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#  <br> Instructions Go flurchasers 

Established 1838

## P O S T G E When ordering Beans, Corn or Peas to be

 forwarded by mail, be sure to add 7 c per pound for POSTAGE in first and second zones. For third zone add 8c per pound; for all other zones add extra postage in pruportion. See Parcel Post Rates.Packets and half pounds of Beans, Corn and Peas are sent postpaid at prices quoted, and all other varieties of Vegetable and all Flower Seeds will be forwarded free by mail at Catalogue Prices unless otherwise noted. Grass Seeds, Clover Seeds, Miscellaneous Seeds, Plants, Tools and Supplies are not sent free by mail-see Parcel Post Rates.
Order Early. It will greatly facilitate shipments if orders are sent early. We aim to send off all orders the day received.
Send the Money with the Order. Postal Note, Postoffice Order, Registered Letter, Express Money Order, or Draft on Cincinnati or New York. United States Postage Stamps will be received for small amounts; be exceedingly careful about the least moisture getting on them when remitting, as they sometimes reach us so stuck together as to be almost worthless.
We do not send C. O. D. Everything being plainly priced, the return charges on money is an unnecessary expense.
Should you change your address, we will esteem it a favor if you will notify us, so we can forward our Catalogue with regularity; if you receive two Catalogues of the same kind please hand one to some friend who has a garden.
Should an error occur, we desire to be promptly informed, and will take pleasure in making satisfactory corrections.

Write your Name and Address distinctly and in full; please use the Order Sheet and Envelope inserted in this Catalogue.

## PARCEL POST RATES

All parcels of seeds, bulbs and plants, up to and including 8 oz . at the rate of 1 c for each 2 oz. regardless of distance; over 8 oz. , at the Zone Rate. All merchandise other than seeds, bulbs and plants up to and including 4 oz . in weight can be sent at the rate of $\mathbf{1 c}$ an ounce regardless of distance. Over 4 oz . at the Zone Rate.

NOTE:-When estimating postage on goods not included in our free delivery, bear in mind that while the packing on one pound may only weigh the fraction of a pound, it must be considered as a full pound when adding postage. On larger quantities add postage in proportion.
Limit of weight for delvery within local, first, second and third zones is 70 pounds; to all other zones, 50 pounds.

When larger quantities are wanted we can pack in two or more parcels if necessary, provided money is remitted to cover postage.

|  |  |
| :---: | :---: |
| Zone | First <br> Pound | | Each |
| :---: |
| Additional |
| Pound |

It is advisable to have all merchandise insured. Present rates of Parcel Post insurance are as follows:
Not exceeding \$ 25.00 value........................... 3 c
Not exceeding 50.00 value............................. 6 c Not exceeding 100.00 value............................... . . 15 c

If insurance is desired, add to remittance as indicated above.

Poisons cannot be sent by mail. Liquids and goods packed in glass should be sent by Express.

About Warranting Seeds-We have often been asked if we "guarantee or warrant our Seeds." We beg to state plainly we do not, for the reason that practical experience has assured us of the fact that crops may fail, no matter how fresh or pure the seed sown may be. We trust that our customers will fully realize that it is to our interest to send none but the very best quality of seeds. It would be folly to do otherwise, unless we wanted to sacrifice our good reputation for selling Reliable Seeds, which we are constantly striving to extend.

To secure success, however, it is necessary that the customer should do his part well, or our good seeds will be ruined. With the best of management and with good seeds there will be an occasional unaccountable failure. The best of gardeners sometimes fail, and try again with the same seed with good results.

The J. M. McCullough's Sons Co., gives no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs or plants it sells, and it will not be in any way responsible for the crop.

We shall always be pleased to reward customers who send us the names and post-office addresses of their friends who buy Seeds, Bulbs, Plants, Poultry Supplies, etc.

# Maceullough's 

"Suburbar" Lawn Ebrass Seed
(Trade Mark Registered)

ASSURES A SUCCESSFUL LAWN



## WILL MAKE A BETTER LAWN THAN TURF OR SOD

 TS a mixture of the finest quality domestic and imported grasses. It contains a large proportion of Kentucky Blue Grass, one of the best Lawn Grasses for the central states, but which, on account of slow growth, must be mixed with other quick-growing sorts for best results. Our mixture is the result of several years experimenting, and, as we now offer it, is unequaled. The quantity required for making a new lawn is 75 to 100 pounds per acre, or for renovating old lawns, 40 to 50 pounds per acre. For a plot $10 \times 25$ or 250 square feet, one pound is required for a new lawn, or about one-half pound for renovating

Our "Suburban" Lawn Seed mixture is very much to be preferred to any single grass, because the several varieties of grasses which compose it, mature at different seasons of the year, thus keeping the green sward in good color and condition during the hot weather, not losing its color, as the single variety is liable to do.

How to Make a Lawn.-A well-kept lawn instantly commands the attention of all lovers of the beautiful in Nature. and is an unfailing mark of intelligence and taste. To obtain best results the main point is to start right. Seed will make a better lawn than turf or sod. The best soil is a good medium texture; the surface should be thoroughly pulverized and smoothed to the desired grade; remove all large stones, roots and hardened pieces of earth that can not be readily broken, ample time being allowed for the thorough settling of the soil, which is greatly aided by a few heavy showers of rain. When the soil is firm, level and suitably moist, sow "Suburban"' Lawn Grass Seed at the rate of 75 to 100 pounds per acre. It is unwise to be too economical in the quantity of seed used, if the best results are desired. The seed should be sown broadcast and as evenly as possible, then give a thorough rolling or tamp well with the back of a spade. The seed must be well firmed in the soil. When the young grass attains sufficient height, it should be mown with a lawn mower every week or ten days, according to the season.

We have frequently been asked the question, "What causes the growth of Crab Grass in our lawns?"
From our own experience and observation, we have learned that most of our native grasses go through a rest period in late summer, generally in July and August, and it is at this time that the Crab Grass begins to make its appearance, and if the weather should prove showery it has the effect of producing a vigorous growth of this pest.

Crab Grass re-seeds itself, and experience has proven that the seeds will remain dormant in the ground an indefinite length of time until the proper season arrives for their growth and development.

No method of control is known except hand weeding, although White Clover tends to retard its growth. Raking with a sharp-toothed rake and mowing with a low-set mower is sometimes effectual in preventing seeding. Crab Grass does not grow in the shade and is killed by the first hard frost, but the seed in the ground will grow the next season.

As Crab Grass flourishes under showery conditions, too much sprinkling may aid its growth. Do not sprinkle superficially or too often, a thorough soaking every ten days being much more effective.

Our "Suburban" Lawn Grass Mixture does not contain the seed of Crab Grass. "Suburban" Lawn Grass assures a successful, and with a certain amount of renovating, a permanent lawn.

General Surface Renovating.-When your lawn has been established, you will find it to your advantage to lightly re-seed each season. As early as possible, carefully rake off all dead leaves, etc., and give the lawn a dressing of our pulverized SHEEP MANURE, or our PURE BONE MEAL at the rate of at least 500 pounds per acre, and rake in, after which sow our "Suburban". Lawn Grass Seed at the rate of three to four bushels ( 40 to 50 lbs.) to the acre; roll thoroughly or tamp with the back of a spade.

Renovating in Spots or Patches.-Everyone is aware that even in the best-kept lawns unsightly spots devoid of grass will appear, which are caused by root-destroying insects or fungus disease; and as these spots are not protected by a covering of turf during the winter, as a natural consequence, the chemical elements in the soil are leached out by the action of the weather, causing them to "cake" or become hard early in the spring. It is useless and a waste of seed to sow these spots unless they are carefully prepared to receive the seed. For this purpose it is our practice to cover them with either of the fertilizers mentioned above at the rate of 13 lbs . for each 250 square feet, then dig these spots up, and after raking until no trace of the fertilizers can be seen, sow our "Suburban" Lawn Grass Seed at the rate of 1 lb. to each 250 square feet. Roll thoroughly or tamp with the back of a spade. When any weeding is done on the lawn immediately drop a few grains of seed wherever a weed is removed, and while the soil is disturbed press the seed into the soil.

Prices:-1/2 lb., $25 \mathrm{c} ; 1 \mathrm{lb} ., 45 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 2.00 ; 10 \mathrm{lbs} ., \$ 3.75 ; 20 \mathrm{lbs} ., \$ 7.25$.
Postage Must be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.
Pulverized Sheep Manure and Pure Bone Meal are the Best Fertilizers for Lawns. See Fertilizers.

# Mrectullough's "SHADY-PLACE" LAWN GRASS SEED 

O
N nearly all lawns there are more or less shady places, which result in having bare and unsightly spots on which the owners have difficulty in securing a satisfactory stand of grass. After many years of experimenting with different grasses, both native and foreign, we several years ago developed our present "Shady Place" Lawn Grass Seed Mixture.
*This mixture of grasses is adapted for such places, as it is composed of dwarf-growing grasses which are found naturally growing in shady locations. Should the ground be covered with moss, first Should the ground be covered with moss, first commercial fertilizer at the rate of not less than 600 pounds per acre, then sow our Shady Place Mixture at the rate of 75 to 100 pounds per acre, or one pound to each 250 square feet, aifter which roll thoroughly

Prices:-1/2 lb., 30c; 1 lb., 50c; 5 lbs., $\$ 2.25 ; 10 \mathrm{lbs} ., \$ 4.25 ; 20 \mathrm{lbs} ., \$ 8.25$.
Postage Must Be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.

## McCullough's Eden Park Lawn Grass Seed

Tsupply the demand for a Lawn Grass Seed that will meet general requirements, it has become necessary to place on the market our "Eden Park." The quality of this lawn grass seed will compare favorably with a majority of the lawn grass mixtures on the market.

Prices:-1/2 lb., 25c; 1 lb., 40c; 5 lbs., $\$ 1.75$; 10 lbs., $\$ 3.25$; $20 \mathrm{lbs} ., \$ 6.25$.


## PUTTING GREEN MIXTURE

0F late years there has developed a tendency among golf Architects and Greenskeepers to discontinue the use of commercial grass seed mixtures on Putting Greens, due probably to many unsuitable mixtures on the market and to the increasing use of German Bent seed alone and the recently introduced method of planting Creeping Bent vegetatively by means of stolons or runners.

See page 49 for description of American Creeping Bent.

There is however a steady demand for a reliable mixture of grass seeds from those who have found Bent Greens more liable to fungus attack than Greens composed of mixed grasses, and it is to meet this demand that our mixture is prepared.

Our Putting Green Mixture contains a liberal quantity of German Bent in combination with the finest grades of Kentucky Blue Grass and Fancy Red Top, and will give fine satisfaction on green or lawn. Red Fescue may be included if desired. Sow 8 to 10 lbs . to $1,000 \mathrm{sq} . \mathrm{ft}$. $1 / 2 \mathrm{lb} ., 40 \mathrm{c} ; 1 \mathrm{lb} ., 75 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 3.50 ; 10 \mathrm{lbs} ., \$ 6.25 ; 20 \mathrm{lbs} ., \$ 12.00$.

We are in a position to furnish a hardy strain of Creeping Bent stolons for planting greens and lawns vegetatively. Prices and full information on application.

## FAIRWAY MIXTURE

AMIXTURE of grasses for fairways is to be preferred to any one grass and our fairway mixture will give splendid satisfaction wherever used. We make no mystery of its composition and will be glad to furnish any of the grasses separately or prescribe for any condition of soil and climate. For fall sowing we recommend a large proportion of Kentucky Blue Grass, but where quick results are desired more of the rapid growing sorts must be used. Sow 100 lbs. to 150 lbs. to the acre.
$1 \mathrm{lb} ., 45 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 2.00$; $50 \mathrm{lbs} ., \$ 18.00 ; 100 \mathrm{lbs} ., \$ 35.00$.

## TERRACE MIXTURE

There is nothing more annoying than to have ground washed out. In this mixture we have put quick-growing and deep-rooted grasses. Of course, it depends a great deal on this being well started before very heavy rains. $1 / 2 \mathrm{lb} ., 25 \mathrm{c} ; 1 \mathrm{lb} ., 45 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 2.00 ; 10 \mathrm{lbs} ., \$ 3.75 ; 20 \mathrm{lbs} ., \$ 7.25$.

Sulphate of Ammonia, Phosphate of Ammonia and Nitrate of Soda applied sparingly are the best fertilizers for Putting Greens.

We wish to emphasize the fact that one of the important essentials for success in building lawns, lies in the abundant use of Fertilizers, which should be applied at the rate of not less than 600 pounds per acre.

Pulverized Sheep Manure and Pure Bone Meal are the best Fertilizers for lawns. See Fertilizers.

# Mccullough's 

 Selected Our policy adopted many rears ago of carefully eliminating all undesirable varieties of Garden Seeds has been an important factor in maintaining our high standard of quality for over three quarters of a century.trade Marks registered. McCullough's Seeds, XXXX. Buckeye, Suburban Lawn Grass, Central park Lawn Grass.

## POSTAGE

 VEGETABLE and FLOWER SEEDS offered in PACKETS, OUNCES, QUARTER POUNDS and POUNDS sent postpaid at prices quoted except when otherwise noted. When Ordering BEANS, CORN OR PEAS to be forwarded by mail, be sure to add 8 cents per pound for POSTAGE in first and second zones. For third zone add 10 cents per pound; for all other zones add extra postage in proportion. See Postal rates, and page of cover.
## ARTICHOKE <br> One ounce will produce about 400 plants.

## T

 HE Globe Artichoke is cultivated for its flowerheads, which are cooked like Asparagus. Plants set in any good soil, with slight covering in winter, will remain in bearing several years. Seed may be sown indoors and plants potted same as the Tomato and set out in May, or can be sown in hills outside, and thinned out to one plant in each hill.Large Green Globe.
.Pkt., 10c; oz., 60c.

## ASPARAGUS SEED <br> One ounce will produce about 800 plants.

ANY good loamy, not too weedy, garden land is good for growing the plants. Sow in rows 12 to 15 inches apart, as early in spring as the ground is in fit condition, and give good cultivation; also thin the plants to stand 2 or 3 inches apart.
Argenteuil. This variety is largely grown in France for the Paris market.
The stalks grow to a mammoth size...... Pkt., 10c; oz., 15c ; 1/4 lb., 30c. Barr's Mammoth. A fine green variety....Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., \mathbf{3 0 c}$. Columbian Mammoth White. Large, white stalks.

Pkt., 10 c ; oz., 15 c ; $1 / 4 \mathrm{lb}$., 30c. Conover's Colossal. Large and productive..Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., \mathbf{3 0 c}$. Palmetto. A very desirable variety ........ Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., \mathbf{3 0 c}$. Mary Washington. Asparagus growers whose crops are effected by rust should plant this variety as it is nearer rust proof than any other kind. The tips are tight and firm, and the stalks are large and luscious. When bunched for market it makes a fine appearance.

Pkt., 10 c ; oz., 30c; 1/4 lb., $\$ 1.00$.

## ASPARAGUS ROOTS

(See Plants and Roots, end of the Vegetable Seeds.)

## BEANS Dwarf or Bush

One pound will plant 200 feet of row- 100 to 120 pounds per acre

WHILE the Bean is a very tender plant and, therefore, should not be planted until there is no more danger of frost, still it often pays to take some risks. Plant in a warm loamy soil at the beginning of warm weather in spring and at intervals for succession until August. Rows may be made 2 feet apart and the beans planted 2 inches deep and a few inches apart in the rows, or 3 to 4 beans in hills 6 to 8 inches apart.

Cultivate and hoe frequently, always, however, when the vines are perfectly dry; working them when wet with rain or dew will cause them to rust and injure the crop. In hoeing, draw the soil up towards the rows or plants. For string Beans gather the pods clean as soon as fit for use. The plants will remain all the longer in bearing.

All varieties of Beans, pkt., 10c. All packets are sent postpaid; for larger quantities by mail, see "Postage" and page of cover.

## Green-Podded Varieties



This variety is superior to any other green-
$\qquad$ podded bean grown. It is positively stringless, and ripens a week earlier than the
Valentine. The pods which are produced in abundance on the vines are long, straight, round, deeply saddle-backed, brittle, tender and of real good flavor. Has a much larger pod than the Valentine...........Pkt., 10c ; $1 / 2 \mathrm{lb}$., $20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$


Norwood Stringless Green Pod

## BEANS

## Dwarf or Bush, Green-Podded Varieties-Continued

## One pound will plant 200 feet of row.

All varieties of Beans, pkt., 10c postpaid; for larger quantities, by mail, see "Postage" 2nd page of cover.
McCullough's Improved Round Pod Red Valentine. Our stock of this is extra choice. This variety is usually ready to pick in thirty-four days after planting. The pods are very thick and fleshy, of finest quality and unequaled in uniformity of ripening, which latter fact, combined with its earliness, makes it one of the most profitable sorts for the gardener.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., \mathbf{3 0 c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.
Bountiful. An improved Long Yellow Six Weeks. Being earlier, hardier and producing better and larger pods and more of them. Pods grow to large size, are broad and fleshy; absolutely stringless, tender, of finest flavor and good appearance.
Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.
Burpee's Stringless Green Pod. This variety is stringless and remains tender and crisp. The pods are pale green, long and straight, perfectly round and meaty, maturing with the earliest of the green pod varieties.
Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.
Full Measure (Perfection Stringless). Highly recommended as one of the most popular varieties for the Market Gardener. Very early and prolific. The pods are long, straight and handsome; meaty, stringless and of good quality; thick, flat or almost semi-round.
Pkt., $10 \mathrm{c} ; 1 / 2 \mathrm{lb}$., 20c ; $1 \mathrm{lb} ., \mathbf{3 0 c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.
Tennessee Green Pod. Very meaty flat pods of large size and good flavor. It is very hardy and an excellent cropper on poor soil or hillside.
Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.

## DWARF SHELL BEANS

Horticultural Dwarf. Excellent quality as a shell bean either green or dry.
Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., \mathbf{3 0 c} ; 5 \mathrm{lbs} . \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.
White Kidney, or Royal Dwarf. A superior kind for baking, and is also excellent when shelled green.
Pkt., $10 \mathrm{c} ; 1 / 2 \mathrm{lb}$., $15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.15 ; 15 \mathrm{lbs} ., \$ 3.00$.
Red Kidney. Similar to White Kidney except in color.
Pkt., 10c; $1 / 2 \mathrm{lb}$., $15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.15 ; 15 \mathrm{lbs} ., \$ 3.00$.
White Marrowfat. Grown for sale as a dry bean for winter use; excellent shelled, either green or dry
Pkt., $10 \mathrm{c} ; 1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.15 ; 15 \mathrm{lbs} . \$ 3.00$.
Mexican or Prolific Tree. Grows 18 inches high, branching like a tree, bearing its pods so high that they do not touch the ground.
Pkt., $10 \mathrm{c} ; 1 / 2 \mathrm{lb}$., $15 \mathrm{c} ; 1 \mathrm{lb} ., 20 \mathrm{c} ; 5 \mathrm{lbs} ., 75 \mathrm{c} ; 15 \mathrm{lbs} ., \$ 2.00$.
Navy. The old standard sort for winter use.
Pkt., 10c; $1 / 21 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 20 \mathrm{c} ; 5 \mathrm{5} \mathrm{lbs} ., 75 \mathrm{c} ; 15 \mathrm{lbs} ., \$ 2.00$.


## Dwarf or Bush, Wax or Yellow-Podded Varieties

One pound will plant 200 feet of row. All varieties of Beans, pkt., 10c. postpaid; for larger quantities by mail, see "Postage" 2nd page of cover.

Round Pod Kidney Wax. Long, round, handsome, stringless pods of large size, very solid and full of meat, crisp, brittle and free from rust. Earliest and best Wax Bean. Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c}$; $1 \mathrm{lb} ., 30 \mathrm{c}$; 5 lbs., \$1.40; 15 lbs., \$3.50.

Golden Wax, Improved. Pods long, straight, thick and vines very erect. Pkt., 10c; 1/2 lb., 20c; 1 lb., 30c; 5 lbs., $\$ 1.40$; 15 lbs., $\$ 3.50$.
Davis' Kidney Wax. Very productive, white-seeded, rustless string or snap variety; long, flat pods, which are very tender while young.
Pkt., 10c; 1/2 lb., 20c; 1 lb., 30c; 5 lbs., $\$ 1.40$; 15 lbs., $\$ 3.50$.
Wardwell's Kidney Wax. Almost entirely free from rust and spots.


The pods are long, very tender, stringless and of excellent quality. Pkt., 10c; 1/2 lb., 20c; 1 lb., 30c; 5 lbs., \$1.40; 15 lbs., \$3.50.

Sure Crop. Pods average six inches long, are semi-round, fleshy and entirely stringless. An early thrifty and hardy variety.
Pkt., 10c; 1/2 lb., 20c; 1 lb., 30c; 5 lbs., $\$ 1.40$; 15 lbs., $\$ 3.50$.

Black Wax Improved. Very early and prolific; pods round, meaty, brittle and stringless; deep golden yellow and excellent flavor.
Pkt., 10c; 1/2 lb., 20c; 1 lb., 30c; 5 lbs., \$1.40; 15 lbs., \$3.50.
Pencil Pod Black Wax. Magnificent straight pods six to seven inches long, light golden yellow in color, beautifully rounded, meaty and deeply saddle-backed; flesh brittle, solid and entirely stringless, of fine mild flavor.
Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c}$; 5 lbs., $\$ 1.40 ; 15$ lbs., $\$ 3.50$.

## BEANS Continued

## Dwarf or Bush Lima

## One pound will plant 100 feet of row

THE Dwarf Lima class can not be recommended too highly. The Beans can be grown and gathered much more easily than the Pole Limas as the plants require no support. They can also be grown closer together than those of any Pole variety. Dwarf Limas are fully equal in quality to Pole Limas and as a rule are earlier maturing.

Limas require a longer season for maturing than other garden Beans. Do not plant till the ground is dry, weather warm and danger of frost is over. If possible, select rich light soil. Plant eye downward in rows two to three feet apart, and four to six inches apart in the row, covering one and one-half to two inches deep. If planted in hills, make the hills two to three feet apart one way and two to two and one-half feet the other and plant four to six beans in a hill. Hoe often, but only when the leaves are dry.

All varieties of Beans, pkt., 10c postpaid; for larger quantities by mail, see "Postage," 2nd page of cover.
Burpee's Improved Bush Lima. Pods and beans are both larger and thicker than Burpee's Bush Lima, and fully eight days earlier. Plant is a vigorous grower with heavy foliage. Even when of full size the enormous beans are of the most luscious flavor.

Pkt.,10c; $1 / 2 \mathrm{lb} ., 25 \mathrm{c} ; 1 \mathrm{lb} ., 40 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.60 ; 15 \mathrm{lbs} ., \$ 4.50$.


Extra Large Lima

## Fordhook Bush Lima

This is one of the best Bush Lima Beans in cultivation. It has a distinct upright vigorous growth; the pods, which are borne in clusters well above the ground, frequently contain as many as 5 form, about 18 inches high.

0frames and transplanted.
 large and of rich flavor.


Burpee's Improved Bush Lima

It matures very early and continues in bearing till frost. This is so far ahead of the old strain of Burpee's Bush Lima, that it should be used instead; the bean is thicker, sweeter and earlier, being also more proliflc.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 25 \mathrm{c} ; 1 \mathrm{lb}, 40 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.60 ; 15 \mathrm{lbs} ., \$ 4.50$.
Burpee's Bush Lima. This is the true bush form of the old large Lima Pole Bean. It grows vigorously to a height of 18 to 20 inches, forming a circular bush 2 to $21 / 2$ feet in diameter, requiring no poles or stakes, yielding from 50 to 100 fine pods, similar to those grown on the Large White Lima Bean.

Pkt., 10c; 1/2 lb., 20c; 1 lb., 35c; 5 lbs., $\$ 1.50 ; 15$ lbs., $\$ 4.20$.
Henderson's Bush Lima. For convenience and practical use in the home garden, it is a really good thing. It grows without the aid of poies, in compact bush

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.40 ; 15 \mathrm{lbs} ., \$ 3.50$.

## POLELIMA

## One pound will plant 100 feet of row.

 F all the Pole Beans, Limas are considered to have the greatest economic value. The culture is the same as for other Pole Beans except that being more tender, the beans are usually planted one to two weeks later. Plant in hills about three feet apart, and one to two inches deep, using flve or six beans to each hill, and set a pole firmly in the center. Manure liberally in the hill with well-decomposed fertilizer.Thin the plants, leaving three in each hill. Many cultivators consider it best, in planting Limas and other flat beans, to place the eye down, claiming in this way that they will germinate more quickly. Lima Beans for early use may be grown in

All varieties of Beans, pkt. 10c. All, packets are sent postpaid; for larger quantities by mail, see "Postage" 2nd page of cover

A choice selection of the Large Lima. It produces pods and beans of large size and in great abundance.

This variety is without doubt the best for private gardens. The quality is much better than any other oking rich and mealy.
Pkt., 10c; 1/2 lb., 20c; 1 lb., 35c; 5 lbs., $\$ 1.50 ; 15 \mathrm{lbs} ., \$ 4.00$.
Early Leviathan Lima. The earliest variety of Pole Lima; produces pods in clusters. A good variety where the season is short.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 35 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.50 ; 15 \mathrm{lbs} ., \$ 4.00$.
King of the Garden Lima. A vigorous grower, bearing profusely. The beans are
Pkt., 10c; 1/2 lb., 20c; 1 lb., $35 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.50 ; 15 \mathrm{lbs} ., \$ 4.00$ Seibert's Early Lima. The earliest of all the large Limas. Vine is hardy and vigorous, continues in bearing longer than any other; fine quality.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c}$; $1 \mathrm{lb} ., 35 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.50 ; 15 \mathrm{lbs} ., \$ 4.00$.

