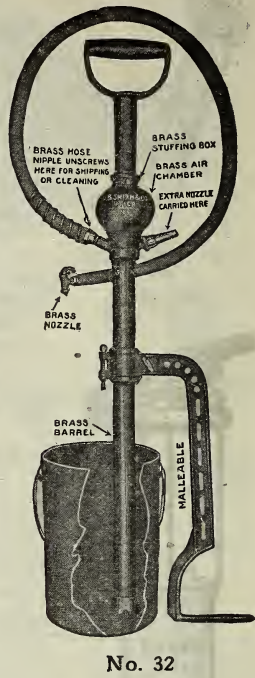
RAT-MUM.—Is sure death to rats. Prepared in cakes, of which the rats are very fond, and eat it readily, but cats and dogs will not eat it. Price—(Per cake 25c). Cannot mail.

A. & M. SQUIRREL AND GOPHER POISON is relished by all kinds of rodents, and is sure death to them. For gophers drop a tablespoonful into a freshly opened hole. For squirrels put a cupful on a board near the hole and cover it with brush. Price—(Per 1/4-lb. can, 35c) (1-lb. can, 60c) (5-lb. can, \$1.45). Cannot mail.

GOPHERGO is sure to kill all rodents; easy to use, cheap, and will kill gophers where traps and other devices fail. All experienced gopher fighters find poisoning the best method, but it must combine three points: Something that they will eat, it must be thoroughly poisoned, must be placed where they will get it. Gophergo does it. Try it. It is sold in (1/2-lb. cans 25c) (1-lb. 50c). Cannot mail.

DIAMOND BUCKET SPRAY PUMP NO. 32

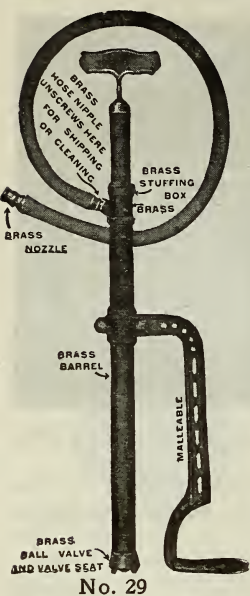
Diamond Spray Pump.—A pump that will spray whitewash or any other mixture. Made of solid brass, no leather valves to wear out or be eaten up by the whitewash. Throws a continuous spray and is so simple that a child can take it apart. The Pump shown on this page is almost entirely of the best grade of brass, hence it cannot be affected by the action of the whitewash or of any ordinary spraying solution. It is fitted with a Bordeaux Nozzle. Altogether it is the most durable and serviceable bucket pump made. Price—\$5.00 each.



No. 32

DIAMOND BUCKET SPRAY PUMP NO. 29

This pump is provided with large double air chamber, enabling the operator to keep a constant pressure on the nozzle of from 50 to 100 pounds with very little exertion. Rapid pumping is not necessary. Used largely for spraying trees, shrubbery, vegetables, as well as for whitewashing, spraying disinfectants, washing wagons, windows, etc. Price—\$3.50.



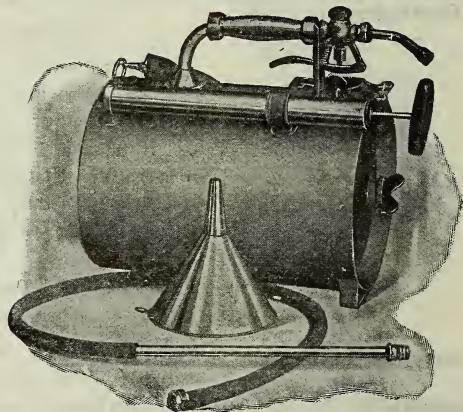
No. 29

BORDEAUX NOZZLE

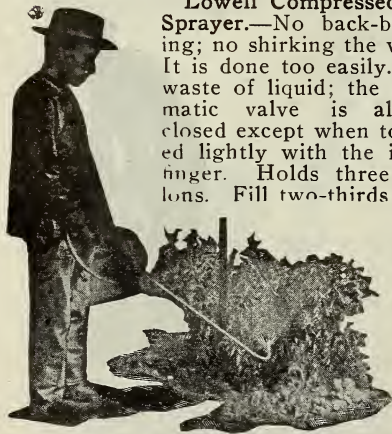
For Bordeaux Mixture and Whitewash. It cleans itself by Bordeaux Nozzle reversing the aperture. Price—75c, postpaid, 85c.



Lowell Compressed Air Sprayer.—No back-breaking; no shirking the work. It is done too easily. No waste of liquid; the automatic valve is always closed except when touched lightly with the index finger. Holds three gallons. Fill two-thirds with



Lowell Compressed Air Sprayer



Lowell Sprayer in Operation

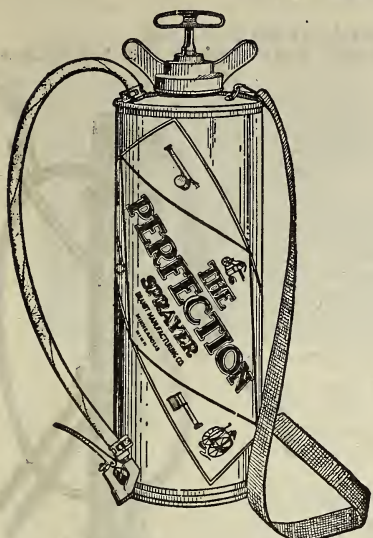
liquid and pump air into it with all the pressure you can control. It is then ready to operate. One great merit of the sprayer is that the valve of the pump does not come in contact with the liquid, which is the great weakness of other sprayers. This is absolutely the best sprayer yet offered. Price without curved rod extension, \$6.00. Brass Tank, \$7.50. Price of curved extension, \$1.00. Weight, crated, 20 lbs.

BORDEAUX MIXTURE

Too much credit cannot be given to the merits of Bordeaux Mixture. Use it all the time and on all occasions, where blight results from fungus or microscopic insects. It is a good tonic for all sick plants.

Price—(Per 1-qt. can 50c) (prepaid, within 150 miles, 75c).

"PERFECTION COMPRESSED AIR SPRAYER



The tanks are made of heavier metal than has ever been used in sprayers of this kind, making the tank practically unbreakable. The pump is 1¾-inch seamless brass tubing with a brass valve, and is sealed into the top of the tank with heavy threads following the construction used in the best makes of fire extinguishers.

This Sprayer will handle Whitewash, Water Paints, Bordeaux Mixtures, etc., perfectly.

For whitewash and all heavy mixtures it is necessary to use a "W. W." Cap in nozzle, which is furnished with sprayers.

These sprayers are made in galvanized steel or brass as ordered. Weight, 9 pounds empty. All sprayers tested to 60 pounds before leaving factory. Weight, packed, 14 lbs.

Galvanized Steel\$5.50
All Brass\$7.50

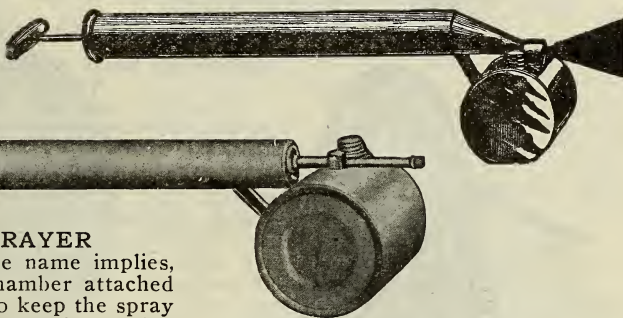
We keep on hand all minor parts. Perfection Nozzle, \$1.00; Disks, 10c; Dish Valve, 25c; Ball, 25c; Top Gasket, 10c; Metal Disk in pump. 5c.

THE FAULTLESS SPRAYER

Holds 1 quart. Weight crated, 3 lbs.

Price 50c, 60c prepaid.

Little Midget holds ½ pint; is just the sprayer for home use. Price 35c, 40c prepaid.



CONTINUOUS SPRAYER

This atomizer is what the name implies, by means of a small air chamber attached there is sufficient pressure to keep the spray continuous while the operator is making the back stroke of the arm, during which time other atomizers are at rest. Price 75c; prepaid \$1.00.

Continuous Sprayer.—Brass. Price \$1.00; prepaid \$1.25.

"IDEAL" SPRAYING OUTFIT



Ideal Spraying Outfit

This outfit has been designed to fill the requirements of the small gardener and fruit grower. It is light, compact and easy to operate. The tank holds fifteen gallons, is mounted so that the liquid will not slop or spill, and in a way that makes it easy to handle. The pump spreads across the top of the tank and is held firmly in place by a thumb nut. It has the largest air chamber of any spray pump of corresponding size. This enables the operator to keep a uniform pressure at the nozzle. The pump barrel is 1¾ inches in diameter, 7

inches in length. The valves are bronze balls ⅝ inches in diameter which allows free passage for the liquids and prevents clogging. Both valves are removable. A pressure of one hundred and fifty pounds can easily be maintained. A mechanical agitator keeps the liquid well stirred. Price complete, \$20.00. Wt. 73 lbs.

Ten Feet ¾-inch Pressure Hose
One "IDEAL" Nozzle

Ten Feet Pine Extension in Three Pieces
One Brass Shut-off Cock

THE NO. 25 "YANKEE" BARREL SPRAY PUMP

Made With Brass Nozzles, Brass Cylinder, Brass Ball Valves and Valve Seats

Quickly Attached to Any Barrel

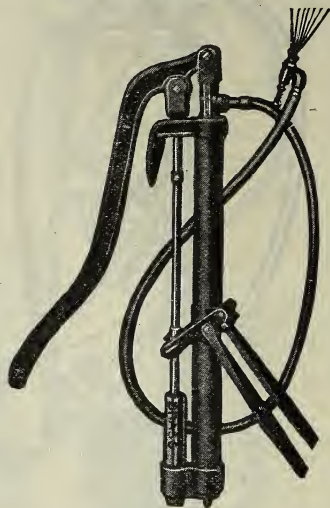
The No. 25 "Yankee" double acting barrel spray pump for use with a barrel spraying outfit. All parts are submerged in the liquid, and therefore no priming is necessary.

The suction barrel is made of heavy brass, and all valves and valve seats are made of the best brass, ground together so that all parts are absolutely air-tight. These parts will not corrode or rust out, nor is any part of the pump affected by the strong mixtures.

The duplex agitator keeps the liquid stirred up and prevents the ingredients from settling to the bottom. The pump is regularly fitted with 5 feet of ½-inch 3-ply rubber hose of A-1 quality, and Vermorel Brass Nozzle, from which any size spray or stream can be thrown. It is impossible to clog this nozzle, and it cannot get out of order.

Only very slow and easy pumping is necessary. The "Yankee" is used extensively for all spraying purposes, especially for orchards, vineyards, shrubbery, and for whitewashing hen houses, stables, fences, etc.

Price, complete, without barrel, \$11.00. Wt. 42 lbs.

No. 25
Spray Pump Complete**THE NO. 40 "BEST" BARREL SPRAY PUMP**

Made With Brass Nozzles, Brass Cylinder, Brass Ball Valves and Valve Seats

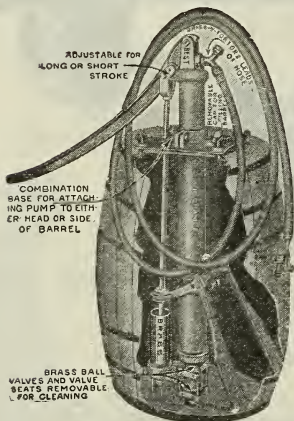
Dimensions—Height over all, 43 ins.; boiler tubing, air chamber, diameter, 3 ins.; length, 32 ins.; cylinder diameter, 2½ ins.

The Plunger Packing is a specially prepared, treated canvas, that is proof against the ruinous effects of strong mixtures, which would destroy a leather packing. The brass cylinder and all valves and valve seats are made of the best brass, ground together so that all parts are air-tight. These parts will not corrode nor rust.

By removing two bolts, the valves are accessible, making it easy to quickly clean pump when necessary. All parts are submerged in the liquid, and therefore no priming is necessary.

Pump has duplex agitator which keeps the liquids thoroughly mixed. The air chamber is exceptionally large, making it easy to produce sufficient pressure for a continuous spray of great force with slow pumping. The stroke of the lever handle may be changed by simply removing and replacing a single bolt, thus varying the pump's capacity.

Price, complete, without barrel, \$17.00 Wt. 60 lbs.



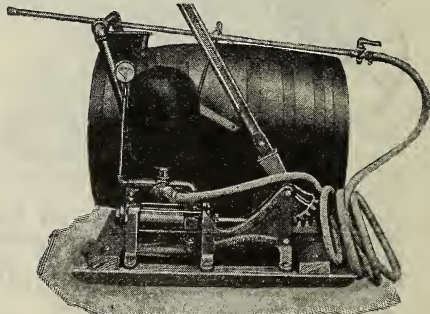
No. 40—"Best" Spray Pump, Complete With Agitator, 15 Ft. Hose and Vermorel Nozzle

"No. 7 King"—2 by 7-inch heavy brass tubing. The pressure gauge is graduated to 300 lbs. The air chamber is extra large and made of pressed steel and is tested to 300 lbs. The handle is extra long and is made of malleable iron.

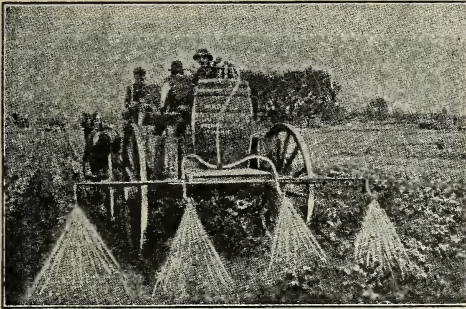
Equipped with:

- 15 ft. ½-in. 6-ply Pressure Hose;
- 8 ft. Pine Extension in two pieces;
- 1 300-lb. Pressure Gauge;
- 1 Brass Shut-off Cock;
- 1 "Fog" Nozzle.

No. 7, Style A, consists of Pump, Skids and full equipment as shown but no barrel. Shipping weight, about 135 lbs.



Style "A." Price \$25.00



Wagon Spray Boom

and best method of spraying a field of potatoes, celery, etc.

The ever increasing inroads of insects and disease has rendered it necessary to get adequate sprayers to meet this necessity. Call and see our assortment; it is complete.

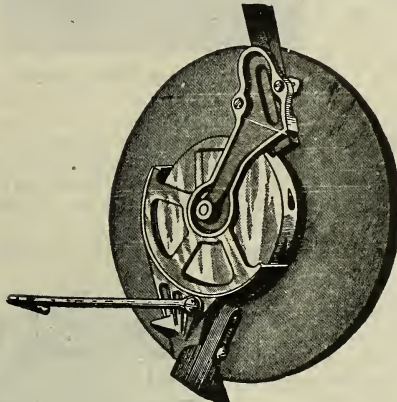
WAGON SPRAY BOOM
WAGON SPRAY BOOM—PRICE
 \$10.00. Wt. 28 lbs.

This boom can be used with any good barrel pump, but gives the best satisfaction in connection with our No. 25 or No. 40. It is light, strong and adjustable to every position. Will throw spray at any angle and can be folded so that you can drive through narrow gates and can be set to spray between rows of grape vines, etc., two nozzles spraying to the right and two to the left. One barrel of liquid will cover three acres. A ten year old boy can operate it. The cheapest

FARM AND GARDEN TOOLS

When wanted by Mail, add postage. See 2nd page cover.

We have enumerated only a few of the specialties we carry. We have always on hand a full line of garden tools of every description, and for every conceivable purpose. Ask for anything you may want in this line. We have it.



Eureka Seed Drill

Eureka Seed Drill.—A garden Seed Drill that will distribute beet, cabbage, celery, carrot, lettuce, radish, turnip and all similar seeds with perfect regularity. It is utterly impossible for it to sow any way but accurately, doing the work as thoroughly as the most costly machines, and will cover ten times the ground that can possibly be covered by hand. It is simple in construction, so easily understood that a child can be taught to use it. Price—(\$1.50 by mail; postpaid \$1.65).

Cahoon Seed Sower.—The standard Sower, acknowledged to be superior to all other hand sowers. Gives perfect satisfaction and can be used for sowing alfalfa and grains broadcast. Sows from four to eight acres per hour at a common walking gait. A saving of four-fifths of the labor and one-third of the seed by its use. A person entirely unaccustomed to sowing by hand can use this machine with perfect success. Price—\$3.50. Weight crated, 8 lbs. Can be sent by mail.



Cahoon Seeder
 Weight crated 8 lbs.

GRAIN TRYERS

Made with large slot, for sampling beans and other large seed. Made of nickle. with steel point. 9 inches long. \$2.30, postpaid \$2.40.

SEED TRYERS

Made expressly to use in taking samples of seed and grain from sacks. Made of nickel. Small pocket size, (6 inches) \$1.00 postpaid.

SEWING TWINE

No. 1, 102 in. strans. Per lb.....45c
 Bdl., 12 lbs.\$5.10
 No. 2, 102 in. strans. Per lb.....40c
 Bdl., 12 lbs.\$4.60

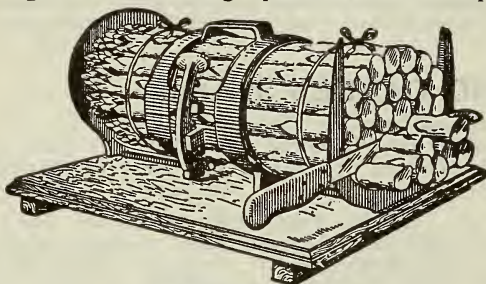
SACK NEEDLES

Common, each5c Spring Eye each25c

FARM AND GARDEN TOOLS (Continued)

The Pennsylvania Fruit Picker.—No ranch is completely equipped without this valuable tool. It is always the choicest fruit that cannot be reached from the ladder; you do not wish to knock it down with a club, as the fall would bruise it. Use the Fruit Picker and the fruit is caught in the pocket prepared for it. Every ranch that has half a dozen or more fruit or walnut trees should have one or more Pennsylvania Fruit Pickers. Price—(50c, by mail 65c).

Raffia for tying Asparagus Bunches.—While we offer tape for this purpose, we recommend the use of raffia as being more sanitary, cheaper and better than tape. The large growers along the Sacramento River use raffia exclusively. One pound is equal to 700 yards of tape. Price—(1 lb. 20c, 10 lbs. \$1.75). Postage extra. For large quantities write for price.



Asparagus Buncher

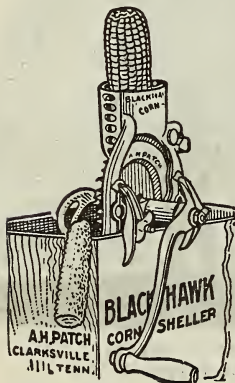


Pennsylvania Fruit Picker

Asparagus Buncher.—We carry the Philadelphia make, which is the popular one with all large shippers. No. 1 size will shape bunches 3-3½ inches in diameter, weighing about one pound. No. 2 will shape bunches 4-5 inches in diameter, weighing about two pounds. Price—(No. 1, \$2.50; No. 2, \$2.75). Mail wt. 10 lbs.

Asparagus Knife.—Price 50c, by mail 65c.

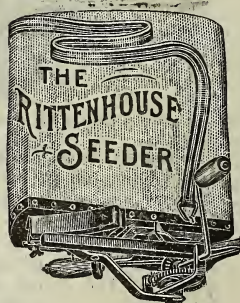
Asparagus Moss.—We always have on hand a large supply of moss for asparagus shippers. Price on application.



Home Corn Sheller

Black Hawk Corn Sheller.—Shells easily, and rapidly separates the cob from the corn. We give it special recommendation to poultry men. Price—\$2.50. Weight 14 lbs.

Rittenhouse Seeder.—It has its right side concave in shape and rests nicely against the body just above the hip. The crank shaft being above the distributing wheel brings both hands to nearly a level and gives the operator the easiest position possible. It sows evenly all kinds of grass seeds, grains and fertilizers. Clover is thrown a width of 18 ft.; timothy, 15 ft.; alfalfa, 20 ft.; wheat, 25 ft.; oats, 18 ft.; millet, 18 ft. An operator can sow from 40 to 50 acres per day. Price—\$1.50. Weight 9 lbs.



READ CAREFULLY

Read inside front cover page concerning parcel post and postage.
 Read page 186. You will find more than 300 questions answered.
 Read inside back cover page, where 340 questions are answered.
 Read pages 100 and 127 for comprehensive information about flowers.
 Read pages 10-11-12, particularly page 12, about strawberries.
 Read page 15 about geranium slips, and do not fail to order some.
 See page 16 about dahlias.

Do not destroy this catalog. It contains valuable information

CORN AND GARDEN TOOLS (Continued)

Segment Corn and Bean Planter.—The lightest, most accurate, strongest, cheapest and most up-to-date Planter on the market. Never cracks a kernel nor skips a hill. It is always in position, never makes wrong move. Many gardeners are using this for their replanting, and melon growers are using it to plant watermelons and cantaloupes. (See picture). Price—\$1.50. Weight 5 lbs.

Ask for anything you may want pertaining to garden tools; we probably have it, although not listed.

Master's Rapid Plant Setter.—The only hand mechanical plant setter on the market. No stooping when using it, therefore no lame backs. All kinds of plants—Cabbage, Tobacco, Tomatoes, Cauliflower, Strawberries, Sweet Potatoes, etc., are set in water and covered at one operation. Weight 10 lbs.

Price—(Each \$4.50.) Ask for circular.

A WORD ABOUT GARDEN TOOLS

The gardener, in order to be successful, must have adequate tools. The small gardener can get along with a combination tool that can be used for single and double wheel cultivator and a hill and drill seeder; indeed, with all attachments of the combined garden tools such as Planet Jr. No. 25 and Iron Age No. 6 there is little else necessary except a good hoe and rake. But for the extensive gardens where a number of men are employed and where planting goes on continually, it is a waste of valuable time to transform a seeder into a cultivator and cultivator into a seeder; it is then advisable to have a number of tools ready for all purposes.

For seeding only, the COLUMBIA PLANTER eclipses all others. It puts a definite quantity of seed at certain distances and there is no waste of seed, with little or no thinning out. There is no limit to the varieties of seed that can be planted with the Columbia.

For cultivators, both hand and horse, there is such a diversity of attachments that gardening with them is a pleasure. We advise that you familiarize yourself with the various uses of these attachments, thereby making your labor not only shorter but easier, besides greatly increasing your profit.

"NORCROSS" CULTIVATOR—HOES & WEEDERS

The Modern Tools—for Garden and Flowers

Like the Human Hand, these tools cultivate closer to plants without injuring them, than any other implement known; leaving the soil level loose and untrampled.

Cost but a trifle more than the common Hoe—accomplish much more and better work with decidedly less labor. The sharp tapering shovels enter the soil freely, literally tearing up every inch of it, from 1 to 6 inches deep as required.