## B E A N S Continued

## Pole or Running Varieties

One pound will plant 200 feet of row- 90 to 100 pounds per acre.

T
HE Pole or Running varieties are tender and should be sown two weeks later than Bush Beans. They succeed best in sandy loam, which should be liberally enriched with manure. Form hills 3 to 4 feet apart; plant 6 to 10 beans in a hill, 2 inches deep, leaving space in center for the pole. When well started, they should be thinned to from 4 to 6 plants in a hill.

All varieties of Beans, pkt., 10c. postpaid; for larger quantities by mall, see "Postage" 2nd page of cover.
Kentucky Wonder, or Old Homestead (Green Pod). An old favorite, with long, fleshy, deeply saddle-backed pods. Very prolific, producing an abundance of fine, stringless, crisp beans until late in the season. One of the best green pole beans, producing pods in clusters, ready for use about 85 days from time of planting.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.35 ; 15 \mathrm{lbs} ., \$ 3.50$.
Black Kentucky Wonder. This variety produces long pods one-half larger than the brown seeded variety. Pods are round, very fleshy and of good quality. The vines are vigorous, climbing well and very productive, bearing long, light green pods in clusters. This variety is a shy seeder.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c}$; $1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.35$.
White Kentucky Wonder, or Burger's Stringless. This desirable variety is earlier and consequently covers a longer season of productiveness than the brown seeded Kentucky Wonder. Pods are borne in clusters and average six to eight inches in length, entirely stringless, uniformly straight, of a dark green color and of mild, sweet flavor. The dry beans are pure white.
Pkt.,10c; $1 / 2$ lb.,20c; 1 lb.,30c; 5 lbs., $\$ 1.35$; 15 lbs., $\$ 3.50$.
Cut Short, or Corn Hill. One of the best varieties of Corn Beans in use. Can be used as a snap or shell bean. Considered the best Corn Bean for this section.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.35 ; 15 \mathrm{lbs} ., \$ 3.50$.
Horticultural. (Wren's Egg, or Speckled Cranberry). This old favorite is an excellent Corn Bean, green shell bean or dry bean for winter use.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.00$.
Lazy Wife, An excellent late green-podded pole bean. Pods of medium dark green color, thick, very fleshy and entirely stringless. The pods remain green and tender until nearly ripe. Beans are white and excellent as shell beans for winter use.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.35 ; 15 \mathrm{lbs} ., \$ 3.50$.
McCaslan. The pods, produced in great abundance, are a rich, dark green color, measuring about ten inches long, rather flat and slightly curved. Fine for use as a snapshort, being entirely stringless when young. If pods are picked before maturing, vines bear till frost. If pods are allowed to mature, they produce a good sized white bean for winter use.
Pkt.,10c; 1/2lb.,20c; 1 lb.,30c; 5 lbs., \$1.35; 15 lbs., \$3.50.
White Creaseback. A good grower and very productive. Pods 5 to 6 inches long, perfectly round, with a crease in the back. The pods are stringless, fleshy and of good quality.
Pkt..10c; 1/2 lb.,20c; 1 lb.,30c; 5 lbs.,\$1.25; 15 lbs.,\$3.00.
White Sickle. Somewhat like the Kentucky Wonder, but has a nice white bean when dry and makes an excellent shell bean for winter. Very popular in the South.
Pkt.,10c; 1/2 lb.,20c; 1 lb.,30c; 5 lbs.,\$1.25; 15 lbs.,\$3.00.
Scarlet Runner. An ornamental climber. Bright scarlet flowers; pods are edible when picked young.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 25 \mathrm{c}$; $1 \mathrm{lb} ., 40 \mathrm{c}$.
Scotia, or Striped Creaseback. A hardy and very productive green-podded cornfield bean. The vines are sturdy and of good climbing habit with small-medium deep green leaves. The pods are long, about 6 inches, very cylindrical or completely rounded, distinctly creasebacked, very fleshy and of excellent quality. The color when in condition for use as snaps is light silvery green, becoming tinged with purple as the pods mature. This variety is especially suitable for growing in corn for snaps.
Pkt.,10c; 1/2 lb.,20c; 1 lb.,30c; 5 lbs., $\$ 1.35 ; 15$ lbs.,\$3.50.
Tennessee Wonder, or Egg Harbor. Large green pods, curved. double barreled, tinged with purple and wrinkled, depressed between each of the eight or nine seeds. Considered one of the largest of all cultivated beans. Pkt.,10c; 1/2lb.,20c; 1 lb.,30c; 5 lbs.,\$1.35. 15 lbs.,\$3;50.


Ohio Wax Pole. Pods usually 7 inches long, solidly meaty and entirely stringless; commences to bear when scarcely higher than the bush variety, and keeps on producing until killed by frost.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 35 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.60$.
Golden Cluster Wax. The pods are from 6 to 8 inches long, stringless, very tender and of delicate flavor.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 35 \mathrm{c}$; 5 lbs., $\$ 1.60$.


## BRUSSELS SPROUTS

Sow seed for plants in frames or open ground. Set plants in early spring, and for succession up to July, making rows 3 feet apart and having the plants stand $11 / 2$ to 2 feet apart in the row. Cultivate same as Cabbages. Dwarf Improved......................... . Pkt., 10c; oz., 35 c.

## BROCCOLI

Sow in beds middle of spring, transpiant and cultivate the same as Cabbage.
Early Large White........................Pkt., 10c; oz., 50 c.


## "SEEDS ARE DIFFERENT"

Seeds are different from manufactured merchandise, because they are produced by the hand of Nature and not by the hand of man.

## B E E T S

One ounce will sow 100 feet of drill- 12 pounds for an acre.

THE soil which is best suited is that which is rather light and thoroughly enriched with manure. For an early supply sow in spring as soon as the ground becomes fit to work, in drills twelve to sixteen inches apart and one inch deep. Or seed may be sown under glass four weeks sooner, and the young seedlings transplanted to open ground to give an extra early crop.

For main crop, sow the first week in May, and for winter use sow in June. When the plants have attained three or four leaves, thin out so they may stand five or six inches apart. Keep free from weeds by hand-weeding or hoeing. In October roots may be taken up and stored in the cellar or in pits outside like potatoes, care being taken that they are not bruised or injured in the process.

Early Wonder. This is a new and distinct extra early Turnip-rooted variety of the finest table quality. The flesh is solid, crisp, sweet, and of a brilliant fiery red color. It is perfectly globular in form with smooth skin, a tiny tap root, and very slender leaf stalks.

Pkt., 10c; Oz., 15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb., $\$ 1.25$.
Eclipse. One of the best early sorts, with a small tap root and small collar. Flesh dark red, zoned with a lighter shade, sweet, crisp and tender.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb., $\$ 1.25$.
Edmand's Early. Uniform small top, bronzy red exceedingly tender and sweet; skin blood-red; flesh dark red..Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb., $\$ 1.25$.
Egyptian Extra Early. One of the earliest, of good quality and medium size; a fine forcer; small top.

Pkt., 10 c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb., $\$ 1.25$.
Half Long Blood. One of the best for winter use. Roots are only half as long as the Long Blood, but weig't as much on account of their thickness.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb., $\$ 1.25$.
Long Dark Blood. A good late variety for fall and winter use; sweet and tender. Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb., \$1.25.
BEETS-Cattle and Sugar


A superb early maincrop Beet,

inches in diameter, d from small rootlets. deep through, smooth and entirely free rich fiavor The roots can deep blood-red, tender, and of when only partially grown, being ready for use almost as quickly as the Extra Early sorts and of better quality. It retains its choice quality and freedom from woodiness until the beets have reached their full size. Foliage is small, of a rich bronze color.

Pkt., 10c; oz., 15c ; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$; per lb., $\$ 1.50$.
Arlington. A dark-leaved, early blood variety, closely following Eclipse in maturing, but of darker color and superior quality. An excellent Beet for market superior quality. 10 An oz.,15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb.,\$1.25.
Bassano. (The Table Sugar Beet). A very early flat variety, tender, juicy; flesh white and rose-colored, very sweet. .Pkt.,10c; oz.,15c ; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lb.,\$1.25.
Crimson Globe. A handsome early or main-crop variety, of medium size, almost globe shaped and entirely free from rootlets. Foliage rich bronzy purple. The flesh is blood-red, slightly zoned. Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb}$., 35 c ; per lb., \$1.25.
Crosby's Improved Egyptian. An improved strain of the Egyptian Beet, especially recommended as an extra early sort. It is much thicker than the original strain.
Pkt., 10c; oz., 15c ; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; per lib., \$1.25.
Detroit. Color of skin dark bloodred, flesh bright red, zoned with a lighter shade, very crisp, tender and sweet.
Pkt., 10c; oz., 15c; 1/4 lb., 35c ; per lb., \$1.25.
Early Blood. Flesh dark red, a standard round variety with small top. Pkt., 10c; oz., 15c; 1/4 lb., 35c; per lib., \$1.25.


## SUGAR BEETS FOR STOCE

One ounce will sow 200 feet of drill-five and one-half pounds for an acre.
Sugar Beets are not as heavy yielders as the Mangels, but are of superior quality, containing a large amount of sugar. They are excellent for feeding cows, improving wonderfully the quantity and quality of the milk.
Vilmorin's Improved. A medium sized white Sugar Beet brought by the most careful selection to the highest perfection, both in shape and color of roots. Greatly esteemed by sugar manufacturers.
Pkt., 10c; oz. 15c; 1/4 lb., 25c; per lb., 75c.
Lane's Imperial. One of the best for field culture: early, large and productive.
Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 75 c.
Giant Half-Sugar Green Top. Longish ovoid; red skin; white flesh; crisp and fine.

Pkt., 10c; Oz., 15c; 1/4 lb., 25c; per lb., 75 c .

## MANGEL-WURZELS

## Five and one-half pounds for an acre.

Fattening, breeding and milk cattle do equally well on them. About one-fourth of the daily rations should be of roots. Sow in rows $21 / 2$ feet apart as soon as the ground can be thoroughly worked. Cover seed about $11 / 2$ inches. When 4 inches high, thin to 8 inches apart.
Mammoth Long Red. Roots of large size and excellent quality.. Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 60 c .
Golden Tankard. Bright yellow, large, handsome, heavy cropper.

Pkt., 10c; oz. 15c; 1/4 lb., 25c; per lb., 60c.

## Swiss Chard or Spinach Beet

Swiss Chard or Silver Beet. This variety of Beet does not make a large root, and is grown only for its leaves, which make splendid "greens" and the broad, white stalks or midribs are cooked and served like Asparagus.
Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., $\$ 1.00$.
Giant Lucullus. This is a decided improvement :over the common variety. The plants grow from 2 to $\dot{2} 1 / 2$ feet tall and when fully developed produce about a dozen creamy white curled leaves, which are carried on broad thick stalks, about 12 inches long. The leafy portion of the plant should be cooked like Spinach and the stalks like Asparagus. .
Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$; per lb., \$1.50.

## C A B B A G E

Sow one ounce for 2,500 to 2,800 plants; five and one-half ounces for one acre.

FOR plants of the earliest sorts, sow seed in January or February under glass, and prick out in flats or frames about 2 inches apart each way. 'Transplant to open ground as soon in spring as the land can be properly prepared. A rich, warm, fibrous loam is best. Have the plants in the rows 20 to 24 inches apart, and rows at least 2 feet apart. Give thorough cultivation and irrigate in dry weather if practicable. Protect from the ravages of cutworm, maggot and green worm. A little nitrate of soda applied around the plant is of great benefit. For late Cabbage plants, sow seed in drills in open ground during April and May, and transplant in June and July, giving the plants more room than allowed for earliest Cabbages. Dusting with Slug Shot, tobacco dust, insect powder, etc., or splashing with hot soapsuds, especially Fish Oil Soap solution, are good and safe remedies for some of the insect pests attacking plants of the Cabbage.


## Louisville Drumhead

McCullough's Early years ago, and is still the for early market purposes throughout this section. It is highly esteemed by the any other sort; will stand the entire summer without bursting; in fact, we produced heads that weighed 18 pounds on September 1, having been planted with Jersey Wakefield, which was long unfit for use. Our Louisville forms large, solid heads, and is the earliest large-heading variety, while, if planted later, it makes excellent heads for winter. The quality is very fine, and is remarkable for its certainty to head. For winter use, sow later in the season. We have received expressions of unanimous praise from all parts of the country, and could fill many pages of our catalogue with testimonials. . . . . . . .Pkt., 10c ; oz., $\mathbf{3 0}$ c ; $1 / 4 \mathrm{lb}$., $\$ 1.00$.

NOTE:-McCullough's "Louisville Drumhead" Cabbage is so well known and so much sought after that many firms are offering cheap stocks. We have tested many of these and find some entirely untrue and others of inferior strains. Be sure to get our highly selected, genuine type direct from us.

McCullough's Early Market. A new, early, round head Cabbage. It will produce double the crop of any other early variety; always extremely solid and fine ribbed. It is very dwarf and compact, allowing of close planting. Heads fine, ball-shaped, and with few outside leaves. Size ideal for marketing.

Pkt., 10c; oz., 75c; 1/4 lb., \$2.50.
Golden Acre. This is a new, early, round-headed Cabbage which closely resembles Copenhagen Market in type. As its name implies, it is a money-maker. It is 8 to 10 days earlier than Copenhagen Market but is smaller and can be planted closer. Because of its earliness and fine quality it commands a higher price than any round-headed Cabbage.

Pkt., 10 c ; oz., 75 c ; $1 / 4 \mathrm{lb} ., \$ 2.50$.
Early Jersey Wakefield. One of the best extra early varieties in cultivation. The heads are pyramidal in shape, having a blunted or rounded peak. We believe our selected stock has no equal.

Pkt., 10c; oz., 30c; $1 / 4 \mathrm{lb} ., \$ 1.00$.
Copenhagen Market. The earliest large, round headed sort ripening early and uniform. It has few outer leaves and it grows close to the ground on a short stem. Pkt., 10 c ; oz., 40 c ; $1 / 4 \mathrm{lb}$., $\$ 1.25$.
Charleston, or Large Wakefield. Has all the characteristics of the Early Jersey Wakefield, but of greater size, and is only a few days later.

Pkt., 10 c ; oz., 30c; $1 / 4 \mathrm{lb} ., \$ 1.00$.
Early Summer. A second early with large, solid, flattish heads, coming in a few days later than the Wakefield; a sure header........Pkt., 10 c ; oz., 30c; $1 / 4 \mathrm{lb} ., \$ 1.00$.
All Head, Early.. The largest heading of the second early sorts. Heads are solid and uniform in color, form and size...................Pkt., 10c; oz., 30c; 1/41b., $\$ 1.00$.
Glory of Enkhuizen. Heads are globe-shaped, medium size and handsome dark-green color. The quality is excellent............Pkt., $10 \mathrm{c} ; \mathrm{oz} ., 30 \mathrm{c}$; $1 / 4 \mathrm{lb}$., $\$ 1.00$.
Early Dwarf Flat Dutch. One of the best second earlies. Heads are large, solid and nearly flat on top.

Pkt., 10c ; oz., 30c; 1/4 lb., \$1.00.
Succession. A second early, round-head sort. Heads are solid, keep well and are of splendid quality; color, light green.................Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.

McCullough's Early Louisville Drumhead
All-Seasons. (Vandergaw.) Large, hard, solid and slightly flattened heads. As good for Autumn or Winter as for early Summer.

Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.
Surehead. A good strain of late Flat Dutch. Heads grow large and are of good texture. It is also a good keeping variety
. Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.


A variety for winter market; has no superior. Heads large, round, solid. broad and flat on top.
They open white and crisp, are tender and well-flavored. The best variety for keeping. Our stock has been carefully selected for several years. No better strain on the market. Pkt., 10c; oz., 25c; $1 / 4 \mathrm{lb} ., 85 \mathrm{c}$.

Large Late Drumhead. A favorite winter variety. The heads grow to very large size and heavy weight. Solid and of good quality...Pkt., 10 c ; oz., 25 c ; $1 / 4 \mathrm{lb} ., 85 \mathrm{c}$.
Danish Ballhead. (Danish Grown). Heads of good marketable size, averaging about 8 pounds, nearly round, solid and superior quality.

Pkt., 10c ; oz., 40c; $1 / 4 \mathrm{lb} ., \$ 1.25$.
Danish "Roundhead." It is slightly larger and produces more weight to the acre than Ballhead. The heads are produced about ten days earlier, are splendid keepers and bring the highest prices on market in winter. Pkt., 10c; oz., 40c; 1/4 lb., \$1.25.

## RED CABBAGE

Mammoth Rock Red. The largest and most solid of the red varieties; a sure heading sort and tender.

Pkt., 10c ; oz., 30c ; $1 / 4 \mathrm{lb}$., $\$ 1.00$.

## SAVOY CABBAGE

THEY are particularly adapted to private use where quality, rather than quantity is desired. Grown in fall and allowed to be touched by frost, it is one of the most delicious of all vegetables.
American Drumhead Savoy. Heads large and very finely curled; short stalk and compact grower; an excellent keeper........Pkt., 10c; oz., 30c; 1/4 lb., $\$ 1.00$.

## PE-TSAI, CHINESE OR CELERY CABBAGE

THE seed we offer is the true variety which has been grown in China for many years. This new vegetable is a species of Cabbage with a fine delicate flavor and resembles a stalk of Celery more than a head of Cabbage. It is as tender as Head Lettuce and is rapidly coming into general use for salads or cold slaw. Can also be eaten raw or may be cooked. The many uses to which it can be put as a "high toned vegetable" are bound to make it popular with the public as well as the market gardener. This delicious vegetable may be grown in any soil that will grow good Cabbage, but to attain perfection should be grown in cool, moist and very rich soil.

Seed should be sown about the first of August in rows 24 to 36 inches apart, thinning to 15 inches apart in the rows.

If weather is warm at time of heading tie up like Endive and keep well watered

As this variety will not stand frost it should be stored in a cool, frost-proof cellar. Early sowing is not recommended..................Pkt., 10c; oz., 30c; $1 / 4 \mathrm{lb} ., \$ 1.00$.

## CARROTS

One ounce will sow 200 feet of drillthree and one-half pounds for an acre.

Alight sandy loam, well-tilled and manured the previous year, best suits the Carrot. For early crop sow as early as the ground can be worked, in drills 10 inches apart, and thin to 5 inches apart. The Early Market, owing to its extreme earliness, is used for hot-bed culture. The late sorts; long and half-long varieties (main crop), sow from middle of May until first of July in drills 12 to 14 inches apart. Thin out to 6 and 7 inches in row. Keep the hoe at work. Carrot seed is slow to germinate.

Carrot Seed grown for stock requires one-half ounce for 200 feet of drill, one and one-half pounds for an acre.
Early Market, Stump-rooted. A very choice strain, tender, fine-grained flesh. An enormous producer, handsome, uniform stumped roots. Considered by many to be the best table Carrot, because of its quality and shape; free from core and of a deep golden yellow color. Can be sown thick, and consequently well adapted for frame culture. A most excellent forcer.

Pkt., 10c; oz., 20c; 1/4 lb., 60c.
Early Scarlet Horn. An early red summer variety; fine grained and good flavor. .Pkt., 10c; oz., 15c ; 1/4 lb., 50 c.
Chantenay. It is about 6 inches long, thick through and decidedly stump-rooted. In size it is between the Oxheart and Danvers. The flesh is a deep orange red, fine-grained and of a splendid flavor. It is very early and always produces smooth shapely roots. Its fine appearance finds for it a ready market; its splendid table qualities keep it in demand. Our strain of seed is unsurpassed........Pkt., 10 c ; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
Danvers. A cylindrical-shaped Carrot of good size and stump-rooted, rich, dark orange color, grows to a large size, smooth and the flesh very close in texture with little core............. .Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Hutchinson. A variety that was developed by selection from the Danvers. It has slightly darker orange skin, grows an inch or two longer, and is in shape pretty well down to the root. An extra-heavy yielder. Originated with a prominent gardener in Massachusetts.

Pkt., 10c; oz., 20c; 1/4 lb., 60c.


Chantenay

Oxheart or Guerande. Intermediate length; is fully 3 to 5 inches in diameter; quality extra good. Some sorts require digging, but the Oxheart can be easily pulled. It is especially adapted to shallow soils, where the longer sorts would not thrive as well.

Pkt., 10c; oz., 15c; 1/4 lb., 50c.

> McCullough's
> Intermediate A large, handsome main-crop variety. It is the connecting link between half-long and long Carrots, with a yielding capacity in deep soils equal to any of the longs. The root, 10 or 12 inches in length, is very broad at the neck, 2 to 3 inches through, and tapers evenly to the small tap-root. It grows smoothly and uniformly and combines with its other merits rich reddish-orange flesh, tender, sweet and entirely free from woody coarseness even at maturity.

Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Nantes Half-Long Scarlet. A stump-rooted variety, having little or no core. Flesh red and of fine flavor.

Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Improved Long Orange. A standard late variety; deep orange color. It is of excellent table quality and is highly nutritious for stock.

Pkt., 10c; oz., 15c; 1/4 lb., 40c.

## C A ULIFLOWER

One ounce of seed will produce about 2,200 plants.

FOR early use, sow in hotbeds in January and February. When plants are large enough, transplant three inches apart in boxes or other hotbeds until time to plant out. If hardened off they are seldom injured by planting out as early as the ground can be worked, $21 / 2$ feet apart each way. When practicable, seed may be sown in rich soil from the middle of September to middle of October, and transplanted in frames. protect during severe weather and give light and air on mild days. The early varieties should be brought to maturity before summer heat sets in. The late sorts mature in the autumn and are cultivated same as winter Cabbages.



Is beyond question the best for all purposes. It heads where others fail. Year after year this has become more popular, until leading market gardeners now grow it entirely, having discarded all the older varieties, as they find our strain of Erfurt to be the surest-heading. On account of its dwarf and compact habit, the plants may be set out 20 to 22 inches each way, so that from 12,000 to 14,000 can be planted on an acre. For pickling it is the standard variety. The compact and solid texture of the snow-white heads, combined with delicious flavor, surpass all others.

Pkt., 25c; $1 / 4 \mathrm{oz} ., \$ 1.00$.
Early Snowball. An extremely early dwarf variety, producing magnificent white heads, of fine quality. Well adapted to hot-bed culture.

Pkt., 20c; 1/4 oz., 75c; oz., \$2.50.
Danish Giant. A large heavy sort, maturing soon after Dwarf Erfurt. It is without exception the best and surest heading of all for summer use.

Pkt., 20c; 1/4 oz., 75 c .
Early Paris. Heads large, white, compact and solid; tender and delicious.

Pkt., 10c; $1 / 4 \mathrm{oz} ., 30 \mathrm{c}$; oz., $\$ 1.00$.
Autumn Giant. One of the finest late varieties, of robust habit, heads large, compact and thoroughly protected by leaves.

Pkt., 10c; 1/4 oz., 30c; oz., \$1.00.
Special price to market gardeners.

## C E L E R Y

## One ounce will produce about 25,000 plants

$\mathrm{T}^{0}$O grow early Celery, sow the seed late in March in a hotbed or box; and for later crops, as soon as the weather becomes warm, sow in the open ground, cover lightly, or better still, roll or press it in. Shade the young plants for a week or ten days, and do not let the soil dry out. The tops may be shorn, off once or twice before planting, so as to insure "stocky" plants, which will suffer less on being transplanted. When from four to six inches high, transplant in broad, shallow trenches, or on the level ground, setting the dwarf sorts into rows three feet apart, and the tall varieties four feet apart and six inches apart in the rows. The soil should be light, highly manured, partially shaded and moist, or near water, as the plants must be freely watered in dry weather, but it should not be put directly on them. Earthing up checks growth and should not begin until quite well grown, then earth up gradually, keeping the leaf stalks close together, so that the soil may not fall into the center of the plant, but never earth up in wet weather, nor when dew is on them. That intended for winter and spring use needs little banking; when stored for winter it will naturally blanch beautifully white.


Extra selected stock, unsurpassed. We have been furnishing our customers this strain of Paris Golden Yellow Celery for a number of years and it is pronounced by one and all the finest strain they have ever seen. The color is a rich golden yellow, stalks are very solid and tender flavor is delicious, has large heart, grows medium height, and is without doubt the best early Celery on the market. The demand for our strain of this variety is increasing every year and we advise our customers to order early, as supply is limited. We are confident you can not obtain anywhere a strain of Paris Golden Yellow Celery superior to our own particular selected stock.....Pkt., 10 c ; oz., $\$ 1.00$.

Golden Plume. This is a selected strain of Golden SelfBlanching, having a beautiful golden color and that rich, nutty flavor so much desired by lovers of fine Celery. It resists blight and rust to a remarkable degree, matures early, and keeps a long time. The Golden Plume is a good shipping sort. It grows to large size and of fine proportions. A very attractive sort, hence an easy one to sell. Pkt., 10c; oz., $\$ 1.50$.

Golden Self-Blanching. An early, desirable sort, requiring but little labor to blanch. The heart is a rich, golden yellow, with light, yellowish-green outer leaves

Pkt., 10 c : oz., 40c: $1 / 4 \mathrm{lb} ., \$ 1.50$.
White Plume. Is unsurpassed for fall and early winter use, requiring very little earthing up to blanch it

Pkt., 10c: oz., 30c; $1 / 4 \mathrm{lb} ., \$ 1.00$.
Easy Blanching. Stalks thick, brittle and excellent flavor. Adapted to early use as well as storing for winter. Those who have not been successful with other sorts, should give this a trial.

Pkt., 10c; oz., 30c; 1/4 lb.. \$1.00.