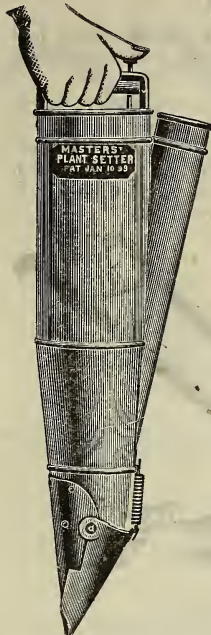
Detachable Steel Prongs—Malleable Head—Extra High Grade Handles and beautifully finished throughout. Three sizes, suited to both men and women.

A DISTINCTIVE FEATURE

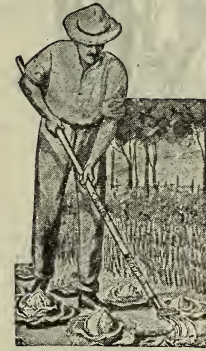
The "Norcross" 5-prong is the only Cultivator having a Detachable Ferrule (Pat'd.) whereby same with handle may be detached and head attached to standard wheel plows if desired, using Norcross Universal Connection supplied extra, at 10c.

PRICES EACH

5-Prong (Wt. 3 lbs.), \$1.00. 3-Prong (Wt. 2 lbs.), 75c. Midget (Wt. 12 oz.), 50c. Postage extra. See postal rates on inside front cover page.



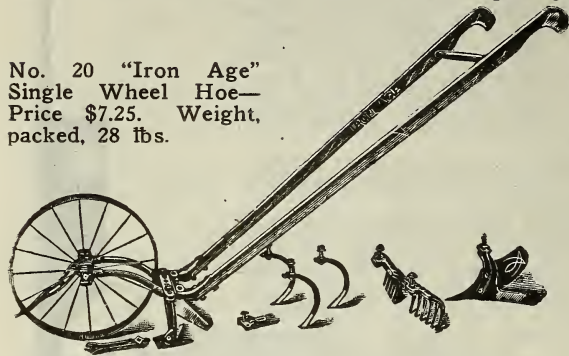
Segment Corn Planter. All large melon growers are now using the Segment Corn Planter.



IRON AGE GARDEN IMPLEMENTS

The Iron Age Cultivators are very popular because of the large wheel which has made it easier to work. It is well made and gives perfect satisfaction wherever used.

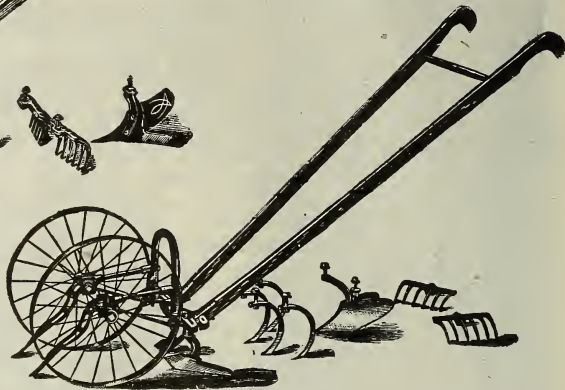
No. 20 "Iron Age"
Single Wheel Hoe—
Price \$7.25. Weight,
packed, 28 lbs.



No. 20

No. 20.—All necessary working tools for accomplishing a great variety of work are furnished, such as side hoes, cultivator teeth, rakes and landside plow, as shown below.

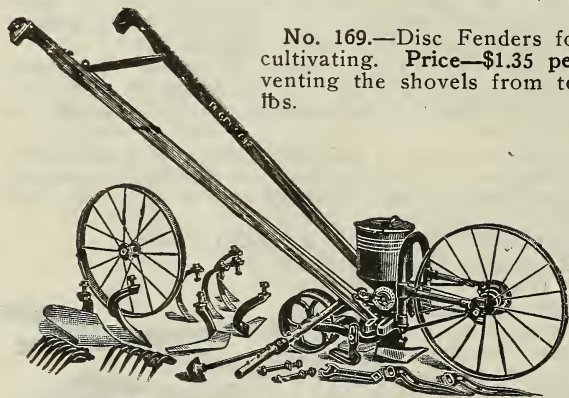
No. 1.—The change from a Seed Drill to a Double or Single Wheel Hoe is quickly made. The photograph shows the Double Wheel Hoe with side shoes applied.



No. 1

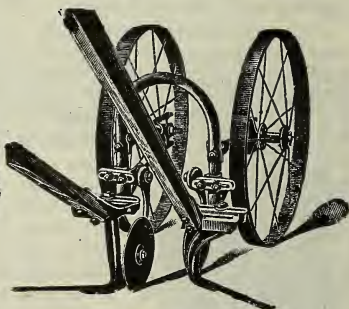
"Iron Age" Double and Single Wheel Hoe.
Price \$8.50. Weight, packed, 40 lbs.

No. 169.—Disc Fenders for protecting small plants when cultivating. Price—\$1.35 per pair. It cuts the crust, preventing the shovels from tearing up the plant. Weight, 3 lbs.



No. 6

No. 6.—Combined in this tool are three distinct and thoroughly practical implements, a Hill and Drill Seeder, a Double Wheel Hoe and a Single Wheel Hoe. As a Hill and Drill Seeder, packed weight, 57 pounds. Price \$14.50. As a Seeder only, \$11.00.



No. 169 Disc Fenders

No. 170.—Double Moleboard Plow. Will fit on Nos. 1 and 20 frames. Price—\$1.70. Packed weight, 5 lbs.

NEW MODEL SEED DRILL

The New Model Drill is used exclusively on some of the most extensive seed farms in California. This because of the following reasons:

The New Model will sow in rough, lumpy ground without getting clogged. Many of the light Eastern seeders are inefficient on heavy California soils, but not so with the New Model.

Can be adjusted to the difference in size between the different seeds.

New Model seeds evenly and cut-off is quickly and easily handled; is economical. Main wheel is of large size and width, so will not sink in soft earth. Handles are well bolted and adjustable in height; machine is easy to work.

Packed weight 50 lbs. Price \$9.75.

No. 184.—Fertilizer Attachment as a Side Dresser. Will fit on Nos. 1 and 20 frames. Price \$5.50. Packed weight, 5 lbs.

No. 235.—Fertilizer Attachment as a Drill. Will fit on Nos. 1 and 20 frames. Price \$6.00. Packed weight, 10 lbs.

No. 369.—Disc Attachment. Will fit on Nos. 1 and 20 frames. Price, complete, \$2.50. Packed weight 10 lbs.

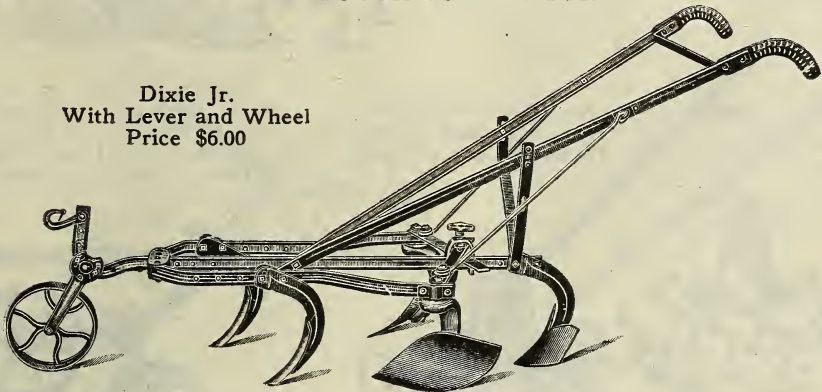
No. 19.—To meet a demand coming from some sections for a Weed Plow and Cultivator equipped with a higher wheel than anything we have previously offered, we designed our No. 19 "Iron Age" Wheel Plow and Cultivator. In doing so it will be noticed we have kept in mind those excellent features which have made our whole line of "Iron Age" Garden Implements so popular, viz., lightness combined with strength.



No. 19. "Iron Age" Wheel Plow and Cultivator. Packed Weight, 22 Pounds. Price \$4.00.

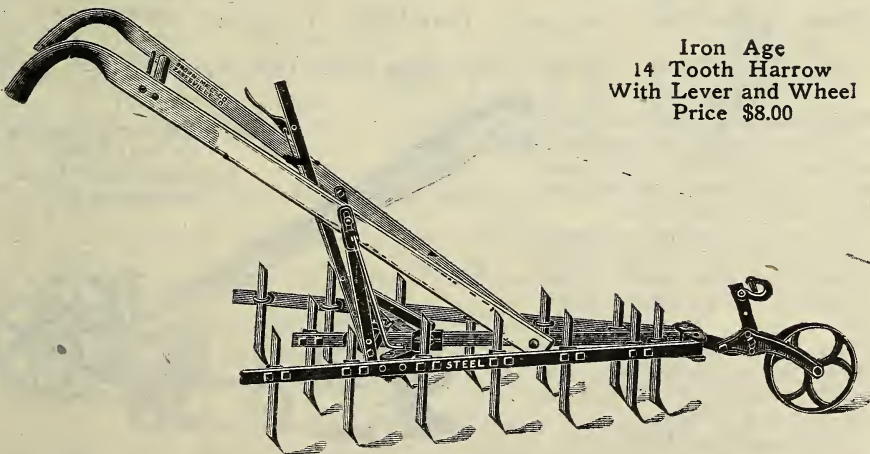
FIVE TOOTH CULTIVATOR

Dixie Jr.
With Lever and Wheel
Price \$6.00



- Dixie Jr. 5 Tooth\$5.00
- Dixie Jr. 7 Tooth\$6.00

Iron Age
14 Tooth Harrow
With Lever and Wheel
Price \$8.00



We have always on hand a complete line of Iron Age parts. Write for any part you may want but always give the number of the casting or send a picture describing the part you want so that there can be no mistake.

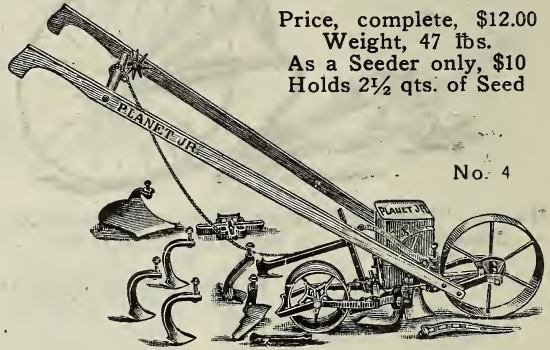
PLANET JR. GARDEN TOOLS

Hand Cultivators and Seeders have become a garden necessity. One man with a hand cultivator can do the work of six men with the hoe, and do it easier. All are good, but some are more adaptable for all purposes.

Space will not permit a detailed description of all the garden tools we offer, but a short reference to each will suffice to let you know what we have, and if interested, please write for special circular or detailed description of what you want.

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, an admirable single wheel hoe, an excellent furrower, a capital wheel cultivator and a rapid and efficient wheel garden plow. As a Seeder the No. 4 is accurate, simple, durable, reliable and easy running, doing first-class work in every particular. Price, complete, \$12.00.



Price, complete, \$12.00
Weight, 47 lbs.
As a Seeder only, \$10
Holds 2½ qts. of Seed

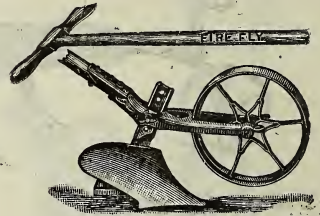
No. 4



No. 25—Price, \$14.50
Weight, packed, 59 lbs.
Holds 2½ qts. of Seed

No. 25

Planet Jr. No. 25—Combined Hill and Drill Seeder and Double Wheel Hoe and Cultivator and Plow. Price, \$14.50. Weight, packed, 59 lbs.



Fire Fly

Planet Jr. Fire Fly.—1 plow only. Price \$3.00. Weight packed, 30 lbs.

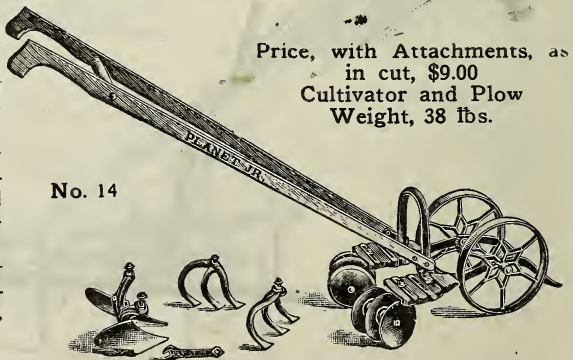
No. 14 Planet Jr. Double Wheel Disc Hoe

This new tool will give excellent satisfaction; is especially pleasing to all who work peat lands. There are three oil tempered discs on each side.

The set of prong cultivator teeth are constructed on entirely new lines, and will be found invaluable in general cultivation.

The plows are the regular Planet Jr. model and are continually valuable for furrowing, covering and plowing.

Price, complete, \$9.00.



No. 14

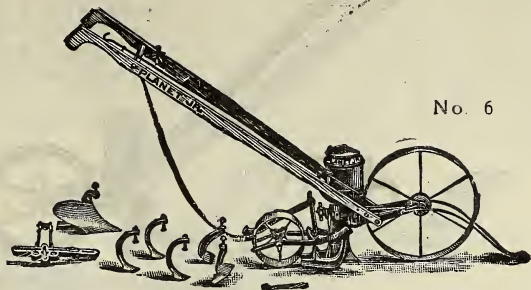
Price, with Attachments, as in cut, \$9.00
Cultivator and Plow
Weight, 38 lbs.

No. 12 Planet Jr. Double and Single Wheel Hoe Combined.—1 pair 6-in. Hoes, four steel Cultivator Teeth, 1 pair Plows and two leaf lifters. Packed weight 33 lbs. Price \$7.85.

No. 6 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow. Price, complete, \$14.50. Weight packed 65 lbs. As a Seeder only, \$12.00; as a Wheel Hoe only, \$7.00.

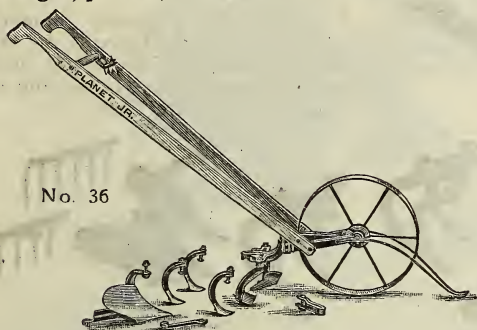
This is our latest Combined Hill and Drill Seeder and Wheel Hoe, and after three years' gratifying use in the field, every detail has been perfected.

What It Will Do.—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.



No. 6

No. 36 Planet Jr. Single Wheel Hoe, Cultivator and Plow
Weight, packed, 33 lbs. Price, complete, \$7.00



No. 36

The whole combination is the best and most useful we have ever offered. We advise buying the machine complete, as there is a considerable saving by doing so, but we sell the seeder and the wheel Hoe separately, if desired. The extra attachments will also fit the No. 6 machine complete with the No. 36 Wheel Hoe.

No. 28 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator, Rake and Plow

This is the best and most complete Hill and Drill Seeder. It is the culmination of forty years experience. It corrects every defect. Wt. packed 71 lbs. Price \$16.50.

No. 29 Planet Jr. Hill and Drill Seeder only. Same as No. 28. Wt. 57 lbs. Price \$12.50.

No. 16 Planet Jr. Single Wheel Hoe, Cultivator, Rake and Plow. Packed wt. 26 lbs. Price \$6.50.

No. 17 Planet Jr. Single Wheel Hoe, Cultivator and Plow. Packed wt. 24 lbs. Price \$5.75.

No. 17½ Planet Jr. Single Wheel Hoe and Cultivator. Packed weight 21 lbs. Price \$5.25.

No. 39 Planet Jr. Single Wheel Hoe, Cultivator and Plow. Packed wt. 26 lbs. Price \$6.45.



No. 28

EXTRA PARTS FOR PLANET JR. TOOLS

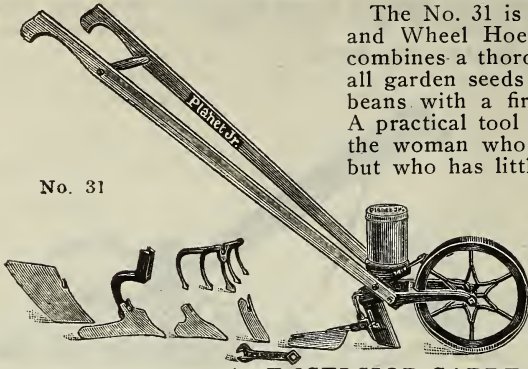
We carry a full line of extras. When in need of any, write us, describing the part wanted as accurately as you can, giving the number of the casting, or send a picture or pencil drawing.

GARDEN TOOLS FOR EVERY PURPOSE

Our line of tools is very complete. It is hardly possible you could wish for anything we do not have. We have added some low priced drills and cultivators, not because they are inferior, but they are built for the small gardener who has little use for a drill, but cannot get along without one.

The No. 31 is a new Planet Jr. Combined Seeder and Wheel Hoe designed for small gardeners. It combines a thoroughly reliable Seeder that will sow all garden seeds from the smallest up to pease and beans with a first-class light running Wheel Hoe. A practical tool for a man, the growing boy or for the woman who delights in having a good garden but who has little time to spend in it.

No. 31

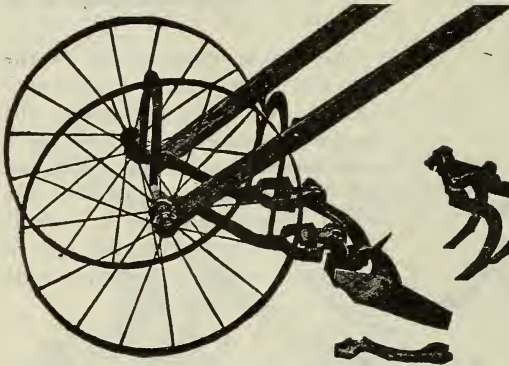


Price complete (No. 31).....\$8.00
 As a Seeder only (No. 32)...\$6.00
 As a Wheel Hoe only (No. 33) 4.00

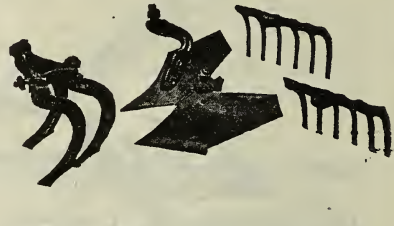
EXCELSIOR GARDEN TOOLS

When selecting a garden drill or cultivator, consider the Excelsior as light, durable and cheap, does the work as well as any. It is a very good tool for the money.

THE EXCELSIOR GARDEN CULTIVATOR



They are properly balanced, light and strong; there is no extra weight where weight is not necessary; no weak points, and the materials are of the best.



Excelsior Garden Cultivator. Price \$8.00

One of the important features of the Excelsior is the simple manner in which the hoes can be tilted or adjusted to meet the most exacting demands of the operator.

Light Steel Wheel, 16 inches in height; 1-inch tire. Hoes equipped with Patent Adjustable Joints, and all parts thoroughly adjustable.

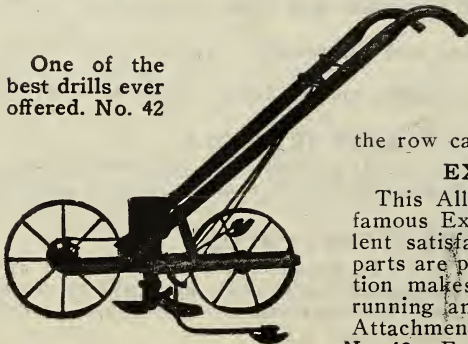
With one pair hoes, two gangs cultivator teeth, one pair plows and one pair rakes, \$8.00.

No. 55 Single Wheel Cultivator.—Complete with 6-inch Hoes, Cultivator Teeth, Plow and Rake. Price, as per cut, \$5.85. Packed wt. 23 lbs.



No. 56. Price \$5.85

One of the best drills ever offered. No. 42



Combine the same degree of efficiency, strength and easy running qualities as found in our Double Wheel Machine. Designed principally to work between the rows; but by changing the wheel on the other side of the arm, both sides of the row can be worked with one operation.

EXCELSIOR ALL-STEEL DRILL

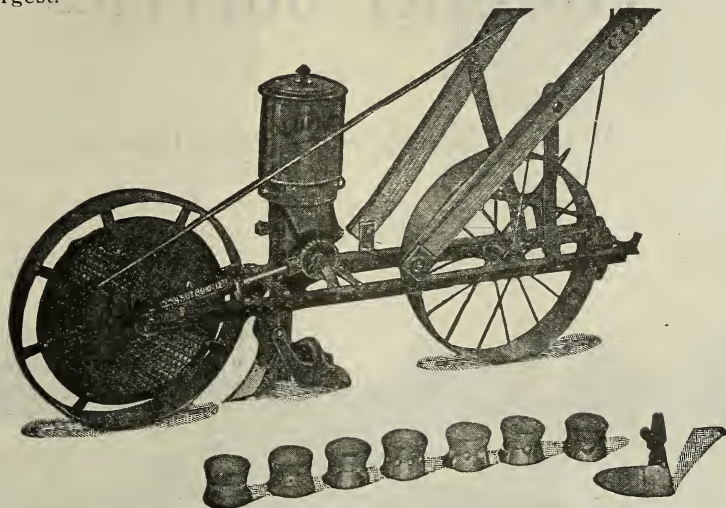
This All-Steel Drill is an improvement over the famous Excelsior Drill which has given such excellent satisfaction among gardeners. The working parts are practically the same, but its steel construction makes it much lighter, more durable, easier running and better adapted for use with Fertilizer Attachment.

No. 42.—Excelsior Steel Straight Line Seeder. \$11.00.

THE COLUMBIA MACHINES

The Greatest Seeding Machines in the World

They sow any kind of seed, large or small. They are all A POSITIVE FORCED FEED. Every seed is carried to the ground and covered; not a seed can escape, and not a seed can pass through the machine nor escape to the ground until the machine is in gear and moves forward and is ready to do its work; nor can a seed be shaken out or get to the ground when the machine is out of gear. A very important advantage possessed by no other planter. They are the simplest of all planting machines; the most certain and most complete planters in the world. **WONDERFUL LITTLE MACHINES;** plant all kinds of seeds, from the smallest to the largest.

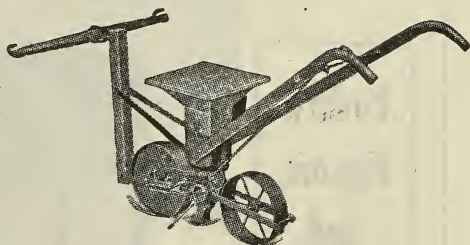


Columbia Hand Planter

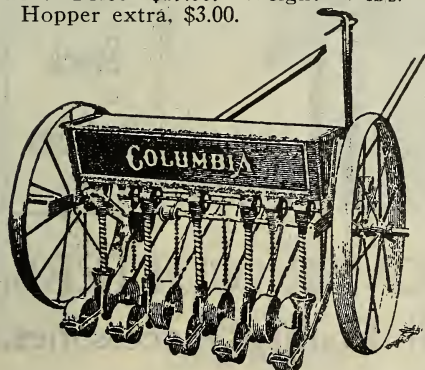
THE COLUMBIA HAND PLANTER.—You can plant from one inch apart to ninety-six inches apart by the simple manipulation of the disk wheel and the cylinders. With this drill you can sow any seed in any quantity any distance apart that you desire. It will sow cucumber and muskmelon seed any distance apart up to eight feet. It will sow your pepper, tomato, and any other crops in the field that now must be done by transplanting. It is a universal planter because there is nothing in the seed line from the size of lima beans to turnip seed that it will not plant. With special apparatus it will plant shelled peanuts without crushing the seed. **Price—\$14.00.** Weight 85 pounds.

COLUMBIA PLANTER WITH HORSE ATTACHMENT

Just the Machine for Large Planters
It plants what you want, just how you want it. Write for further description. **Price—\$17.00.** Weight 90 lbs.
Hopper extra, \$3.00.



With Horse Attachment



No. 2 Gang Seeder

THE NO. 2 COLUMBIA GANG SEEDER For Drilling Any Kind of Grain

Just the Thing to Sow Beet Seed or Beans

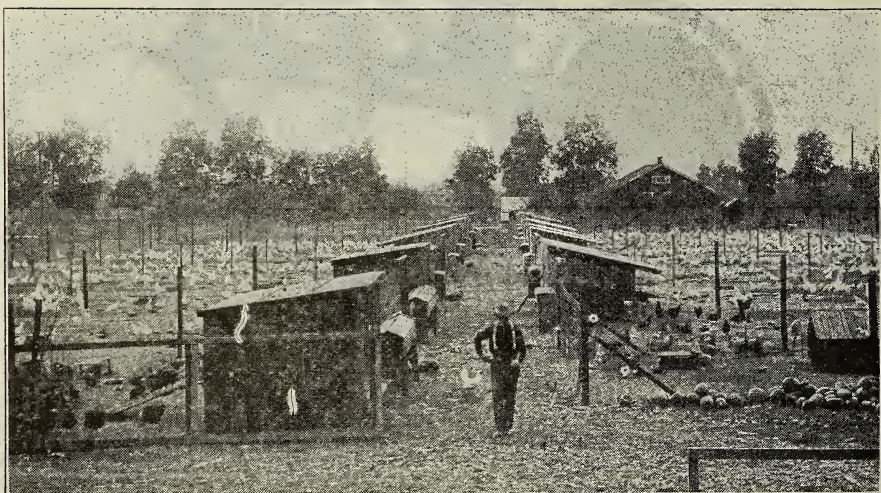
The same seeding principle is built in a way that two to five rows may be drilled at once, and may be drawn by one horse. This is just the machine for large growers, no matter what you wish to plant. It saves the expense of thinning out as must be done with the other seed drills. **Price \$100.**

If interested, write for further particulars.

POULTRY SUPPLY DEPARTMENT

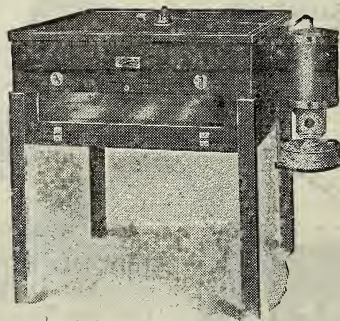
INCUBATORS, BROODERS POULTRY SUPPLIES

We Can Supply All Poultry Ranches



Knorr & Watts Ranch, Bell, Cal. Ten 500-egg Incubators

Poultry,
Pigeons
and
Rabbits



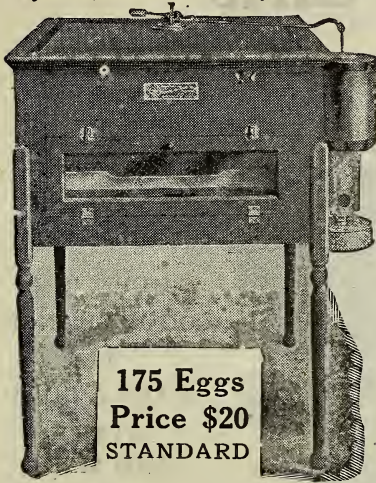
Pet
Stock
Supplies

BONE MILLS, CLOVER CUTTERS,
FEED MILLS and all Poultry Accessories.

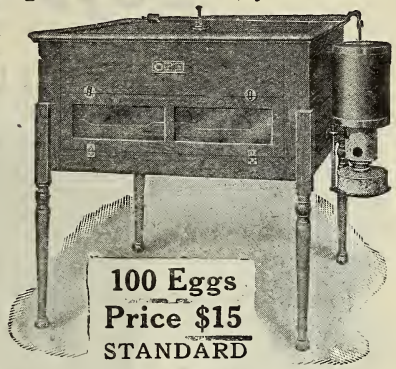
INCUBATORS AND BROODERS

If you want an incubator that you can always—all the time, rely on; if you want one that will work for you in cold weather as well as in warm; that will hatch when the hens go on a strike; in other words—if you want an incubator that will incubate whenever you are ready with your eggs, whether it be down to zero or up to 90 degrees in the shade, you must get one that is Built to Hatch. There is no way out of it! When your hens won't set during the cold weather, you need an

incubator that will—and there is just as much difference in incubators as in hens.



175 Eggs
Price \$20
STANDARD



100 Eggs
Price \$15
STANDARD
Look at These Prices

THE ESSEX-MODEL "STANDARDS"—THE MOST SUPERIOR INCUBATORS MADE



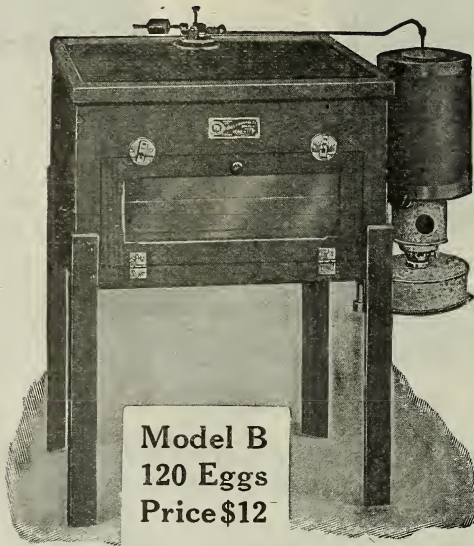
275 Eggs
Price \$25.00
410 Eggs
Price \$35.00
STANDARD

The Famous Essex - Model "Standard" Incubators illustrated are recognized as the leaders among high-class machines. They are made of high grade chestnut (the only hardwood incubators made). Double walls perfectly packed and insulated with layers of laminated cotton and strawboard. Double glass door. Equipped with "Essex" Corrugated Thermostat (patented), insuring automatic regulation. Entirely self-ventilating. no slides to adjust or to confuse you.

Our Grand Offer to Our Boys and Girls

COLLECTION No. 1

READ
THIS
CAREFULLY
AND
DECIDE
QUICKLY



HERE IS A
GOOD CHANCE
TO
MAKE A GOOD
START
AND MAKE
MONEY

Model B
120 Eggs
Price \$12

We offer the above machine with supplies as follows:

1 Model B—120 Egg Incubator, value	\$12.00
1 Essex Homestead Brooder (100 chick), value	7.50
1 Galvanized Iron Chick Feeder, value .....	.25
1 Galvanized Iron Chick Fountain, value .....	.25
1 Galvanized Iron Grit and Shell Box, value .....	.50
Total	\$20.50

WE OFFER THIS COLLECTION PACKED AND READY FOR SHIPMENT FOR **\$17.00**

Can Furnish Rhode Island Red Eggs on Application.

The above collection will give any boy or girl a nice start toward making a nice living and also a fine chance to make money. You should encourage them and buy this collection it is a bargain.

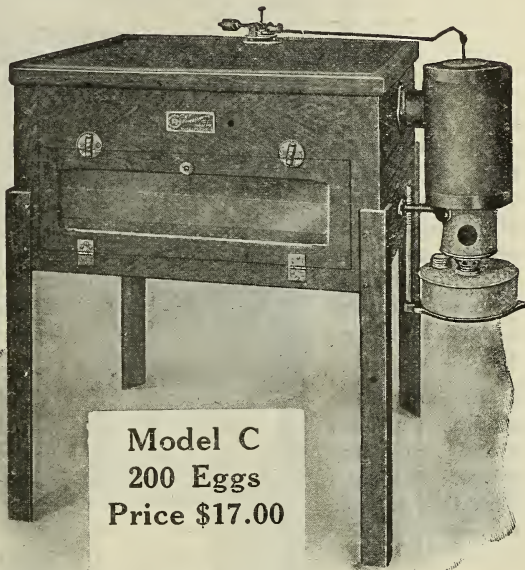
In offering these three GRAND COLLECTIONS to our customers we wish to state that we secured these machines of a reliable firm who failed about one year ago and we have a limited number on hand that we can offer at prices stated in our collections as long as the stock lasts. These machines are the highest STANDARD MAKE and are classed as one of the best incubators on the market. They are all of the mission finish made of the very best material with patent regulator adjustment, lamp and all complete. Don't delay as we have only a limited number.

Our Grand Offer to the Fathers

COLLECTION No. 2

HIGH IN QUALITY—LOW IN PRICE

Model C.—When considering this 200-Egg Essex-Model "Middle Price" Incubator costs only 9 cents an egg—and then compare it with any other make, you will say, "It is the best on earth at the price." This size that suits most poultrymen. It can be operated with any number of eggs from 200 downwards. It affords the beginner room to grow, and is therefore an economical size to buy. We call it a MIDDLE-PRICED machine, but on account of its quality it is classed among the higher-priced incubators. Double walls packed and perfectly insulated. A special bargain this year, \$17.00.



**Model C
200 Eggs
Price \$17.00**

We offer the above machine with supplies as follows:

1 Model C Incubator, 200-Egg, value	\$17.00
1 Model A Compartment Brooder (See description on Page 160)	10.00
1 Corn and Grain Grinder	3.50
2 18-inch Galvanized Iron Feeders .....	.70
2 ½ Gallon Galvanized Iron Fountains .....	.90
1 Grit and Shell Box .....	.50
Total	\$32.60

WE OFFER THIS GRAND COLLECTION FOR \$27.00

Can furnish Rhode Island Red Eggs on application.

This collection is especially for the large breeder. We have tried to select only the necessary articles needed to make a poultry farm complete making an up-to-date plant. Every article mentioned above can be used every day. This is a bargain to any one.

FOUND THE POULTRY BUSINESS PROFITABLE

Dear Sir:

Monroe, N. Y.

We have found the poultry business very profitable and are increasing our plant right along. We have now the largest plant in this county. We have a number of Model Incubators and Brooders and consider them the best we have ever used. We are going to discard the others and use only Models. We bought them five years ago and they are as good as new. We have six of your incubators and twelve of your brooders. They don't swell like some of the others. Very truly yours,

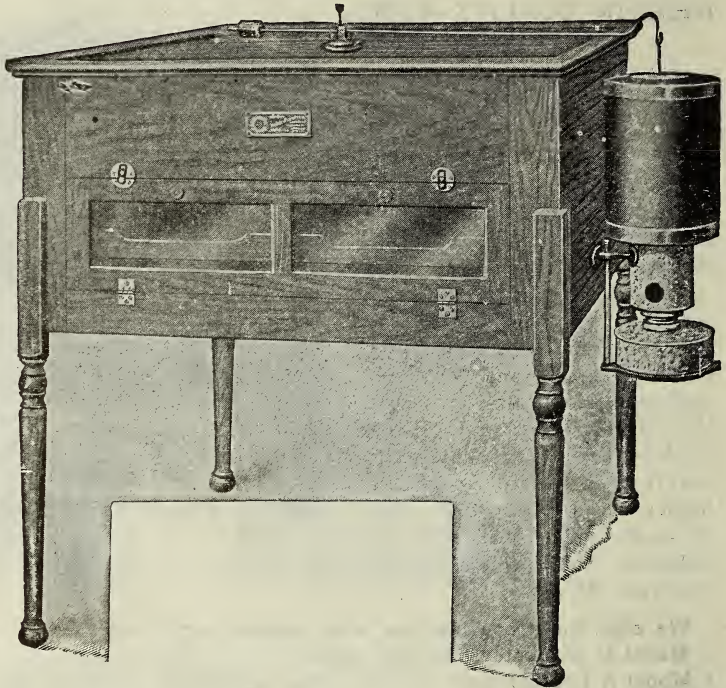
EGBERT McELROY

Our Grand Offer to the Large Poultry Ranch

COLLECTION No. 3

This machine is made of chestnut, packed with mineral wool and made of first-class material in every respect. Latest Model Regulator.

Do not miss reading what the grand collection offers. You can't beat this for the money.



1 Model C Incubator (410) Egg, value	\$35.00
1 Los Angeles Brooder Heater (1000) Chicks, value	18.50
12 Chick Feeders for Baby Chicks, value	3.00
12 Chick Founts, 1 Qt., for Baby Chicks, value	3.00
1 Grain and Shell Mill, value	3.50
100 lb. A. & M. Superior Chick Feed, value	3.50
Total	\$66.50

WE OFFER THIS GRAND COLLECTION FOR **\$55.00**

This is the best bargain ever offered by any house and anyone wanting a complete outfit that is CHEAP and GOOD should send for this collection. You cannot get it duplicated any where for the price. Only a limited number to offer.

Can furnish Rhode Island Eggs on Application.

GATHERED OVER 10,000 EGGS

Gasport, N. Y.

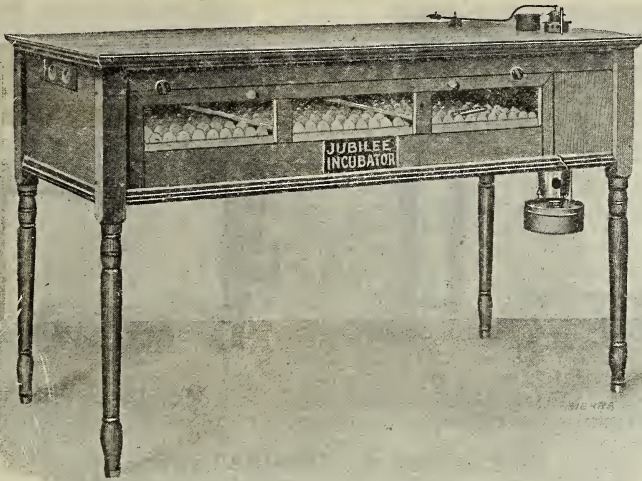
Dear Sir:

I am now using two of your incubators, a No. 2 and No. 3, and if you beat them you will have to get up early in the morning. My first hatch came off March 23rd. I put in the 380 eggs, tested out 41, leaving 339 in the machine. I got 317 chicks—93½ per cent of the eggs hatched. They are good strong chicks. I have hatched in all this season 1600 and have sold 1100, and I have the balance at this writing. I have 100 Brown Leghorn hens and have gathered over 10,000 eggs since the first of January

Very truly yours,

M. E. VODRA.

JUBILEE INCUBATORS



Jubilee 504-Egg Size

Capacity	Dimensions	Price
108-egg Jubilee .....110 lbs.	2 ft. 8 in. x 3 ft.	\$22.00
216-egg Jubilee .....150 lbs.	2 ft. 8 in. x 4 ft. 3 in.	32.00
324-egg Jubilee .....200 lbs.	2 ft. 8 in. x 5 ft. 3 in.	40.00
504-egg Jubilee .....260 lbs.	3 ft. 2 in. x 7 ft. 2 in.	50.00
1056-egg Jubilee .....500 lbs.	4 ft. 10 in. x 8 ft. 4 in.	100.00

THE REGULATOR

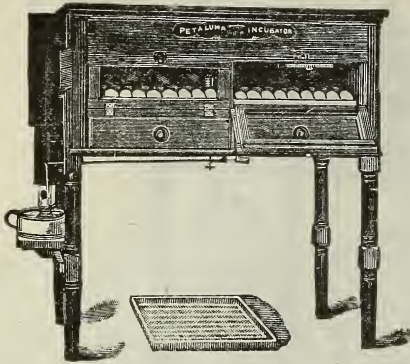
The Jubilee Regulator is the most simple, the most sensitive and the most durable of any regulator in existence. It will not stick, as there are no joints to catch; plays perfectly free, and when the heat of the egg chamber reaches the degree to which it is regulated the expansion of the regulator causes a balance valve to raise off the escape flue. This allows the heat direct escapement, the circulation is retarded, and the radiation of the heat in the egg chamber is decreased—all this allows just sufficient heat radiated from the pipes to keep the temperature of the egg-chamber at the desired degree.

When outside influences tend to decrease the temperature of the egg chamber the regulator instantly detects the influence, the valve is allowed to close the direct escape, the heat of the lamp is then forced through the indirect route, the boiler is once more utilizing the entire heat of the lamp, the water in the pipes sets up a quicker circulation, which in turn imparts additional heat to the atmosphere of the egg chamber.

The Jubilee system of applying moisture is the most perfect ever devised. The boiler chamber is provided with a special moisture pan, which derives its heat from the Jubilee boiler which the boiler chamber encloses. By means of a feed cap and a draw-off tube, it is possible to withdraw the last atom of moisture, or in five minutes' time increase the moisture to saturation, and more important still, all this is accomplished without opening the door of the egg chamber or exposing the eggs. Moisture by evaporation is seldom if ever sufficient. It cannot be increased or removed entirely as circumstances may demand, without opening the door of the egg chamber. The stage of the incubation when moisture is most needed is at the time of pipping and hatching, and this stage is the most critical period of the incubation, and the stage when the door of the egg chamber should not be opened under any circumstances. It was necessary to commit one fault in order to remedy another. With the Jubilee system, both faults, opening the door at time of hatching and lack of moisture, are effectually eliminated.

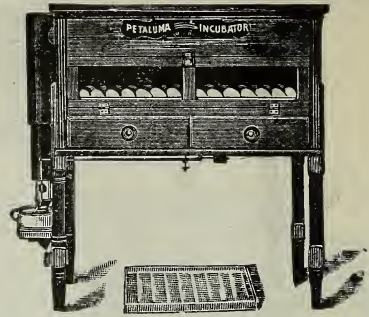
We are asked: "Why do you consider artificial moisture a necessity in successful artificial incubation?" As above stated, it is much simpler for manufacturers to decry the necessity for a certain feature in goods they manufacture, than it is for them to solve the problem in a practical way.

PETALUMA INCUBATORS AND BROODERS



Model 27

Capacity, 216 Eggs. Price, \$27.00. Floor space required, 44x27 in.



Model 80. Price, \$20.00

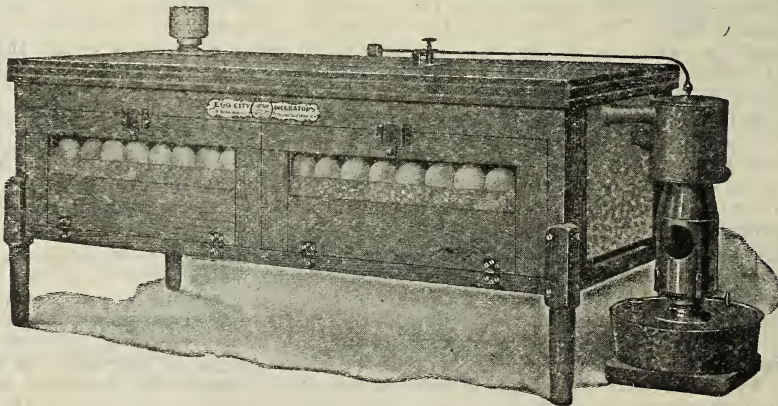
PRICE LIST OF INCUBATORS

Models 59-59½	Capacity 54 Eggs	Retail Price \$10.00	Weight 30 lbs.
Models 80-80½	Capacity 126 Eggs	Retail Price 20.00	Weight 70 lbs.
Models 81-81½	Capacity 216 Eggs	Retail Price 27.00	Weight 100 lbs.
Models 82-82½	Capacity 324 Eggs	Retail Price 35.00	Weight 135 lbs.
Models 83-83½	Capacity 504 Eggs	Retail Price 50.00	Weight 210 lbs.

EGG-CITY HOT-WATER INCUBATORS

Egg-City Incubators are not of the cheaply constructed kind intended to last but a year or two, but they are made by competent workmen, out of the best materials to be had in the market, and are strictly first class.

There is nothing cheap about them but the price. Prices may be compared to other low-priced incubators and brooders, but the quality cannot. They are really high-class goods sold at a low price. A comparison of Egg-City with any other hot-water machines will always result favorably to the Egg-City. You get more for your money, besides We Pay Freight to your nearest Railroad Station or Steamer Landing in the United States.



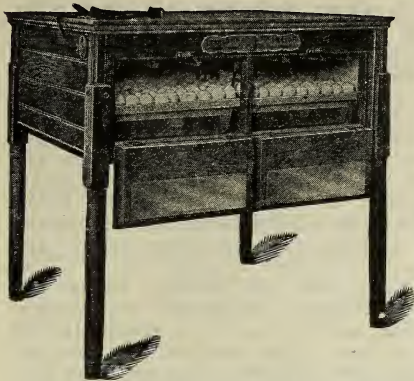
Model 126

Egg-City Incubator. Capacity 126 Eggs. Price, \$14.00

Model	Capacity	Weight	Price
A	180 Eggs	100 lbs.	\$20.00
B	360 Eggs	165 lbs.	30.00
C	540 Eggs	210 lbs.	45.00
D	680 Eggs	265 lbs.	60.00
F	1080 Eggs		

Keep this book for the egg-record

PETALUMA ELECTRIC INCUBATOR



Petaluma Electric, Model 190-E
Capacity, 126 Eggs
Price, \$20

In keeping with our advanced ideas in the field of artificial incubation we were the first to introduce a real practical electric incubator. One that does not require an electrician to operate it. One that is simple enough for any person to understand. One that is unique in construction, safe, reliable, and using but a small amount of current. One that controls the heat perfectly and will not get out of order. One of very few parts and very simple mechanism, and will hatch anything that can be hatched.

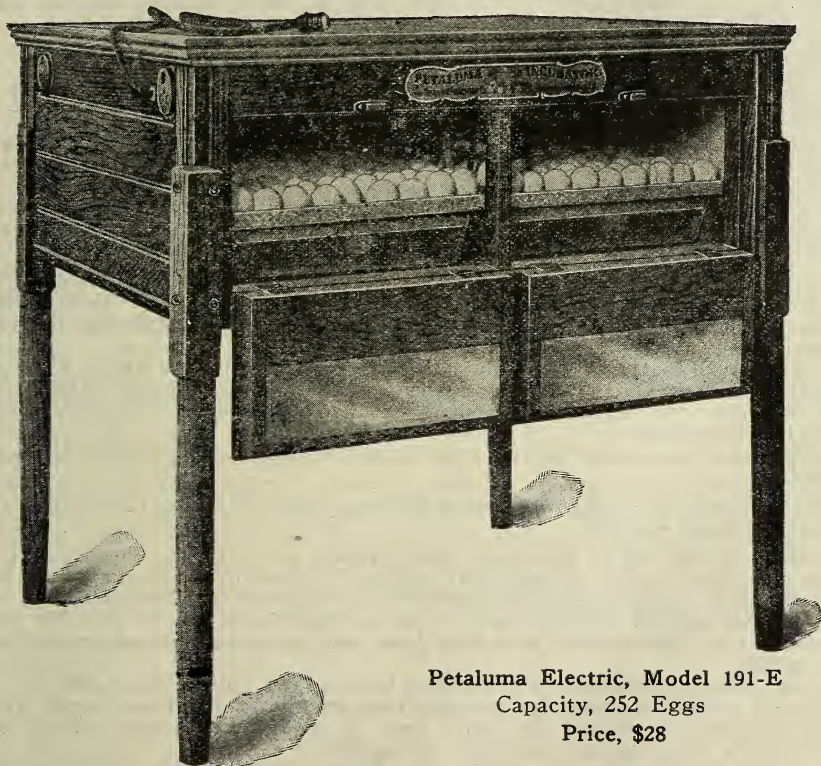
If you owned one you would not take five times its cost if you knew you could not obtain another like it.