Witloof Chicory


Giant Pascal. A superior keeping surt. I'he stalks are very large, thick, solid, crisp, and of rich nutty flavor. It blanches very easily and quickly, and retains its freshness a long time...Pkt., 10c; oz., 25 c ; $1 / 4 \mathrm{lb} ., 75 \mathrm{c}$.
Giant White Solid. The best of the large growing sorts. This variety is suitable for Southern sections of the country, as it grows freely in a hot or dry atmosphere.

Pkt., 10c; Oz.. 25c; $1 / 4 \mathrm{lb} ., 75 \mathrm{c}$. Vigorous growth, ease of blanching, size, richness of flavor, crispness and purity, make it an ideal Celery.

Pkt., 10c; oz., 30c; $1 / 4$ lb., $\$ 1.00$.
Triumph. The best late Celery. A strong and vigorous grower, with very large but crisp, brittle, tender and fine flavored stalks. . . .Pkt., 10c; oz., 25c; 114 lb., 75 c.

## Celeriac, Turnip Rooted Celery

Sow early in spring. Transplant in May into rich, mellow soil in rows eighteen inches apart and six inches in the row. Grown mostly for its bulbous root.
Large Erfurt. When sliced, with vinegar and oil, makes a delicious salad. . . . . . Pkt., 10 c ; oz., 25 c ; $1 / 4 \mathrm{lb}$., 75 c .

## CHICOR Y

Large Rooted or Coffee. Grown for the large, thick roots, which are dried, roasted and ground as a substitute for Coffee. Soil should be light, rich and deeply worked. Cultivation the same as carrots.... Pkt., 10c; oz., 25 c.
Witloof Chicory, or French Endive. Seed should be sown in the open ground not later than June in drills twelve to eighteen inches apart, thinning plants so they will stand about three inches apart. The plant forms long, parsnip-shaped roots, which should be lifted in the fall, and after cutting off the leaves store in soil in a cool place until wanted for forcing. To force: plant closely in trenches deep enough to permit covering the roots with soil 8 inches deep. If quicker growth is desired mulch with manure 2 feet deep. Requires our to five weeks to force. The blanched head is the edible portion and should be cut with a portion of the neck attached to it. The principal use of Witloof is as a winter salad, and it is most delicious served with French dressing and eaten like Cos Lettuce.

Pkt., 10c; oz., 25 c .

## CHIVES

Chives are of the onion type. Are grown early in the sping for giving a mild flavor to various dishes. When planted in small clumps they will grow rapidly and increase so as to render division necessary. If not allowed to flower will produce longer

Per pkt., 10c.
c..... $\qquad$ .3 pkts.. 25 c.
Clumps, 10c each.

## C O R N, Sweet or Sugar

## One pound will plant 200 hills- 10 to 12 pounds per acre.

THE Sweet or Sugar varieties, being liable to rot in cold or wet ground, should not be planted before May or until the ground has become warm, and for a succession continue planting every two weeks until the middle of July, in rich, well manured ground, in hills 3 feet apart each way, covering about half an inch, and then thin out to 3 plants to a hill, or plant in rows 4 feet apart, and to stand 8 inches apart in the rows.

All packets are sent postpaid; for larger quantities by mail see "Postage" 2nd page of cover.


> McCullough's Cincinnati Market or Club Zig-Zag Evergreen

This new variety which originated in th is market and was introduced by us, has become the best seller on the Cincinnati market. A late Zig-Zag Evergreen Corn, the ear ordinarily being twice the size in diameter of any other sort, while in sweetness and flavor it cannot be excelled.

Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.
Premo. The best extra early variety. It can be planted early, as the young plants will withstand slight frosts. The stalks are strong and vigorous, growing about 5 feet in height, bearing one or two fine ears to a stalk. The ears are large for so early a variety. The grains are of medium size, well filled to each end of the ear, and of a fine, sweet flavor.
Pkt.,10c; $1 / 2$ lb.,15c; 1 lb.,25c; 5 lbs.,\$1.10; 15 lbs.,\$3.00.
Early Sheffield. Very early variety. The stalks are strong and vigorous, bearing one or two fine ears to a stalk. The ears are large and entirely free from smut. The grains are of medium size, 10 or 12 rowed, well filled to each end of the ear; juicy, and of a fine sweet flavor.
Pkt.,10c; 1/2 lb.,15c; 1 lb.,25c; 5 lbs.,\$1.10; 15 lbs.,\$3.00.
Kendel's Early Giant. Very early, fit for use 60 days from planting. Ears large, 8 to 10 inches in length, twelve rows to a cob. Kernels pure white, sweet and tender.
Pkt.,10c; $1 / 2$ lb.,15c; 1 lb.,25c; 5 lbs.,\$1.10; 15 lbs.,\$3.00.
Golden Bantam. It is not only the sweetest, but also one of the hardiest. The ears are from 6 to 7 inches long, eight rowed, filled with broad, sweet, golden yellow kernels of a delightful flavor. It may be planted with perfect safety ten days earlier than other Sweet Corns. One of the best sorts for successive plantings. Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5$ lbs.,\$1.10; 15 lbs.. $\$ 3.00$.

Golden Giant. It excels all the other early varieties of corn in size, productiveness and quality; and all the late varieties in quality and early maturity while equaling them in size.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs.}, \mathrm{\$ 1.10;} 15 \mathrm{lbs} ., \$ 3.00$.
Whipple's Early. Of the narrow-grained Evergreen type, but ready for use much earlier. Ears 8 to 9 inches long, 16 to 18 rows of pearly white grains. The chief distinction of this variety is that it is by far the earliest of the narrow-grained Evergreen types and has a larger sugar content.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.
Early Minnesota. Very early, ears of fair size and good quality. Pkt.,10c; 1/2lb.,15c; 1 lb.,25c; 5 lbs.,\$1.10; 15 lbs.,\$3.00.
Howling Mob. A large, medium early white Sweet Corn. Ears are 7 to 8 inches long, with 12 to 14 rows of pure white grains. A splendid sort for the Market Gardener as well as for home use.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.
Early Evergreen. An early strain of Evergreen of great value. This variety resembles the Stowell's Evergreen but is ready for use much earlier, and remains in good condition equally as long. The ears grow to a good size, usually about 7 inches long, and contain from 16 to 18 rows of deep, sweet grains
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.

Country Gentleman. One of the richest flavored of all the late varieties. As a table Corn this variety stands unrivaled, and without doubt is the most luscious of all varieties of Sweet Corn. The plump, pearly-white kernels are of great depth. We have selected this sort for many years and it comes as true to type as any we have ever seen. Ears average 9 inches long by 2 inches in diameter.
Pkt.,10c; 1/2 lb.,15c; 1 lb.,25c; 5 lbs.,\$1.10;15 lbs.,\$3.00.
Stowell's Evergreen. The standard variety, both for home use and market, and is the general favorite The ears are of a large size, grains deep, exceptionally tender and sugary, and has the advantage of remaining longer in the green state than any other.
Pkt.,10c; $1 / 2 \mathrm{Ib} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.
Narrow Grain Evergreen. Similar in all respects to Stowell's Evergreen, but has very narrow grains.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5$ lbs., $\$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.
Zig-Zag Evergreen. This is one of the sweetest and best late sweet Corns. The ears are as large as those of the Evergreen, but the kernels are placed irregularly or zig-zag upon the cob, which is always an indication of great sweetness.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.
Late Mammoth. A late variety, producing ears of very large size and fine flavor.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5$ lbs.,\$1.10; $15 \mathrm{lbs} ., \$ 3.00$.
Black Mexican. Black-grained variety; sweet, tender; must be picked young to avoid a black appearance when cooked.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 25 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.10 ; 15 \mathrm{lbs} ., \$ 3.00$.

## GARDEN CORN

Adams' Extra Early. The hardiest and earliest variety for table use, but not a Sugar Corn; can be planted earlier than any other corn.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 20 \mathrm{c} ; 5 \mathrm{lbs} ., 85 \mathrm{c} ; 15 \mathrm{lbs} ., \$ 2.25$.
Adams' Early. While not a Sugar Corn, is a tender white corn for the table; can be planted earlier and will be ready in sixty days.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb}, 20 \mathrm{c} ; 5 \mathrm{lbs} ., 85 \mathrm{c} ; 15 \mathrm{lbs} ., \$ 2.25$.
Adams' Improved. A larger variety; recommended for extreme early and late planting.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., 20 \mathrm{c} ; 5 \mathrm{lbs} ., 85 \mathrm{c} ; 15 \mathrm{lbs} ., \$ 2.25$

## C OLLARDS

A species of Cabbage, forming a mass of leaves on a tall stem, very popular in the Southern States as boiling-greens during the winter months, and also furnishes green forage for poultry and stock during winter. Cultivation same as Cabbage. . . ...............Pkt., 10c; oz., 15c ; 1/4 lb., 40c.

## CORN SALAD, or Fetticus

[^0]
## C U C U M B ER S

## Use one ounce of seed to 50 hills, 2 to 3 pounds per acre.

FOR very early Cucumbers, sow April 1st, in a hotbed upon pieces of sod (grass side down), so that they can be readily transplanted to the open ground, in rich soil. when danger of frost is over, or protect by handglasses. For early use, plant, if the weather has become settled and warm in hills 4 to 6 feet apart each way: thin out to four of the strongest plants to each hill, after all danger from insects is over. They succeed best in a warm, moist, rich, loamy soil. Continue planting at intervals for a succession. The Cucumbers should be gathered when large enough for use, whether required or not; if left to ripen, it destroys their productiveness. For pickles, plant from June until the middle of July. The yellowstriped cucumber or squash beetle is the most serious insect enemy of this crop.

Bordeaux Arsenate of Lead Mixture is by far the best remedy yet discovered. Dilute it with water, 3 ounces to the gallon, and spray it on the vines when in danger of the beetle or blight.


An excellent Cucumber for both forcing and outdoor use. The fruit grows 11 to 15 inches long, slim, slightly pointed, a dark glossy green color, which they keep until ripe. In quality it is very tender, brittle and of fine flavor. A vigorous grower, withstanding blight better than other long sorts.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c} ;$ per lb., $\$ 1.50$.
Davis Perfect. Splendidly adapted for growing either under glass or in the garden. In color, a dark glossy green; shape, slim and symmetrical, with an average length of 10 to 12 inches. They are as early as the earliest strain of White spine. Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.

Ohio White Spine. This is the best strain of extra early White Spine for the market gardener's out-door growing. It is hardy and an excellent shipper. It is extensively grown in the South for shipping North, early in the season. Fruit grows 7 to 10 inches long, of a deep green color, and full at both ends.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Early Fortune. The finest type of White Spine. Early and very productive; fruit grows 9 inches long, slightly tapering, flesh, white, firm and crisp with very few seeds; color dark green. Quality is excellent, either for the table, or pickling.

Pkt., 10c; oz., 15c; 1/4 lb., 40c; per lb., \$1.25.
Improved White Spine. The favorite market variety. Largely grown South for Northern Markets, early in the season. The fruit grows from 7 to 10 inches long, is quite smooth, of a deep green color and full at both ends.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Jersey Pickle. As a pickling variety is unsurpassed. Its characteristics are its uniform growth and its immense productiveness.

Pkt., 10c; oz., 15c; 1/4 lb., 40c: per lb., \$1.25.
Early Cluster. A much esteemed early variety; growing in clusters; is extremely productive.

Pkt.. 10c; Oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Early Frame. A good variety for pickling and table. Medium size.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.


Ohio White Spine
Nichol's Medium Green. One of the best for pickling, and excellent for forcing or slicing. Always straight and smooth. In length it is between White Spine and Long Green.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Long Green Improved. A standard late sort, fruit 12 to 14 inches long, slender, more or less warted, tapering towards the stem end; Color dark green, flesh white and firm. Excellent for table and makes a hard, brittle pickle. Extra selected stock.

Pkt., 10c; oz., 20c; $1 / 4 \mathrm{lb} ., 60 \mathrm{c}$; per lb., $\$ 2.00$.
Long Green. A standard late sort, crisp and tender, very prolific, excellent for the table and makes a hard, brittle pickle.. Pkt.: 10c; oz. 15 c : $1 / 4 \mathrm{lb} . .40 \mathrm{c}$ : per lb.. $\$ 1.25$.
Japanese Climbing. It is suitable for growing either in frames or in the open ground. It is very early and exceedingly productive. The fruit is excellent either for the table or pickling. . . .Pkt., 10c ; oz., $15 \mathrm{c} ; 1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
Gherkin. A very small prickly variety, used exclusively for pickling, for which purpose they should be gathered while young and tender.

Pkt., 10c; oz., 15c ; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.

## ENGLISH FORCING CUCUMBER

The best for forcing, attaining a length of twenty to thirty inches. They can be grown in hotbeds, where the temperature does not fall below 65 degrees at night.
Duke of Edinburg. Very large and long, dull green, quite smooth; packet of 10 seeds.
.25 c .
Telegraph. Free bearing, long and extensively grown; packet of 10 seeds.

## CRESS, Water and Garden



SCOW thickly in shallow drills early in the spring, and at intervals throughout the season for a succession, as it soon runs to seed. Water Cress requires a stream of running water, ditch, or pond, in which it will grow without care, except at first keeping weeds from interfering with it.
Extra Curled or Peppergrass. Fine flavor, and the best sort for dry soil.
Pkt., 10c; oz., 15c; 1/4 lb., 40c.
Erfurt Water Cress. A most desirable and appetizing salad, thriving best in shallow water on the edge of streams. Pkt., 10c; $1 / 2 \mathrm{oz} ., 30 \mathrm{c} ; \mathrm{Oz} ., 50 \mathrm{c}$.

## EGG PLANT

## One ounce of seed will produce about 2,000 plants.

$\mathbf{S}^{\mathrm{E}}$EEED is of slow germination and requires a moderate amount of heat. Should be started in hotbeds and not checked after starting to grow. When 2 or 3 inches high they should be potted in 3-inch pots and not set out in the open until nights are warm. Plant about 3 feet apart and keep well watered.
Black Beauty. This new variety is an excellent market sort. It is about the same size and shape as the New York Improved, except a little fuller at the top; is a few days earlier and a heavier yielder. Its color is a rich purplish black, which it retains even after becoming ripe.

Pkt., 10c; oz., 40c; $1 / 4 \mathrm{lb} ., \$ 1.50$.
New York Improved. A leading market variety.
Pkt., 10c; oz., 40c; 1/4 lb., \$1.50.

## ENDIVE

## One ounce of seed to 300 feet of row.

0NE of the best and most wholesome salads for fall and winter use. Sow in shallow drills in April for early use, or for late use in June or July. When 2 or 3 inches high, transplant into good ground, or thin out to one foot apart. When nearly full grown, they must be blanched. This is done by gathering the leaves together, and tying with yarn or bass, to exclude the light and air from the inner leaves, which must be done when quite dry or they will rot.

Broad-Leaved Batavian. Leaves broad, light green, nearly plain; used in stews and soups.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
Green Curled. Very hardy, crisp and tender.
Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Moss Curled. It is excellent for winter use.
Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
White Curled. Coarser than Green Curled, but the midrib is yellow and the leaves frequently almost white.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
French Endive. (Witloof Chicory.) See Chicory.


Plant same as Onions in rows 8 to 12 inches apart; set bulbs 4 inches apart in the rows, covering 2 inches deep.

Bulbs.
$1 / 4 \mathrm{lb} ., 20 \mathrm{c}$; per lb., 50c


Kale or Borecole

## KALE OR BORECOLE

One ounce to 500 feet of row- 4 pounds to an acre.

THE Kales are more hardy than Cabbage, make excellent greens for winter and spring use, and are improved by fiost. Sow from May to June, and cultivate the same as Cabbage. For early spring use, sow in September, and protect during the winter.
 A beautiful curled and crimped variety of strong vigorous habit, perfectly hardy, bright green color and very attractive in appearance.
Pkt., $10 \mathrm{c} ;$ oz., $15 \mathrm{c} ; 1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.00$.
Norwood Dwarf Curled. A beautiful curled and crimped sort, of strong, vigorous habit, attractive appearance and a bright graen color. It is superior to all other sorts, and is undoubtedly the best for private gardens. It rarely exceeds 12 inches in height, but spreads out under good cultivation to 2 feet in diameter.

Pkt., 10c; oz., 15c; 1/4 lb., 45 c ; per lb., $\$ 1.50$.
Dwarf Curled Siberian. Leaves yellowish-green, finely curled. Sow in September for early winter and spring
Tall Scotch. Pkt. Leaves oz., 15c; $1 \frac{1 / 4 \text { lb., 30c; per 1b., 85c. }}{\text { usen }}$. wrinkled-grows about 2 feet in height; hardy, being improved by frost.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 45 \mathrm{c}$; per lb., $\$ 1.50$.

## KOHL-RABI <br> (Turnip Rooted Cabbage)

## One ounce of seed to 400 feet of row.

FOR an early crop, start in a hotbed and treat the same as early cabbage. May also be sown as soon as the ground can be worked in spring. For winter use, sow in the middle of June.

The edible part is the bulb, which grows on a stalk a few inches above the ground.

Early White Vienna. The flesh is white and tender.
Pkt., 10c; oz., 30c; 1/4 lb., 75c.
Early Purple Vienna. Differs from the above in color.
Pkt., 10c; oz., 30c; 1/4 lb., 75 c .

## LEEK

COW early in April, in drills one foot apart, one inch deep. When the plants are six to eight inches high, transplant in a deep, rich soil in rows twelve inches apart and six inches in the rows, as deep as possible, so that the neck may be covered and blanched. Draw the earth to them as they grow. The seed may also be sown in September, and the young plants transplanted in the spring.
Large American Flag. This is by far the best variety. It grows to a good size and is wonderfully uniform.
Pkt., 10c; oz., 20c; 1/4 lb., 65c.
London Flag. An old and popular sort; one of the hardiest; best for winter use.
Pkt., 10c; oz., 20c; 1/4 lb., 65c. -Large Musselburgh. Of enormous size; leaves large and broad; very mild, pleasant flavor
Pkt., 10c; oz., 20c; 1/4 lb., 65c.

## L E T T U C E

One ounce will produce about 5,000 plants.

SOW the seed in hotbeds or flats during February or early March, prick the young seedlings out in fats or cold frame 4 inches apart each way, and in spring, transplant the well-hardened plants in rows a foot apart. allowing 8 to 12 inches space between the plants in the row. For succession, sow seed thinly in open ground, and thin the plants to 5 or more inches apart. Sow for succession every few weeks until fall.

## Head Varieties



The finest home garden and market Selected Nonpareil areen color, crimped, curled and well formed heads, tender quality and sweet flavor, place it at the head of the list for the market gardener or family use. It withstands the heat of summer and retains its sweetness for a long time..........Pkt., 10 c ; oz., 20 c ; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$. Iceberg. A large, late, crisp Cabbage-heading variety; heads firm and hard, leaves broad and light green in color, with faint brown tracing on the borders. Quality good.

Pkt., 10 c ; oz., 20 c ; $1 / 4 \mathrm{lb}$., 50 c .


Big Boston


Wayahead

Big Boston. Heads solid with broad leaves; the best for outdoor or for forcing. Jolor light green. We have made a specialty of this variety and have a stock that can not be surpassed.

Pkt., 10c; oz., 20c; 1/4 lb., 50c.
May King. An early, fine variety for spring and fall use in the open ground, also for growing in cold frames during the winter months. The heads are 6 to 7 inches in diameter, with light green outer leaves. The inner leaves are blanched to a golden yellow.

Pkt., 10c; oz., 20c; $1 / 4 \mathrm{lb}$., 50 c .
New York or Los Angeles. Plants of extra large growth, producing closely folded heads of immense size. The inner portion is beautifully blanched; outer leaves a deep, rich green.

Pkt., 10c; oz., 25c; 1/4 lb., 90c.
Wayahead. It is not only earlier than May King, and other fine early varieties, but the tightly folded heads are generally larger in size. The outer leaves are a light green, with the inner head finely blanched to a rich buttery yellow.

Pkt., 10c; oz., 20c; 1/4 lb., 50c.

## Curled Varieties

Grand Rapids. This is probably the best of the looseleaved varieties. It never forms a head, but produces an abundant crop of pale green leaves, slightly but closely crumpled, which, even when old, retain their characteristic tenderness and brittle character. We strongly urge those who cannot succeed in getting lettuce to head to grow Grand Rapids.

Pkt., 10c; oz., 20c; 1/4 lb., 50c Black Seeded Simpson. One of the most popular sorts It forms large, loose leaves of ideal color; the leave are large, thin, very tender and of very good quality It is one of the best sorts for use under glass as well as for early outdoor planting.
Garly Curled Simpson. Pkt., 10c; oz., 20c; ${ }^{1 / 4}$ lb., 50c close, compact mass of leaves; very early; excellent for forcing.
Early Curled silesian. Early, loose heads, curled, tender and fine flavor........ Pkt., 10c; oz., 20c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
Prize Head. Produces large, loose heads, finely crimped and fringed leaves, outer portions shaded brown; crisp sweet and tender......Pkt., 10c; oz., 20c; $1 / 4 \mathrm{lb}$., 50 c .

## ORDER McCULLOUGH'S ''PROFIT SHARING BACK YARD" COLLECTION 30 (Regular Size) Packets of Vegetable Seeds, \$1.00.

Illustrated on 4th page of cover.

Hanson. Heads green with white heart. Large size, crisp, tender......Pkt., 10c; oz., 20c; 1/4 lb., 50 c .


Granu kaplas

## Romaine, Cos, or Celery Lettuce

## These are distinct from the crdinary Lettuce, and much liked on account of their crisp, tender quality and delicate

 flavor. They produce long, narrow leaves, which are blanched by drawing in the outer leaves and tying.Paris White Cos. One of the best varieties for blanching; very tender.................... Pkt., 10c; oz., 25c; 1/4 lb., 75c. Trianan Self-Folding. A self-blanching Cos Lettuce, very crisp and tender, and of excellent flavor.

## M U S K M E L O N S

One ounce will plant about 50 hills; 2 to 3 pounds in hills per acre.

$I^{\mathrm{N}}$N selecting a patch for melons be careful to have it at a safe distance from your Squashes, Cucumbers, Pumpkins, etc., or they will certainly mix. In preparing the hills, fork in plenty of manure, and about the middle of May, when the ground is warm, plant in each hill eight or ten seeds, and cover half an inch deep. After the danger from bugs is over, pull all but three or four of the strongest plants. As soon as the vines have run sufficiently and spread their branches-stop them by pinching the top off the first running bud. This will strengthen the plants and promote their perfecting fruit early. The ground should be kept free from weeds and frequently cultivated.
Acme. Medium size, oval, slightly pointed at end, ribbed, covered when ripe, with coarse netting. Flesh thick, green, very fine flavored and sweet.

Pkt., 10c; oz., 15c; 1/4 lb., 40c.
Banana. A long, smooth-skinned variety, growing something in the shape of long squash. Fruit about 12 inches long; salmon flesh, which is very sweet, luscious and tender. Rather late maturing. Has a delicious odor....................Pkt., 10c; oz., 15c; 1/4 lb., 50 c .

Burrell Gem. A superior, new, orange-fleshed, shipping melon of splendid flavor, sweet and aromatic; oblong in shape, smoothly rounded ends, closely netted and slightly ribbed, dark green skin. 'Rind thin, but very tough; flesh exceptionally deep, rich salmon-orange color. Fruit averages 6 inches long by 4 inches deep. Very fine for marketing.

Pkt., 10c; oz., $15 \mathrm{c} ; 1 / 4 \mathrm{lb} ., 40 \mathrm{c}$.
Defender. Medium size, salmon flesh, and delicious flavor; oval shape, slightly ribbed and covered with a slight netting. $\qquad$ Pkt., 10
elicious. The result of several years careful selection. The shape is ideal, being slightly oval and heavily netted over the entire surface. The flesh is as thick at the bloom end as elsewhere, and the flesh of the entire Melon is noticeably thick, fine grained and sweet. The color is green with a gold margin next to the seed cavity. It is attractive, both as to outward appearance and when cut.

Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Emerald Gem. Ripens early; medium size; nearly round; flesh a delicate salmon color, very thick, fine grained, and very few melons can compare with it in superb flavor. The rind is thin dark green, ribbed, slightly netted..................Pkt., 10c; oz., 15 c ; 1/4 1b., 50 c .

Extra Early Hackensack. A careful selection from Hackensack. Produces melons two weeks earlier than the well-known Hackensack; heavily netted, and has light green flesh of most delicious flavor; a splendid Cantaloupe melon. Its shape and solidity admit of its being packed very closely in crates for shipment, and it will keep in good condition for several days after picking..........Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb}$., 40c.

Golden Champlain. The extreme earliness of the Golden Champlain, which has made a record of ripening melons in 57 days from planting seed in the open field, puts it ahead of all others in this respect. This earliness is due to its rapid germination and growth, early blossoming and setting, and rapid development after setting. It is only a short time after the melons attain full size until they are ripe.

The Golden Champlain is the only early melon with the high quality of the best later ones. The flesh is of a very rich golden color, very thick, fine and of delicious flavor clear to the rind. It is covered on the outside with a heavy gray netting, over a dark green skin. The size averages from two to three pounds in weight, is nearly round, and slightly ribbed. It is firm and stands up well, does not split open while ripening, and is one of the handsomest melons on the market.

The yield of marketable melons is what really counts in your profit; the Champlain sets a heavy crop and ripens them quickly. Those set close to the center ripen first, then those farther out on the vine, giving a longer picking season than most kinds. There is no other melon which combines all the desirable points as does the Golden Champlain.

The Seed we offer is genuine originator's seed.
Pkt., 10c; oz., 40c; $1 / 4 \mathrm{lb}$., $\$ 1.00$; $1 \mathrm{lb} ., \$ 3.00$.
Hackensack. Melons grow to large size and attractive appearance. Flesh green, very sweet and sugary. Outer skin is heavily netted.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$.