We hatched chicks at the California State Fair in 1906, in electric incubators and have been operating them ever since, improving them from time to time, so as to minimize the consumption of electric current, and therefore reduce the cost of operating them, our desire being to make a machine

so perfect and so simple that no trouble could possibly arise. When we reached the point where we could see no further opportunity for improvement we applied for and received a patent.

These incubators are at present made in sizes of 63 eggs, 126 eggs, 252 eggs and 504 eggs.

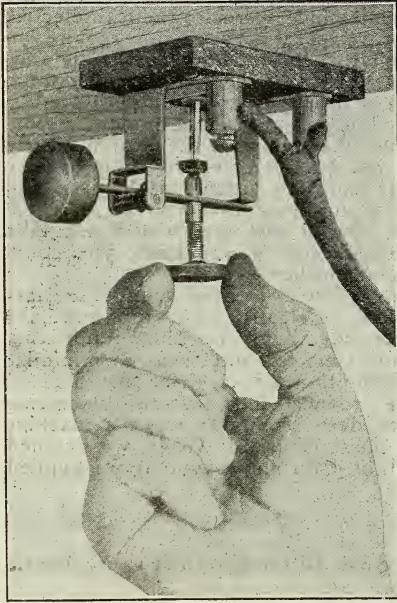
Our patents which are very broad and specific, cover all the good things in electric incubators.



Petaluma Electric, Model 191-E
Capacity, 252 Eggs
Price, \$28

PRICES: Model 189-E, 63 eggs, \$10.50. Model 190-E, 126 eggs, \$20.00. Model 191-E, 252 eggs, \$28.00. Model 193-E, 504 eggs, \$45.00.

THE ELECTRIC CIRCUIT BREAKER



The Circuit Breaker

The Model 189-E does not have a Nursery.

Wm. Doxie, Manager Bountiful Light & Power Co., Bountiful, Utah, March 9, 1915, writes as follows:

"The 250 egg Petaluma Electric Incubator we bought from you four weeks ago for demonstration purposes has just hatched, and we wish to say that it has been successful beyond all expectations.

"This Incubator was set up on our sales room floor, where every time anybody walked across the floor, the floor shook. We invited everybody who desired, to put eggs in the incubator, and we would hatch them free of charge.

"Eleven people put eggs in, of eight different varieties, as follows: White Leghorns, Buff Leghorns, Butercups, White Rocks, Barred Rocks, R. I. Reds, White Minorcas, and Orpingtons. These eggs were not taken care of as though intended for hatching purposes.

"We set this incubator on the 14th of February and during the entire hatch we had winter weather. On the 21st the power was off three and one-half hours.

"The incubator was operated by a man who had no experience and who never saw an electric incubator.

"We have sent you orders for two more incubators and have a number of people interested."

E. W. Williams, Chief Clerk, Portland Railway Light & Power Co., Salem, Oregon, writes, March 16, 1915:

"In regard to the chicks which we have hatched out with the Petaluma Incubator in our office. I wish to state that we had 73 chicks from 84 eggs, or a rate of 85%, which is a very good hatch under the circumstances. They all came out wonderfully strong and healthy; there is not a weakling in the bunch. We have had them in the office window now four days, and not under particular good conditions, either.

"As you know, this incubator was standing between two outside doors, which were opening and closing continually, and the temperature in the room varied from 40 to 70 degrees, but during the whole time of incubation the machine did not vary a fraction of a degree from what the regulator called for.

"It took 21 K. W. H's to complete the hatch, which at our regular heating rate would amount to 84 cents. This I believe is cheaper than a lamp machine can be operated for. There was a great deal of interest shown in the hatch, and a crowd in front of the window nearly all of the time we had the chickens."

The Petaluma Regulator, by virtue of its accurate construction, expands and contracts, turning on or off the electric current, thereby, holding the temperature so that a variation can scarcely be noted in the thermometer. The entire regulating mechanism is seen underneath the Incubator in the cut of Model 190-E, or the cut entitled "The Circuit Breaker," and operates exactly as does the regulation in all other Models of Petaluma Incubators, by simply turning the regulating screw one way or the other a trifle. It is all so simple that one can scarcely believe we have outstripped everybody and everything else, and succeeded in accomplishing what we have. An examination, however, proves all our statements to be true, even to the smallest detail, so that the investigator becomes fully satisfied that nothing has ever been made to equal the Petaluma Electric, and places us in the lead as manufacturers of a real practical electrical incubator.

Each Incubator is equipped with our steel, galvanized and corrugated Egg Tray with drop section for the chicks to drop into the Nursery. Wire Nursery Basket, Egg Tester, Thermometer, Regulator and Electric Current Breaker, six feet of cord with plug to screw into an electric light socket and directions for operating.

THE JUBILEE BROODERS

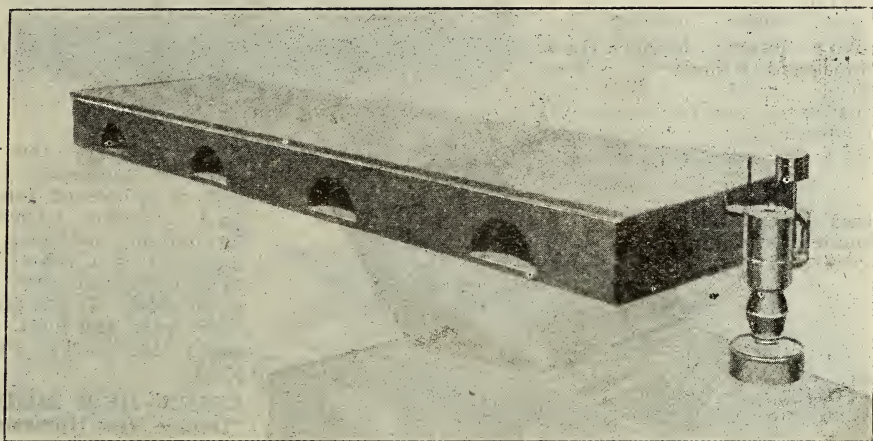
The Jubilee Brooders are made on the Jubilee basis and up to the Jubilee standard. It is more economical to use them than it is not to use them. The per cent of the chicks raised to maturity will be enough greater to repay the cost many times.

The Jubilee Brooders are made in two styles, each for a particular purpose:

The Jubilee Colony Outdoor Brooder.—Constructed in one size only, for strictly outdoor use. A new creation and a wonderful brooder for large and small plants.

Price, \$20.00. Weight, 175 lbs. Dimensions, 5 ft. 8 in. x 3 ft. 4 in.

The Jubilee Sectional Hot-Water Indoor Brooders are constructed in two, three and four sections, to accommodate 50 chicks to each section, and are made for indoor use in brooder houses. There is nothing to wear out, nothing to break, nothing to be replaced, and their life is limited only by the care given them.



Jubilee Brooder

The brooder case is constructed of the best grade California redwood, one inch thick, the whole thing being carefully and accurately joined. Each section is two and one-half feet long, two and one-half feet wide, and ten inches deep. Each section is provided with a hover chamber, properly insulated, well ventilated, and perfectly heated by means of hot-water pipes running just beneath the ceiling of the hover chamber and radiating a warm, moist heat under exactly the same principle as that of the Jubilee Incubator. Each hover chamber is provided with windows, and with a large door hinged from the top, which may be raised to thoroughly clean the brooder. The hover chamber occupies a little more than one-half of the section, the remaining space is utilized as a runway between the hover chamber and the outer runway. The chicks continually pass back and forth from the hover to the outer runway, accommodating themselves to the varying temperatures, and looking out for their own comfort.

The ventilation of the Jubilee Brooders is the most successful and satisfactory ever devised. A sweated chick is a total loss—the Jubilee cannot sweat the chicks, nor can the brooder become foul owing to lack of ventilation.

JUBILEE INDOOR BROODERS

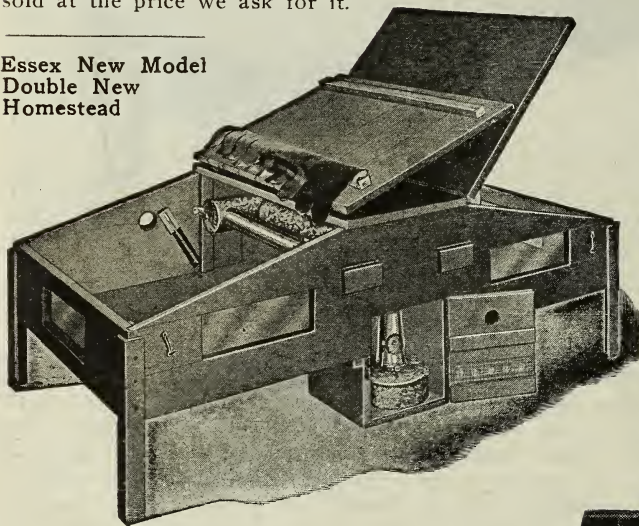
Capacity	Weight	Dimensions	Price
4-section—200 chicks	170 lbs.	2 ft. 6 in. x 10 ft.	\$18.00
3-section—150 chicks	135 lbs.	2 ft. 6 in. x 7 ft.	16.00
2-section—100 chicks	100 lbs.	2 ft. 6 in. x 5 ft.	14.00

ESSEX MODEL BROODERS

Like all other Essex-Model Goods their construction is superior. Construction of the roof alone tells of their high quality. If we except the New Homestead, they all have three thicknesses, including enameled iron covering, the Model C Brooder having five thicknesses over the Hover apartment. In addition to this superior construction ample floor space is provided without the possibility of crowding into corners; and this means comfort, quick growth, and no loss of life by sweating, such as is the case in poorly designed brooders.

The Essex - Model New Homestead Brooder is a low-priced brooder, substantially constructed, and is considerably in advance of the kind usually sold at the price we ask for it.

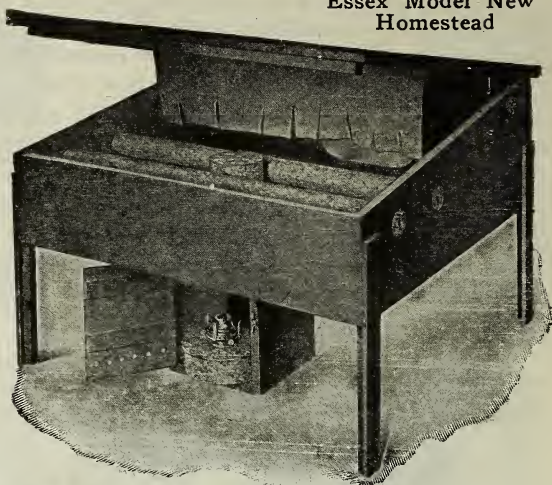
Essex New Model
Double New
Homestead



Model A Brooder is a combination indoor and outdoor brooder. Contains two apartments (Hover and exercise room, separated by the Hover cloth). It is $47\frac{1}{2} \times 28\frac{1}{4}$ inches in size. It contains a supplementary roof cover or diaphragm to fit for use as an indoor brooder; also affording automatic ventilation—the latest improvement in brooders; possessed by no other make. Capacity, 75 to 100 chicks. Price, \$10.00.

The Essex-Model C Brooder has three apartments; the hover and nursery, separated by the hover curtain; and the exercise room separated by a removable partition having a door and curtain full width of brooder, so that the chicks never lose their way back to the hover, nor crowd and get chilled in the exercise room, as they may where the exit is only a small doorway. Capacity, 200 chicks. Price, \$16.00.

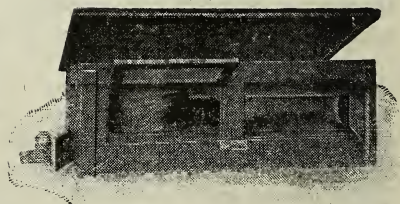
Essex Model New
Homestead



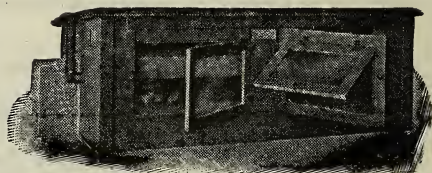
It can be used either indoors or outdoors. It is built of $\frac{7}{8}$ dressed, tongue and grooved lumber throughout, including the roof. It is divided into two apartments by the hover cloth. It has ample floor space and light. Capacity, 100 chicks. Price, \$7.50.

ESSEX NEW MODEL
Double New Homestead

This Double New Homestead Brooder is same as single in construction, but will contain double amount of chicks. It is easy to operate, as lamp is on one side and inside heater covers both ends. Capacity, 150 chicks. Price, \$10.50.



Model A Brooder



The Essex-Model C Brooder

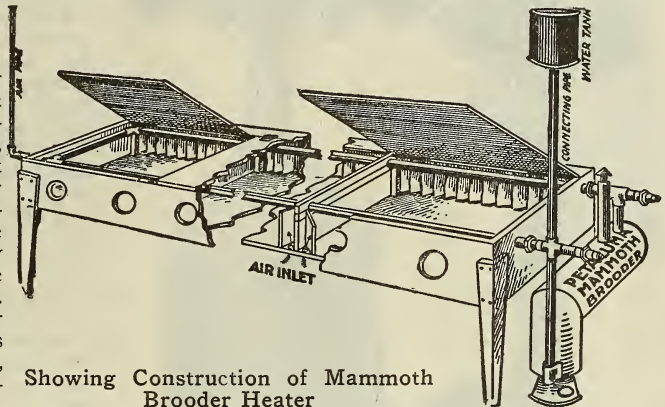
INTERNATIONAL SANITARY HOVER



The International Sanitary Hovers have stood every climatic test from Panama to Quebec. Practical poultrymen, state experiment stations, and poultry judges endorse it. You can raise chicks anywhere with International Sanitary Hovers. No specially constructed houses are necessary. There is no better place than in your regular hen houses. Sanitary Hovers are as practical for small back-yard poultry raisers as large poultry farms. They are warmest at the curtain—usable anywhere—ready for business wherever placed. No crowding or smothering of chicks; no kneeling in mud to get at the lamp; no cutting of holes or building of platforms. You want the best brooding device—you will get it in the Sanitary Hovers. Price, \$9.50.

THE MAMMOTH BROODER HEATER

This Brooder Heater is made of copper with a galvanized iron jacket. This is the best, cheapest, and most economical brooder heater, for large capacity, ever put on the market, and is rapidly being put into the large poultry plants. All Mammoth Brooder Heaters are, unless otherwise specified, made with three-fourths inch fittings.



Showing Construction of Mammoth Brooder Heater

This combination, complete with No. 3 Burner.....\$16.50

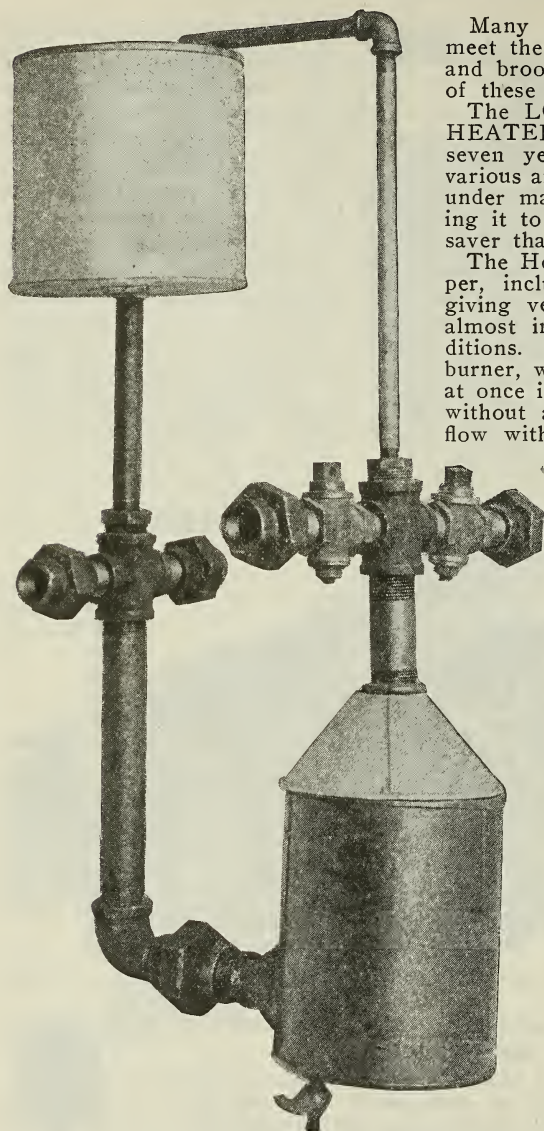
SECTIONAL AND DUPLEX BROODER HEATERS

The Sectional and Duplex Brooder Heaters here-with illustrated may be used either with coal oil lamps or gasolene burners. The gasolene burners produce more than twice the heat of a lamp, hence brooders in which these heaters are used may be made twice the length given for heating with coal oil.

- Petaluma Sectional Brooder Heater and Water Tank\$5.50
- Lamp Fount, Burner and Chimney..... 1.25
- No. 1 Gasolene Burner, Gasolene Tank and Gasolene Connecting Pipe, to heat 10 to 15 feet 3.50
- Petaluma Duplex Brooder Heater and Water Tank 7.00
- Lamp Fount, Burner and Chimney.....1.50
- No. 1 Gasolene Burner, Gasolene Tank and Gasolene Connecting Pipe, to heat 15 to 20 feet 3.50



THE LOS ANGELES BROODER HEATER



Many manufacturers have attempted to meet the demand for a successful brooder and brooder house heating system. Many of these attempts have been unsuccessful.

The LOS ANGELES TUBULAR HEATER has been on the market for seven years, and we feel justified, after various and careful tests by our customers under many different conditions, in claiming it to be the greatest labor and chick-saver that is on the market today.

The Heater is made of heavy rolled copper, including 16 half-inch brass tubes, giving very large heating surface, and is almost indestructible under ordinary conditions. The heat comes from a gasolene burner, which checks the flow of gasolene at once in case of fire, and is extinguished without any loss. The gasolene will not flow with the feed valve wide open until the gas has been generated in the burner head, making this the safest method of heating to be found in any brooder where artificial heat is used.

The burner will heat 30 feet of the brooder on each side of the heater. This system of heating can be used in either direction from the heater, or both ways. If the pipes run both ways from the heater, either side can be shut off entirely. The heat on one side may be kept warm enough for baby chicks, while the other side is reduced to suit the older ones.

This system is equipped with $\frac{3}{4}$ -inch fittings, to be used with a single coil of pipe on each side, and may be varied to suit the customer's wishes—to connect a double coil, or fitted for one-inch pipe, if desired.

When greater, or more brooder space is necessary, we furnish an oblong boiler, containing more brass tubes, and supplied with two gasolene burners. The complete system includes Tubular Boiler, all pipe connections,

which would include the Unions, Expansion Tank, Insurance/Safety Gasolene Burner; in fact, everything as shown in the illustration, and one Gasolene Supply Tank, holding five gallons.

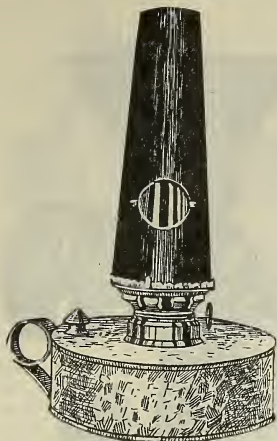
The regular size is.....\$18.50
Oblong Boiler 24.50

Including two burners.

THE SAFETY GASOLENE INSURANCE BURNER

Absolutely the safest and most reliable Gasolene Burner made. Burner is so constructed that when the light is turned out, the Gasolene is automatically shut off. Absolutely a safeguard against explosion.

Price\$3.75 each



PRICE LIST OF INCUBATOR BROODER PARTS

Lamp Founts for Model O.....	50c
Lamp Founts for Model A.....	50c
Lamp Founts for Model B.....	75c
Lamp Founts for Model C.....	75c
Lamp Founts for Stand No. 1.....	50c
Lamp Founts for Stand No. 2.....	50c
Lamp Founts for Stand No. 3.....	75c
Lamp Chimney for Models, all sizes.....	25c
Regulating Rods for Essex Model, complete.....	\$1.00
Plain Wooden Trays for Essex Models O, A and B..	1.00
Plain Wooden Trays for Essex Stand Nos. 2, 3.....	1.50

PRICES OF BROODER LAMPS FOR ESSEX MODEL

For Portable Hover on all Brooders; Colony and Double Indoor Brooders.....	90c
Chimneys, 25c extra.	
For Portable Hover and Model B Brooders, style A and B Brooders.....	\$1.00
Chimneys, 25c extra.	
For Portable Hover and Chick Comfort Hover and	

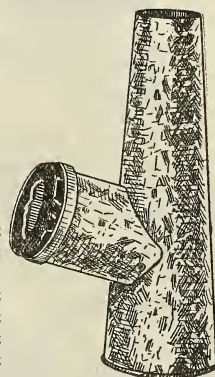
For Portable Hover and Chick Comfort Hover and Colony
C, 1913 75c
Chimneys, 25c extra.

Be sure to specify size and style of incubator and brooder for which lamps are wanted.