Honey Ball. This melon is one of the most prolific early varieties grown, as it matures about one week later than the Rocky Ford, or in approximately 105 days.

It is as round as a ball and has a very thick wall of delicious green meat clear to the rind. The seed cavity is small, rind is tough and consequently is a good shipping melon. Its color is greenish white until it is fully ripe, when it turns a creamy white or bright yellow, slightly netted. It has a high sugar content and a delicious flavor.

This melon is of large size and almost absolutely uniform. For home use, the melons should be pulled when apparently rise and stored away for a few days before using. The melons, being of uniform size, pack nicely twelve to the crate.

Pkt., 10 c ; oz., 50c; $1 / 4 \mathrm{lb} ., \$ 1.50 ; 1 \mathrm{lb} ., \$ 4.00$.
Honey Dew. All the claims of the introducer of this delicious Melon have been fully realized. Average size is about six to eight inches in diameter, and they weigh five to six pounds. Skin smooth with little netting, and of creamy yellow color when ripe. Flesh is green, thick, melting, fine grained and can be eaten almost to the rincl. Not easily bruised, and stands shipping long distances. Easily pulled when ripe and will keep for several weeks. Matures about ten days later than the Rocky Ford.

Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Improved Green Nutmeg. A large melon, nearly round, deeply ribbed; flesh thick, light green, delicious flavor.

Pkt., $10 \mathrm{c} ;$ oz., 15 c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$.
Ohio Sugar. The flesh is an attractive green of fine texture, sugary, juicy, tender and free from stringiness. It is round, inclined to oval, distinctly ribbed, and thickly netted. Handsome and uniform shape; market and home-garden Melon. Because of its firm flesh and solidity, it is a splendid shipper. Produces good melons on a great variety of soils.

Pkt., 10c; oz., 15c; 1/4 lb., 50c.
Osage, or Miller's Cream. A favorite salmon-fleshed variety. Large oval, slightly ribbed and netted; skin is very dark green. Flesh is very thick and sweet flavored, most delicious to the rind. A great favorite for both market purposes and the home garden.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$.
Rocky Ford. A variety extensively grown in Colorado. The reasons for the widespread popularity of these melons are their superb table and wonderful shipping qualities. which enable them to be carried great distances, and yet arrive in first-class condition for market. The fruit is of medium size, oval shaped, heavily netted and very solid. The flesh is green, thick and juicy. It is early and wonderfully productive.

Pkt., 10c; oz., 15c; 1/4 lb., 40c.
Tip-Top. A yellow-fleshed melon of handsome appearance and excellent quality. A medium sized Muskmelon, nearly round in shape, with shallow netting on skin. The flesh is deep yellow and has a rich flavor. The constantly increasing demand for our strain of Tip-Top Melon Seed permanently establishes its superiority.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} . \mathrm{C} 5 \mathrm{c}$.

## W A TERMELONS

## One ounce for 15 hills- 4 to 5 pounds for an acre.

 HILE a sandy loam is preferable for watermelons they can be grown on a loamy soil having a clay subsoil, provided it is deeply plowed. When ground is warm, plant 6 to 8 seeds in hills 6 to 10 feet apart each way and cover about 1 inch deep. When well up, thin out to 2 vines in each hill. Do not plant on land where Watermelons were grown before, as the vines exhaust elements in the soil which makes succeeding crops defective.Watermelons are slightly less subject to "bug" depredations and disease attacks than Muskmelons. At the same time they are more easily hurt by strong spray mixtures, and caution in the use of such mixtures is advisable.
Excel Improved. Will produce more large, marketable melons under the same conditions than any of the other sorts of the long variety, and its carrying and keeping qualities are unsurpassed. Fruit oblong in shape, dark green color with tracings of light green. Flesh deep red, crisp and tender. Weight, 35 to 60 pounds Pkt., 10c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c .
Tom Watson. An extra long melon of attractive appearance, uniform in shape and quality. The luscious crimson flesh is "as sweet as honey" and of superb flavor. The average melon will weigh 30 to 40 pounds and measure about 28 inches long and about 12 inches in diameter. It is very prolific.
Pkt.,10c; oz.,15c; 1/4 lb.,30c; per lb., 85 c .
Kleckley's Improved. Those who have been growing the Kleckley's Sweet Watermelon will be pleased to learn that we are this season offering a decided improvement on the old type. This improved type grows uniformly large, retaining all the fine qualities as a table melon, with an important added feature of having much harder rind, which assures its satisfactory carrying qualities for long distances. The seeds are all creamy white with no trace of brown. Color of rind is dark bluish green and grows to a much larger size than the old type.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c.
Irish Grey. The size is uniform and large. Color of rind yellowish-gray and almost as tough as that of the Citron. Ripens earlier than Watson and will keep in good condition for a long time after picking. Very prolific and a good shipper. A fine market sort.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c .
Cole's Early. A very early variety. Large heart, flesh of fine texture and good flavor. Rind thin. Fine for the home garden.

Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., 85 c.
Fordhook Early. The fruit is of good size, rather short and blocky in form, with large diameter. Skin dark green, occasionally with faint stripes of lighter green. Rind quite thin, but skin tough, making an excellent shipping variety. Flesh bright red, crisp, sweet, and of splendid quality

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c.
Gray Monarch. Large size; long in shape; the skin is a mottled gray; flesh bright crimson and of sweet, delicious flavor....Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., 85 c .

Halbert Honey. A very sweet, long, dark green variety. Fruit averages 18 to 20 inches long, has a thin rind and deep red meat of delightfully delicious flavor; seeds white. One of the finest for the home garden. Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., 85c.



## Kleckley's Improved

Florida Favorite. Oblong in shape, growing to large size; rind dark, with light green stripes; flesh light crimson, crisp and deliciously sweet.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c.
Sweetheart. Flesh bright red, solid, and tender.
Pkt.. 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb.. 85 c .
Dark Icing, or Ice Rind. A very solid sort with a thin rind, and possesses most delicious flavor.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c .
Long Light Icing. The skin is a mottled gray color, shape long, flesh bright crimson and sweet.

Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c.
Peerless, or Ice Cream. Of medium size; skin light mottled green; flesh scarlet.

Pkt., 10 c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., 85 c.
Rattlesnake, or Gypsy. Fruit large, oblong, striped; flesh red.

Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., 85 c.

## M U S TARD

## One ounce will sow 100 feet of drill.

A small, pungent salad used like Cress. The seed is also used for flavoring pickles, pepper sauce, etc. For salads sow thickly in shallow drills, 6 inches apart, or in frames or boxes during the winter, where frost can be partially excluded. Successive sowings can be made every week or two. To grow seed, sow in April, in rows 1 foot apart, and thin out to 3 inches apart when 2 inches high.
White English. Best for salads.
Pkt., 10c; oz., 15c: $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$.
Chinese, or Giant Southern Curled. The large leaves, which often measure 14 inches, are ready for use in about six weeks after sowing. Leaves are eaten boiled like Spinach..........Pkt., 10 c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$.

## OKRA, OR GUMBO

## One ounce of seed for 300 plants.

This vegetable is extensively grown for its green pods, which are used in soups, stews, etc., to which they impart a rich flavor, and are considered nutritious. Sow the seed thickly in rich ground, about the middle of May, or when the ground has become warm, in drills 3 feet apart, 1 inch deep; thin to 12 inches apart in drills. Culture otherwise much like Corn.

Perkins Mammoth. The pods grow 4 to 5 inches in length and are very tender, long, slim and deep green; plant is dwarf, and very productive.

Pkt., 10c; oz., 15c; 1/4 lb., 25 c.
White Velvet. Pods are round, smooth, velvety white; of superior flavor and tenderness. Plants dwarf, very prolific.......Pkt., 10 c ; oz., 15c ; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$.
Dwarf Green. The best of the dwarf sorts. It makes a stocky growth of plant and is very productive. The pods are long, slender and of a light green color. Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$.
Long Green. Taller than the preceding, bearing long, ridged pods. Highly esteemed in the South............................Pkt., 10 c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$.

## MUSHROOM S P A W N

One pound of Spawn is sufficient for a bed $2 \times 6$ feet.

MUSHROOMS can be successfully and profitably grown during the winter and spring months in frames, under greenhouse benches, in the open fields, or in cellars or out-houses.

We supply many of the largest commercial growers in the United States and have on hand at all times in the season fresh Spawn of the best manufacture.
American Made Pure Culture Mushroom Spawn. A very superior article, made in this country from carefully selected spawn, which it is claimed is much more vigorous than the imported article, and will produce mushrooms of a very superior quality and flavor. The popularity of Pure Culture Spawn is increasing rapidly and many of the large growers are now using it. They claim it is a surer crop. Amateurs have much the best results with this kind. By express-customer to pay charges. Per brick, 30c ; 5 bricks, $\$ 1.25 ; 100$ bricks, $\$ 20.00$. By mail, 35c per brick, 5 bricks, $\$ 1.50$, postpaid.
Mushroom Culture. (Wm. Falconer.) The most practi-
 cal work on the subject; $\$ 1.00$.
Treatise on Mushroom Culture. 10c, or given with an order of 10 lbs . of Mushroom Spawn
Special Prices will be given to those who use Mushroom Spawn in quantity.

## ONIONSEED

FOR sets, drill the seed thickly as early as possible in the spring. As soon as the tops dry off in the Summer, remove to a dry, airy place. May also be grown to full size the first season by sowing thinly in drills one foot apart and one-quarter inch deep, in March or early April, thinning to three or four inches apart.

By sowing in frames in February or March and transplanting in April, onions of immense size can be obtained. For this purpose the Southport Globe varieties (white and yellow) and Prizetaker are usually preferred. Onions delight in a strong, rich, deep loamy soil, and succeed well if grown successive years on the same ground.

One ounce for 150 feet of drill. 5 to 6 pounds for one acre. Onion seed for sets, 30 to 40 pounds per acre.

Yellow Globe Danvers. A standard sort; an excellent keeper and very productive. Our strain of this variety is the true globe shape, and not of the flat type. It is the best paying onion that is grown for general crop, and has been the leading variety for years.

Pkt., 10c; oz., 25c; 1/4 lb., 75 c .
Ohio Yellow Globe. Sure cropper; long keeper; early. This fine strain is of that extreme type of Globe now so deservedly popular in all large Onion markets. Its main points of excellence are: Distinct and attractive shape; handsome, bright, even color; necks very small; ripens early and all at once. The solid bulbs are excellent winter keepers, and all that can be desired in size and quality......Pkt., 10c; oz., 25c; $1 / 4 \mathrm{lb} ., 75 \mathrm{c}$.
Ailsa Craig. This variety grows to an enormous size. By using the transplanting method, specimens have been grown to weigh 3 pounds. It is globe-shaped, has a fine straw-colored skin and is of very mild flavor. The shape and color together with its great size makes this sort ideal for exhibition purposes.

Pkt., 10c; oz., 25c; 1/4 lb., 75c.
Prizetaker. The true Prizetaker is globe shape, has pale yellow skin and white flesh, which is very mild and of delicate flavor. It is strictly "fancy", and will be found on fruit stands during the fall, where it is sold as Spanish Onion. No sets are required, as the large Onions are grown the first year from seed sown during early spring. Pkt., 10c; oz., 25c; 1/4 lb., 75 c.
Southport Yellow Globe. A very large, handsome, globular-shaped yellow variety, very productive, of mild flavor. The outer skin is' beautiful pale yellow; the bulbs are of a beautiful globe-shape and good keepers............... Pkt., 10c; oz., 25 c ; $1 / 4 \mathrm{lb} ., 75 \mathrm{c}$.
Ebenezer (Japanese). This is the mildest yellow Onion in our list. The Onions are large, somewhat flattened, have attractive yellow skin and firm white flesh of delicate flavor; very small top and ripens quite early for so large a variety. One of the best keeping sorts. Sets of the Ebenezer keep almost indefinitely.

Pkt., 10 c ; oz., 25 c ; $1 / 4 \mathrm{lb}$., 75 c .


Yellow Danvers. Bulb of good size and flat, the standard yellow onion for market or home use, being both early and an enormous yielder as weli as good keeper.
Pkt., 10c; oz., 20c; $1 / 4$ lb., 60c.
Yellow Dutch, or Strasburg. A good keeper and well flavored; bright straw colored skin and somewhat flattened shape. The Onions grow to a good size and are very mild. This valiety is largely grown for sets.
Pkt., 10c; oz., 20c; $1 / 4 \mathrm{lb} ., 60 \mathrm{c}$.
Large Red. Wethersfield. Grows to full size the first season from seed. The Onions are large, flat in shape, with skin of a purplish-red color and flesh of a purplish-white color. rather strong-flavored; an excellent keeper.
Pkt., 10c; oz., 25c; 1/4 lb., 75 c.
Southport Red Globe. Beautiful globe-shaped; of medium size, a good keeper and of superior quality. Very popular in some sections.

Pkt., 10c; oz., 25c; 1/4 lb., 75c.
White Portugal, or Silver Skin. This variety is one of the leading white sorts. The bulbs are flat in shape and mature early. Largely used for growing sets.

Pkt., 10c; oz., 25c; $1 / 4 \mathrm{lb} ., 75 \mathrm{c}$.
Southport White Globe. Pure white color, mild flavor. A good keeper and very productive. It is best to dry these Onions in a shady place, where they will get plenty of air.......Pkt., 10c; oz., 40c; $1 / 4 \mathrm{lb} ., \$ 1.50$.
Mammoth Silver King. A large, flat variety. Specimens have been grown to weigh as high as 4 pounds. Skin pure white and flesh tender.

Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.
White Queen. A rapid-growing variety of mild flavor; pure white, and splendid for pickling.

Pkt., 10 c ; oz., 30c; 1/4 lb., \$1.00.
White Barletta. An extra early small white Onion; similar to White Queen. . . . Pkt., 10 c ; oz., 30c ; $1 / 4 \mathrm{lb} ., \$ 1.00$.
Early White Bunch. Used largely for pulling when young, as a bunch Onion. If left to mature, grows to good size; very showy. Pearly white skin. Flesh of good quality and a good keeper.

Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.

## ONION SETS

Onion Sets should be planted out as early in the Spring as the ground is dry enough to work; plant them in rows 12 inches apart, with sets 2 inches apart in the row. We handle sets of the standard varieties.

Prices subject to market changes.
Lowest market price will be given upon application.

## P A R S N I P

One ounce for 200 feet of drill. 4 to 5 pounds for an acre.
SOW seed early in spring, in deep, rich soil in drills. Scatter the seeds thinly and cover evenly with a rake. After the appearance of the plant, the soil must be stirred frequently until the leaves cover the ground. The seed is slow to germinate, and is frequently a long time in coming up; will vegetate sooner by steeping 6 to 12 hours in a liquid manure, diluted with water and mixed with sand before sowing. When well up, thin out to 5 to 6 inches apart in the rows. Unlike Carrots, they are improved by frost, and it is usual to take up in fall a certain quantity for winter use, leaving the rest in the ground until spring, to be dug as required.
Large Sugar, or Hollow Crown. The best variety; roots long, very smooth, white, tender, sugary and of excellent flavor. This strain was made by careful selection of roots growing to an ideal shape and having the distinct hollow crown.

Pkt., 10c; oz., 15c; 1/4 lb., 35c.
Student, or Guernsey. A good half-long variety, smooth, sweet and of delicate flavor..Pkt., $10 \mathrm{c} ; \mathrm{oz} ., 15 \mathrm{c} ; 1 / 4 \mathrm{lb} ., 35 \mathrm{c}$.


Large Sugar, or Hollow Crown

## P A R S L E Y

## One ounce to 200 feet of drill.

SOW thickly early in April, in rows one foot apart and one-half inch deep; thin out the plants to stand six inches apart in the rows. The seed is of slow germination, taking from three to four weeks to make its appearance, and often failing to come up in dry weather. To assist its coming up quicker, soak the seed a few hours in warm water, or sprout in damp earth, and sow when it swells or bursts. For winter use, protect in frame or light cellar.
Norwood. Fine curled leaves of rich, dark green, compact growth; finest quality........................ Pkt., 10c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$.
Extra Double Curled. Beautifully crimped and curled.
Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$.
Moss Curled. Fine for garnishing..Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 35 c$.
Plain. A hardy variety having dark green leaves which are not curled. It is a little stronger in taste and much esteemed for flavoring soups and stews, as well as for drying.

Pkt., 10c; oz., 15c; 1/4 lb., 35c.
Hamburg Turnip Rooted. The fleshy root resembles a parsnip and is used for flavoring soup, stews, etc.

Pkt., 10c; oz., 15c; $1 / 4$ lb., 35c.

## P E P P E R

## One ounce of seed for 1,500 plants.

SOW early in the spring in hotbeds, if possible, and transplant to the open ground when the weather is favorable, or sow in drills in warm, mellow soil late in the spring, and then thin out so as to stand 18 inches apart.
Topepo. In the Topepo we offer a new vegetable of exquisite flavor and delicious quality. It is not an improvement on some other strain, but is a new and distinct creation. The color is a vivid red, deeper than the tomato, or golden yellow, striped with dark green. Resembles the Bell Pepper in flavor, but is sweeter with some of the zest of the tomato flavor. Fruit is four to five inches in diameter, with the regular bulges of the Bell Pepper. The seed we offer is the original strain of J. F. O'Keefe. The Topepo is superior to the Pepper for stuffing and baking and is also used for slicing in salads, for flavoring soups and gravies, or dressings, and for stuffing with shrimp, crab and lobster. . Pkt., $25 \mathrm{c} ; 5$ pkts., $\$ 1.00$.
Golden Dawn. Of same shape and size as Large Bell, but of more delicate flavor; color yellow......................Pkt., 10c; oz., 40c; $1 / 4 \mathrm{lb} ., \$ 1.50$.
Celestial. Fruit conical in shape, one to two inches long; green from the blossom, turning alternately to lemon, golden and scarlet.

Pkt., 10c ; Oz., 40c; $1 / 4 \mathrm{lb} ., \$ 1.50$.
Chinese Giant. Flesh is thick, mild and very sweet. Largest pepper grown....................................... Pkt., 10c ; oz., 50c; 1/4 lb., \$1.75.
Ruby King. Large size, ruby red pods; flesh exceedingly thick, sweet and mild.............................................. 10c; oz., 40c; $1 / 4 \mathrm{lb} ., \$ 1.25$.
Spanish Monstrous. Early and productive; flesh very sweet and mild. Pkt., 10c; oz., 40c; 1/4 lb., \$1.50.
Sweet Mountain. Similar in shape to the Bell, but grows larger; rind thick, tender and fleshy. . . . . . . . . . . . . . . . . . Pkt., 10 c ; oz., 40 c : $1 / 4 \mathrm{lb} ., \$ 1.25$.


Large Bell, or Bull Nose. Large and early; rind very thick; color glossy red; flavor mild and pleasant.
Pkt., 10 c ; oz., 40 c ; $1 / 4 \mathrm{lb} ., \$ 1.25$.
Pimento. The fruit is of good size, medium length and attractive color. The flesh is thick and solid, mild and of fine flavor. Desirable for salads and stuffed peppers. The plants are vigorous and upright, about two to two and one-half feet high, with short, broad, dark green leaves. The i ruit is deep green when young, becoming deep red as it matures................................................................ 10c; oz., 40c; 1/4 lb., $\$ 1.25$.
Long Red Cayenne. From 3 to 4 inches long, bright-red color, very productive and hot.
Pkt., 10c; oz., 40c; 1/4 lb., \$1.25.
Small Cayenne, or Red Chili. Pods $11 / 2$ to 2 inches long, very hot; used for making pepper sauce.

## GARDEN PEAS

One pound will plant about 50 feet of drill-90 to 120 pounds per acre.

PEAS succeed best in light, dry, loamy soil. Early and Dwarf sorts require richer soil than the late varieties. If manure is used, let it be old and well rotted, or there will be a rank growth of vines with few pods. Sow the early, smooth, round sorts as early in spring as the ground can be worked. Seeds of wrinkled varieties are more liable to rot if the ground is cold, and must be planted later. From the first sowing, sow every two weeks until June for a succession. After that there is danger of mildew. Discontinue then until August, when a planting of extra early or early sorts will often produce a good crop. Sow the seed in single drills, three feet apart for dwarf sorts and four for tall sorts, or in double drills six or eight inches apart, one inch apart in the drill, and not less than four inches deep, since deep planting prevents mildew and prolongs the season. Cultivate well, and draw the earth twice to the vines during growth. Stake the tall varieties when they begin to vine. Pick the pods as soon as fit, and allow none to ripen on the vines, as they will then cease bearing. All kinds of Peas do best when supported with brush or wire.

All varieties of Peas. pkt., 10c., postpaid: for larger quantities by mail, see "Postage', 2nd page of cover.

## Early Varieties

$\qquad$ McCullough's ${ }^{\text {MMaud }}$ strong texture, which shape, and of distan For a late fall crop it has seasons. The far northern point at which our Peas are grown renders them almost proof against cold, and the best for early spring or late fall crop. Thousands of market gardeners have pronounced this Pea unequaled in earliness, yield and regularity of growth. Make first planting as early in the spring as the ground will permit and cover well.

Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5$ lbs.,\$1.20; $15 \mathrm{lbs} ., \$ 3.00$.
Alaska. A wonderful early, smooth, blue Pea; vines slender; pods very dark green, about three inches long, well filled with small, smooth, blue-green peas. The earliness, uniformity in ripening and deep color render it a desirable market and canning pea; height 2 feet. Pkt., 10c; 1/2 lb.,20c; 1 lb.,30c; 5 lbs.,\$1.20; 15 lbs.,\$3.00.



Laxtonian. The pods of Laxtonian are very large, and are produced on a low-growing, sturdy vine, without support of any kind. The flavor is just as rich and good as any of the later varieties. It is ready for use about a week later than the very early sorts, and is incomparably good in quality. Pods and plant are rich, dark green in color.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 35 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.35 ; 15 \mathrm{lbs} ., \$ 3.75$.
Little Marvel. As early as American Wonder and Nott's Excelsior, the pods are larger and the vines produce a heavier crop. For quality and productiveness it is away ahead of everything in the way of extra early wrinkled peas. It is dwarf, growing about 15 inches high, and the plants are very productive, bearing many twin pods, which are dark green in color.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25$; $15 \mathrm{lbs} ., \$ 3.25$.
American Wonder. This variety stands unrivaled in point of flavor and quality. It is dwarf and robust in habit, growing from 10 to 15 inches in height, according to soil. Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.25$.
Nott's Excelsior. A dwarf wrinkled Pea of the highest excellence. The pods average three inches in length and are well filled with peas of large size and unusually sweet flavor; height one and one-fourth feet.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.25$.
Premium Gem. An improved Little Gem Dwarf, green, wrinkled, very prolific, fine flavored, large pods, excellent either for market or home use; height, one and one-half feet.
Pkt.,10c; 1/2 lb.,20c; 1 lb.,30c; 5 lbs.,\$1.10; 15 lbs.,\$3.00
Gradus or Prosperity. This remarkable Pea is not only large and of the best quality, but is within two or three days as early as the small, round, extra early sorts. Gradus is a wrinkled Pea, growing about 30 inches high; the pods are of a bright green color, measuring 4 inches or more in length, as large as Telephone, well filled with luscious peas, 8 or more in a pod. The peas are of the highest table quality and retain, in a remarkable manner, their color and attractive appearance after cooking. Make the earliest sowing in the warmest spot in the garden.
Pkt.,10c; 1/2 lb.,20c; 1 lb.,30c; 5 lbs.,\$1.25; 15 lbs.,\$3.25.
Thomas Laxton. A cross between Gradus and one of the Extra early sorts. It ripens within a day or two of the earliest round varieties, and is extremely productive. The pods are very large and contain 7 or 8 largesized wrinkled peas of the finest flavor. It is darker colored than the Gradus and hardier in constitution; height, three feet.
Pkt.,10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.25$.

WE HANDLE PEAS BY THE CARLOAD-Write for Special Prices If You Use Them in Quantity.

## GARDEN PEAS—Continued

All varieties of Peas, Pkt., 10c. postpaid; for larger quantities by mail, see "Postage" 2nd page of cover.

## Second Early and Main Crop

Dwarf Telephone or Daisy. A mid-season variety; vines dwarf and produce large, bright green pods containing peas of finest quality.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.35 ; 15 \mathrm{lbs} ., \$ 3.50$
Advancer. This Pea is used very.extensively by market gardeners on account of its productiveness, the fine appearance of its pods and its exceedingly fine flavor. It is a wrinkled variety, grows about two feet in height, but needs no brushing as it stands up very strong itself. Has broad, long pods. which are abundantly produced and well filled to the end.

Pkt., 10 c ; $1 / 2 \mathrm{lb} ., 20 \mathrm{c}$; $1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.25$.
Admiral Dewey. The largest podded Pea yet introduced. Height, $31 / 2$ feet; pods a rich, dark-green color, frequently 6 inches long, beautifully shaped. Peas large, tender and of fine flavor.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.25$.
Telephone. The favorite late variety; extra large pods. This Pea has proven to be a most valuable introduction. Vine large, leaves coarse, height about 4 feet. The pods are very large and filled with immense peas, which are largest of any. Tender, sweet and of splendid quality and flavor. A valuable feature of this variety is that it continues in bearing for an extremely long time. The stock we offer has been selected with every care, and will give satisfaction to the most exacting grower.

Pkt., 10c; 1/2 lb., 20c; 1 lb., 30c; 5 lbs., \$1.25; 15 lbs., \$3.25.
Alderman. A new Pea like the Telephone, only better. The vine is extra vigorous, and the pods of Alderman are dark green and always well filled with fine large peas. For a pea which should be staked there is none quite so good as Alderman. It is one of the finest of the large-podded summer varieties. The haulm grows five feet in height and is of a rich, dark green coloring, as are also the large pods. Pods frequently measure nearly six inches in length and contain from ten to twelve very large peas of superior flavor.

Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} . . \$ 3.25$.
Improved Champion of England. One of the best known of the older varieties; a tall-growing, green, wrinkled marrow; quality unsurpassed; pods medium; peas large. Five feet.

Pkt., 10c; $1 / 2$ lb., 20c; 1 lb., 30c; 5 lbs., $\$ 1.25 ; 15$ lbs., $\$ 3.00$.
Dwarf Sugar. Edible pods. Can be used in a green state like string beans. Height, five feet. ........Pkt., 10c; $1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25 ; 15 \mathrm{lbs} ., \$ 3.50$.
Mammoth Luscious Sugar. This variety grows to a height of five feet and bears profusely, long, broad, light green pods. If picked when about half grown, broken and boiled like string beans and served with butter sauce, they make a
luscious dish................Pkt., $10 \mathrm{c} ; 1 / 2 \mathrm{lb} ., 20 \mathrm{c} ; 1 \mathrm{lb} ., 30 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.25$.

## P E A N U T S

$S^{\mathrm{H}}$ELL the nuts and plant in April or May in drills 2 to $21 / 2$ feet apart, dropping 2 seeds 12 to 15 inches apart in the drills.
Mammoth Virginia. The most profitable variety to grow as a market crop. Erect stems and upright foliage with large pods and kernels..

.Pkt., 10c; 1/2 lb., 20c; per lb., 30c.

## P U M P K I N

One ounce for 25 hills.

THEY are generally planted in cornfields, but they can not grow as large or fine as if the vines were not shaded. A good plan would be to plant a few sceds in the potato patch, as they are less apt to be injured by the crop of potatoes than of corn.


Large Cheese. An excellent keeper, color bright orange. Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 75 c .

Cashaw Crook-Neck Striped. Grows to a medium size; flesh light yellow, and is the best variety for table use. Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.50$.
Golden Cashaw. Beautiful golden-orange color; an improvement on the old Cashaw. Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.50$.

Japanese Pie. Is very productive, ripens early, of medium size, good keeper, and weighs 15 to 20 pounds each. The flesh is a rich salmon color.

Pkt., 10 c ; Oz., 15 c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.50$.
Mammoth Tours. A productive French variety, which grows to an immense size.

Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Small Sugar. Fruit of small size, averaging about ten inches in diameter, of excellent keeping qualities, flattened or slightly ribbed. Skin deep orange-yellow, flesh very sweet. This should be more generally grown, as it is really one of the best for pies.

Pkt., 10 c ; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.
Tennessee Sweet Potato. Medium size, pear-shaped, a little ribbed, color creamy white, sometimes lightly striped with green.

Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.50$.
Connecticut Field. A large, yellow variety.
Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 70 c .
Kentucky Field. Good for cooking purposes and for feeding stock.

Pkt., 10c; oz., 15c; 1/4 lb., 25c; per lb., 60c.

## R A D I S H

## One ounce to 100 feet of drill- 8 to 10 pounds for an acre.

SW early and often. In good, warm, fibrous loam; especially if quite sandy, summer Radishes will make a crop in 4 to 6 weeks from sowing. The soil should be well prepared, and fertilizers may be used freely. Have the rows a foot apart, and sow just seed enough so that they will not require thinning. Any little spot that becomes a vailable during summer may be utilized for planting Radishes. The short or turnip-rooted sorts are quickest and easiest to grow and good for forcing also. On greenhouse bench or in frames the rows need not be more than 4 inches apart. Sow winter Radishes in July and August. They grow best in the cooler Autumn weather. Take them up before severe freezing and store in sand in the cellar or in a pit, where they will keep tender and crisp all winter.

## Special prices given to market gardeners.


We were the introducers of this remarkable radish, which has proven one of the best long Radishes ever offered. It is largely grown by the Cincinnati market gardeners. The tops are so small that the radishes may stand touching each other in the rows. They grow perfectly straight and smooth and from six to seven inches in length. Their attractive, glossy, scarlet skin is very thin and the fiesh crisp and brittle, and of delightful pungent flavor. It is the finest Long Red Radish for forcing and out-sells any other that is put in competition with it on the market. Being long standing, it is also an extra fine sort for the home garden, entirely exempt from any tendency to become pithy or hollow.

Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., \$1.00 Crimson Giant. This variety is suitable both for forcing or early planting out of doors. A remarkable feature of this Radish is that it will grow double the size of other round red forcing Radishes and still remain solid. The ordinary forcing Radish, after growing to the size of 2 inches in circumference becomes pithy, while the Crimson Giant will grow to 6 inches in circumference, and still remain solid and juicy, free from all signs of becoming soft.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$
Non Plus Ultra. The smallest topped and earliest rorcing Radish Roots small, round; deep rich scarlet; very crisp and tender white flesh.. ....Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$
Rosy Gem. We have a very clean and beautiful strain of this popular sort. It is extremely early, maturing in 25 days, and is largely used for growing both under glass and outdoors. It is round, bright scarlet and has a handsome white tip.

Pkt.. 10c; oz., 15c: 1/4 lb., 30c: per lb.. \$1.00.
Earliest White Globe. The earliest white olive-shaped Radish in existence, beautiful, transparent ivory-white, very smail root small top; flesh white, tender and crisp. It is particularly adapted to forcing in greenhouse or hot-bed, also does well in open ground

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.


Cincinnati Market


White Icicle

Scarlet Globe. One of the earliest and best sorts for forcing; flavor mild; crisp and juicy; also good for garden culture.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c} ;$ per lb., $\$ 1.00$.
Scarlet Turnip. A small top variety, of quick growth, mild and crisp. It is a standard sort for early planting in the open ground.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.
Scarlet Turnip, White Tipped. Bright scarlet color, gradually fading off to pure white at the base, tender and mild in flavor, early.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.
White Turnip. An early, crisp, turnip-shaped Radish of pure white color.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.
French Breakfast. A variety of quick growth, mild and tender, and one of the best for forcing. Oval form, scarlet, tipped with white.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.
Golden Globe. Perfect globe-shape, and golden-colored skin, quick growth, tender and brittle.

Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.


Fine long white Radish, with beautiful shape; skin and flesh, pure white.

Pkt.,10c; oz.,15c; 1/4lb.,30c; per lb., $\$ 1.00$.
Long Scarlet, Short Top. Long, of a deep scarlet color; flesh white; crisp and of good flavor.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.
White Icicle. The finest long, white Radish; the young Radishes are ready for use in 25 days, and continue to grow, fully retaining their crisp tenderness and mild flavor until quite large. These Radishes are transparent white, have small tops, allowing close planting, and are very crisp and brittle. A feature greatly in its favor is that it remains in good condition while growing for a long time, thus allowing a continuous pulling from the same planting.

Pkt., 10c; oz., 15c ; 1/4 lb., 30c; per lb., \$1.00.
White Strasburg. Oblong, tapering shape, skin and flesh pure white, firm and brittle; fine for winter use.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 c ;$ per lb., $\$ 1.00$.
Chartier. Half-long, of quick growth; color deep pink above and gradually blending into a pure waxy white to root. .Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.

## Radish-Winter Varieties

TTHESE grow to large size, have flrm, hard flesh, and can be kept in good condition for use all winter by packing the roots in moist sand or soil in a cold cellar before the ground freezes in the fall. To have them crisp and free from woodiness the seed should not be planted until late in the summer, as if planted too early the roots would be apt to become hard and woody before it is time to put them away in the fall. A good rule to follow would be to sow the seed at the same time as you would plant seed for winter turnips, and where only a small supply is needed the seed should be sown in the same patch with the turnips.

Black Spanish, Oval Shape. A black valuable winter sort...Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c} ;$ per lb., $\$ 1.00$. Black Spanish Long. Differs from the above only in shape..Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c} ;$ per lb., $\$ 1.00$. Celestial. An all-season white Radish.

Pkt., 10c; oz., 15c; 1/4 lb., 30c; per lb., \$1.00. Chinese Scarlet. Half-long, flne winter sort, keeps well.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$. Mammoth White Winter. A giant white-fleshed fall Radish.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c} ;$ per lb., $\$ 1.00$.

## R H U B A R B

## One ounce will produce about 600 plants.

GOOD plants are easily grown in any good garden soil. Sow in April in drills 18 inches apart and cover the seed with fine soil, pressing it down firmly. When the plants are strong enough, thin out to 6 inches. Keep soil loose and free from weeds. In fall or spring following, transplant to the permanent bed, 4 feet apart each way, in deep, warm and very rich soil. The more manure the better stalks.
Linnaeus. Best sort for general purposes; early, large | Victoria. Very large; later than Linnaeus.



## S A L S I F Y or vegetable oyster

One Ounce Will Sow 200 Feet of Drill.

COMMONLY called Vegetable Oyster. The cultivation is precisely the same as directed for Parsnips, and it will keep over winter, in the ground where grown, in the same way as Parsnips, but should be taken up before it starts growing in spring.
Long White French. Roots of medium size, white and smooth.
Pkt., 10c; oz., 20c; 1/4 lb., 60c.
Mammoth Sandwich Island. This variety will average nearly double the size of the White French, and is of excellent quality. The best variety for market gardeners' use........................................................ Pkt., 10c; oz., 20c; 1/4 lb., 60c.

## S PINACH

One ounce for 100 feet of drill-10 to 12 pounds for an acre.

FOR spring and summer use. sow aithor hroadcast or in drills as early as the ground can be worked. The fall sowing is the main one with our market gardeners, which is done from August to October and by careful attention they have it in marketable condition throughout the entire winter and spring.

If the land is dry the seed should always be rolled or trampled in, for if the soil is loose the hot air shrivels the seed, so that it will not germinate.


meccullough's Norwood Savoy

McCullough's
This variety is one of the most important for market gardeners, also one of the best for the kitchen garden. A quick-growing, roundseeded variety, producing in abundance, thick, dark green, slightly crumpled leaves; in large demand for either spring or fall sowing ...Pkt., 10c; oz., 15c; 1/4 lb., 25 c ; per lb., 45c. Bloomsdale Savoy. The hardiest large Savoy leaved, curled and crimpled, with thick, fleshy leaves; good for family and market purposes.

Pkt., 10c; oz., 15c; 1/4 lb., 25c; per lb., 40 c .
King of Denmark. This variety is superior to all others for spring planting, as it continues to grow and hold its fine quality for weeks after the other sorts have gone to seed. Makes a quick and low growth, producing an abundance of dark green leaves of large size and very much crumpled. It is ready for use as soon as other varieties and the leaves hold up remarkably well after being cut. The quality is excellent both for growing in the home garden and for market.

Pkt., 10c; oz., $15 \mathrm{c} ; 1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 50 c.
New Zealand. Yields an abundance of the tenderest Spinach during the hottest months of the year, or in dry arid localities where the ordinary Spinach runs to seed. The seed is sown where the plants are to stand, in May, or earlier in a hotbed and transplanted, and the plants will continue to yield a supply of good leaves of excellent quality during the entire summer, requiring scarcely any attention..........Pkt., 10c; oz., 15 c ; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$.

## S Q U A S H

One ounce of the Bush Varieties for 40 Hills , or of the Large-Seeded Kinds, 15 Hills. Two to Three Pounds of the Bush, and 3 to 4 Pounds of the Large-Seeded for an Acre.

r
T IS useless to sow until the weather has become settled and warm. Light soils are best suited for its growth. Prepare hills for the seeds by incorporating 2 or 3 shovelfuls of well-rotted manure with the soil for each hill. Plant the bush varieties from 3 to 4 feet each way, and the running sorts
 from 6 to 8 feet. Eight or ten seeds should be sown in each
hill, thinning out after they have attained their rough leaves, leaving 3 or 4 of the strongest plants, after which cultivate same as Cucumbers.

To repel the Squash vine borer put a handful of tobacco dust close around the plants.

For Yellow-striped beetle and blight, spray early and often with Bordeaux Lead Mixture or Sulfocide. Also dust with Bug Death or Slug Shot.

## Summer Varieties

Mammoth White Bush. The best early variety for market or shipping. It grows to a large size; scalloped like a patty-pan.

Pkt., 10c; oz., 15c; 1/4 lb., 40c; per lb., \$1.25.
Early Yellow Bush. An early, flat, scallop-shaped variety; color yellow; flesh pale yellow and well flavored.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Summer Crook-Neck. Covered with warty excrescences; color bright yellow; shell very hard when ripe.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.
Vegetable Marrow. Skin a greenish-yellow, flesh white, grows 9 to 18 inches long.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.

## Fall and Winter Varieties

Hubbard. Standard Winter Squash; grown more extensively than any other late variety; color dark green, shell extremely hard; flesh dry, fine grained and sweet; excellent keeper.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb.. $\$ 1.25$.
Warted Hubbard. This strain, without doubt, grows the finest Hubbard in existence. The wartiness indicates a very hard shell, which is one of the features in a long-keeping Squash; it also denotes extra choice quality - the harder and more warty the shell of a Hubbard Squash is, the more delicate and sweet the flesh will be found to be.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.

Golden Hubbard. Fruit is of the same shape as Green Hubbard, and warted, but average one-half to one-third smaller in size. They are earlier in season, but keep in fine condition through the winter. The skin is deep orange-yellow and very attractive. Flesh is deep golden-yellow, fine grained and delicious. Pkt., 10c; oz., 15c ; $1 / 4 \mathrm{lb} ., 40 \mathrm{c}$; per lb., $\$ 1.25$.

Mammoth Chili. Rich orange-yellow; flesh thick and of good quality for making pies; grows to an enormous size; a valuable sort for feeding stock.

Pkt., 10c; oz., 15c; 1/4 1b., 40c; per lb., \$1.25.
Boston Marrow. A popular winter variety; quality unexcelled.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 30 \mathrm{c}$; per lb., $\$ 1.00$.


Delicious. Resembles the old Hubbard, having a dark olive-green hard shell, weight from 5 to 10 lbs. For table use, it cannot be excelled, the flesh being remarkably thick, fine-grained, sweet and of rich flavor.

Pkt., 10c; oz., 20c; 1/4 lb., 60c; per lb., $\$ 2.00$.
Fordhook. A winter Squash of great merit. Of handsome bright yellow color outside and straw-yellow within. The flesh is dry and sweet.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$; per lb., $\$ 1.50$.


## TOBACCO

THE seed should be sown as early as possible after danger of frost is over. A good plan is to burn a quantity of brush and rubbish in the spring on the ground intended for the seed-bed, then dig and thoroughly pulverize the earth and mix the ashes, after which the seed may be sown and covered very lightly.
White Burley. Extra stock, grown largely for the manufacture of fine-cut.....Pkt., 10c; oz., 50c.
Stand-Up Burley. The leaves instead of drooping have a more erect position on the plant, turning upward rather than down-hence the name "Stand-Up." It is fast becoming the most popular type of Burley and largely grown by planters in all Burley ssections.

## T O M A T O

One Ounce of Seed Will Produce About 3,000 Plants.

SOW in a hotbed, green-house or window in a sitting room, where night temperature is not less than sixty degrees, about the first week in March, in drills five inches apart and half an inch deep. When the plants are about two inches high they should be set out in boxes three inches deep, four or five inches apart, in same temperature, or removed into small pots, allowing a single plant to a pot.

They are sometimes transplanted a second time into larger pots, by which process the plants are rendered more sturdy and branching. About the middle of May, the plants may be set in the open ground. They are planted for early crops on light, sandy soil, at a distance of three feet apart, in hills in which a good shovelful of rotted manure has been mixed. On heavy soils, which are not suited for an early crop, they should be planted four feet apart. Water freely at the time of transplanting and shelter from the sun a few days until the plants are established. For late use, sow in a sheltered border in May, and set out the plants in July; the green fruit can be picked off before frost and ripened under glass. By training the tomato vines on trellises or tying to stakes, they will increase in productiveness, the fruit will ripen better, and be of finer quality. To control blight, spray with Bordeaux, and to control fungi, spray with Sulfocide.
John Baer. An early tomato; produces large, bright red, solid tomatoes and has a mild and deliciously sweet flavor. Fruit is solid and makes a good shipping tomato.....Pkt., 10c ; oz., $40 \mathrm{c} ; 1 / 4 \mathrm{lb} ., \$ 1.35$.

Earliana. The earliest tomato, of good size and flavor; fruit is deep scarlet, of medium size, averaging $21 / 2$ inches in diameter; with solid center and slightly acid flavor................ Pkt., 10 c ; oz., 35 c ; $1 / 4 \mathrm{lb}$., $\$ 1.00$.

Early Jewel. This early variety is one of the best; fruit medium size, solid, bright scarlet in color, with very few seeds.... . . . . . . Pkt., 10 c ; oz., 35c ; $1 / 4 \mathrm{lb} ., \$ 1.00$.

Detroit. A second early purple tomato; bears uniformly large, handsome, smooth, globe-shaped fruit of excellent quality; is also a desirable variety for shipping.

Pkt., 10c; oz., 35c; $1 / 4 \mathrm{lb} ., \$ 1.00$.
Bonny Best. Fruit of good size, bright red color, smooth, solid and uniform. A second early and very productive. Pkt., 10c; oz., 35c; $1 / 4 \mathrm{lb} ., \$ 1.00$.

June Pink. Resembles the Earliana in habit of growth and shape of fruit, but the color is pink. The fruit begins to mature very early; measures 3 inches in diameter and is of excellent quality.

Pkt., 10c; Oz., 35c; 1/4 lb., \$1.00.


The plants are strong and vigorous, bearing an abundance of large, smooth fruit of a beautiful purplish crimson color, which is produced in clusters of four to six; is large, of perfect shape, and retains its size until late in the season. The flesh is remarkably thick, firm and solid and of the finest quality, with few seeds.

Pkt., 10c; Oz., 30c; 1/4 lb., \$1.00.
McCullough's Radio. This Tomato is a cross between Truckers Favorite and Bonnie Best. Introduced by us as a medium early variety, it fully met all our expectations as it is ready for market immediately following the extra early varieties, coming on the market when demand and prices are at their best for second early sorts. Its large and uniform size, splendid purple color, firmness and flavor commend it to the Amateur or Professional Gardener as the best Tomato introduced by us during the past twenty-five years. This variety is a heavy yielder of uniform-sized fruit and continues in bearing until frost.

Trucker's Favorite. One of the finest large-fruited purple sorts. The plants are of strong growth and productive. Fruit is large size, deep through, very smooth and regular, free from cracks, solid meaty, with small seed cells and fine flavor.. Pkt., 10 c ; oz., 35 c ; $1 / 4 \mathrm{lb} ., \$ 1.00$.

Dwarf Champion. Of dwarf, stiff, distinct, upright growth, scarcely needing support; early and prolific; smooth, medium-sized fruit of pinkish purple color. Pkt., 10c; oz., 35c; 1/4 lb., $\$ 1.00$.


McCullough's Radio
Cincinnati Purple. A valuable variety, especially adapted for canning and shipping. It is very large, color a dark purplish red.

Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.
Beauty. Rich, glossy crimson, with a slight purple tinge. The fruit grows in clusters of four to five, is of large size. very smooth, and retains its character until late in the season.......Pkt., 10 c ; oz., 30c; $1 / 4 \mathrm{lb} ., \$ 1.00$.
The Stone. Fruit very large and deep; bright scarlet; smooth; ripening evenly to the stem without a crack; exceedingly solid and firm-fleshed; of finest quality.

Pkt., 10c; oz., 30c; 1/4 lb., $\$ 1.00$.
Matchless. A standard main crop, bright red variety, producing enormous crops of finest scarlet fruit.

Pkt., 10c; oz., 30c; 1/4 lb., \$1.00.
Buckeye State. The large tomatoes are borne in immense clusters of four to eight. Color rich, glossy crimson, with a slight purple tinge.

Pkt., 10c; oz., 40c; 1/4 lb., \$1.30.
Crimson Cushion or Beefsteak. Is very large, round and regular; bright scarlet skin, solid flesh of best quality, seed cells small. Plants are very prolific and of fine appearance...Pkt., 10 c ; oz., 50 c ; $1 / 4 \mathrm{lb} ., \$ 1.50$.
Ponderosa. One of the largest fruited tomatoes. The fruit is of a purplish pink color, very solid and ripens early; nearly seedless, with firm, meaty, rich red flesh; unequaled and delicious either sliced, cooked or canned; a healthy, luxuriant grower and continuous yielder from early in the season until frost.

Pkt., 10c; oz., 50c; 1/4 lb., \$1.50.
Golden Queen. Large, smooth fruit, of a beautiful golden color; quality excellent; attractive for slicing, and mixing with sliced red sorts.

Pkt., 10c; oz., 40c; 1/4 lb., \$1.30.

## Small-Fruited Tomatoes

THE following small-fruited varieties are used for making preserves, and are also quite ornamental while growing in the garden.
Pear-Shaped, Red. A small preserving tomato, of pear shape and bright red color. . . . . . . . Pkt., 10c; oz., 40 c .
Pear-Shaped, Yellow. Similar to the above in shape, but of bright yellow color.............. . Pkt., 10 c ; oz., 40 c .
Red Cherry. Small, round fruit, resembling cherries; used for preserves....................... . . Pkt., 10 c ; oz., 40 c .
Yellow Plum. Bright lemon-colored; oval; small sized; used for preserves.................... Pkt., 10c; oz., 40c.
Strawberry, Winter Cherry or Husk. Low, spreading plants, bearing yellow fruit $1 / 2$-inch in diameter, surrounded by a husk; for preserving..Pkt., 10c; oz., 40 c .

Special Prices given to Market Gardeners and Truckers.

## Wilt Resistant Tomatoes

THE loss caused by tomato wilt is increasing each year. Wilt is a fungus that lives in the soil and invades the plant through its roots. When diseased tomato vines are plowed under they only serve to increase the infection. In the early stages of the disease the leaves curl; later they turn yellow, beginning at the bottom of the plant which slowly dies, usually about the time the fruits are half grown. No amount of spraying will do any good, the only means of controlling wilt is to grow wilt resistant varieties.

Marglobe. Wilt Resistant. Very productive second-early variety. Fruits large, smooth, meaty, red, globular. It will stand up longer after it becomes flushed than any other variety of tomato. Highly resistant to wilt and somewhat resistant to blights.

Pkt., 10c; oz., 50c; 1/4 lb., \$1.50.

Marvana. Wilt Resistant. This variety is commanding attention on account of its remarkable wilt-resisting qualities. A first-early red-fruited variety resembling Earliana in earliness, size, shape of fruits and in type of foliage but its fruits are usually smoother, more crimson and slightly less acid. A heavy yielder of excellent quality....Pkt., 10c; oz., 50c; $1 / 4 \mathrm{lb} ., \$ 1.50$.

Marvelosa. Wilt Resistant. Very productive second-early variety. Fruits medium-large, smooth, pink, globular. The foliage is of a dark green color and very uniform. Highly resistant to wilt and somewhat resistant to blights............. Pkt., 10c ; oz., 50c; 1/4 lb., \$1.50

Norton. Wilt Resistant. Norton was developed from the Stone, ripens at the same season, and can be classed as a wilt resistant Stone, but a more abundant bearer and the fruits are more solid. It yields a heavy crop of large smooth solid red fruits that ripen slowly, therefore, is a good keeper and a good shipper; it is also remarkably drought resistant. An excellent tomato for home garden, for canning and for the late market.

Pkt., 10c; oz., 50c; 1/4 lb., \$1.50

TOMATO PLANTS are a specialty of ours. See Vegetable Plants.

## T U R N I P

One ounce will sow 150 feet of drill: 1 pound to the acre.

THE soil for Turnips should be rich and mellow. For an early crop, sow early in the spring, in drills about a foot apart and thin out. For a general crop, sow from the first of July to the last of August, in drills 18 to 20 inches apart, and thin out the plants to 8 to 10 inches. When sown broadcast, Turnip Seed should be mixed with fine soil, sand or ashes, so as to have the seed more evenly distributed. To destroy the fly, which is very destructive to the Turnip crop, use "Hammond's slug Shot." Should the crop be destroyed, harrow the ground immediately and sow again.

Extra Early Purple Top Milan. This variety is at least two weeks earlier than any other. It is of a handsome appearance, somewhat flattened, white with purple top; flesh snow-white, fine grained and delicate flavor.
Pkt., 10c; oz., 15c; 1/4 lb., 35c ; per lb., \$1.25.

Red or Purple Top, StrapLeaf. This is the most popular variety grown for table purposes; an early, flat, white Turnip, with purple top, of excellent quality. The best variety for general use.
Pkt.,10c; oz.,15c; 1/4lb.,25c ; per lb., 75 c .
Purple-Top White Globe. A variety of decided merit. Of globular shape, very handsome and of superior quality, either for the table or stock. It is a heavy producer, early, of rapid growth and an excellent keeper.

Pkt., 10c; oz., 15c; 1/4 lb., 25c; per lb., 75 c .
White Flat Dutch. An early white-fleshed variety, of quick growth, mild flavor and excellent quality.

Pkt., 10c; oz., 15c; 1/4 lb., 25c; per lb., 75 c.
Snowball. Extra early. A variety of sterling merit, perfectly round, early, pure white, very solid, sweet; short top.

Pkt., 10c; oz., 15c; $1 / 4 \mathrm{lb} ., 25 c$; per lb., 75 c.
Large White Globe. Flesh white, firm and crisp; a very desirable early variety.

Pkt., 10c; oz., 15c; 1/4 lb., 25c; per lb., 75 c .


Purple Top White Globe

Amber Globe. A beautifully formed variety, quite productive, solid flesh and attractive color. It keeps well and is desirable for either table use or for stock feeding.
Pkt.,10c; oz.,15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 75 c .