PRICE LIST PETALUMA INCUBATOR AND BROODER PARTS

(Postpaid, 150 miles)

Lamp Founts Model 59, 80, 80½, 81½.....	50c
Lamp Founts Model 82, 82½, 83, 83½.....	75c
Lamp Founts Brooder 23, 25, 28.....	50c
Lamp Founts Incubator Model 59, 80, 81.....	60c
Lamp Burner Incubator Model 80½, 81½.....	50c
Lamp Burner Incubator Model 8-, 82, 83.....	75c
Lamp Burner Incubator Model 81½, 82½, 83½.....	60c



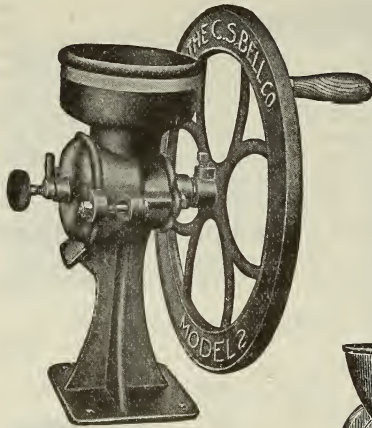
PRICE LIST OF JUBILEE INCUBATOR AND BROODER PARTS

Jubilee Incubator or Brooder Lamp, by express, complete with No. 2 Sun-Hinge burner.....	\$1.25
Jubilee Incubator or Brooder Lamp, by express, complete with No.3 Sun-Hinge burner.....	1.50
Tested Jubilee Themometer, postpaid.....	.75
Jubilee Egg Tester, postpaid.....	.35
No. 3 Sun-Hinge burner, postpaid.....	.60
No. 2 Sun-Hinge burner, postpaid.....	.40

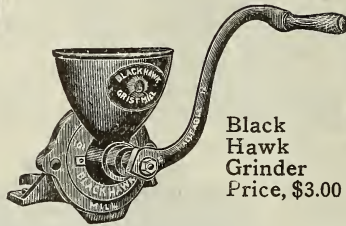
BROODER HEATERS

For 2-Section Indoor Brooder for Jubilee.....	8.00
For 3-Section Indeer Brooder for Jubilee.....	9.00
For 4-Section Indoor Brooder for Jubilee.....	10.00
Gas Burners for Petaluma.....	2.75
Gas Burners for Jubilee.....	1.00
Gas Burners for Model.....	1.00
Regulating Disc for Petaluma.....	2.50
Thermostat Bar for Jubilee.....	3.00
Thermostat Bar for Model.....	2.00
Regulating Rod and Weight, Petaluma.....	1.25
Regulating Rod and Weight, Jubilee.....	1.25
Regulating Rod and Weight, Model.....	1.25
Regulating Screws.....	.25
Regulating Pins.....	.25
Hangers for Petaluma.....	.25
Hangers for Model.....	.50
Rubber Corks for Jubilee, per doz.....	.30

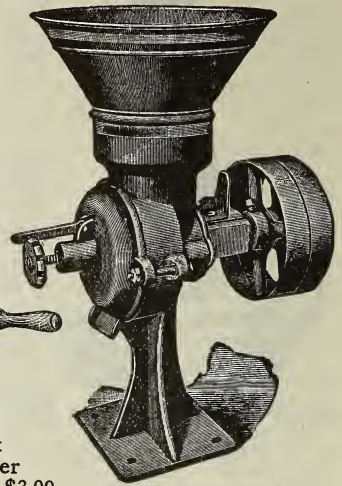
GRINDING MILLS



No. 4 Power Grinder
Price, \$15.00



Black Hawk Grinder
Price, \$3.00



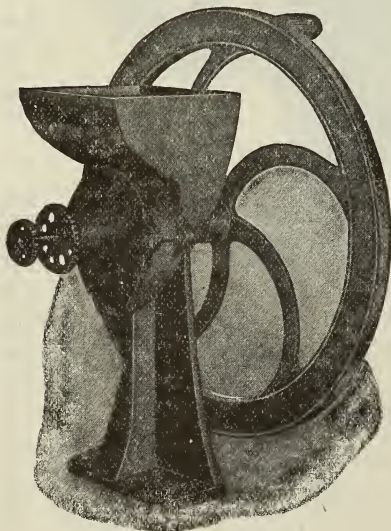
No. 3 Hand Grinder
Price, \$5.50

They will produce cracked wheat, graham flour and corn meal for the family at the slightest cost, and will also produce cracked or ground corn or other grain of any fineness necessary for feeding to the young chicks and the coarse for the grown fowls. They are easily controlled and adjusted, leaving nothing to be desired.

They can be adjusted to grind fine or coarse without the use of wrench or other tools. The Burrs are made of Steel-Alloy Metal, the most durable grinding surfaces made.

List of Sizes, Weights and Prices

No. and Capacity	Height	Width	Wheel	Weight	Price
No. 1, 1/2, 1/2 to 1 bushel per hour.....	13	8 3/4	12 1/2	20 lbs.	\$3.50
No. 2, 3/4 to 2 1/2 bushels per hour.....	16	9 1/2	16 1/2	35 lbs.	5.50
No. 3, 1 to 3 bushels per hour.....	18 1/2	12 1/4	19 3/4	63 lbs.	8.00

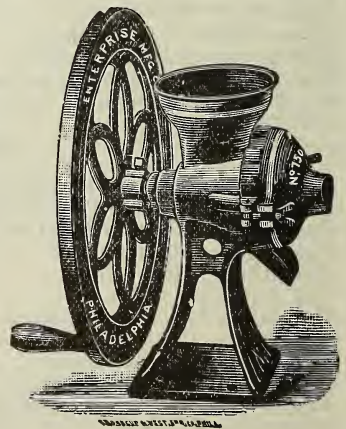


Shover No. 32

Shover
No. 32

The capacity of this mill is not equalled by any other of the same size. Shipping weight, 40 lbs. Capacity, 1 or 2 bushels per hour. Price, Grinding Mill.

\$5-50
and
\$10.00

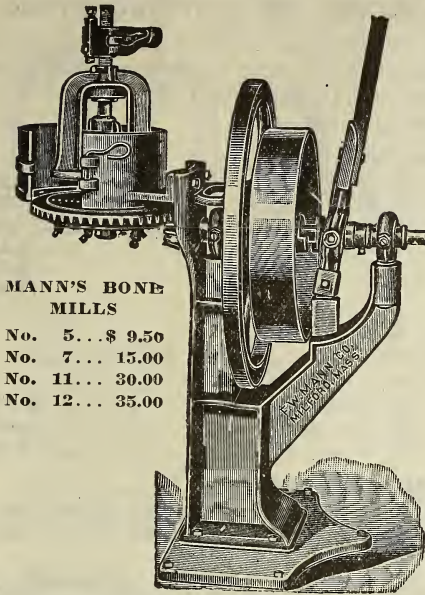


ENTERPRISE BONE AND GRAIN MILL

One of the essential tools for poultry men. Can be used for cracking grain, bone, shell, or grit. Weight, crated, 75 lbs. Price, \$9.50.

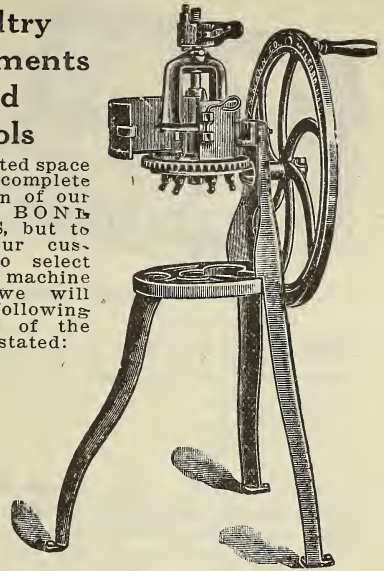
Poultry Implements and Tools

Our limited space forbids a complete description of our MANN'S BONE CUTTERS, but to enable our customers to select the size machine needed, we will give the following capacities of the numbers stated:



MANN'S BONE MILLS
 No. 5... \$ 9.50
 No. 7... 15.00
 No. 11... 30.00
 No. 12... 35.00

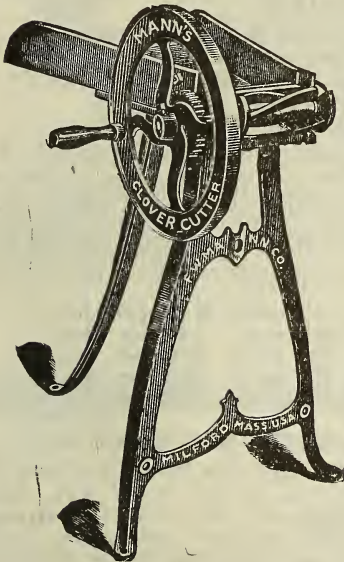
Model No. 12—Price \$35.00



Model No. 7—Price \$15.00

- No. 5 intended for flocks ranging from 15 to 25.
- No. 7 intended for flocks ranging from 40 to 100.
- No. 7 1/2 intended for flocks ranging from 40 to 100.
- No. 9 intended for flocks ranging from 100 to 300.
- No. 11 intended for flocks ranging from 300 to 500.
- No. 12 intended for flocks ranging from 1000 to 1500.

The last two sizes mentioned are power machines. For further description we would be glad to send our Mann's complete catalog, which will give full description of each and every machine.

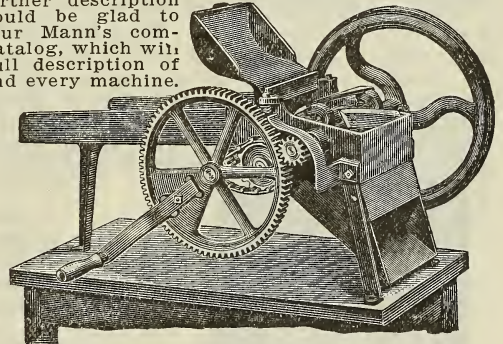


Mann's Clover Cutter

Made entirely of iron and steel. Cannot warp or shrink.

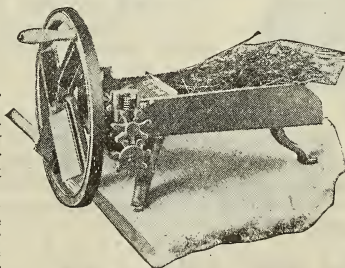
It is strongly built. The workmanship is first-class in every particular, and it will last for years without repairs. It is not a toy or a rattletrap, but a thoroughly practical machine, offering the greatest value for the least money. Do not buy a clover cutter until you have seen the man's. Made either with or without the stand. Prices—

- With Stand \$12.00
- Without Stand 10.00
- Weight, crated, 90 lbs.



"NEW MODEL" CLOVER CUTTER

Will cut either green or dry clover, alfalfa, straw, vegetable tops, etc., in 1/8-inch lengths. Weight, 60 lbs. Price—\$11.00.



The Gem Clover Cutter

—With Stand, \$11.50; weight, 78 lbs. Without Stand, \$10.00; weight, 60 lbs.

No better Cutter made anywhere. It's not a cheap affair, got up to sell simply because it is a Clover Cutter and looks all right, and is used up in a year.

But a thoroughly first-class machine in every particular, built of steel and iron throughout. No pains have been spared to make it absolutely the best cutter for the poultryman.

Cuts fine and even in lengths 1/4 inch.



Self Locking Egg Carton

EGG BOXES AND SHIPPING BOXES

This Self-Locking Carton holds 2 rows of 6 eggs each and will pack in a standard egg case of 30 dozen. It is always ready to hand out, thus saving handling.

Prices:

12 Boxes for.....	\$.20
25 Boxes for.....	.35
50 Boxes for.....	.65
100 Boxes for.....	1.25
500 Boxes for.....	5.75
1000 Boxes for.....	11.00

A. & M. IDEAL EGG BOX

This Carton holds one dozen of 3 eggs wide by 4 eggs long, and are used by grocers who do not pack in cases. Prices are as follows:

12 Boxes for.....	.15	100 Boxes for.....	\$.90
25 Boxes for.....	.30	500 Boxes for.....	4.35
50 Boxes for.....	.55	1000 Boxes for.....	8.75

A. & M. SUWANEE EGG BOX

This Carton holds 2 rows of 6 eggs long. The box is of a blue lining, also the fillers are of blue color. This makes the egg show so nice, white and clean. This is the most satisfactory box you can buy. Prices:

12 Boxes for.....	.20	100 Boxes for.....	\$ 1.25
25 Boxes for.....	.35	500 Boxes for.....	5.75
50 Boxes for.....	.65	1000 Boxes for.....	11.00

A. & M. PARCEL POST BOXES

These Boxes are guaranteed by us to carry eggs safely through the mails. Each box has a double lining on sides, bottom and top, and are so strong one can stand on them and not crush. They come in 15 egg size, 30 egg size, 100 egg size. Prices: 12 egg size, 10c; 15 egg size, 20c; 30 egg size, 30c; 50 egg size, 50c.

WALLACE EGG BOX

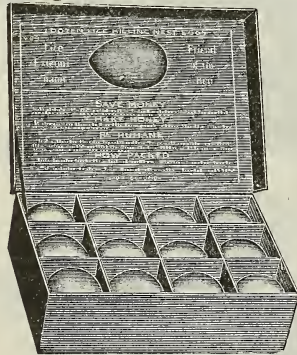
It is the one carrier that will safely deliver the goods irrespective of jars, jolts, or pressure coming from any angle. When the carrier is packed for shipment you can stand on top, bottom, ends, or sides without its buckling or crushing. An egg packed properly can be handled roughly without fear of breaking. These carriers can be sent back and forth in the mail without injury to the box, thereby allowing same to be used over and over again.

Prices:

1 doz. size 15c each,	\$1.20 per doz.
2 doz. size 20c each,	1.80 per doz.
3 doz size 30c each,	2.40 per doz.
6 doz. size 55c each,	4.50 per doz.
15 doz. size \$1.00 each,	9.00 per doz.

HUMPTY-DUMPTY EGG CARRIER

One of the handiest egg carriers on the market. This carrier will hold twelve (12) dozen eggs. Can be folded flat for shipment, and is made of strong but light wooden slats fastened with strong steel wires. Very handy and something every poultryman should have. Price, 50c each. Weight, 6 lbs.

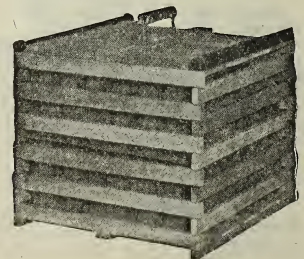


A. & M. LICE KILLING NEST EGGS

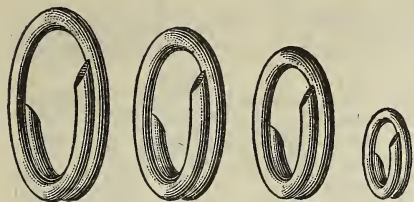
Our Lice-Killing Nest Eggs are almost an exact imitation of the real chicken eggs, and contain a powerful disinfectant which is guaranteed to expel lice and vermin. Put up in boxes of one dozen each, at 45c. Postpaid, 55c.

CHINA NEST EGGS

We handle only the best grade of glass eggs, strong and durable. (2 for 5c; 25c dozen. Postpaid, 35c.)



LEG BAND FOR POULTRY



Spir-ol Leg Bands are made in six colors and all sizes, and are put on and taken off like a key ring. Can't drop off. Colors are black, white, red, yellow, blue, green, purple, light blue, maroon and pink. In ordering please state color



wanted. Just the thing to mark the different pens. Handiest band to mark the pullets from the old hens.

Prices:

12 Bands for	\$.15 (postpaid)
30 Bands for.....	.25 "
50 Bands for.....	.50 "
100 Bands for.....	.75 "
500 Bands for.....	3.60 "
1000 Bands for.....	7.00 "

Chick, Bantam and Pigeon size Spirol Leg Bands as follows: 12 for 10c; 25 for 25c; 50 for 40c; 100 for 65c; 500 for \$3.00; 1000 for \$5.25. These bands come in the same colors as given above for Poultry Bands.



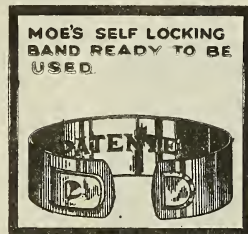
CLIMAX LEG BANDS

This Band is easy to put on or remove, no tools required. The rings are made of spring brass, and so bent that the tag acts as a clasp holding them securely in place. Made in three sizes. In ordering always mention the variety of fowl wanted for. Prices: (15c for 12) (25c for 25) (50c for 50) (75c for 100, postpaid).

MOE'S SELF-LOCKING LEG BAND

Locked Simply by Pushing It Together.

Please order by breed and whether male or female. (12 bands, any size, postpaid, 15c) (25 bands, any size, postpaid, 25c) (50 bands, any size, postpaid, 45c) (100 bands, any size, postpaid, 75c) (500 bands, any size, postpaid, \$3.50) (1000 bands any size, postpaid, \$6.00).



FLAT ALUMINUM LEG BANDS



These bands fit any variety of fowls. Price —(25 for 15c) (25 for 30c) (50 for 50c) (100 for 75c, postpaid).

Chick Brander.—An aluminum open band for half-grown birds. They are nicely numbered and made so they can be easily adjusted. Price—(15c doz.) (80c per 100).

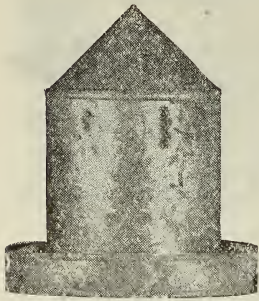
SMITH SEALED BANDS

Smith Sealed Bands were put on the market for a purpose. That purpose was to prevent dishonesty in the handling of scored birds and to protect the purchaser of same. Price—(12 for 25c) (25 for 50c) (50 for 85c) (100 for \$1.50, postpaid).

SPATZ PIGEON BANDS

The Easy-On Color Band.—The new, up-to-date Easy-On Color Band is the simplest, cheapest and easiest to apply band on the market. Made from the best celluloid and aluminum it will give long service. With a little care it can be taken off and used several times. It does not require bending, cement, pliers, or any of the things that take up your time. The Easy-On Band is made in 10 colors as follows: Yellow, Red, Brick, Pink, Light Yellow, Lavender, Blue, White, Cherry, Green. The figures are very large and can be seen many feet away regardless of the way the bird is standing. Bands have black double numbers, and run from 1 to 60. Price—(2c each) (\$1.25 per 100, postpaid).

FEEDING PANS AND DRINKING FOUNTS



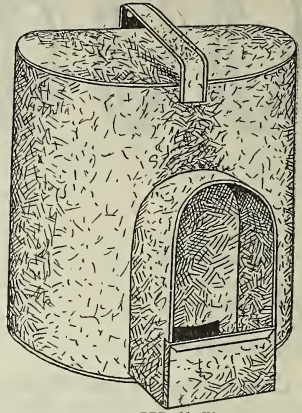
Galvanized Iron Fount
the wall at any convenient height from the ground.

Made of heavily galvanized iron. Best of workmanship. Very sanitary and easily cleaned. Chicks cannot get into them or upset them.

- 1 pt. Size.....20c each
- 1 qt. Size.....25c each
- 2 qt. Size.....35c each
- 4 qt. Size.....45c each
- 5 qt. Size.....55c each

CHICK PIGEON WALL FOUNTS

This fount can be used very conveniently for Pigeons, Chickens, Ducks and other poultry. Well made of heavy galvanized iron. To hang on



Wall Fount

- 1 qt. Size.....25c each
- 2 qt. Size.....35c each
- 1 gal. Size.....50c each
- 2 gal. Size.....75c each

SANITARY FOUNTAINS (STONE)

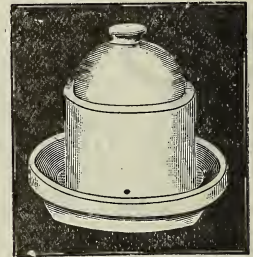
These founts are made of clay glazed inside and out. Price—(1 qt. 25c) (½ gal. 35c) (gal. 45c).

ALL RIGHT FOUNT

This fountain has just lately been introduced among our poultry breeders and endorsed as the most sanitary and useful of its kind. The cut shows the All Right Fount with grain in it used as an automatic chick feeder or can be used for a drinking fount. It is so arranged that you can use a two-quart Mason fruit jar as a reservoir which gives larger capacity. This fount has a hanger. You could easily afford one for small grains and one for water. This fount is made of the best heavy galvanized iron. We do not furnish the glass jar. Price, packed ready for shipment, 20c. Postpaid, 25c.



All Right Fount



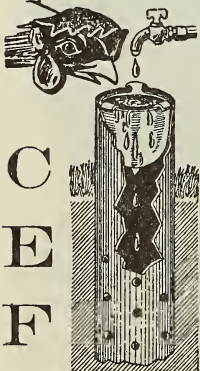
Sanitary

"C. E. F." FOUNTS

With these founts the chicks at all times have absolutely fresh and clean water, which is a very important item in the raising of healthy, vigorous stock.

They save lots of work every day by making unnecessary the daily chore of watering the chicks.

For your convenience in ordering shipment via Parcels Post we show weight of each item. Prices are f. o. b. Los Angeles, Cal. Ask for free circular.



C
E
F



Star Fount

This fount made especially for baby chicks. So arranged they can not get into the water. Made of aluminum and will last for years. Best and cheapest fount on market.

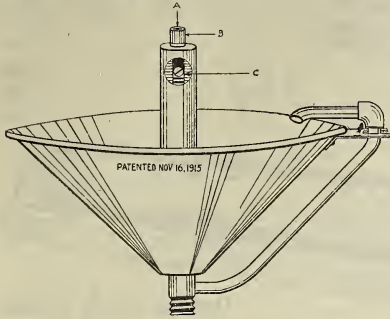
Price 15c each. Postpaid 20c.

Article	Weight	Price
Metal cup ...	2 oz.	30 cents
Drain pipe...	28 oz.	30 cents
Faucet	5 oz.	35 cents
Reducer	2 oz.	5 cents

Price with Metal Cup without Faucet, 60c. Prepaid (150 miles) 75c.

THE AUTOMATIC WATER FOUNTAIN

The Fount they are all talking about. When you see it you will surely place it in your yards.



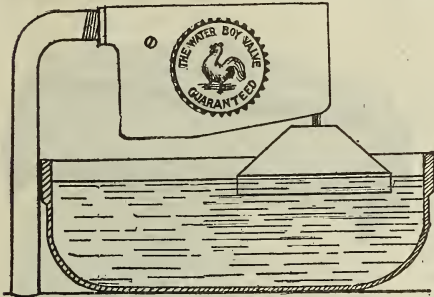
This Fountain is funnel shaped and twelve inches in diameter at the top and five inches from bottom to top of funnel. The funnel is made of heavy galvanized sheet metal and has a double bottom which acts as a reinforcement. The inner bottom is flat and easily cleaned. It never exposes more than two quarts of water and when some of the water is consumed it will refill and stop automatically when the water reaches its proper level.

The valve is made very strong, rust proof, and most of the valve parts are made of solid brass. Every fountain is tested and actually worked to guard against any leak, before it leaves the shop.

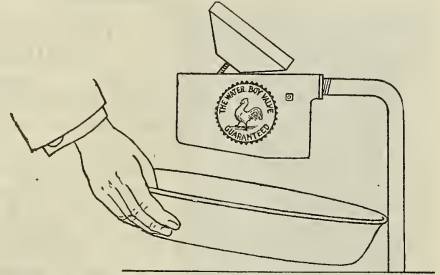
Every fountain is guaranteed and replaced if found defective in any way. Price \$1.50 each. Weight 2½ lbs. Price \$1.70 by Mail. Three Founts, \$4.20. Six Founts, \$8.10. Twelve Founts, \$15.

We also have an automatic fount for baby chicks. It can be attached to a hose or a pipe by a union. The fount accommodates a large number of chicks. Price—(18 inches long, \$1.65) (36 inches long, \$2.00).

THE AUTOMATIC WATER BOY



Water Boy Shown in Use



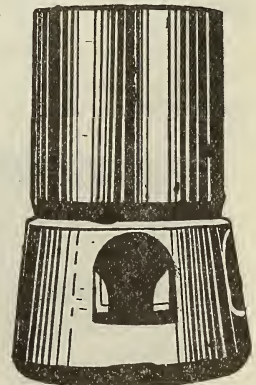
Water Boy Shows Water Cut Off When Cleaning Pan

The Water Boy consists of tempered brass valve and stem, ground water tight, and thoroughly tested. There is no fibre leather or springs about it to get out of order, and no special dish required to use it with. The Water Boys are guaranteed to work as represented if directions are followed. Any fault in workmanship or material will be made good free of charge if sent direct to manufacturer. Requires one quarter inch pipe connection two inches above top of dish. Price—75c each; 90c postpaid.