Golden Ball, or Orange Jelly. A rapid grower, of excellent flavor, globe-shaped, bright yellow color, good keeper; a superior table or stock variety.
Pkt.,10c; oz.,15c; 1/4 lb.,25c; per lb., 75c.
White Egg. An egg-shaped variety for spring or fall sowing; flesh white, firm, fine grained, mild and sweet. Pkt.,10c; oz.,15c; 1/4 lb.,25c; per lb., 75 c .
Long White, or Cow Horn. Grows quickly, partly above ground; very productive; flesh white, fine grained, sweet; excellent quality for family and market gardeners' use.
Pkt.,10c; oz.,15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 75 c .
Seven Top. Cultivated extensively in the south for the tops, which are used for greens. It is very hardy and will grow all winter. Does not produce a good root. Pkt.,10c.; oz.,15c; 1/4 lb.,25c ; per lb., 75 c .
Purple Top Yellow Aberdeen. A large, globe-shaped Turnip, with yellow flesh of fine qualities; a good keeper
popular for table or stock.
Pkt., 10c; oz., 15c ; 1/4 lb., 25c; per lb., 75 c .

## Swede or Rutabaga Turnip

F
OR Rutabagas. sow seed in seed-bed in spring and transplant to good, warm soil, in rows at least 2 feet apart and 8 to 10 inches apart in the rows, or sow in open ground during June and early July. Take up the roots just before winter, top and store in cool cellar or pit outdoors.

American Purple Top. Very hardy and productive; flesh yellow, solid, sweet; good for stock or table use.

Pkt., 10c; Oz., 15c; $1 / 4 \mathrm{lb} ., 25 \mathrm{c}$; per lb., 75 c .
Long Island Improved. A uniform large rooted, quick growing, yellow fleshed sort

Pkt., 10c; oz., 15c ; $1 / 4 \mathrm{lb} ., 25 c$; per lb., 75 c.

## BIRD FOODS AND SEEDS

Bird Pep. Keeps Canary birds in prime condition and prevents loss of song. Easily attached to cage. Pkg., 15c; 2 for. . . . . . . . . . . . 25c
Burnett's Bird Food. Will give immediate relief from the effects of moulting; eradicates all impurities from the blood, and restores to the songster, a strong and clear voice. Per bottle, 25 c , (By mail $\mathbf{3 0 c}$ ).

Chenoweth's Canary Food. The Birds' Balanced Ration. Keeps them in good health, song and plumage. Can 25c; (by mail 30c).

Hartz Mountain Canary Cubes. A conditioner and tonic consisting of the best ingredients. Easily attached to cage. Pkg.. $15 \mathrm{c} ; 2$ for 25 c McCullough's Silver Washed Bird Gravel. 36 oz . pkg...........15c Per 1b.
Canary Seed. . . . . . . . . . . . . . . . . 20 c
Hemp Seed.
. .15 c
Lettuce Seed, for birds. . . . . . . . . . . 25 c
Millet, for birds. . . . . . . . . . . . . . . . 10c
Mixed Bird Seed................... . 20 c
Rape Seed . . . . . . . . . . . . . . . . . . . . 20c
Sunflower Seed....................................... 15 c
Sunflower seed.............................................

S U N D R Y SEEDS

Per lb.
Celery Seed, for flavoring. . . . . . . 50c
Flax Seed.......................... . . . 15 c
Maw or Poppy . . . . . . . . . . . . . . . .30c
Mustard Seed, black.............. . 50c
Mustard Seed, white, for pickles.50c
Pumpkin Seed....................25c
Watermelon Seed...............25c

Prices fluctuate considerably throughout the year. The prices now quoted are those ruling as we go to press, and may be higher or lower as the season advances.

Postage must be added if wanted by mail. See Postal Rates, 2nd page of cover.

## VEGETABLE PLANTS AND ROOTS

[^1]
## ASPARAGUS ROOTS

## (Ready April 1st.)

DEEP, warm, rich, loamy soil, deeply and thoroughly stirred, is required for permanent bed. Use manure and fertilizers freely. Make furrows 2 or 4 feet apart and 8 to 10 inches deep. Set the two-year-old roots 18 to 24 inches apart in the bottom of furrows and cover lightly at first. Gradually fill in with soil and old compost. In early spring, fork or plow the bed shallow and carefully, or pulverize the surface by harrowing. Give clean cultivation until fall; then cover with manure or compost. Second season after planting, hill up the rows, especially for blanched "grass," and cut sparingly for use. After that the bed will give full crops. In the fall, as soon as the tops are ripe and yellow, they should be cut and burned.

## 2 Year Old Roots

Martha Washington. 50c per dozen; \$2.50 per 100. Mary Washington. Pedigreed. 60c per doz.; $\$ 3.50$ per 100. In the course of the next few years $90 \%$ of the Asparagus planted will be Washington.
Giant Argenteuil. A French variety of large size; green in color. . . . . . . . . . . . . Per dozen, 25 c ; per 100, $\$ 1.50$. Palmetto. A large, dark green variety with pointed tips. Per dozen, 25 c; per 100, \$1.50.
If wanted by mail, add 5c per dozen, $\mathbf{1 5 c}$ per 100 for postage.

## CELERY PLANTS <br> (Ready June and July.)

McCullough's Paris Golden Yellow, Golden SelfBlanching, Golden-Hearted Dwarf, Giant Pascal. All the above, per 100, 75 c .

## CABBAGE PLANTS

(Ready about April 1st.)
Early Jersey Wakefield....... Per doz., 15 c ; per 100, 60 c. Louisville Drumhead........ . Per doz., 15c; per 100, 60c. Premium Late Flat Dutch. . . Per doz., 15c ; per 100, 60c.

## GAULIFLOWER PLANTS

(Ready April 1st.)
Earliest Dwarf Erfurt...... Per doz., 30c; per 100, \$2.00. Early Snowball. . . . . . . . . . . Per doz., 30c; per 100, \$2.00.

## CHIVES

(Ready April 1st.)
Good Clumps. . . . . . . . . . . . . . 10c each; per doz., \$1.00.

(Ready about June 1st.)
Jersey Yellow or Nansemond
EGG PLANT
(Ready about May 15th.)
Black Beauty. Per doz., 50 c .

## HORSERADISH SETS

(Ready April 1st.)
Per doz., 25c; per 100, \$1.00. (By mailper doz.,30c; per 100,\$1.10-postpaid.)

## PEPPER PLANTS

(Ready about May 15th.)
Large Bell, or Bull Nose..Per doz., 40c. Ruby King. . . . . . . . . . . . . Per doz., 40 c . Long Red Cayenne. . . . . . Per doz., 40c.

## SWEET POTATO PLANTS

## TOMATO PLANTS

(Ready about May 1st.)
Transplanted plants offer many advantages over seedlings; they produce fruit much earlier and are more easily shipped.

## TRANSPLANTED TOMATO PLANTS

Earliana, June Pink, Detroit, Beauty, McCullough's Radio. McCullough's Norwood, Trucker's Favorite, The Stone, Ponderosa, Cincinnati Purple, Dwarf Champion.

All the above-Per doz., 25c; per 100, \$1.75.
WILT RESISTANT TOMATO PLANTS
Marvana, Marvelosa, Marglobe, Norton.
$\mathbf{3 5}$ c per dozen; $\$ \mathbf{2 . 0 0}$ per 100.
RHUBARB ROOTS. (Ready April 1st.)
Linnaeus. The best Pie-Plant.
Victoria. Good for canning or cooking. Small Roots of either variety...... Each, 10c; per doz., \$1.00. Large Roots. .......... Each, 25c; per doz., \$2.50. If wanted by parcel post, add $5 \mathbf{c}$ each or $\mathbf{3 0 c}$ per dozen for postage.

## SEED SWEET POTATOES.

Yellow Jersey. Write for prices. Ready for shipment about April 1st. For plants, see above.
For description of Seed Potatoes, see Field Seeds, etc.

# Medullough's Selected Flower Seeds 

Every year we carefully revise our list of flower seeds, add a number of new sorts and discard all inferior varieties. Our collection will be found to contain everything really desirable. Our stock of seeds is of the highest possible quality.

YOU will notice that all of our descriptions of flowers are classified as "annual," "hardy annual," "tender annual," "perennial," "biennial," etc.; these descriptions, when properly understood, will tell much about planting.
ANNUALS attain full growth from seed, bloom and die in one season. Sow HARDY ANNUALS outside late in March or during April, or earlier indoors for transplanting outside. Hardy annuals may also be sown in the fall for earlier spring blooming.

HALF HARDY and TENDER ANNUALS should be sown in the house or hot-bed and not be sown or transplanted outside until the weather is settled and warm.

BIENNIALS are plants that bloom the second year from seed, and then die. 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 for many years. If sown in early spring, many perennials will bloom the first year from seed. Tender and half-hardy perennials are best sown in spring after frost is over. Hardy perennials may be sown in May or June and again in August or September for next year's flowers.
TENDER OR GREENHOUSE means the plant will not stand the least frost. All such must be planted late in spring, or in a greenhouse.
HARD SHELLED SEED. like Canna. and Japanese Morning Glory, Moon Vine, etc., should be soaked in warm water 36 hours before planting.
HOW TO SOW FLOWER SEED: A common mistake in sowing flower, as well as other seeds, is covering too deeply. The exception to this is the Sweet Pea, which is seldom planted deep enough. As a general rule, cover small seeds only to the depth of the thickness of the seeds; or, with medium-sized seeds, like Balsam, Zinnias, etc., half an inch or so is none too much. Such fine seeds as Petunias, Portulacas, etc., need only to be pressed into the soil with a piece of board. Always press the earth after sowing all flower seeds, because there is danger of their drying up before the roots can get firm hold of the soil. Seeds of the hardier annuals may be sown where they are to grow; but, as a rule, it is preferable to transplant, as the plants are generally stronger and stand the drought better. During very dry weather, and when the seedlings are first set out, they should be watered frequently. Provide some support for all such plants as require it.
The weeds should be kept down and the ground loosened often, so that the plants will receive the full benefit of the rains and dews, which they will not if the ground is allowed to become hard and baked.

## ABUTILON (Flowering Maple)

ELEGANT flowering plants of strong and easy cultivation, producing various colored, drooping bell-shaped flowers. Sown indoors any time before April, they will produce plants that will flower outdoors the first season and indoors all winter. Half-hardy Perennial. 1-Fine Mixed. Of choice varieties and colors...10c pkt.

## AGROCLINIUM

2-Double Mixed. An "Everlasting," growing about 15 inches high, bearing white or rosy pink flowers, which, when cut in the bud state, can be dried and used in winter bouquets. Half-hardy Annual.
$1 / 4 \mathrm{oz} ., 20 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## ADLUMIA

(Mountain Fringe, Allegheny Vine, or Climbing Fumitory)

3-Cirrhosa. A graceful climber, but, as it resows itself year after year, it might be considered perennial. The feathery foliage closely resembles that of the Maidenhair Fern. The flowers are tube-shaped, flesh-colored, and completely cover the plant. For covering trellises, stumps of trees, etc., it is very desirable. Flowers the first year from seed. Hardy Biennial........10c pkt.

## AGERATUM (Floss Flower)



0NE of the very best bedding plants, being literally a sheet of bloom from early summer till frost. Unlike many bedding plants, their flowers are not liable to be spoiled by rain, nor do the colors fade out. The blue varieties are without doubt the most satisfactory bedding plants of this color for our trying climate. Easily raised from seed, which is usually started in a hot-bed or window and transferred to the open ground in May. Can also be sown outdoors in May. Half-hardy Annual.
4-Blue Perfection. This is the darkest colored of all large flowering Ageratums. Color, deep amethyst-blue; compact growth; fine bedder. (See cut)...... $1 / 4$ oz., 50c; 10c pkt.
5-Blue Star. Of dwarf and even growth; the tiny bushes, not over 4 to 5 inches high, are densely covered with bright blue flowers; a fine variety for edging. . 3 pkts., 25c; 10c pkt.

## A GROSTEMMA

## (Rose of Heaven, Mullein Pink)

AN attractive, free-flowering plant of easy culture, producing flowers on iong, slender stems like a single pink. Blooms the first season. Fine for cutting; 1 to 2 feet. Hardy Perennial. 6-Mixed $\boldsymbol{\nabla}$ arieties. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10 c pkt. ALLEGHENY VINE. (See Adlumia.)

## ALYSSUM (Mad-Wort)

P RETTY little plants for beds, vases, baskets, edgings or rockwork, blooming profusely all summer; useful also for winter-flowering. Hardy Annual.

7-Little Gem, or Carpet of Snow. We know of no other flower which is so particularly well adapted for borders, ribbons, etc. The plants commence to bloom when quite small, and will flower all summer until late in the fall. This habit, with its fragrance, makes it indispensable. Keep the seed pods sheared off the plants and they will bloom until killed by frost. Sow the seeds wherever the plants are to remain. If too thick, thin out. To prevent sowing too thickly, mix the seed with sand before sowing. (See cut.)
$1 / 4 \mathrm{oz} ., 20 \mathrm{c}$; OZ., 50c ; 10c pkt.
8-Lilac Queen. Is of dwarf. compact habit and the deep, lavender flowers are borne in profusion.

10 c pkt.
9-Sweet Alyssum. Of trailing habit; flowers white. The popular old-fashioned sort, the best for broad edges and vases. It begins to bloom early in the season, and blooms until frost. It is a neat, thrifty, healthy grower and should be cultivated by everyone who wants an all around good plant.
$1 / 4 \mathrm{OZ} ., 15 \mathrm{c}$; oz., 30c; 10c pkt.

## AMARANTHUS

BRILLIANT foliaged plants, easily raised from seed, either by starting them early indoors or sown outdoors in May. Grow from 2 to 4 feet high; are useful in borders of tall plants or for the center of large beds. They thrive best in a hot, sunny location, not too rich soil, and given sufficient room to develop their full beauty. Hardy Annual.
10-Caudatus. (Love Lies Bleeding.) Blood-red drooping racemes....................................... . . 10c pkt.
11-Tricolor. (Joseph's Coat.) $21 / 2$ feet. The inner foliage is of blackest bronze, tipped with green, while the outer foliage is bright scarlet and gold. The colors are especially brilliant if grown in poor soil.

10 c pkt.

## AMMOBIUM

One of the hardiest of everlastings, valuable for forming winter bouquets, in connection with grasses and other everlastings. The flowers should be gathered before fully opened. 2 feet. Hardy Annual.
12-Alatum Grandiflorum. White, large flower. 10c pkt.

## AMPELOPSIS

13-Veitchi. (Boston or Japanese Ivy.) A Hardy Perennial climber from Japan. The best and most popular climber for covering brick or stone walls.
$1 / 4$ oz., 15c ; OZ., 50 c ; 10c pkt.


## ANTIRRHINUM

ANTIRRHINUMS or Snapdragons are one of the best cut flowers which can readily be grown from seed. They succeed best in a rather light soil, in a sunny position. For early flowering, sow in fall, protecting the plants with a covering of leaves through the winter. Sown in spring, they bloom by mid-summer, and if the flowers are cut freely the flowering is continuous till fall. If intended for winter flowering in the house, cut them well back in September. The Snapdragon, like most perennials and biennials which bloom the first year, is treated like an annual and sown every year. Half-hardy Perennial. (See cut.)

## TALL, GIANT FLOWERING

Flowers nearly double the size of the older sorts.
14-Apple Blossom. Rosy pink, with white tube. 10c pkt. 15-Defiance. Fiery scarlet....................... 10c pkt. 16-Diamond. Carmine scarlet, lilac tube. ..... 10c pkt. 17-Old Gold. Deep golden yellow............. . . 10c pkt. 18-Snowflake. Pure white with yellow tube. ... 10c pkt. 19-The Rose. Rose pink......................... . . 10c pkt.
20-Special Collection. One packet each of the above 6 varieties. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50 c. 21-Tall Giant Mixed. A splendid mixture, containing all the colors, magnificent, large individual flowers.
$1 / 4$ oz., 30c; oz., $\$ 1.00$; 10c pkt.

## SEMI-DWARF GIANT FLOWERING

Are particularly good for bedding, as they require no staking. The flowers are most wonderful, in many new shades and tints. 22-Empress. Rich velvety crimson..................... . . . 10c pkt. 23-Gloria. Rich deep rose pink............................ 10c pkt. 24-Golden Queen. Pure yellow............................ 10c pkt. 25-Grenadier. Orange scarlet, white tube............. 10c pkt. 26-Purity. Pure white.................................. . . . 10c pkt. 27-Silver Pink. Pearly pink, self colored.............. . 10c pkt. 28-Special Collection. One packet each of the above 6 varieties. $\qquad$
29-Half-Dwarf Mixed. Large variety of colors; best for bedding.

## ARABIS Rock cress

30-Alpina. Early Spring flowering plant, especially adapted for edging and rockery; plants form a dense carpet completely covered with pure white blossoms in May. 6 inches. Hardy Perennial.

## ARGCTOTIS (African Daisy)

31-Grandis. Forms much-branched bushes 2 to 3 feet high; its flowers are large and showy, being pure white on the upper surface, the reverse of petals pale lilac-blue; blooms early in July and continues until hard frost. It delights in a sunny situation. Half-hardy Annual.........1/4 oz., 30c; 10c pkt.

## A S P A R A G U S

32-Plumosus Nanus. (Asparagus Fern.) This graceful climbing Asparagus has fine foliage, and will last for weeks after being cut. It is an excellent house plant. Greenhouse Perennial.
33-Sprengeri. (Emerald Feather.) One of the best plants to grow in baskets, for greenhouse or for outdoors in the summer. The fronds frequently grow 4 feet long, and are now considered indispensable in all fine decorations; grows readily from seed. Greenhouse Perennial.........10c pkt.

## ASTERS

ASTERS are one of the most important summer and autumn flowers, and receive special care at our hands. Our list comprises only such sorts as can be planted with perfect confldence that nothing better is procurable, no matter at what price or from what source.

The early sorts begin blooming in July, followed by the mid-season kinds, which flower during August; then the lateflowering varieties, which are at their best through September.

It is quite easy, therefore, with a little care in the selection of the varieties, to have Asters in flower from the first days in July until hard frost.

Asters will thrive in any good soil, prepared in the same way as you would for a crop of vegetables, but it is well to remember that any extra care taken in the preparation of the soil is repaid by finer plants, larger blooms, with longer stems and more profuse flowering. They should have an open, sunny position, and prefer a good, heavy loamy soil, enriched with a liberal auantity of thoroughly rotted manure, and the
 addition of wood ashes or air-slaked lime, and we do not advise growing them on the same ground two years in succession.

Sow either in the open ground in May, or in March or lApril sow in cold frame, spent hotbed, or pots or boxes in the house, covering the seed with about one-fourth inch of good soil. When the plants are strong enough transplant about 18 inches apart in deeply dug well-prepared beds. Half-hardy Annual.
$34-M C C u l l o u g h ' s$ This is the finest mixture of Asters in existence, and the most critical lovers of this flower "Premier" Mixture will be astonished at the wide range of colors and varieties given in this strain.

## Giant Branching Asters

This superb strain is of American origin and is especially adapted to our climatic conditions.

The plants form strong, branching bushes, 2 to $21 / 2$ feet high, bearing on long, strong stems their handsome Chrysanthemum-like flowers, which under ordinary cultivation, average 4 inches across. The form of the flowers, together with the length of the stems, places them at the head of Asters for cutting. They come into bloom from two to three weeks after the average type, usually being at their best during September. 35-Crimson. 35-Crimson.
 37-Deep Purple.....................10c pkt. 38-Rose........
39-Shell Pink.
40 - Pure White
$\qquad$ ......10c pkt 1-Collection. One pkt. each of the above 6 varieties.............50c. 42-Finest Mixed. Containing many more colors than mentioned above.

## Improved Giant Comet <br> Asters

The finest type of the Giant Comet or Ostrich Feather Asters. Much larger than the Giant Comet, the petals longer, more curled and twisted, and produced in greater abundance. Borne on long stems.


## Royal Asters

## (The Early Branching Aster)

The flowers are large and firm; the stems long and stiff and the colors are decided and pleasing. The plants grow about 24 inches high and come into bloom about 10 days before the Giant Branching Aster.


## King Asters

The habit is similar to the popular Giant Branching, vigorous in growth, long stiff stems. In form the flower is entirely distinct from any other variety; petals somewhat resemble the quilled varieties, but are much larger and broader, those in the center being curled and incurved, completely covering the crown. In shape and size the bloom is round, full and very large.

| 58-Crimson | 10c pkt. |
| :---: | :---: |
| 59-Rose | 10c pkt. |
| 60-Violet | 10c pkt. |
| 61-Lavende | 10c pkt. |
| 62-Pink | 10c pkt. |
| 63-White | 10c pkt |
| 64-Collecti | of the |
| above 6 va |  |
| Finest M | 10c pkt. |

$1 / 8 \mathrm{oz} ., 40 \mathrm{c} ; 1 / 4 \mathrm{oz} ., 75 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## Queen of the Market Asters

A flrst-class early flowering Aster, coming into flower in July, of branching habit; flowers of good size and borne on long stems, making them exceedingly valuable for cutting; one foot.
66 -Rose
.10c pkt.
67-Crimson. . . . . . . . . . . . . . . . . . . 10c pkt.
68-Light Blue . . . . . . . . . . . 10c pkt.
69-Dark Blue... . . . . . . . . . 10c pkt.
70 -Pink . . . . . . . . . . . . . . . . . 10c pkt.
71-White. . . . . . . . . . . . . . . . 10c pkt.
72-Collection. One pkt. each of the above 6 varieties........50c.
73-Finest Mixed. All colors.
$1 / 4 \mathrm{oz} ., 35 \mathrm{c}$; 10 c pkt.

## Express Extra Early Asters

Early flowering Asters of great merit, not only for garden purposes, but of even more value for early cut flowers; come into bloom in the open ground with us by the middle of July. They are the largest early Asters of which we know, flower $31 / 2$ to 4 inches across, of double Comet type; splendid substance and long stems; plants healthy and sturdy, branching habit; 18 inches high; free bloomers.
74-Dark Blue
...... 10c pkt.
76-Rose ..........10c pkt.
76-Rose . . . . . . . . . . . . . . . . . 10c pkt.
77-White. . . . . . . . . . . . . . . 10c pkt.
78-Collection. One pkt. each of the
above 4 varieties...............35c. 79-Finest Mixed. All colors.
$1 / 8 \mathrm{oz} ., 30 \mathrm{c}$; 10c pkt.

## Beauty Asters

These late-flowering Asters are of recent introduction and are a valuable addition. Plants grow two to three feet high, of branching habit, commencing to bloom in September and lasting until destroyed by frost. The large and perfectly double flowers are borne on long, stout stems. Splendid cut-flower variety.

80-Carmine Rose.10c pkt. 83-Pink.......... 10 c pkt.
81-Crimson......10c pkt. 84-Purpie............10c pkt.
82-Lavender.....10c pkt. 85- White.........10c pkt.
86-Collection.-One packet each of the above six vari-

87-Finest Mixed
88-China Asters, Mixed. A general mixture of flne sorts
and colors.
SPECIAL OFFER-Select $\mathbf{6}$ packets of Asters, any varieties, for $50 \mathrm{c} ; 13 \mathrm{pkts}$. for $\$ 1.00$.

## A Q UILEGIA, OR COLUMBINE

CHARMING hardy plants, bearing in countless numbers through May and June exquisite clear blue, white, rose, yellow, purple and striped blossoms. For planting in permanent borders or edges of shrubbery this old-fashioned favorite is one of the best. They thrive well with ordinary garden culture, but do best in partially shaded nooks. Few hardy plants are so easily grown from seed. Will bloom first season if sown very early. Hardy Biennial.
89-Coerulea. (Rocky Mountain Columbine.) Sepals deep blue, petals white; extra fine, 2 feet. . . . . . . . . . . . . . . 10c pkt. 90-Coerulea Hybrida, "Rose Queen." A beautiful variety, producing in great profusion very graceful, large-flowered, long-spurred flowers, shading from light pink to dark rose with white center and yellow anthers.


A beautiful strain, comprising shades and combinations of blue, white, yellow, orange, scarlet and bright rose-pink in large flowers with long spurs; the finest to be had vith 23-Double, all colors, mixed................ $1 / 4 \mathrm{Oz} ., 25 \mathrm{c}$; 10c pkt. 93-Single, all colors, mixed.................. $1 / 4 \mathrm{oz}$. . 25 c ; 10c pkt.

## BALLOON VINE <br> (Love-in-a-Pufi) (Cardiospermum)

94-A rapid-growing annual climber; succeeds best in a light soil and warm situation; flowers white; seed vessels look like miniature balloons and are of great interest to children. Half-hardy Annual.
BACHELOR'S BUTTON, BLUE-BOTTLE OR RAGGED SAILOR. (See Cyanus.)
BLACK-EYED SUSAN. (See Thunbergia.)

## B ALSAM

(Lady Slipper, or Touch-Me-Not)

0NE of the oldest and best-known summer-blooming annuals, of easy culture. Desirable for garden or pot culture. The soil should be of the richest and best quality. Set about 15 inches apart, and give them plenty of manure water. Tender Annual; two feet.
95-Salmon Pink. Brilliant salmon-rose flowers; very double, of finest camelia flowered type......10c pkt.
96-White Perfection. The finest pure white grown; flowers unusually large, solid and double....... 10 c pkt.
97 -Scarlet. Brilliant fiery scarlet.
10c pkt.
98-Double Camelia Flowered Mixed. Of perfect form, beautiful colors.