Prices made on larger lots on application.

PIGEON FOUNTAIN

This fountain is made especially for pigeons. It is perfectly sanitary and made so the pigeon cannot get in the water. Easy to fill and keep clean. Price—(½ gal. 45c) (gal. 60c).



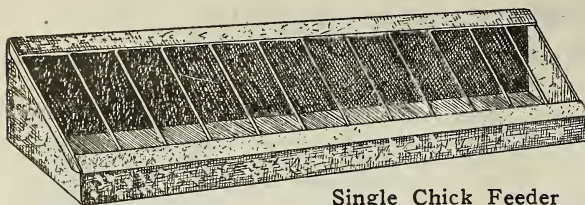
Pigeon Fountain

Eureka Drinking Fountain.—

This fountain is made of galvanized iron, with pyramid top. It has a bail, with which to fasten it against the house or post, suspended high enough to prevent the fowls from scratching any filth into the pan, thus keeping the water pure. Price—(1 qt. 15c, postpaid 25c) (½ gal. 30c, postpaid 40c) (1 gal. 40c, postpaid 50c).



Eureka Fount



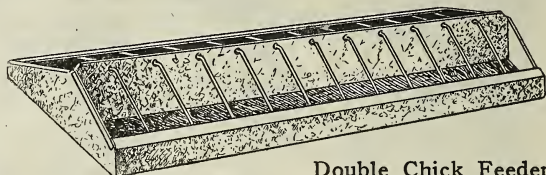
Single Chick Feeder

This feeder is a money saver. When feed is thrown on the ground you have a great waste of feed. This alone will save many times its value.

12 inch	25c
18 inch	35c
24 inch	50c

Double Chick Feeder.—Used same as single. Chicks can eat on both sides of feeder.

12 inch	40c
18 inch	50c
24 inch	75c



Double Chick Feeder

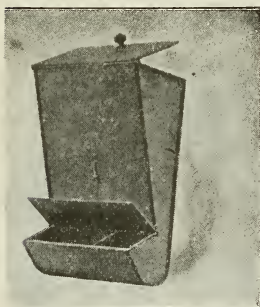


Duck Trough

slide is a feature not to be found in any other feed trough. Price—(10-inch 40c) (20-inch 60c).

DUCK TROUGHS

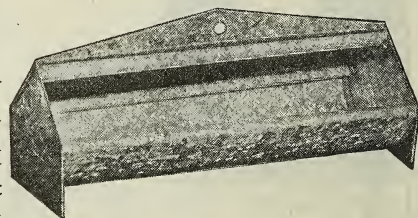
The bottom of the trough being round in shape, makes it superior to all others, as it can be easily cleaned and prevents food from becoming stale in corners. The grate top is a feature not to be found in any other feed trough. Price—(10-inch 40c) (20-inch 60c).



Round Bottom Dry Food Hopper

DRY FEED TROUGH

This galvanized iron dry mash feeder has no seams or crevices to allow feed to lodge and sour. It is easily washed and kept clean. Fowls can feed on both sides. It has a sharp partition through the center, preventing birds from fouling and getting into the feed.



Dry Feed Trough

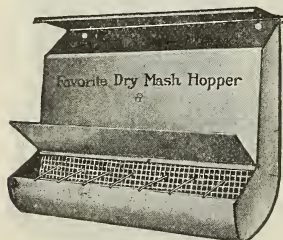
(18-inch 75c; postpaid (150 miles), 85c).
(24-inch 85c; postpaid (150 miles), 95c).

ROUND BOTTOM DRY FOOD HOPPER

The round bottom of this food hopper, with two apartments, will feed dry mash or beef scrap and cannot clog. This hopper is sold with or without lid. Price—(60c; postpaid) (150 miles, 70c).

ROUND BOTTOM GRIT AND SHELL BOX

Most grit and shell boxes have a square bottom, while this grit and shell box has a round bottom, which prevents the fine particles of shell and grit clogging the corners. Price—(60c; postpaid (150 miles), 70c).



Round Bottom Mash Hopper

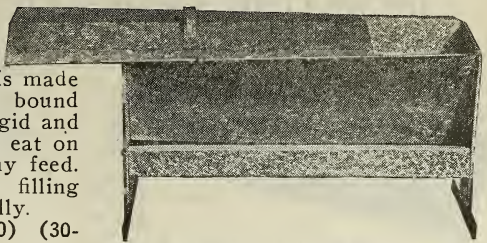


Round Bottom Shell and Grit Box

Round Bottom Dry Mash Hopper is made of heavy galvanized iron 24 inches long and 30 inches high. Has a screen front so the chicks can get the dry mash and not waste. It is the best dry mash feeder on the market. Can be hung on the fence or shed free from dirt and with the covers rain cannot get into the feed. Price—\$2.50 each f. o. b. It pays for itself.

The GREAT WESTERN DRY MASH FEEDER is made in three sizes: 18-inch, 24-inch and 30-inch. It is made of best heavy galvanized iron, nicely bound with heavy wire, making it perfectly rigid and strong. Will last for years. Fowl can eat on both sides of feeder and not waste any feed. Always dry and ready for use. One filling lasts several days. Feeds automatically.

Price—(18inch \$1.25) (24-inch \$1.50) (30-inch \$1.75).

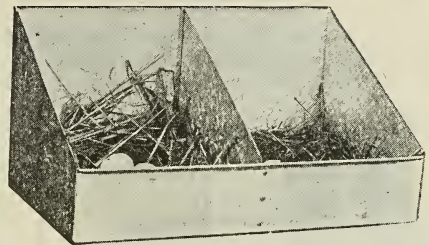


Great Western Dry Mash Feeder

A. & M. SANITARY NESTS
Open Top

These nests are made entirely of the very best of heavy galvanized iron. Very best of workmanship. All parts are double seamed, well riveted and all edges are wired with very heavy wire. Smoothly finished, no rough edges. Will last for generations.

Metallic nests are the only practical and sanitary method of nesting your poultry as metal nests are vermin proof. Lice or mites will not live in metal nests.



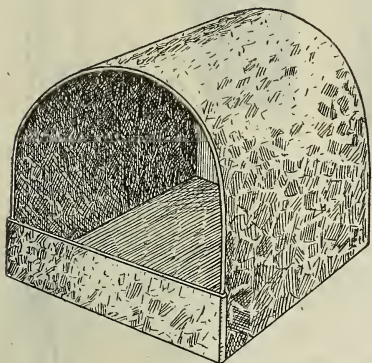
Single Compartment	\$1.00 each f. o. b.
Two Compartment	\$1.50 each f. o. b.
Three Compartment	\$1.75 each f. o. b.

A. & M. SANITARY NESTS
Covered Top

The description of the Open Nest describes this nest thoroughly.

This style nest is made single only and has the top covered. Well made. Sufficiently large enough for large fowls.

Sanitary Nest\$1.00 each f. o. b.



A. & M. GALVANIZED FEED BINS

Made of very heavy galvanized iron and strongly built. Double seamed bottom and heavy wired edge at top. Cover well made. Nothing to come apart.

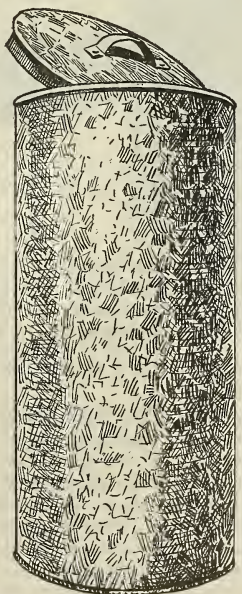
These cans are to be used for feed. They are great feed savers and keep the feed in a wholesome condition after a sack of feed is opened up. Protects it from mice and rats and keeps it clean. Capacity one sack of feed.

15 in. x 30 in. Can. Price with cover	\$2.00 each f. o. b.
15 in. diameter, 15 in. high Can	\$1.50 each f. o. b.
14 in. x 14 in. x 14 in. square Can with hinge cover	\$1.50 each f. o. b.
14 in. x 14 in. x 24 in. square Can with cover	\$1.75 each f. o. b.

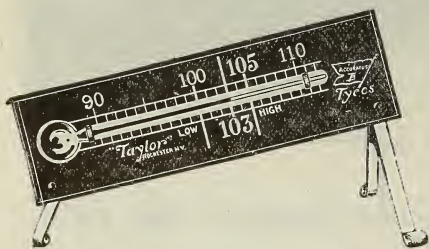
SQUARE CANS

12 in. x 16 in. x 24 in., no cover	\$1.40 each f. o. b.
12 in. x 16 in. x 25 in. with cover	\$1.75 each f. o. b.

All sizes and shape Cans made to order.



INCUBATOR AND BROODER THERMOMETERS



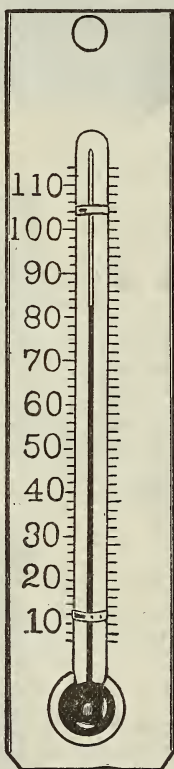
No. 3—75c Postpaid

“drawback” in any position from perpendicular to horizontal. They are put through a special process which insures the “draw back.” Consult us as to selecting a thermometer to suit your incubator or brooder.

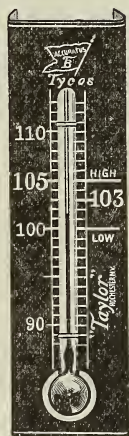
Many persons using Incubators and Brooders fail to understand the importance of having a thoroughly tested and reliable thermometer. Many a fine hatch is lost, and many a fine brood of chicks killed by using a poor thermometer. Use great care in purchasing a perfect thermometer. Our thermometers are thoroughly tested and accurate. They are filled with only the purest distilled mercury. Impure mercury will stick to the sides of the bore of the tube and so cause inaccurate readings. Our incubator thermometers will absolutely



Half Round
Brooder
Thermometer
75c postpaid



Flat Brooder
Thermometer
35c postpaid



No. 4—65c
Postpaid



No. 2—75c
Postpaid

Our Brooder Thermometers are in two styles. One is Half Round with enclosed tubes to be inserted into top of Brooder and read without taking thermometer out. The other style is Flat and made of metal. This is hung on the inside of the Brooder Box.

Both thermometers are Tycos brand and are guaranteed to be the finest manufactured and absolutely correct.

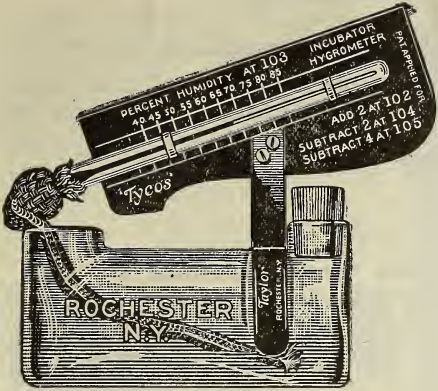


No. 1
\$1.00
Postpaid

We carry a complete line of Thermometers for Hot Houses, Hot Beds, Dairies, etc.

Hot-bed Thermometers, metal back	Price \$2.00 postpaid
Hot-bed Thermometers, all metal	Price \$1.00, postpaid \$1.15
Hot-bed Thermometers, wooden case, enclosed.....	Price \$1.50 postpaid
Hot-bed Thermometers, wooden case	Price \$1.00 postpaid
Self-registering, metal case	Price \$2.50 postpaid
Fahrenheit Thermometer	Price 30c postpaid
Dairy Thermometer	Price 30c postpaid
Churn Thermometer	Price 50c postpaid
Pasteurizing Thermometer	Price \$1.00 postpaid

TYCOS INCUBATOR HYGROMETER



Tycos Hygrometer

MOISTURE REQUIREMENTS

The amount of moisture required, during the period of incubation, varies from 65% to 53%. For the convenience of our friends and patrons we give the following table of the percentage of moisture best adapted to each week of incubation:

First week there should be about 65% of moisture present;

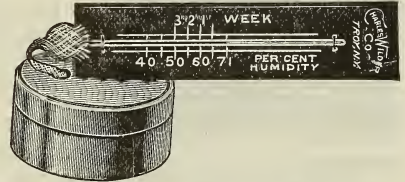
Second week there should be about 60% of moisture present;

Third week there should be about 55% of moisture present;

At the time of hatching, about 50% of moisture. Price \$1.50 postpaid.

WILDER MOISTURE GAUGE NO. 2

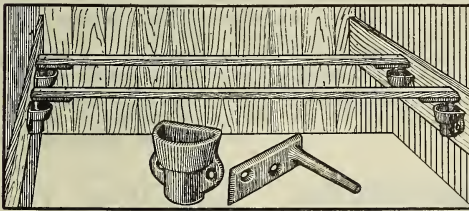
The figures on the bottom row of the scale show the percentage of moisture, figured from the tables published by the United States Department of Agriculture, and are exact for a machine running at 103 degrees, this being the most generally accepted temperature for hatching. A study of this table shows that the difference in the percentage of humidity in a temperature one degree higher or lower (102 degrees or 104 degrees) is so slight that there is little if any effect on the general results. The spaces on the scale marked "1st, 2nd and 3d week" are for the use of those operators who reduce the amount of moisture at these stages of incubation. Price—\$1.00 postpaid.



Wilder Moisture Gauge No. 2

As before stated, the figures on this Gauge are exact for a machine running at a temperature of 103 degrees and correct enough for practical purposes at 102 degrees or 104 degrees. Price \$1.00 postpaid.

ROOST SUPPORTS



A. & M. Roost Hanger

A. & M. ROOST HANGER

This new invention is one of the most necessary articles needed on a poultry ranch. Lice and Mites are our worst enemies in the Poultry business. This hanger has a cup that is filled with Lice Killer, which prevents the Mites from leaving the side of the house and getting on the roosts. The best roost hanger on the market. Price per pair 25c. Postpaid 35c. Per dozen pair \$2.75, f. o. b. Los Angeles. Weight per dozen pairs, 15 lbs.



Essex Roost Support

ESSEX-MODEL LICE-PROOF PERCH OR ROOST SUPPORT

The Essex-Model Perch or Roost Support is a heavy iron bracket in one piece. It is held firmly in place against the wall by two screws. When a pair are in place they will securely support a heavy roost filled with sleeping fowls. The roost fits on an upright metal pin 3/8 of an inch in diameter. A broad shoulder on this pin just above the trough, which is made to hold Model Lice Spray or other lice-killing liquid. The trough for lice killer is 4 1/2 inches long by 1 1/4 inches wide and 1/2 inch deep, and will hold a sufficient amount of lice-killing liquid to last a long time. Price (per pair 40c) (postpaid 50c).

POULTRY INSTRUMENTS



New Philadelphia Caponizing Set

This set is one of the latest design. It is a combination of tools that can be used with one hand and seldom causes the operator to slip and cause the loss of the bird. Price complete in case, \$3.00.



The Pilling Special Caponizing Set

Price, complete in velvet-lined oak case, prepaid, \$4.00.

This set contains the latest patented extractor. The operation can be easily done by any beginner, without much loss. Complete instructions with each set.



Farmer Miles' Caponizing Set

This set is made of very best material used by all surgeons and considered to be the easiest and the most successful caponizing set ever manufactured. This is put up in Morocco leather case and all tools made of silvered steel with a full set of instruments. Price, \$10.00, postpaid.

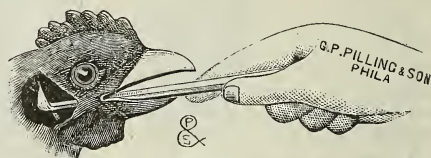
Pilling-Farmers Caponizing Set

Put up in fine black case. Complete set of tools, \$2.50 prepaid.

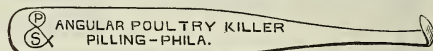


Pilling French Poultry Killing Knife

Every poultry raiser should have one of our Killing Knives. They are made of a finely tempered instrument steel with nicked handle; will last a lifetime. Sent postpaid on receipt of 50 cents. Don't wait! Send for one now! Sent securely packed by mail on receipt of price.

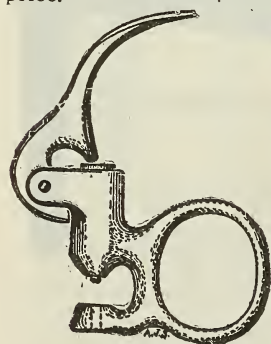


Showing Angular Killing Knife in Use

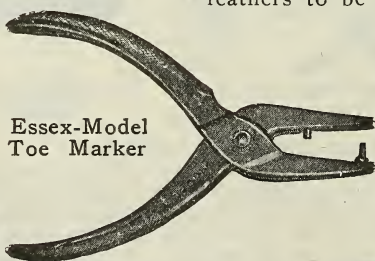


Pilling Angular Killing Knife

By simply turning the wrist the jugular vein and spinal cord are cut, thereby bleeding the fowl, allowing the feathers to be removed without using water. 50c, postpaid.



Poultry Punch



Essex-Model Toe Marker

Essex - Model Toe Marker — This toe marker makes a clean cut and has a separate stop to prevent bruising the web of the foot. 35c postpaid.

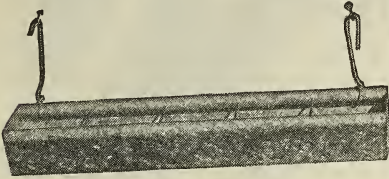


Petty's Poultry Punch. One of the most convenient punches made. It is small and easy to operate, cutting a clean hole every time. Price 20c (prepaid 25c).

Easy Marker.—This punch is so simple in construction that it will appeal to all as a practical tool. It makes a clean cut and does not mutilate the web, as do many cheaper punches. Price (25c each postpaid).

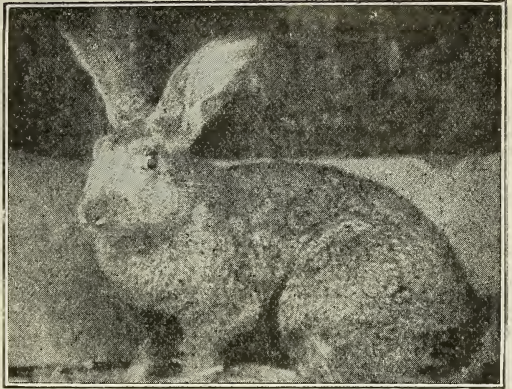
RABBIT SUPPLIES

Rabbit Feeders.—These feeders are made of the best galvanized iron in three or more compartments, according to their length. Each feeder is constructed with wire hangers to fasten to the hutches, so it cannot turn over and waste feed. These are made especially for alfalfa hay.

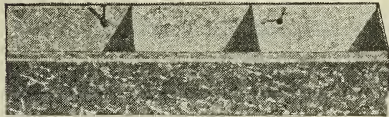


Rabbit Feeder

(12 in. 30c) (postpaid 150 miles 35c)
 (15 in. 35c) (postpaid 150 miles 40c)
 (18 in. 40c) (postpaid 150 miles 45c)



Rabbit Compartment Wall Pans.—These wall pans are built for hutches that contain several rabbits. They are made of galvanized iron, put up in three and four compartments. They can be fastened to the wall of the hutch as shown in the cut. They are perfectly sanitary and are easily kept clean.



Rabbit Compartment Wall Pans

(15 in. 3 compartment, 35c) (postpaid, 150 miles, 40c).
 (18 in. 4 compartment, 40c) (postpaid, 150 miles, 45c).

Flanged Edge Feeders.—These are made of stoneware, nicely glazed with a flanged edge for feeding rolled Barley and other grains.



¼ lb.



½ lb.



1 lb.



1½ lb.

Rabbit Feeders

The flanged edge prevents the rabbit from throwing out the grain and wasting it. They come in two styles, Brown Glazed and White Glazed. Prices as follows:

No. 1, 10c each, 3 for 25c, 1 dozen, 90c.

No. 3, 15c each, 1 dozen, \$1.50.

No. 2, 10c each, 1 dozen, \$1.00.

No. 4, 20c each, 1 dozen, \$1.75.

Please mention when ordering, whether Brown or White Glazed is wanted.

Rabbit Drinking Fountains.— These fountains are made especially strong and durable for rabbits. The wide bottom prevents turning over and are not easily broken.

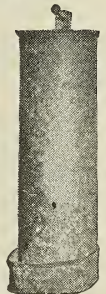


Rabbit Drinking Fountains

1 pt. 10c each, 3 for 25c; per dozen.....\$.90
 1 qt. 10 each; per dozen..... 1.00
 ½ gallon 15c each; per dozen..... 1.50
 1 gallon 25c each; per dozen..... 2.75

These founts can be used for chicken founts where dripping water is available, as they are open and sanitary.

Galvanized Rabbit Drinking Fountain.—This fountain is filled from the bottom and feeds automatically in a small pan preventing the rabbits from fouling the water. Can be hung on the inside of the hutch, as shown in cut. Made in one size only. Price 50c, postpaid 150 miles, 60c.



POULTRY OR STOCK SUPPLIES

CALDWELL BROS. SANITARY HUTCHES

Will quote on application. Send for prices and circular.

Model on exhibition at our store.

Caldwell's Condition Powder.—Promoter of health. Used by practical rabbit breeders. Large package 35c postpaid.

Caldwell's Slobber Remedy.—This remedy should be kept on hand so that you do not have to wait and let your rabbits die before applying it. Package 25c postpaid.

Caldwell's Ear Canker Remedy.—A preventative and cure. The ears should be examined carefully and apply a few drops of this remedy. Package 25c postpaid.

Caldwell's Rabbit Book is a good guide for breeders of hares and rabbits, giving pointers as to breeding, feeding, caring for the young and also how to keep your stock free from disease and what to do in case they become diseased. Price 25c, postpaid 30c.

A. & M. Roupazone. Per bottle.....	25c and 50c
A. & M. Roup Powder. Per box	25c, 50c and \$1.00
A. & M. Cholera Cure. Per box	50c and \$1.00
A. & M. Roup Tablets. Per dox	50c
A. & M. Lice Powder	25c, 50c and \$1.00
A. & M. Liquid Lice Killer.....	Qt. 35c, ½ gallon 60c, 1 gallon \$1.00
Conkey's Roup Cure. Per box.....	50c and \$1.00
Church's Roup & Cholera Remedy. Per bottle	25c
Hess & Clark Worm Powder. Per box.....	50c
Hess & Clark Panacea. Per pkg.....	25c, 50c and \$1.00
Hess & Clark Poultry Dip	35c, qt. 50c, 1 gallon \$1.20
Lambert's Ointment. Per box	10c and 25c
Lambert's Lice Powder	25c, 50c and \$1.00
Spratt's Dog Biscuit. Per box	25c
Spratt's Puppy Cake. Per box	25c
Chicken Chili, fine. Per lb.	15c
Chicken Chili, coarse. Per lb.	10c

ALFALFA MEAL

Green food is absolutely necessary for poultry. No one can afford to be without it. Fed with soft feeds and beef scraps makes a great egg food. Price, 10-15c. bag, 25c.

BEEF SCRAPS

Our beef scraps are a fine clean preparation made from pure inspected meat. No scavenger product in our beef scrap. One of the essentials in egg production. Price, \$3.50 per 100 lb. sack.

Armour Beef Scraps, Granulated, all sizes, \$3.25 per 110 lbs.

Swift's Beef Scraps.—These scraps are guaranteed to be of pure meat and blood, inspected by the Government and perfectly free from scavenger product. Price, 100 lb. sack, \$3.50.

A. & M. Blue Ribbon Meat Scraps.—These scraps are manufactured in Los Angeles. Have been carefully inspected and free from all foul meat and blood. They are made in a granulated form, coarse, medium and fine. Price, per 100 lbs., \$3.25.

A. & M. Superior Fish Meal.—Our fish meal is made from clean fresh fish, cooked, dried and ground. Especially prepared for fowls. Among our leading poultry men it is considered a great egg producer. It is put up in 80 lb. sacks. Price, \$2.25 per sack.

Kaffir Corn
Egyptian Corn
Whole Yellow Corn
Cracked Corn
Milo Maize
Feeding Oats
Oat Meal

Oats, Rolled
Oats, Ground
Bran, Heavy
Bran, Light
Cracked Wheat
Cracked Kaffir Corn
Cracked Milo Maize

Oyster Shell
Clam Shell
Chicken Chili
Grit
Charcoal
Wheat

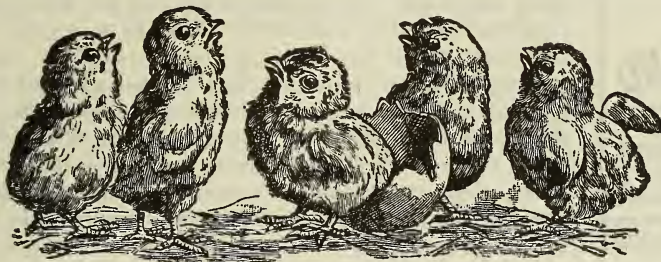
Everything that can be used from the smallest to the largest ranches. Write us for prices. Can furnish car load lots on application.



A & M SUPERIOR CHICK FOOD

No Musty Seed—No Soft Mash
—No Sick Chicks.

Made from new grain, especially cleaned
for Baby Chicks.



It is a mistake to feed young chicks soft feed—they do not need it any more than the old hens, and cannot stand it half so well. It is not the soft feed that makes the trouble alone, but the way it is fed. In most cases it is thrown on the ground and gets dirty and filthy, and for that reason is not healthy. In a great many cases it is put on a board or a platter and kept clean, but more is loaded on the board or platter than the chicks will eat at one time; in the course of an hour it gets sour, it is indigestible, and for that reason is not healthy. In addition to all this, there is the trouble of mixing the feed.

As our trade has often called for a clean, fine mixture, we have installed special machinery this season to manufacture a special chick feed to please our customers. This feed is composed of Kaffir Corn, Egyptian Corn, Cracked Wheat, Millet and other grains and seeds that have been thoroughly cleaned, free from dust and is as fine a chick feed as ever came on the market. We have customers who will use no other feed on account of being free from fowl, musty seeds. You make no mistake in buying the Superior Brand. Price \$3.25 per 100 lbs.

EGGS FOR HATCHING

We are in touch with some of our finest Breeders of eggs and can furnish same on short notice. We use great care in selecting Hatching Eggs but do not hold ourselves responsible for infertility, as we always try to secure from the very best ranches.

We especially recommend our own strain of Rhode Island Reds, White Leghorns and Barred Rocks. Price per setting, \$1.50. Price on 100 egg lots made on application.

MIDLAND POULTRY FOOD

THE FOOD THAT GIVES SURE RESULTS IN EGG AND MEAT.
THE ONLY BALANCED RATION ON THE MARKET



No. 1—For Nursery Chicks.—Mix this with water (skim milk is better) and manipulate it thoroughly and feed in crumbly, not sloppy condition. Feed little and often—every two or three hours at least, and never a full crop. Care should be taken to never allow food to lie around. In this ground feed they cannot sort out and eat only the choice morsels and leave the rest to grow weeds, as they will with a dry feed, thereby consuming an excess of millet or other heating and fattening seeds and leaving the growing elements to be wasted, but must eat the whole food which is exactly balanced to meet their requirements and produce the desired results in the shortest possible time and without stimulation or injury to the constitution. Add nothing whatever to it.

Feed this until the chicks are ten days or two weeks old. Have fresh water for them to drink. Price \$2.25 sk.



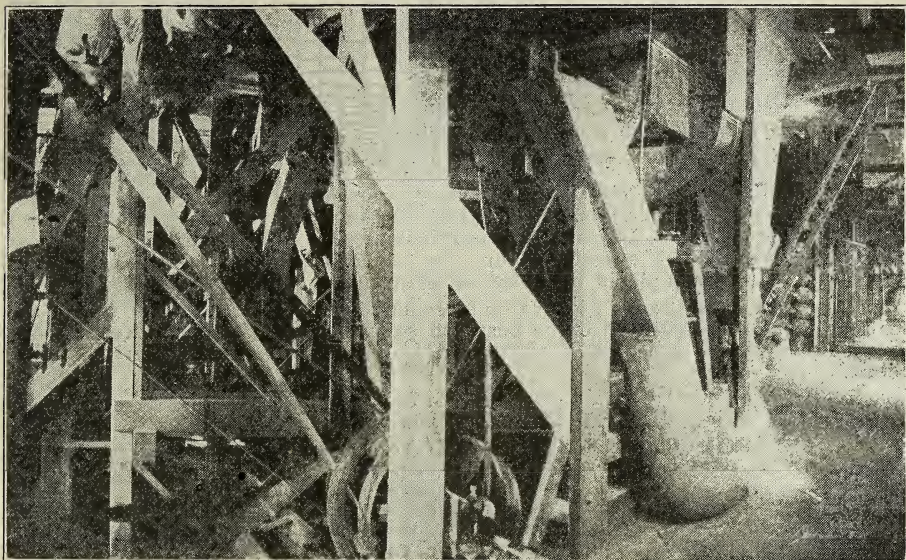
No. 2—Growing Chick Food.—In feeding any animal or fowl for growth knowledge and experience teaches us to avoid corn and fattening foods and to grow the frame and flesh first. When this has reached the stage we desire, we reverse the order. Our No. 2 has no equal for that purpose. It simply does what it is intended for, and nothing else. It supplies every requirement and health and growth must follow. The rapid growth resulting from the use of No. 2 will be a revelation to many who now know but little of the possibilities attainable in growing broilers. It enables late hatched chicks to be matured for winter layers as well as making earlier spring broilers in the shortest possible time. Feed as a mash in a moist, crumbly state, the first meal at daybreak, and every three hours until dark, giving them only what they will clean up at a feeding. Green food of some kind must be supplied daily as well as grit and water.

Continue feeding No. 2 until they are four or five months old, or about matured. Price \$2.25 sk.



No. 4—Egg and Feather Producing Food.—This is the great egg and feather producing food. It has no rival today and we know of nothing that approaches it. It takes certain material to make eggs, as it takes clay to make bricks; sand won't do it. A trial of this food will fully convince you that the egg production can be controlled to a remarkable degree when intelligent methods and correct principles are employed. This brand will also fit birds for exhibition safely and quickly, sending them in at standard weight and in beautiful feather. There is nothing on the market that can be compared to it. With egg production under control the poultry business becomes a pleasure instead of an aggravation. Feed as a mash, moist, crumbly. Add clover meal or steamed, cut clover, or supply the necessary green food in some form daily; add nothing else. Feed morning and night and if the fowls are confined, scatter small grain of any kind in the litter at noon to induce exercise in scratching for it. Price \$2.00 sk.

Our Grain and Feed Department



The Above Cut Shows our Machinery Room, the Largest Cleaning Plant for Chick Feed and Seeds on the Pacific Coast.

As our trade has grown so large we installed one of the largest and up-to-date Cleaner and Mixers of Seed and Feed on the Pacific Coast. All our seed and feed is passed through this cleaner and all dust and impure seed taken out, making our feeds pure and clean, free from all foul ingredients often found in chicken feed. We are now in position to offer to our patrons nothing but the best of everything and we beg to state that since we installed the above plant our trade has doubled, as they know they get the best and cleanest feed machinery can produce.

A. & M. SUPERIOR SCRATCH FOOD

This food consists of several different varieties of grain, viz.: Wheat, Kaffir Corn, Egyptian Corn, Sunflower, Beef Scraps and other seeds that have been thoroughly cleaned and free from dust and dirt. Your fowls will enjoy it and give you the best of results. Put up in 100 lb. sack; free from grit.

Grain fluctuating. We quote on application.

A. & M. SUPERIOR ROLLED BARLEY



Our Superior Rolled Barley is made from fine new grain. With our new roller plant installed this season we are in position to turn out the finest grade of Rolled Barley made anywhere. Having our own plant we manufacture fresh every day.

We also manufacture the finest cracked wheat, cracked corn, cracked Kaffir and all other grains. Should anyone wish to manufacture their own chick feed, we are prepared to furnish them anything they may need in the grain and seed line.

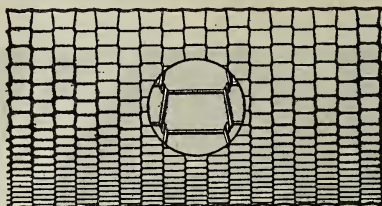
WIRE FENCING FOR POULTRY YARDS

The Warner Junior Poultry Fence

Warner Junior Poultry Fence is made of No. 18 galvanized wire with a No. 14 wire top and bottom, stay wires placed $4\frac{1}{2}$ inches apart at the bottom of the fence and gradually widen as the top is reached.

Put up in 10 rod rolls.

3 ft. wide \$3.50 per roll 4 ft. wide \$4.25 per roll
5 ft. wide \$5.00 per roll 6 ft. wide \$5.50 per roll



The Warner Junior Poultry Wire is a closely woven fence that will give the best results at a very reasonable price. It embraces all the popular features of the heavier Warner Poultry Fences, having the interlocking to hold it rigid, and close graduated meshes which effectively turn the smallest chickens, at the same time reduces the cost of completed fence by not requiring a top or bottom board.

We carry all other grades of wire, but recommend to our customers to try the Warner, Jr., as they will find it the **best and strongest and cheapest wire** they can buy. The above prices are all F. O. B. car, Los Angeles, Cal. Subject to market fluctuations

VICTOR STEEL WIRE NETTING FOR POULTRY, RABBIT AND HOG FENCE

This wire is galvanized before weaving, so it will not crack and rust at the twists.

It is made of full-gauge, hard-drawn steel wire, having great tensile strength, and heavily galvanized insuring maximum length of life.

It has three strands in each selvage that will stand stretching and the netting can be put up tight and smooth.

Our prices are as follows. Per roll 150 ft.:

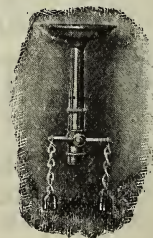
1 foot high 2 inch Mesh.....	\$.85
2 foot high 2 inch Mesh.....	1.70
3 foot high 2 inch Mesh.....	2.50
4 foot high 2 inch Mesh.....	3.40
5 foot high 2 inch Mesh.....	4.00
6 foot high 2 inch Mesh.....	5.30
<hr/>	
1 foot high 1 inch Mesh.....	\$2.00
2 foot high 1 inch Mesh.....	4.10
3 foot high 1 inch Mesh.....	6.20
4 foot high 1 inch Mesh.....	8.25
5 foot high 1 inch Mesh.....	10.30
6 foot high 1 inch Mesh.....	12.40

Prices on all wire subject to market fluctuations.

BLUE FLAME GAS BURNER

This burner was designed and manufactured by us to meet the demand for a blue flame burner suitable for incubator and brooder work. This burner may be turned low without popping out and may be regulated and set to meet the varying pressure of gas in different localities. It may be used with either city or natural gas.

Price, \$1.00 postpaid.

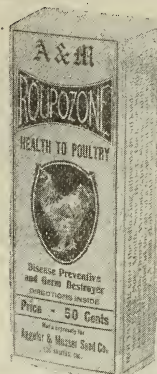


A. & M. TRAP NEST

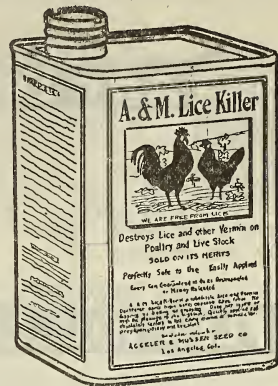
This nest is made of heavy galvanized iron with an automatic catch and when set ready for use the door is wide open. As soon as the hen enters, the door drops behind her and she is enclosed so that no other bird can enter. It is perfectly sanitary and clean. Breeders will appreciate this nest as it is light and does not frighten the fowls when set. Price \$1.25.



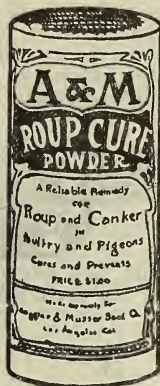
A. & M. Lice and Mite Killer.—Intended especially for killing lice on chicks, hens and domestic animals. Price 20 oz. cans 25c; postpaid 35c; 50 oz. cans 50c; postpaid 65c; 100 oz. cans \$1.00; postpaid \$1.15.



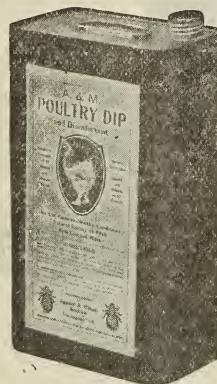
A. & M. Roupozono.—Sure cure for cholera, canker, sore heads chicken pox. Price 8 oz. bottle 25c; 16 oz. bottle 50c. Cannot be mailed.



A. & M. Liquid Lice and Mite Killer.—No dipping, no dusting, no greasing; absolutely certain to kill every species of parasite on poultry or live stock. Price 1 qt. 35c; 1/2 gal. 60c; 1 gal. \$1.00; 5 gal. \$4.00.



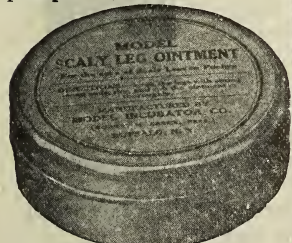
A. & M. Roup Powder.—Will cure colds in three or four days. Price, Box 25c, postpaid 35c; 50c size postpaid 60c; \$1.00 size postpaid \$1.10.



A. & M. Poultry Dip.—The greatest remedy for dipping poultry and destroying all vermin. Price 1/2 gal. 75c; 1 gal. \$1.25.



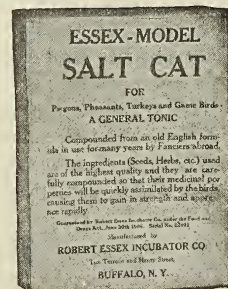
Head Lice Ointment.—In cases of lice on the head far excels any other remedy. Price per box 25c, postpaid 30c.



Scaly Leg Ointment.—Prepared in paste form; sure cure for the worst cases scaly legs. Price 25c, postpaid 30c.



Roupozone Tablets.—In tablet form; easy to apply. 25 tablets 50c, postpaid 55c.



Salt Cat.—Invaluable all round tonic for all kinds of fowls, insuring great increase of strength and vigor. Price per package 25c, postpaid 30c.



STERLINGWORTH ANT DRIVER

A non-poisonous powder for driving ants from houses. Used by sprinkling wherever ants are seen in houses.

Satisfaction guaranteed or money refunded. Price, Sprinkler top box 25c, postpaid 30c.

STERLINGWORTH FLEA KILLER



A powder for sprinkling. There is no guesswork about its efficiency. You can see the dead fleas drop from animal treated. It is a crime to let your pet suffer from fleas. Either kill him or protect him. Price 30c postpaid.

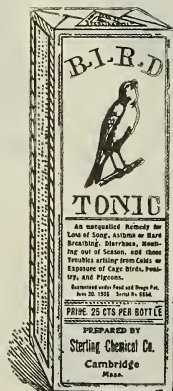


STERLINGWORTH DIARRHOEA REMEDY

This is a money-back guaranteed remedy for white diarrhoea in young chicks and for all bowel troubles in grown fowls. If it fails to give you satisfactory results return the empty box and get your money back. It is a powder used in the drink. Use it in young chicks' drink as a preventive of all bowel troubles. Price 50c postpaid.

STERLINGWORTH BIRD TONIC

A remedy in liquid form for those troubles arising from colds or exposure of canary birds, parrots and cage birds generally. It is an old reliable preparation and has been used for years with good results. Price 25c, postpaid 35c.



Our Bird Seed Mixture is clean and healthy. Price 15c per lb., 25c postpaid.

Our Bird Seed Mixture is clean healthy and well balanced. The birds eat all of it. Price (15c per lb.) (25c postpaid) (2 lbs. 25c; postpaid 35c).

Mocking Bird Food, per bottle, 30c.

Bird Bitters, 35c.

Cuttle Bone, each 5c.

Bird Feed Cups, each 10c.



STERLINGWORTH EGG TABLETS

We sell you these tablets with the distinct agreement that if, after using one-half the box, they do not increase egg production you may return the unused half and we will return your money. We know they are good. Can we say more? Used by dissolving in water and mixing with feed. Prices: 27 tablet box (sufficient 130 lbs. feed), 30c postpaid; 81 tablet box, 55c postpaid.



STERLINGWORTH SONG RESTORER

No lover of the canary should be without this health and song stimulator. It is a wonderfully invigorating tonic for canary birds, gold finches, parrots and all seed-eating birds. It is for use in small quantities in connection with the daily food, and supplies the elements so necessary to healthy bird life. It restores to their natural notes, birds which have lost their song from exposure to cold or from excessive moulting. For breeding birds. Price 15c, postpaid 20c.

STERLINGWORTH THREE HOUR SULPHUR CANDLES



These Candles will burn for 3 hours, and are fine for fumigating hen house and dog kennels, killing all vermin. Price 15c each, postpaid 20c.

"BITTER LICK"

This is a composition of Herbs and Salt, made in the form of a brick. Can be fastened in stall of the horse in easy access, and is one of the greatest tonics ever fed to an animal. You need no condition powder when you have "Bitter Lick" in reach of your horse. Price, (per brick 25c, postpaid 65c) (per brick holder 15c, postpaid 35c).



DEVONSHIRE'S EARTH SALTS

ESPECIALLY FOR POULTRY, RABBITS, CATTLE AND HORSES

Major Devonshire pointed out in 1905 that it would be necessary to artificially manufacture and supply the Earth Salts to domestic stock, poultry and dogs kept in confinement or on limited range, and the formula, on which Devonshire's Earth Salts are based, is the work of a leading American Chemist.

The consistently favorable reports, during the past eight years, of Agricultural Chemists, Veterinarians and Stock and Poultry Experts, in many parts of the world, as to the unique value of these Earth Salts, have established Devonshire's Earth Salts as a great discovery in Agricultural Science.

Some Diseases Caused by a Shortage of Earth Salts, Availbale to Stock and Poultry.

(1) **Horses, Cattle, Pigs, Sheep and Dogs.** Debility, abortion, sterility, mange, insufficient or worthless milk to suckle the offspring, milk fever, etc.

(2) **Poultry.** Poor egg yield, dead-in-shell chicks, weakling chicks, infertile eggs, sterility in male birds, poor feathering, leg weakness, debility, leading to the attacks of lice, roup, diphtheria, catarrh, diarrhoea and other diseases, which are always preceded by a debilitated condition, due to a shortage of Earth Salts, if the management is in other respects rational.

Summary. If the germicides (or killers of disease germs which settle in the blood) are healthy, disease is impossible. Earth Salts, as combined in Devonshire's Earth Salts, enable these germicides to functionate efficiently, and are therefore the elixir vitae—the most vitally important factor in the feeding of stock and poultry in confinement.

One tablespoonful epr day for twenty fowls is about the right proportion. Instruction for feeding are printed on every package. We also have pamphlets with full information for the asking.

Dogs. A convenient way to feed dogs is to put ½ teaspoonful of the Earth Salts daily in the feed. Where puppies at weaning time feed out of one dish, a ½ teaspoonful in the food in the dish will be about right. The Earth Salts are quite harmless, but if too much is given, the dogs may refuse the food.

Rabbits. Cures Slobbers, Snuffles, Mange, Ear Canker, all digestive disturbances, refusal to eat, Abscesses and difficulty in Moulting.

Devonshire's Earth Salts for stock and poultry are put up in packages of three sizes.

Devonshire's Earth Salts increase the milk yield of cows.

Devonshire's Earth Salts are assimilated by all living things in the same way as the natural salts in the foods.

Devonshire's Earth Salts. Tuberculosis is due to a shortage of the earth salts in the body.

Price, 1-lb. packages 50c, postpaid 55c, within 150 miles.

Price, 2¼-lb. packages, \$1.00, postpaid \$1.10, within 150 miles.

Price, 10-lb. packages \$3.00, postpaid \$3.15, within 150 miles.

Price, 25-lb. sacks \$7.00, 50-lb. sacks \$13.50, 100-lb. sacks \$26.00, f.o.b. Los Angeles.

From the Deputy State Veterinarian

San Diego, Cal., April 28, 1914.

Gentlemen:

I have administered your salts to horses and dogs where I found them starving from lack of some substance in the food and noticed a marked change. They seem to fatten up and cause a glossy appearance of the coat.

Undoubtedly this mineral ash is the very thing needed and I should imagine would work wonders on chickens and ducks.

Yours very truly,

W. G. OLIVER, M.D.V. Veterinarian.

Indispensable for Rabbits

Gentlemen: I have the pleasure to testify to the great value of your Earth Salts, which I consider indispensable as a part of the ration for rabbits. I have now used these salts for some considerable time and they are invaluable not merely to prevent disease, but also to cure it. All diseases of rabbits kept in confinement appear to be due to a lack of sufficient mineral matter in their food, and it is this shortage which your salts supply. This feature—that your Earth Salts are a food and not a medicine—gives them a unique value for rabbit breeders, since they are absolutely harmless and wholesome. Among other virtues they insure proper nourishment for the coat of the rabbit and prevent canker, dull staring fur and other forms of skin trouble. They prevent indigestion by insuring abundance of the gastric juice, and generally they nourish all the life processes of the rabbit, e. g., they insure a plentiful supply of milk in the breeding does. Undoubtedly you

have supplied the missing constituent in the ration of rabbits in confinement and I cannot speak too highly of your Earth Salts.

Yours very truly,

SPRING VALLEY RABBITRY,

C. R. Parker.

Breeders of Thoroughbred New Zealand Rabbits. No. 6143 Spring Valley Drive
Los Angeles, Cal.

Palace Hotel, San Francisco, August 4th, 1915.

Devonshire's Earth Salts are, without doubt, the most potent food for the body in existence.

Christian Scientists take these earth salts, as they are not a medicine, but a food, and absolutely necessary for the body.

I cannot speak too highly of them; they are indeed a "godsend" to humanity.

BERTRAM WICKHAM.

WHY DEVONSHIRE EARTH SALTS FOR HUMAN USE?

BECAUSE THEY SUPPLY THE SHORTAGE IN YOUR FOOD

The majority of soils are deficient in mineral matter and therefore the plants and grains grown therein are also deficient and we humans who live on these plants and grains will sooner or later suffer from this shortage and disease will follow. As far as the average person is concerned, all the diseases from which he or she suffers are due to shortage of the earth salts in the food over a more or less prolonged period of time. Devonshire's Earth Salts for human use are the only known means of supplying this shortage. They prevent and cure disease.