Unrivaled for variety of color and size of flower; includes all the most desirable shades. (See cut.).... $1 / 4$ Oz., $30 \mathrm{c} ; 10 \mathrm{c}$ pkt. 100-Choice Double Mixed. . $1 / 4$ oz., $15 \mathrm{c} ;$ oz., $50 \mathrm{c} ; 10 \mathrm{c}$ pkt.


Nature constantly asks the question, which do you prefer, flowers or weeds-ugliness or beauty?

10c pkt.


## B A L S A M , Apple or Pear

$V^{1}$ERY curious climbing vine, with ornamental foliage, fruit golden yellow, warted, and when ripe opens, showing the seed and its brilliant carmine interior. Ten feet. Tender Annual.
101-Balsam Pear. (Momordica Charantia.) Pearshaped fruit; the fruit is long and used medicinally.
102-Balsam Apple (Momordica Bz., 40c; 10c pkt. apple-shaped fruit. . . . . . . . . . . . . . .Oz., 40c; 10 pkt.

## BEGONIAS

## Ever-blooming Bedding Varieties

THE following are varieties of Begonia Semperflorens, doing equally well in full sunlight, or in positions partially or wholly in shade. They grow about one foot high and form dense bushes, which, from May until frost are completely hidden with flowers. As pot plants for winter flowering they are superb. Easily raised from seed, which should be started indoors or in a hot-bed. Tender Perennials.
103-Gracilis Luminosa. This differs from Begonia Gracilis in the lustrous reddish-brown color of the foliage, while the flowers measuring 1 to $1 \frac{1}{2}$ inches across, are of a fiery dark scarlet. It is very free flowering, and where massed produces a splendid effect.

104-Semperflorens, Bertha Bofinger. Grows only 6 inches high and is one of the dwarfest varieties of Bedding Begonias. The flowers are carmine-rose, and the foliage pale green........................ 15c pkt.
105-Semperflorens, Single Mixed. This mixture contains all the best varieties, ranging in color from pure white to the deepest crimson; splendid. . . . . . . . 10c pkt.

TUBEROUS-ROOTED BEGONIAS. (See Bulbs.)

## BELLIS (English Daisy)

AFAVORITE perennial plant, which will stand the winter if given the protection of a few leaves or litter; in bloom from early spring until well on in the summer. The seed we offer is saved from the finest double varieties; easily raised from seed; usually sown in August, but can be sown in spring, and for best results should be sown each year; 4 inches. Half-hardy Perennial.
106-Longfellow. Large, double, dark pink flowers with long, stiff stems. . . . . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.
107-Snowball. A beautiful white variety with long stems and very double flowers; fine for cutting. .....10c pkt.
108-Giant Double. Beautifully and densely imbricated flowers, $11 / 2$-inches in diameter. Finest mixed.. 10c pkt.

## CALCEOLARIA

109-Hybrida Grandiflora. Unsurpassed for pot culture in the greenhouse or conservatory, producing brilliant flower in great profusion and variety. Greenhouse Perennial. Mixed varieties...................................... . 25 c pkt.

## CALENDULA (Pot Marigold)

S
HOWY free-flowering hardy annuals, growing in any good garden soil, producing a fine effect in beds or mixed borders continuing in bloom from early summer until killed by frost; valuable also for pot culture; one foot. Hardy Annual. (See cut.)
110-Ball's Strain. A fine double variety of large size. Same color as Orange King and resembles it closely in all other respects. Largely grown by florists for winter blooming in greenhouses and also is excellent for the garden.
$1 / 4 \mathrm{OZ} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.
111-Lemon Queen. A grand variety, with double, extra large yellow flowers................. $1 / 4 \mathrm{oz}$, 15c; 10 c pkt. 112-Orange King. The outer petals are slightly imbricated. while those of the center are curved like those of the peony Color rich, dark orange.............. $1 / 4 \mathrm{oz} ., 15 \mathrm{c}$; 10c pkt
113-Prince of Orange. This variety surpasses in beauty the well-known Calendula Meteor. The stripes around each petal are of a deep orange color, making a brilliant appearance............................... . $1 / 4$ Oz., 15c; 10c pkt.
114-Fine Double Mixed. Contains the choicest sorts.
$1 / 2 \mathrm{Oz} ., 15 \mathrm{c}$; 10 c pkt
(See also Marigold.)

## CALLIOPSIS

S
H O W Y and beautiful free-flowering annuals, of the easiest culture, doing well in any sunny position, blooming all summer and excellent for cutting and massing. It is best to sow them where they are to bloom, thinning out to stand 8 inches to 12 inches apart. By keeping the old flowers cut off the flowering season can be lengthened until late autumn. Hardy Annual. (See cut.)

115-Golden Wave. Bright, golden yellow flowers, with small, dark centers, blooming profusely.
$1 / 4 \mathrm{oz} ., 15 \mathrm{c} ; 10 \mathrm{c}$ pkt.
116-Finest Mixed.
$1 / 4 \mathrm{oz} ., 15 \mathrm{c} ; 10 \mathrm{c}$ pkt.


THIS old-fashioned flower is a favorite with all. Stately and showy, and of the easiest culture. The seeds should be sown about April, in Enely prepared, rich soil. Hardy Biennial.
Calycanthema. (Cup and Saucer Canterbury Bells.) They differ from the ordinary type in having an extra large calyx, which is of the same color as the flower, giving the appearance of a cup and saucer.
118-Pink. Delicate rosy-pink........ 10c pkt. 119-Blue. A fine, clear shade........ 10c pkt. 120-White. Pure white............... 10c pkt. 121-Finest Mixed. All colors of the Cup and Saucer type.......... $1 / 4$ oz., 50c; 10c pkt.
Medium. (Single Canterbury Bells.) The old fashioned sort, with beautiful large bellshaped blossoms. (See cut.)
122-Single Mixed. All colors.
$1 / 4 \mathrm{OZ} ., 25 \mathrm{c} ; 10 \mathrm{c}$ pkt.
123-Double Mixed. All the double-flowering medium varieties..... $1 / 4 \mathrm{oz}, 40 \mathrm{c}$; 10 c pkt.


## CANARY-BIRD VINE <br> (Tropaeolum Canariense)

124-A beautiful rapid annual climber, the charming little canary-colored blossoms bearing a fancied resemblance to a bird with its wings expanded. Half-hardy Annual.
$1 / 4 \mathrm{oz} ., 20 \mathrm{c}$; 10 c pkt.

## CANDYTUFT

NIVERSALLY known and cultivated and considered indispensable for cutting; one foot. Hardy Annual. 125-Giant Hyacinth-Flowered. The finest of all the white varieties, being a complete mass of pure white flowers, in a pyramid of bloom.
$1 / 2 \mathrm{oz}, 25 \mathrm{c} ; \mathrm{oz}, 40 \mathrm{c} ; 10 \mathrm{c}$ pkt. 126-Rose Cardinal. Bright carmine-rose.......10c pkt. 127 -White Rocket. Pure white.......oz., 25 c ; 10c pkt. 128-Dwarf Hybrids Mixed............................. 10c pkt. 129—Mixed Colors.... .. $1 / 2$ oz., 15c; oz., 25c; 10c pkt. PERENNIAI CANDYTUFT. (See Iberis.)

## CANAA <br> (Indian Shot)

SOAK the seeds in warm water until they show evidence of swelling; then sow in sandy loam, and place in a hot-bed; when up to the second leaf, pot off singly. Half-hardy Perennial.
130-Mixed. Crozy's finest sorts. $1 / 4 \mathrm{oz}, 15 \mathrm{c}$; 10 pkt .

## CARDINAL

 CLIMBER(Ipomoea Quamoclit Hybrida)
131-The most brilliant, beautiful and distinct annual climber introduced for many years. Rapid grower with branching habit; flowers all summer; cardinal red clusters, 15 to 25 feet. Tender Annual......10c pkt.
Cardinal Climber Plants. Each, 30c; by mail, each, 35 c .

## CARNATION

CARNATIONS are general favorites for their delicious fragrance and richness of colors. They are indispensable, both for greenhouse culture in winter and for the garden in summer. The Marguerite type is best for summer flowering. Half-hardy Perennial.
132-Marguerite. These are deservedly the most popular Carnations with the amateur, as they begin flowering in a few months from time of sowing, producing on long, strong stems an abundance of large, double, beautifully fringed, highly scented flowers. Halt-hardy Perennial. Finest Mixed. All colors......... $1 / 4 \mathrm{oz}$., 50 c ; 10 c pkt.

## CELOSIA, or Cockscomb

GRACEFUL plants, growing best in rather light soil, not too rich, producing beautiful comb-shaped flowers; grown in pots, they are fine for the greenhouse or conservatory. Half-hardy Annual.
133-Glasgow Prize. Enormous rich, deep crimson combs. 134-Dwarf Mixed. Large solid heads of bloom....10c pkt.

## Celosia Plumosa (Feathered Cockscomb)

Make fine plants for large beds or groups, and the plumes or flowers can be cut and dried for winter bouquets.
135 -Thompsoni Magnifica Crimson. Of pryamidal growth, attaining a height of 3 feet and producing graceful, feathery plumes of the most brilliant crimson............. 10c pkt. 136-Thompsoni Magnifica Yellow....................... 10c pkt. 137-Plumosa, Mixed...................................... 10c pkt. CHILDSI. (See Chinese Wooliower.)

## CENTAUREAS

UNDER this name is included such popular annuals as the Cornflowers, Sweet Sultans, etc. They are perfectly hardy, will grow almost anywhere, and are in demand as cut fiowers.

## Cornflowers (Centaurea Cyanus)

These are also known as Bachelor's Button, Blue Bottle, Ragged Sailor and Bluet. Attractive flowers of easiest culture. Sow early in spring in the beds where they are to bloom. Hardy Annual. (See cut.)
138 -Dwarf Blue. Single blue.
$1 / 2 \mathrm{oz},. 15 \mathrm{c} ; \mathrm{oz} ., 25 \mathrm{c}$; 10c pkt.
139-Single Mixed.
Blue, white, rose, etc.
40-Double Blue. Flowers semi-double $1 / 25 \mathrm{c}$; 10 c pkt. 141-Double Pink.........10c pkt. 142-Double Mixed......... i1/2oz., i5c; oz., 25 c ; 10c pkt.

## Royal Sweet Sultans (Centaurea Imperialis)

The beautiful sweet-scented, artistic-shaped flowers are borne on long, strong stems, and when cut will stand for several days in good condition. It is best to sow very early in the spring. Hardy Annual.
143-Rose........10c pkt. 146 -Purple...... 10c pkt. 144-Lavender....10c pkt. 147-White.........10c pkt. 145-Yellow........ 10 c pkt.
148-Collection. One packet each of the above 5 varieties.. 149-Finest Mixed Colors........... í ínz., 20 c ; 10 c pkt.

## White-Leaved Centaureas (Dusty Millers)

Fine for bedding, vases, hanging-baskets and pots; also extensively used for borders. Sow the seed early indoors and transplant in May. Tender Perennial. 150-Gymnocarpa. Fine-cut silvery foliage; the kind used most for borders; 1 foot. . ..... $1 / 4 \mathrm{oz} ., 20 \mathrm{c} ; 10 \mathrm{c}$ pkt.


## CENTROSEMA (The Butterfy Pea)

151-Grandifiora. Interesting and beautiful vine of rare and exquisite beauty. It blooms early in June from seed sown in April, and bears in the greatest profusion inverted pea-shaped flowers, from $11 / 2$ to $21 / 2$ inches in diameter, ranging in color from a rosy violet to a reddish purple. Hardy Perennial............ 10c pkt.

## CHINESE WOOLFLOWER

(Celosia Childsi)
152-This new Celosia grows two to three feet high, the bloom starting early with a central head, round and globular, which often reaches an immense size. Scores of branches are thrown out, each bearing a ball of scarlet wool, but not so large as the central one. None of the blooms fade in any way until hit by frost. Start seed if convenient under glass about four weeks before time to transplant to the garden. If the little plants remain too long in pots or seed beds, they will begin to set bloom, which is not desirable. Transplant to the garden as soon as danger of frost is past. Halfhardy Annual................. 2 pkts., 25 c ; 15c pkt.

## GHRYSANTHEMUMS

## Hardy Annual Varieties

The hardy annuals are summer-flowering border plants and quite distinct from the hardy perennial varieties.
153-Annual Double Mixed. Yellow, white, etc.,10c pkt. 154-Annual Single Mixed. (Painted Daisies).. 10c pkt.


## SHASTA DAISY <br> (Chrysanthemum Leucanthemum)

155-Alaska. A splendid hardy perennial variety, with flowers rarely less than 4 inches across, of the purest glistening white, with broad, over-lapping petals, and borne on long, strong stems; a beautiful cut flower, remaining in good condition a week or more. (See cut.)

10c pkt.

## CINERARIA

AWELL-KNOWN greenhouse plant, having a range and brightness of color scarcely surpassed. It may be had in bloom through the greater part of the year. Greenhouse or Tender Annual.
156-Hybrida Grandiflora. This strain of Cineraria can not be surpassed, either for size of flowers or beauty of color. Many of the blooms measure $21 / 2$ inches in diameter. We have received very flattering reports from florists and private gardeners of their success with our Cineraria seed.
157-Grandifora Nana. Dwarf compact plants not over a foot high, with immense heads of individual flowers in a great range of beautiful colors. .

## CLARKIA

A
DESIRABLE free-growing plant, blooming in almost any soil, but when planted in rich loam its beauty is unsurpassed; will continue in bloom nearly all summer. Sow in April and May and thin out. Hardy Annual.
$158-E l e g a n s$. Double Mixed
10 c pkt.

## COLEUS

159-Large-Leaved Varieties. Our strain of hybrid varieties produces the finest colored, most attractive and novel foliage plants for house or garden culture. A most interesting subject to grow from seed. Sow indoors in March or April and transplant to open ground in May. Tender Perennial.........2 pkts., 25c; 15c pkt.

## COSMOS

BEAUTIFUL, autumn-blooming plants, they produce thousands of beautiful flowers in pure white, pink and crimson shades, furnishing an abundance of cut blooms for autumn decoration when other flowers are scarce. Should be sown in spring in the open ground, when danger of frost is past, or the seed may be started under cover and afterwards transplanted. Plant not less than 18 inches apart in rows or in masses in beds. When the plants are about a foot high the tops should be pinched out to induce a bushy growth. They prefer a rather light, not too rich soil, but do well almost any where. Half-hardy Annual. (See cut.)

## Double Cosmos

One of the best novelties of recent years. These varieties produce full, round, double flowers on sturdy, bushy plants, blooming in late summer and autumn.

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160-Double Crimson..........................cc pkt.
161-Double Pink........................ . . . . cc pkt,
162-S nowball, pure white................ . . 10c pkt.
163-Finest Mixed........................... . . . . cc pkt.
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## Extra Early Mammoth Flowering

Seeds sown in the open ground produced plants that were covered with bloom two months before the late-flowering kinds.
$164-$ Crimson. Rich. .............. $1 / 4 \mathrm{oz}$., 25 c ; 10c pkt.
165 -Pink. A pretty shade......... $1 / 4$ oz., 25c; 10c pkt.
166-Pure White.................... 14 oz., 25 c ; 10c pkt.
167 -Mixed, Early Cosmos.......... $1 / 4$ oz., 20c; 10c pkt.

## Mammoth Perfection

A magnificent selection, bearing flowers of mammoth size and perfect form.
168-Mammoth Crimson...........1/4 oz., 20c; 10c pkt. 169-Pink "Lady Lenox." Bears gigantic flowers on very long stems, in color a beautiful deep rosy pink. The plant is of strong, vigorous growth, 6 to 7 feet high.
170 - White "Lady Lenox.", Flowers measure four to five inches in diameter, which is about three times larger than the ordinary Cosmos. Habit of plant strong and vigorous, bushes growing to a height of seven feet.
171-Mammoth Perfection, Mixed. $1 / 4 \mathrm{oz}$., 20c; ${ }^{10 c}$ 10c pkt.
CYPRESS VINE (Ipomoea Quamoclit)

DELICATE, fern-like foliage, and masses of beautiful, small star-shaped flowers. Sow in May, first soaking the seeds in warm water for a few hours. 15 feet. Half-hardy Annual.
172 -Scarlet $\qquad$ Oz., 40c; 10c pkt.
173-White. White and scarlet Oz., 40c; 10c pkt. OUAMOCIIT HYBRIDA. (See Cardinal Coc ion 10c pkt. CONVOCLIT H YBRIDA. (See Cardinal Climber.) CONVOLVULUS. (See Morning Glory.)
COLUMBINE. (See Aquilegia.)

## HINTS ON THE CULTURE OF FLOWERS FROM SEED

Much annoyance and disappointment may be saved by giving close attention to the following: Avoid especially deep planting; over-watering, under-watering, or sowing too thickly.

## COBAEA SCANDENS (Cathedral Bells)

175-Purple Lilac. A magnificent summer climber, of rapid growth, bearing large, bell-shaped, purple flowers. In sowing, place the seeds edgewise and cover lightly. Tender Perennial.
Cobaea Scandens Plants.
30 c each; $\$ 3.00$ per dozen, (by mail, 35c each.)

## CYGLAMEN

176-Giant-Flowered. (Persicum Giganteum.) A popular pot-plant for winter and spring-flowering. Seedlings bloom in eight to ten months. Greenhouse Perennial. Best strains, mixed.

25 c pkt.

## D A HLIA

DAHLIAS are easily grown from seed and bloom the first season. The earlier they are started the better, which can be done nicely in a box in a sunny window, or the greenhouse. Protect the roots during winter in a dry cellar in sand. IIalf-hardy Perennial.

## Double Flowering

177-Cactus Varieties. Most popular at the present time, distinct and elegant; petals pointed. . . . . 10c pkt. 178-Double Large-Flowering. This mixture is composed of the finest large-flowering double varieties...10c pkt.

## Single Flowering

179-Single Giant Perfection. This strain produces flowers of immense size, averaging 6 inches across, in a great variety of coloring. . . . . . $1 / 4 \mathrm{oz} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.


## DELPHINIUM (Hardy Perennial Larkspur)

0NE of the most exquisite blue-tinted flowers that we have. Very effective planted in beds, masses or borders. Plant $11 / 2$ to 2 feet apart each way. Perennial varieties should be sown in the fall or early in the spring, transplanting to the open ground. Hardy Perennial.
180-Giant-Flowering Hybrids. These magnificent Hybrids, the grandest of Delphiniums in existence, produce beautiful spikes of immense flowers, single, semi-double and double. Flower spikes are from 2 to 3 feet in length. Colors are beautiful, ranging from pure white through all shades of lavender and blue. (See cut.)..
. 10c pkt. 181-Belladonna. (Everblooming Hardy Larkspur.) Free blooming Hardy Larkspur, never being out of flower from the end of June until frost. The clear turquoise-blue of its flowers is not equaled for delicacy and beauty by any other flower.

10 c pkt.
182-Bellamosum. This variety is identical in habit and growth with the Belladonna, but with rich, deep blue flowers....................... 10c pkt. 183-Mixed Chinese $\nabla$ arieties. This mixture contains a great variety of shades, from pure white to gentian-blue. . . . . . . . . . . . . . . . . . . . . 10c pkt. ANNUAL DELPHINIUMS. (See Larkspur.)


D I A N T H U S, or Pinks

THIS elegant family contains many of the most valuable and popular flowers in cultivation. All the sorts classed as annuals may be sown directly in the garden as soon as danger from frost is past, and will in a short time become a mass of bloom, and so remain all summer. Elegant as cut flowers for bouquets, as the stems are good. Grow about one foot high, and are of easiest culture. Half-hardy Annual.

## Double Annual Pinks

184-China Pinks. (Chinensis fl. pl.) Large double, fragrant flowers. Mixed colors.

## Hardy Garden Pinks

This splendid class of Pinks should be in all gardens. They have the delightful clove fragrance. Half-hardy Perennial.
186-Double Large-Flowering Grass, or Spice Pinks. (Plumarius Semperfiorens, fl. pl.) One foot high. The flowers, which are beautifully fringed, are much larger and more double than the old varieties, while the colors are far richer. They emit a delightful, sweet-scented, spicy odor. Perfectly hardy, requiring only the ordinary culture of Pinks.


## dIANTHUS BARBATUS. (See Sweet William.)

## D I D I S C U S (Blue Lace Flower)

187-Coeruleus. This pretty and interesting annual blooms most profusely from July till November; also used extensively for early spring flowering in a cool green house; their exquisite pale lavender blossoms are excellent for cutting; plants grow about 18 inches high, and have as many as 50 flowers open at one time..............10c pkt.

## D I G I T A L I S (Foxglove)

Handsome and highly ornamental hardy plants of stately growth. They are now used extensively with good effect for naturalizing in shrubberies, the edge of woods and other halfshady places; 3 to 5 feet. Hardy Biennial. (See cut.)


## D OLICHOS (Hyacinth Bean)

ARAPID-GROWING annual climber. flowering freely in erect racemes, followed by ornamental seedpods; for covering arbors, trellises, etc. Tender Annuals.
192-Finest Mixed. Purple and white....Oz., 15c; 10 pkt.


## ESCHSCHOLTZIA

## (California Poppy, Gold Cups)

ASHOWY, free-flowering plant of low-spreading growth, with finely divided foliage, blooming throughout the season. Seed should be sown thinly in shallow drills early in spring. Hardy Annual. (See cut.)
193-Carmine King. A beautiful carmine-rose color, as intense on the inside as on the outside of the petals, which gives it an altogether novel and beautiful effect..................Oz., 50c; 10c pkt.
194-Golden West. The flowers measure from 3 to 6 inches in diameter; they have large, overlapping petals, often daintily waved at the edges. Color, light canary-yellow, with an orange blotch at the base of the petals, which often suffuses the whole flower. $\qquad$ .Oz., 30c; 10c pkt.
195-Hybrida Grandiflora. New large flowering, erect type containing a large percentage of new shades and includes soft pink, scarlet, chrome-copper red, claret and royal purple....3 pkts., 25c; 10c pkt.
196-Mixed. Single cup-shaped flowers in shades of bright yellow, deep orange, pink and silvery white. Oz., 30c; 10c pkt.
BUSH ESCHSCHOLTZIA. (See Hunnemannia.)

## E UPHORBIA

STRONG-GROWING annuals, suitable for beds of tall-growing plants or mixed borders; the flowers are inconspicuous; but the foliage is exceedingly ornamental Hardy Annual.



Euphorbia Heterophylla

197 - Variegata. (Snow on the Mountain.) Attractive foliage, veined and margined with white; 2 feet....10c pkt.

198-Heterophylla.
Annual Poinsettia, Mexican Fire Plant Painted Leaf. The plant grows 2 to 3 feet high of branching, bush-like form, with smooth, glossy green leaves, which about mid-summer become a beautiful orange-scarlet, presenting a striking and brilliant appearance..10c pkt.

FEVERFEW. (See
Pyrethrum and Matricaria.)

## G O URD S (ornamental)

BEING of rapid growth, they are fine to cover old fences, trellises, stumps, etc. Do not plant the seed till all danger of frost is over, and select rich, mellow ground. Tender Annual climbers, 10 to 20 feet.

199-Calabash, or Dipper. Long, slim handle..................... . 10 c pkt.
200-Dish Cloth. Clusters of large, yellow flowers. The fruit, when dried, is used as a dish cloth.

10c pkt.
201-Giant Bottle. Large and ornamental. . . . ................ 10c pkt
202-Hercules Club. A curious sort, club-shaped................. . 10 c pkt.
203-Japanese Nest Egg. White; facsimile of an egg; not injured by heat or cold. . . . . . . . . . . . . 10c pkt.
204-Orange. The well-known mock orange........................ . . 10c pkt.
205-Pear-Shaped. Green and white striped............... . . . . . . . 10c pkt.
206-Sugar Trough. Used for buckets. Very large................ . . 10c pkt
207-MixedVarieties. $1 / 4 \mathrm{oz} ., 25 \mathrm{c} ; 10 \mathrm{c}$ pkt.

EVERLASTING, ETERNAL, OT STRAW FLOWERS (See Acroclinium, Ammobium, Gomphrena, Helichry (See Acroclinium, Ammob
FLAX, Scarlet. (See Linum.)
FORGET-ME-NOT. (See Myosotis.)
FOUR-O'CLOCKS. (See Marvel of Peru.)
FOXGLOVE. (See Digitalis.)

## GOMPHRENA (Globe Amaranth)

208-A desirable everlasting, valuable for its handsome globular heads of flowers. Half-hardy Annual. Mixed........................................... . . . 10c pkt.

## G A I L L ARDIA (Blanket Flower)

## ANNUAL VARIETIES

Splendid, showy annuals; in bloom from early summer till November; excellent for beds, borders or for cutting. Half-hardy Annual.
209-Picta Lorenziana. Double-flowering mixed...10c pkt. HARDY PERENNIAL VARIETY
Thrives in almost any position or soil and requires little or no protection. If sown early, begins flowering in July, continuing a mass of bloom until frost, fine for cutting. Hardy Perennial. (See cut.)
210-Grandifiora. A compact variety, forming bushy plants 12 to 15 inches high, and bearing its longstemmed flowers well above the foliage. . . . . . . . 10c pkt.