Tuberculosis.—On August 4th last, Major Devonshire set out in a letter to the Times of Los Angeles that Tuberculosis in mankind is due to starvation of the earth salts in the body and that Devonshire's Earth Salts would prevent tuberculosis absolutely and cure it except perhaps where the disease was in the last stages. The accuracy of this diagnosis has never been disputed by any medical or other expert.

Rheumatism is due to an excess of acids in the body. Devonshire's Earth Salts alone enable nature to absorb these acids and invariably cure this disease.

Dyspepsia and all forms of Nervous Disease.—The Earth Salts alone create the gastric juice and nourish the nervous system.

Liver and Kidney Troubles, Etc., are also due to a lack of the earth salts.

Children. The Rising Generation. Invaluable to promote the healthy growth of children after weaning and during the teething period.

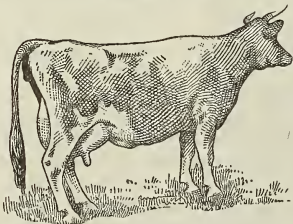
Devonshire's Earth Salts are a food and not a medicine. Are absolutely harmless, being a copy of the natural salts found in all foods. Sold in packages for human use. Price in powder form 75 cents, postpaid 80 cents; in boxes with 120 capsules \$1.00, postpaid \$1.10.

COW-EASE

KEEPS FLIES OFF

Cattle and Horses

Saves double its cost
in extra milk



Will not gum the hair or blister the skin

Sold in sealed packages only
Never in bulk

Endorsed by thousands of prosperous
farmers and dairymen

STOCK COMFORTS

Cow Ease (qt. 35c) (½ gal. 60c) (gal. \$1.00).

A. & M. Fly Knocker (1 gal. \$1.00).

Conkey's Fly Knocker (qt. 35c) (½ gal. 60c)
(1 gal. \$1.00).

Lee's Flyo Curo (qt. 35c) (½ gal. 60c) (gal.
\$1.00).

International Worm Powder, 50c.

" Distemper Remedy, \$1.00.

" Heave Powder, 50c.

" Colic Remedy, 50c.

" Gall Heal, 25c.

Hess & Clark Cough and Distemper Remedy, 50c.

Hess & Clark Colic Remedy, 50c.

Bag Balm, 50c per box.

Kow Kure, 50c and \$1.00.

No-Fly-Here (qt. 65c) (½ gal. \$1.10) (1
gal. \$1.50).

Pratt's Cow Tonic, 50c and \$2.00.

Hess & Clark Dip and Disinfectant (qt. 50c)
(½ gal. 75c) (gal. \$1.25).

When giving consideration to their approximate yields and values, take into account the cost in labor, irrigation, time to mature, and expense of marketing. All these figure in determining the net profit. Then consider too the adaptability of each crop to your soil and the purpose for which the crop is intended. All must be considered when deciding the advisability of planting field crops.

The vegetable grower is the greatest speculator in the world, particularly in Southern California, and portions here and there throughout the Southwest. He has all United States for a market during the winter months, and all the arid Southwest in the summer time. He must consider well his soil, be an expert in the selection and use of fertilizers, in the selection of his seed suited to his soil, to his climate, to the time of planting and the market for which he intends to grow. He must know to perfection when to irrigate, to cultivate, and when not to do so. He must not only keep posted as to market conditions and prices, but must figure ahead on these conditions.

When in doubt buy Aggeler & Musser's seeds, use Wizzard Fertilizer, and always consult AGGELER & MUSSER SEED CO. on all the above questions. Ask for their garden manual.

SEEDS REQUIRED PER ACRE FOR FIELD CROPS IN SOUTHERN CALIFORNIA

VARIETY	NUMBER OF PLANTS OR AMOUNT OF SEED	HOW TO PLANT	AVERAGE APPROXIMATE YIELD	AVERAGE APPROXIMATE VALUE
Alfalfa	25 Ds. seed	Drill or broadcast	8 to 10 tons hay, or 600 Ds. seed	\$60; \$100 to \$150
Audubon	8 Ds. seed	Broadcast	2 to 4 tons hay, and pasture	\$85 to \$80
Barley	100 Ds. seed	Drill or broadcast	1500 to 2000 Ds.	\$75 to \$100
Beane	25 to 40 Ds.	Drill in rows 2 ft. apart	Hog pasture and green manuring	\$100 to \$125
Blue Bird	100 Ds.	Drill in rows 2 ft. apart	Green manuring	\$75
Beets, Stock	8 "	Drill or broadcast	Pasture and green manuring	\$150 to \$200
Buckwheat	45 "	Drill or broadcast	10 tons green fodder	\$50 to \$100
Burr Clover	20 "	Drill or broadcast	14 to 16 tons of carrots	\$35 to \$45
Canary	50 "	Drill in rows 2 ft. apart	1 1/2 tons grain	\$35 to \$45
Cause, or Sorghum	10 "	Drill in rows 2 ft. apart	2 tons grain	\$85 to \$100
Carrots, Stock	4 "	Hills 2 ft. apart, rows 3 ft. apart	1 1/2 tons grain	\$85 to \$100
Corn, Egyptian	10 "	Drill in rows 2 ft. apart	1 ton 1/2 bushels and seed	\$90
" "	80 "	Hills 2 ft. apart, rows 3 ft. apart	Pasture and green manuring	\$60
" "	10 "	Drill in rows 2 ft. apart	1 1/2 tons grain	\$120
" "	10 "	Drill or broadcast	Pasture (damp land)	
Cotton	25 "	Broadcast	Hay and pasture (damp land)	
Pass	25 "	Plant in mud as rice, wet land	Cut 1 ton per acre 4 times per year	
Ferrelia	10 "	Broadcast	Cut 1 ton per acre 4 times (damp land)	
Foxglove	60 "	Broadcast	Hay and pasture	
Grass, Bernarda	35 "	Broadcast	Cut 2 tons per acre 5 times	\$50
" "	20 "	Broadcast	Cut 2 tons per acre 6 times	\$40
Italian Eye	20 "	Broadcast	Cut in 100 days for fiber	\$40
Parra	40,000 stems	Drill or broadcast	Pasture and green manuring, or 1 ton grain	\$40
Peren, Eye	20 "	Drill or broadcast	2 tons hay or 1 ton grain	\$40 to \$50
Rhodes	10 "	Drill or broadcast		
Rondan	60 "	Drill or broadcast		
Scamp	60 "	Drill or broadcast		
Oats	80 to 100 Ds.	Drill or broadcast		
Eye	60 Ds.	Drill or broadcast		
Velut	60 to 80 Ds.	Drill or broadcast		
Wheat	60 to 80 Ds.	Drill or broadcast		

SEEDS AND PLANTS PER ACRE FOR VEGETABLES

VARIETY	SEED	PLANTS	YIELD	VALUE
Asparagus	3 Ds.	10,000	Indefinite	Indefinite, \$200 to \$300
Beans, String	50 "	Drill	Indefinite	Indefinite, \$100 to \$200
Beets, Table	12 "	14,500	100 sacks	Indefinite, \$80 to \$300
Cabbage	4 "	Drill	500 sacks	Indefinite, \$80 to \$300
Carrot	4 "	Drill	3,000 heads	\$200 to \$400
Cauliflower	1/2 "	29,000	400 boxes	\$150 to \$250
Celery	1/4 "	Hills	Indefinite	\$300 to \$600
Corn, Sweet	10 to 20 Ds.	2,100 hills	Indefinite	\$15 to \$300
Cucumber	8 "	6,000	Indefinite	\$200 to \$600
Egg Plant	1/4 "	6,000	Indefinite	\$75 to \$300
Iceberg	1 "	680 hills	Indefinite	\$50 to \$250
Melons, Casaba	1 "	1,200 hills	Indefinite	\$75 to \$200
Melons, Mink	1 "	435 hills	Indefinite	\$50 to \$250
Melons, Water	1 "	250 Ds. sets	10 to 15 tons	\$100 to \$400
Onions	1 "	Drill	Indefinite	\$100 to \$200
Peas	60 "	12,000	100 to 200 sacks	\$100 to \$200
Peppers	6 "	13,500 hills	Indefinite	\$100 to \$200
Potato, Irish	400 "	5,000 hills	15 to 20 tons	\$75 to \$100
Pumpkin	400 "	5,000 plants	Indefinite	\$50 to \$200
Rhubarb	1 "	680 hills	10 to 15 tons	\$75 to \$200
Squash, Hubbard	1 "	2,000 plants	Indefinite	\$100 to \$250
Tomato	1/4 "	Drill	500 sacks	\$100 to \$500
Furnips	3 "	Drill	500 sacks	\$100 to \$500

DAILY EGG RECORD

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
JANUARY	Eggs																
	Hens																
FEBRUARY	Eggs																
	Hens																
MARCH	Eggs																
	Hens																
APRIL	Eggs																
	Hens																
MAY	Eggs																
	Hens																
JUNE	Eggs																
	Hens																
JULY	Eggs																
	Hens																
AUGUST	Eggs																
	Hens																
SEPTEMBER	Eggs																
	Hens																
OCTOBER	Eggs																
	Hens																
NOVEMBER	Eggs																
	Hens																
DECEMBER	Eggs																
	Hens																

EGGS BY MAIL AND ITS ADVANTAGES

Outside of the cheap rates there are several points in which parcel post shipments have the advantage. Where the producer is situated on a rural route and gets his mail by rural delivery, he can deliver the package of eggs to the mail carrier without extra charge. The farmer can gather his eggs in the evening, pack them in the containers, put them in a cool place over night and in the morning hand them over to the rural carrier when he passes. They are delivered to the consumer by the mail carrier in any part of the city, and by return mail, or as soon as the package has been emptied, it can be mailed back to the producer and delivered to him at his door for refilling.

Write to us for prices on Rhode Island Red hatching eggs.

BLACKEYE AND TEPARY BEANS

When in doubt what to plant, plant Blackeye beans or Teparys. A sure crop anywhere. Inexpensive to grow, little trouble to harvest, always a ready market for a carload. Matures a good crop with or without irrigation. Just the thing for a summer cover crop; a soil renovator, a short crop to plant in your orchards. It is more profitable to grow Blackeyes than growing perishable vegetables at low prices.

If you want quick returns, GROW BLACKKEYES and TEPARY.

If you want an inexpensive crop, GROW BLACKKEYES and TEPARY.

If you want to benefit your soil, GROW BLACKKEYES and TEPARY.

If you cannot irrigate, GROW BLACKKEYES and TEPARY.

Grow Blackeyes, but plant forty or more acres, or combine with your neighbor to grow sufficient acreage to produce a carload. You will get a better price for a carload, because they can be shipped to any eastern point from your nearest station. Otherwise you would have to pay freight to Los Angeles. The price fluctuates. Write for quantity price when ready to plant.

Plant any time from April 1st to August 1st.

Always inoculate the seed with Nitrogen Bacteria. By so doing you will greatly increase the yield and improve the soil for succeeding crops.

NUMBER OF PLANTS TO AN ACRE

Set at regular distances apart

Distance apart.	No. plants	Distance apart.	No. plants	Distance apart.	No. plants
3 in. by 4 in.	522,720	4½ ft. by 4½ ft.	2,150	14 ft. by 14 ft.	222
4 in. by 4 in.	392,040	5 ft. by 1 ft.	8,712	15 ft. by 15 ft.	193
6 in. by 6 in.	174,240	5 ft. by 2 ft.	4,356	16 ft. by 16 ft.	170
1 ft. by 1 ft.	43,560	5 ft. by 3 ft.	3,904	16½ ft. by 16½ ft.	160
1½ ft. by 1½ ft.	19,360	5 ft. by 4 ft.	2,178	17 ft. by 17 ft.	150
2 ft. by 1 ft.	21,780	5 ft. by 5 ft.	1,742	18 ft. by 18 ft.	134
2 ft. by 2 ft.	10,890	5½ ft. by 5½ ft.	1,440	19 ft. by 19 ft.	120
2½ ft. by 2½ ft.	6,960	6 ft. by 6 ft.	1,200	20 ft. by 20 ft.	108
3 ft. by 1 ft.	14,520	6½ ft. by 6½ ft.	1,031	25 ft. by 25 ft.	69
3 ft. by 2 ft.	7,260	7 ft. by 7 ft.	888	30 ft. by 30 ft.	48
3 ft. by 3 ft.	4,840	8 ft. by 8 ft.	680	33 ft. by 33 ft.	40
3½ ft. by 3½ ft.	3,555	9 ft. by 9 ft.	537	40 ft. by 40 ft.	27
4 ft. by 1 ft.	10,890	10 ft. by 10 ft.	435	50 ft. by 50 ft.	17
4 ft. by 2 ft.	5,445	11 ft. by 11 ft.	360	60 ft. by 60 ft.	12
4 ft. by 3 ft.	3,630	12 ft. by 12 ft.	302	66 ft. by 66 ft.	10
4 ft. by 4 ft.	2,722	13 ft. by 13 ft.	257		

Rule.—Multiply the distance in feet between the rows, by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill; which, divided into the number of square feet (43,560), will give the number of plants to the acre.

A FEW INSTRUCTIVE HINTS TO POULTRYMEN

Question:—Would you advise Castor Beans for shade?

Answer:—No; they are poisonous to both Ducks and Geese. Would advise planting fig trees, they do excellent in chicken yard.

Question:—Which is best way to feed warm mash to produce eggs?

Answer:—I prefer to give the mash in the morning, mixing with the table scraps and a little alfalfa meal. Give scratch food or wheat in the afternoon or evening.

Question:—How long can I keep eggs for setting?

Answer:—You can keep eggs three weeks or even more by turning them every day. But you must remember that the longer you keep them the fewer will hatch. For incubation we advise not over fourteen days.

Question:—What causes swelled heads and sore eyes on chickens and sometimes causes them to go blind?

Answer:—Chickens with swelled heads and sore eyes have what we call roup, caused from taking cold and also from lice. Draft in their sleeping quarters should be stopped and their heads should be rubbed with an ointment. We suggest that you use A. & M. Head Lice Ointment which you can get at our store for 10c a box.

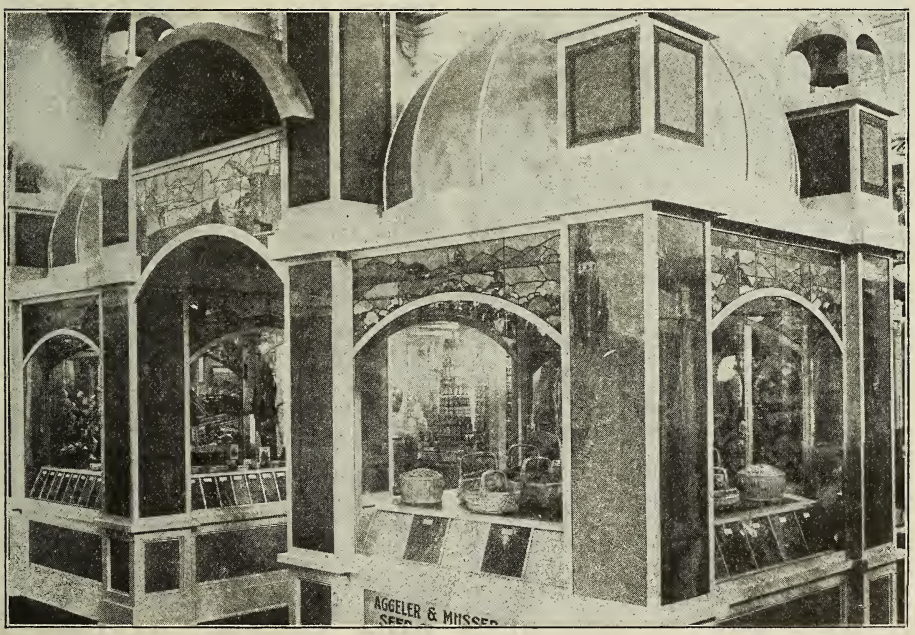
Question:—How can we preserve eggs, that they may be kept from 6 to 12 months?

Answer:—We suggest that you get one gallon of Water-glass (Silicat Sodium). This is to be used to 10 gallons of water. Boil the water 10 minutes and then allow it to cool. Mix the two together and put in a stone jar or crock. One gallon of water-glass diluted with water will keep 100 eggs.

Question:—What causes white diarrhoea in baby chicks?

Answer:—The primary causes are mainly exposure and improper feed. We suggest that you send for a box of Sterlingsworth Diarrhoea Remedy which we guarantee will cure any case within 48 hours. This being one of the greatest remedies ever manufactured.

A GOLD MEDAL



Picture of Our Exhibits at San Francisco and at San Diego

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Owing to the diversity of the soil and climatic conditions of the great Southwest, it is impractical to follow without some deviation any table that might be formulated. We believe this table is as nearly correct as any table can be made, yet the time of planting must vary with each season, and so seldom are the seasons at all similar that there is always an element of risk for the man who plants early. Each month, too, requires certain varieties best suited to the season and purpose for which it is planted.

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VEGETABLE GARDEN CALENDAR FOR OUT-DOOR PLANTING

KIND	SEED FOR 1 ACRE	SEEDS FOR 100 FEET OF ROW	DISTANCE APART FOR HAND CULTIVATION		DEPTH OF PLANTING (2)	TIME OF PLANTING (3)	READY FOR USE AFTER PLANTING (4)
			ROWS APART (1)	APART IN ROW (1)			
*Artichoke	1 lb.	1 ounce	4 ft.	3 ft.	1 in.	Apr. to July	3 to 4 mos.
†Asparagus Seed	3 lbs.	1 ounce	1 to 2 ft.	3 to 5 in.	1 in.	Feb. to May	2 years.
*Asparagus Plants	34,000	60 to 80	2 to 3 ft.	15 to 20 in.	5 to 10 in.	Dec. to Mar.	2 to 3 mos.
†Beans, bush	25 to 50 lbs.	1 lb.	1½ to 2 ft.	4 in.	5 to 10 in.	Mar. to Sep.	2 to 3 mos.
†Beans, pole	10 to 15 lbs.	1 lb.	1 to 1½ ft.	3 to 4 in.	1 to 1½ in.	Mar. to July	3 to 4 mos.
*Beets, table	¾ lb.	¾ oz.	1½ to 2 ft.	1½ to 4 in.	¾ to 1 in.	All the year	4 to 5 mos.
*Beets, S. Spouts	¾ lb.	¾ oz.	1½ to 2 ft.	1 to 2 ft.	¾ in.	All the year	4 to 5 mos.
*Cabbage, early	¾ lb.	¾ oz.	2 ft.	2 to 2½ ft.	¾ in.	All the year	5 to 6 mos.
*Cabbage, late	4 lbs.	1 oz.	1 to 2 ft.	3 to 4 in.	¾ in.	All the year	5 to 6 mos.
†Carrot	¾ lb.	¾ oz.	1½ to 3 ft.	1½ to 3 ft.	1½ to 2 in.	July to Jan.	4 to 5 mos.
*Cauliflower	10 lbs.	1 oz.	3 to 4 ft.	12 in.	1 in.	Jan. to May	4 to 5 mos.
*Celery	10 lbs.	1 oz.	4 ft.	4 ft.	1 in.	Mar. to Aug.	2 to 3 mos.
†Corn, sweet	¾ lb.	1-3 oz.	3 to 2½ ft.	1½ to 2 ft.	1 in.	Dec. to July	2 to 3 mos.
*Egg Plant	¾ lb.	1 oz.	1½ to 2 ft.	4 in. 8 in.	¾ in.	Apr. to Oct.	3 to 4 mos.
*Kale, or Borecole	3 lbs.	¾ oz.	1½ to 2 ft.	4 to 8 in.	¾ in.	All the year	3 to 4 mos.
†Kohi-Kabul	1 lb.	1 oz.	4 to 6 ft.	6 to 8 ft.	¾ in.	All the year	3 to 4 mos.
*Lettuce	1 lb.	1 oz.	4 to 6 ft.	8 to 10 ft.	1 in.	Mar. to July	3 to 4 mos.
†Melon, Musk	1 lb.	1 oz.	6 to 8 ft.	8 to 10 ft.	1 in.	Mar. to June	3 to 4 mos.
†Melon, Water	6 lbs.	1 oz.	2 ft.	1 ft.	¾ to 1 in.	Apr. to July	4 mos.
†Onion Seed	3 lbs.	1 oz.	1 to 1½ ft.	2½ to 3 in.	¾ to 1 in.	All the year	4 to 5 mos.
*Onion sets	250 lbs.	2 lbs.	1 to 1½ ft.	3 to 4 in.	¾ to 1 in.	All the year	4 to 5 mos.
*Parsley	4 lbs.	1 oz.	1 to 1½ ft.	3 to 4 in.	¾ to 1 in.	All the year	4 to 5 mos.
*Parsnip	60 lbs.	¾ oz.	2½ to 3 ft.	2 in.	¾ to 1 in.	All the year	5 to 6 mos.
*Peas	60 lbs.	¾ oz.	1 to 1½ ft.	3 to 4 in.	¾ to 1 in.	All the year	4 to 5 mos.
*Peas, runner	60 lbs.	¾ oz.	1 to 1½ ft.	3 to 4 in.	¾ to 1 in.	All the year	4 to 5 mos.
†Potatoes, Irish	800 lbs.	5 lbs.	1½ to 2 ft.	15 to 18 in.	¾ to 1 in.	All the year	4 to 5 mos.
†Potato, Sweet	12,000	3 lbs.	2 to 3 ft.	12 to 15 in.	4 to 6 in.	Dec. to July	3 to 4 mos.
†Pumpkin	1,000	1 lb.	2½ to 3 ft.	2 in.	4 to 6 in.	June to July	2 to 3 mos.
†Radish	1,200	¾ oz.	1½ to 2 ft.	2 to 3 in.	1 to 1½ in.	Mar. to July	3 to 4 mos.
*Rhubarb Plants	5,000	333 plants	3 to 5 ft.	9 to 10 ft.	¾ in.	Mar. to Aug.	2 to 3 mos.
†Spinach	30 lbs.	1 oz.	1½ to 2 ft.	2 to 4 in.	1 to 2 in.	Dec. to May	2 to 3 mos.
†Squash, Summer	2 lbs.	¾ oz.	1½ to 2 ft.	2 to 4 in.	1 in.	All the year	3 to 4 mos.
†Squash, Winter	1 lb.	¾ oz.	7 ft. 5 ft.	3 to 4 ft.	1½ in.	Feb. to Aug.	3 to 4 mos.
*Tomato	3 lbs.	1½ oz.	1 to 2 ft.	2 to 3 ft.	¾ to 1 in.	All the year	3 to 4 mos.

*—Transplant
†—Drill and thin
‡—Plant in hills

(1)—Distance apart varies with the season and soil.
 (2)—Depth of planting varies with the season and condition of soil.
 (3)—Time of planting varies according to local conditions with regard to temperature.
 (4)—Time of maturity varies with the temperature and cultural conditions. This table shows required time of maturity after transplanting. It requires 6 to 8 weeks longer from time of sowing seed.



CHINESE CABBAGE