Gourds



## GRASSES (Ornamental)

FOR large beds or groups on lawns nothing gives a finer effect, and they are now largely used in prominent positions in many of the finest public parks, etc. When carefully dried they are useful in making up winter bouquets. Cut when in full bloom, and before the flowers get too old; tie in small bunches and hang up in a dry, dark place, with the heads downward.
211-Bromus Brizaeformis. A graceful variety with drooping panicles, flowering the first season. Hardy Perennial; 1 foot. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10c pkt. 212-Coix Lachrymae. (Job's Tears.) Broad, corn-like leaves, and hard, shining, pearly seeds resembling tears. Hardy Annual; 2 feet. . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.
213-Erianthus Ravennae. A noble grass with exquisite white plumes; flowers the first season if sown very early. Hardy Perennial; 10 feet. . . . . . . . . . . . . . . . . . . 10c pkt.
214-Tulalia Japonica. One of the most beautiful of the tall-growing grasses. Hardy Perennial; 5 feet. . . 10c pkt.
215-Gynerium Argenteum. (Pampas Grass.) The finest ornamental grass in cultivation. Half-hardy Perennial;
 216-Pennisetum Ruppelianum. Beautiful and graceful spikes of purple; this is one of the best. Hardy Annual; $21 / 2$ feet. ............................................... 10 c pkt.
217-Finest Mixed. Used for making winter bouquets.
10 c pkt.

## GYPS OP HILA (Baby's Breath)

PRETTY free-flowering plants, succeeding in any garden soil. Their misty white panicles of bloom are largely used for mixing with other cut flowers.
218-Elegans Grandifiora Alba. This is an improved large-flowering pure white form of the annual Baby's Breath. Half-hardy Annual........Oz.. 30c; 10 pkt.
219-Elegans Carminea. Bright carmine-rose.
Oz., 40c: 10c pkt.
220-Paniculata. White flowers, fine for bouquets; blooms first year if sown early. Hardy Perennial; 2 feet.

10c pkt.
221-Paniculata Flore Plena. A great improvement on the single flowered type and more lasting; the flowers forming miniature balls of white petals. Not quite fixed but about 25 per cent come true........10c pkt.


## GREVILLEA (Silk Oak)

A
BEAUTIFUL and graceful decorative plant with fernlike foliage; excellent for table decoration; easily raised from seed; producing a good sized plant in a short time.
222-Robusta. Orange colored flowers

## HELICHRYSUM (Straw Flower)

223-Monstrosum. Everlasting flowers, large and full. Colors, white, yellow and red. Cut before the flowers fully expand. Hardy Annual. Mixed..... 10c pkt.


## HELIOTROPE (Cherry Pie)

AHALF-HARDY Perennial, flowering during the whole season; its delightful perfume makes it a most desirable bouquet flower; a splendid bedding plant, or can be trained as a greenhouse climber. Seed started indoors in the spring will make fine plants for summer blooming.
224-Choicest Mixed; ; from new varieties.
10c pkt.

## HIBISGUS (Marshmallow)

©HOWY ornamental perennial plants, for mixed beds or shrubbery borders; blooms first year if sown early.
5-Mallow Marvels. Immense flowers 8 to 10 inches in diameter, in the following colors; fiery crimson, blood red, shell pink and white. Their great beauty surpasses all other perennials in profusion of bloom and brilliancy of color. They come up year after year and are absolutely hardy. Hardy Perennial. (See cut.)......10c pkt.

## HOLLYHOCK

0NE of the most majestic of hardy plants, and a clump or line in any garden gives an effect not attainable with any other plant. For planting among shrubbery or forming a background for other flowers it is without an equal. Seed sown any time before mid-summer will produce fine plants for flowering next year. To get results this season it is necessary to get year-old plants. These we offer with other hardy plants under their proper heads. Hardy Perennial.
226-Chater's Double Pink.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.

228-Chater's Double Scarlet. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.
229-Chater's Double White.
10c pkt.
230 - Chater's Double Yellow . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.
231-Chater's Prize, Double Mixed. This strain stands unrivaled in richness and delicacy of coloring, with magnificent spikes of very
 232-Mammoth Fringed Allegheny. Mammoth flowers of loosely arranged fringed petals. The colors vary from the palest shrimp pink to deep red. The plants are of strong growth, sending up spikes 233-Single. Many prefer the single flowering. They are usually of freer growth and present a handsome appearance when covered with their artistic blossoms. Finest mixed; all colors. . . . . . . . . . . 10c pkt.

## HONESTY (Moonwort, Satin Flower)

234-Greatly admired for its silvery seed pouches, which are used for house ornaments; two feet. Hardy Biennial.................. 10c pkt.

## H U M ULUS (Japanese Hop)

235-Japonicus. A very ornamental and fast-growing climbing plant. The foliage resembles that of the common Hop, is very dense, and in color a lively green. Hardy Annual.
$1 / 4 \mathrm{oz} ., 20 \mathrm{c} ; 10 \mathrm{c}$ pkt.
236- $\nabla$ ariegatus. A variegated variety of the Hop. The leaves are beautifully marbled and splashed with silvery-white, light and dark green; very effective for screens, arbors, trellises, etc.


## HUNNEMANNIA

## (Giant Yellow Tulip Poppy, or Bush Eschscholtzia)

237-Fumariaefolia. This is by far the best of the poppy family for cutting, remaining in good condition for several days. Seed sown early in May will, by the middle of July, produce plants covered with their large buttercup-yellow, poppy-like blossoms, and never out of flower until hard frost. The plants grow about 2 feet high, are quite bushy, with beautiful feathery glaucous foliage. Half-hardy Annual.................................. 10 c pkt.

HYACINTH BEAN. (See Dolichos.)

## I B ERIS (Hardy Candytuft)

238-Sempervirens. A profuse white-blooming plant, coming in flower early in the spring; much used for cemeteries, rockeries, etc.; 1 foot. Hardy Perennial. . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.

## ICE PLANT

239-Mesembryanthemum Crystallinum. Handsome and curious plants for hanging baskets, rock-work, vases and edgings. The leaves and stems are covered with crystalline globules, giving it the appearance of being covered with ice. Succeeds best in a sandy soil and warm situation. Tender Annual.........10c pkt.
IPOMEA. (See Cypress Vine, Moonflower and Morning-Glory.)
IMPATIENS (Sultan's or Zanzibar Balsam)

CCHARMING plants producing bright, waxy-looking 4 flowers. profusely and almost continuously. Tender Perennial.
240-Sultana Hybrida. Beautiful hybrids. Varying shades of color, from delicate pink to the deepest
 Seed.) JOB'S TEARS. (See Ornamental Grasses.) KUDZU VINE
241-Pueraria Thunbergiana. It will grow 8 to 10 feet the first year from seed, and after becoming established will produce vines 50 feet high in a season, sometimes growing 12 inches in a single day. Produces a tuberous root which is perfectly hardy. Unequaled for porches, arbors, trellises, etc. Hardy Perennial..


T


## K OCHIA

(Summer Cypress, Belvedere or Burning Bush)

FORMS regular pyramids about 3 feet high, having a cypress-like appearance. The leaves are light green until September, when they change to carmine and blood red. Sow indoors in April and plant out in May, or sow in open ground about May 1st. Hardy Annual. (See cut.)
242-Kochia Childsii. This new variety produces plants that grow three to four feet high, dense, strong and symmetrical. The foliage is green all summer, but at touch of frost it changes to dark claret-red and does not die until Christmas or later. A splendid plant to divide the vegetable from the flower garden or for forming a summer hedge for any purpose. Also desirable as a pot plant. . . . . . . . . . . . . . . . . . . . 10c pkt.

## LANTANA

243-Verbena-like heads of orange, white, rose and other colored flowers; constantly in bloom; 2 to 3 feet. Half-hardy Perennial. Mixed colors.............................................. . . . $10 c$ pkt.

## LAVENDER(Lavandula Vera)

244-Well known, sweet-scented. Hardy Perennial; should be extensively grown in the mixed border; 2 feet................... . 10c pkt.

## L A R K S P UR S , Annual

 HIS is one of the best known of garden flowers. Seeds sown in the open ground before the close of April will produce flowering plants by the beginning of July, and give a continuous succession of flowers from then until frost. Hardy Annual.245-Double Stock-Flowered. The finest variety with splendid spikes of beautiful double flowers; $21 / 2$ to 3 feet. Finest mixed.

1/4 OZ., 15c: oz., 50c: 10c pkt.
(For Hardy Perennial Larkspurs see Delphinium)
(LADY SLIPPER. See Balsam.)

## L A THYRUS (Everlasting, or Hardy $\mathrm{Sweet}_{\text {Pea) }}$

Showy, free-flowering climbers for covering old stumps, fences, etc., continually in bloom; fine for cutting. Hardy Perennial.
246-Latifolius-White Pearl. The finest white variety... 10c pkt.
247- " Pink Beauty. Rosy pink..................10c pkt.
248 Mixed. All colors. . $1 / 4 \mathrm{oz} ., 15 \mathrm{c}$; oz., 40 c ; 10c pkt

## LIN U M (flaz)

249-Grandiflorum Rubrum. (Scarlet Flax.) One of the most effective and showy bedding plants, of long duration, having fine foliage and delicate stems, with brilliant, scarlet-crimson flowers. Hardy Annual; 1 foot.

LOVE IN THE MIST. (See Nigella.)

## LOBELIA

THE following choice varieties of this popular and beautiful flowering plant will be found most desirable for pot culture, edgings, hanging baskets, etc., blooming profusely from June to November. Half-hardy Annual.
250-Crystal Palace Compacta. Rich blue; finest for bed-


## L U P I N U S (Lupine)

252-Annual Mixed. Free-flowering, easily grown annuals, with long, graceful spikes of rich and various colored peashaped flowers; 2 feet. Hardy Annual. Oz., 25c; 10 c pkt. Lupine, with showy spikes of rose-colored flowers. Hardy Perennial. . ............................Oz., 50 c ; 10 c pkt. 254-Perennial Mixed. Hardy Perennial varieties, in pink, blue and white mixed. . . . . . . . . . . . . . . . Oz., 30c; 10c pkt.

## MARIGOLD (See also Calendula)

THE African and French Marigolds are free-flowering annuals of easy culture; the former have uniformly large, yellow or orange colored flowers. (See cut.) The latter are dwarfer in growth, with beautifully striped flowers. They succeed best in a light soil, with full exposure to the sun. Halfhardy Annual.

## African Varieties

255-Orange Prince. Densely double flowers of a rich, 256 deep golden orange color ........1/4 oz., 25c; 10c pkt. 256-Lemon Queen. Soft, lemon-yellow flowers, and forming a fine contrast to the preceding.
257-Finest Mixed African.......... $1 / 4 \mathrm{~Hz}$ oz., 20c; 10c pkt. 10 c pkt.

## French Varieties

258-Legion of Honor. Single Dwarf Marigold, forming compact bushes. Flowers golden yellow and brown; blossoms in great profusion.....1/4 oz., 25 c ; 10 c pkt. 259-French Gold Striped. Very double; 1 foot. $1 / 4 \mathrm{oz} ., 20 \mathrm{c}$; 10 c pkt.

## MARVEL OF PERU, or Four O'Clock (mirabilis Jalapa)

260-A well-known free-flowering garden favorite; does well everywhere; give each plant 12 to 18 inches of room. Half-hardy Perennial. Finest mixed...Oz., 30c;10c pkt.



MATRICARIA
261-Capensis Alba Plena. (Double White Feverfew.) Free-flowering plants, producing all season fine, double, white flowers. A fine bedding or pot plant. Halfhardy Perennial....................................ioc pkt.

## MAURANDIA

Beautiful, rapid, slender growing climbers, blooming profusely until late in the autumn; also fine for the conservatory or greenhouse. A Half-hardy Perennial, flowering the first season if sown early.
262-Finest Mixed. All colors. $\qquad$ 10 c pkt.

## MIGNONETTE (Reseda)

A well-known favorite. No garden is complete without a bed of Mignonette. Half-hardy Annual. (See cut.)

263-Defiance. One of the finest sorts; excellent for 264-Machet. ...................... $1 / 4$ oz., 20 c ; 10 c pkt. 264-Machet. Dwarf pyramidal growth, with very 265 large, thick spikes, fragrant. . $1 / 4$ oz., 20 c ; ; 10 c pkt. sweetly scented...............1/2 oz., $15 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## MIMOSA (Sensitive, or Humble Plant)

266-Pudica. Curious and interesting annual, with pinkish-white flowers, the leaves close and droop when touched or shaken. Half-hardy Annual. 10c pkt.

## MIMULUS

Fine for shady situations; blooming the first year from seed if sown early; 1 foot. Half-hardy Perennial. 267 -Tigrinus. (Monkey Flower.) Fine mixed spottsd varieties... . . . . . . . . . . . . . . . . . . . . . . . . . . . 10 c pkt.
MOON FLOWER (Ipomoea Noctifora)
Climbers of rapid growth, with beautiful and varied flowers; for covering walls, trellises, arbors or stumps of trees.
268-Cross Bred or Hybrid Moon Flower. At night and during dull days the plants are covered with an abundance of large, pure-white. fragrant flowers, 5 to 6 inches in diameter. It is a rapid grower, and within a few months will grow as much as 40 and within a few months will grow as much as 40 and cut a small nick in shell of each seed. and soak in warm water for about 4 hours before planting. Tender Perennial.
$1 / 4$ oz.. 25c; oz., 80c; 10c pkt.
Moon Flower Plants. Each, 30c; per doz., \$3.00; by mail, each 35 c .

## MORNING GLORIES or Convolvulus

THE Morning Glory is too well known to need a description. Succeeds under almost all circumstances. Hardy Annual.
269-Morning Glories. (Convolvulus Major.) Climbing varieties, mixed................................, 15c; 10c pkt.
270-Imperial Japanese or Emperor Morning Glories. The flowers are of gigantic size and their colors range from snow-white to black-purple, with all the possible intermediate shades............ $1 / 2 \mathrm{oz}$., 15 c ; oz., $25 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## M Y OSOTIS (Forget-Me-Not)

The Forget-Me-Nots succeed best in shady, moist situations. Half-hardy Perennial.
271-Alpestris Victoria. Early flowering, of bushy habit, bearing large, bright, azure-blue flowers............ 10c pkt. 272-Palustris Semperflorens. A dwarf Forget-Me-Not continuing in bloom from early spring until autumn; blue flowers................................................. 10 c pkt.

## NICOTIANA

## (Sweet Scented Tobacco Plant)

One of the easiest annuals to raise and one of the most effective. The blossoms in shape are not unlike a Petunia blossom, but with a longer tube. The flowers open toward evening and emit a powerful perfume. Hardy Annual.
273-Affinis Hybrids. Large, pure white flowers of delicious fragrance. If taken up in the fall, cut back and potted, they will bloom all winter............................. 10 c pkt.
274-Sanderae Hybrids. A showy and profuse flowering, half-hardy annual, giving a continuous display of brilliant flowers through summer and autumn. The plant is of branching, bushy habit, 2 to 3 feet high, and carries the flowers in clusters. The flowers measure from $11 / 2$ to 2 inches across and remain open all day. Many colors mixed ............................. 10c pkt.

## NASTURTIUMS

FOR ease of culture, duration of bloom, brilliance of coloring and general excellence, nothing excels Nasturtiums. All they need is a moderately good soil in a well-drained sunny position. The varieties offered below were selected from a very large number of sorts as being the best and most distinct. Half-hardy Annual.

## Tall or Climbing Varieties

Elegant and luxurious climbers for verandas, trellises, etc. May be used to cover unsightly railings and to trail over rough ground with fine effect. The seed pods can be gathered while green and tender for pickling; 6 to 10 feet.
275-Chameleon. Different richly-colored flowers on the same plant.
276-Crimson. Rich and velvety.
277-Eward Otto. Lilac-brown.
278-Gold Garnet. Orange-yellow, with garnet blotches. 279-Jupiter. Golden yellow; large flowered.
280-King Theodore. Deep crimson-maroon, dark foliage.
281-Orange. Pure orange; no markings.
282-Pearl, or Moonlight. Creamy white.
283-Ruby. Deep scarlet flowers.
284-Schulzii. Rosy-scarlet flowers, dark foliage.
285-Twilight. Bright yellow, marbled salmon-rose.
286-Vesuvius. Rich glowing salmon color.
Price-Any of the above Tall sorts.
Oz., 25c; $1 / 4 \mathrm{lb} ., 65 \mathrm{c} ; 10 \mathrm{c}$ pkt.
287-Collection. 6 varieties........................... 50 c .
288-Collection. 12 varieties............................. . 90 c.
 new hybrids, embracing every shade many other grand rose, scarlet, orange, carmine, violet, purple tint of yellow, maroon, ruby, cream and pink, both in solid colors and mottled and striped.

Lb., $\$ 1.50$; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$; oz., 20c; 10 c pkt.
290-Mixed Tall Nasturtiums. For the low price, this mixture is very choice but will not give as fine flowers as our "Premier" listed above.

Lb., \$1.00; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; oz., 15 c


## Dwarf, or Bedding Varieties

T
HEY are suitable for hanging baskets, vases, window boxes, bedding and edging; grow quickly, thrive in the poorest soil and furnish the greatest abundance of long lasting, sweet-scented cut flowers.
291-Beauty. Yellow, striped red.
292-Chameleon. This interesting variety produces flowers of different colors on the same plant.
293-Crystal Palace Gem. Sulphur, spotted maroon.
294-Empress of India. Crimson flowers, dark foliage.
295-Golden King. Brılliant yellow.
296-King of Tom Thumbs. Intense deep scarlet flowers, dark foliage.
297-King Theodore. Dark maroon, bluish-green foliage. 298-Pearl, or Moonlight. Creamy white.
299-Prince Henry. Golden yellow, marbled and spotted with brilliant scarlet.
300-Regialianum. Deep purplish-crimson.
301-Rose. Salmon-rose.
302-Vesuvius. Brilliant salmon-pink.
Price-Any of the above Dwarf sorts.
Oz., 25c; $1 / 4 \mathrm{lb} ., 65 \mathrm{c}$; 10 c pkt.
303-Collection. 6 varieties............................. 50 c.
304-Collection. 12 varieties.............................90c.
 Mixture variety of colors in Mixture of Dwarf Nasturtiums, even proportions than any other Nas-
turtium mixture, for it is put up by ourselves from named sorts, and also contains a large share of the Liliput Nasturtium and of the Dwarf Chameleon which have the richest and most varied combination of colors ever produced, showing odd colors hitherto unknown among flowers.

Lb., $\$ 1.50$; $1 / 4$ lb., 50 c ; oz., 20c; 10c pkt.
306-Dwarf Nasturtiums Mixed. We handle such large quantities of Dwarf Nasturtiums that we are able to offer this especially choice mixture at a very low price. See also our "Premier" mixture listed above.

Lb., $\$ 1.00$; $1 / 4 \mathrm{lb} ., 35 \mathrm{c}$; oz., 15 c .
TROPAEOLUM CANARIENSE.
(See Canary Bird Flower.)


## N I GELLA

(Love in a Mist, or Devil in the Bush)
Lovely variety giving an abundance of longstemmed flowers, prettily set in slender elegant foliage. The plants are extremely hardy, and an autumn sowing produces the best specimens for flowering in the following summer. Height, 18 inches. Hardy Annual.
307-Finest Mixed...
10c pkt.

## PANSY

PANSY seed has always been a leading specialty with us. Seed germinates best while soil is still cool and moist. Would advise sowing in shallow drills in seed-bed early in spring when the trees are starting out in leaf, and again in September when the weather becomes cool. Plants from the spring-sown seed flower with great freedom throughout spring, summer and fall, while the stocky young plants grown in fall and winter produce the largest and finest flowers early the following spring. Take care of the weakest looking seedlings, as they usually give the finest flowers. Half-hardy Perennial.

## Giant Flowered Pansies

308-Blue Perfection. The best dark blue flowers of immense size. White shining rose, beautifully 309-Bridesmaid. White shining rose, beautifully 310-Bugnots' Superb Blotched. A French strain of extra large size, choicest colors, with beautiful broad blotches and delicate pencilings. Finest mixed........... $1 / 8$ oz., 75 c ; 20 c pkt. 311-Canary Bird. Giant five-spotted yellow $1 / 8 \mathrm{oz} ., 60 \mathrm{c}$; 15 c pkt.
312-Cassier's Giant. A very showy strain saved from large and beautifully blotched flowers.
$1 / 8 \mathrm{oz} ., 60 \mathrm{c} ; 15 \mathrm{c}$ pkt.
313-Golden Queen. Golden yellow, very fine. $1 / 8 \mathrm{oz}, 50 \mathrm{c}$; 10c pkt.
314-King of Blacks. Lustrous jet black flowers of immense size...................... $1 / 8 \mathrm{oz} ., 50 \mathrm{c}$; 10 c pkt.
315-Madame Perrett. Colors dark wine, pink and red, with edges of petals frilled and bordered white.
$1 / 8 \mathrm{oz} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.
316-Masterpiece. The enormous flowers are borne well above the foliage on strong stems. The petals of the flowers are waved or curled and contain the richest colors. Each petal is distinctly marked with a large dark blotch and most of the flowers are margined with a light, white or yellow edge... $1 / 8 \mathrm{oz} ., 60 \mathrm{c} ; 15 \mathrm{c}$ pkt. 317-Orchid Flowered. Beautiful light shades, large frilled flowers. . . . . . . . . . . . . . . . . . . . . . 1/8 oz., 50 c ; 15 c pkt. 318-Snowflake. The finest and largest pure white flowers. 1/8 oz., 50c; 10c pkt.
319-Triumph. A beautiful showy class, very large frilled flowers, in a great variety of rich colors; extra fine............................... $1 / 8$ oz., 75c; 20c pkt.


The cream of American and European Specialists. In this magniflcent mixture of mammothflowering Pansies the blossoms are borne on long stems well above the foliage and are distinguished for their gorgeous and varied colorings and beautiful markings; of fine substance, velvety texture, perfect form, and giant size, frequently measuring 3 inches in diameter. The colorings are wonderfully rich and varied; every shade and tint of rose, canary-yellow, black, white, cream, lavender, garnet, sky-blue and orange are produced in endless variation. . $1 / 8 \mathrm{oz} ., \$ 1.00 ; 1 / 4 \mathrm{oz} ., \$ 1.75 ; 25 \mathrm{c}$ pkt.
 fowers being superb and include many fine shades in a number of colorings, and is intended to supply the want of a first-class mixture at a moderate price.
$1 / 8 \mathrm{oz} ., 60 \mathrm{c} ; 1 / 4 \mathrm{oz} ., \$ 1.00 ; 15 \mathrm{c}$ pkt.


Great diversity of colors, free flowering; blossoms are slightly smaller than the Giant sorts.
$1 / 8$ oz., 25 c ; $1 / 4 \mathrm{oz}$., 45 c ; 10 c pkt.


## Violas, or Tufted Pansies

(Also known as Pansy Violets, Johnny-Jump-Ups, etc.) UR improved strain produces beautiful Pansy-like blossoms, of most brilliant colors and markings. The plants are more hardy than Pansies, and of vigorous growth, forming deep-rooting, compact, tufted clumps. Planted in masses or lines they form perfect mats covered with myriads of flowers from spring until cold weather.
323-McCullough's Special Mixture... $1 / 8$ oz., 50c; 10c pkt.

## PETUNIA

For outdoor decoration or house culture few plants equal the Petunia in effectiveness. Easily cultivated, only requiring a good soil and sunny position. Hardy Annual.

## Double Large-Flowering

$I^{T}$T IS well known that seed saved from the most carefully hybridized flowers produces but a small percentage of double flowers, the balance being singles of unusually fine quality. The weaker seedlings should be carefully saved, as these invariably produce the finest double flowers.


## PETUNIA-Continued

## Single Large-Flowering

THE weaker seedlings produce the finest flowers of best colorings. It is best to sow large-flowering Petunias indoors and transplant to the open in May. Single Bedding kinds can be sown right out of doors in May.
$\square$ 326-McCullough's

This mixture is made by ourselves and includes, besides the Ruffled and Caliof the large-flowering and fringed sorts, and the un surpassed Superbissima varieties with their delicately veined throats in various colors and their truly mam moth flowers...................... 3 pkts., 50c; 20c pkt 327-Rufiled Giants. Very large flowered; ruffed fluted and fringed, striped and mottled. blotched and solid self-colors............... 2 pkts., 25 c ; 15 c pkt
328-Large Flowering Single, Finest Mixed. Superb strain from show flowers; very large and of great substance. . . . . . . . . . . . . . . . 2 pkts., 25 c ; 15c pkt.

## Single Bedding Petunias

329-Alba. Pure white.............1/8 oz., 25c; 10c pkt 330-Carmen Sylva. Baby blue with white throat.

31-Howard's Star. A beautiful free-flowering crimson-maroon with a clearly defined five-pointed star of blush white.................1/8 oz., 40 c ; 10 c pkt. 332-Rosy Morn. Carmine-pink with white throat..10c pkt. 333-Dwarf Inimitable. A compact growing varicty; flowers cherry-red with a white center.

1/8 Oz., 30c; 10c pkt. for massing. 1/8 oz., 25c; 10 pkt.

334-Striped and Blotched. Fine
$\int_{\text {Bedding Varieties, Mixed }}^{335-M C M}$

Superb strain.
1/4 OZ., 50c; 10c pkt.
$1 / 4 \mathrm{oz} ., 25 \mathrm{c}$.


[^2]

Howard's Star Petunia

## Balcony Petunias

A splendid free-flowering type, for bedding, window boxes, vases, hanging baskets, etc.
337-Balcony Blue. Rich velvety violet
338-Balcony Purpurea. Dark red.
339-Baicony Rose Brilliant $\frac{1}{16} \mathrm{Oz} ., 50 \mathrm{c}$; 15c pkt. $\frac{1}{16}$ Oz., 50c; 15c pkt
340-Balcony White. Pure white flowers, large and borne abundantly until frost............ $\frac{1}{16}$ oz., 50 c ; 15c pkt. 341-Balcony. Finest Mixed....... $\frac{1}{16}$ Oz., 50 c ; 15c pkt.

## McCULLOUGH'S

## Annual Phlox

FEW flowers are so easy to grow from seed, so pretty and compact in habit, so quick to bloom, or give such a brilliant display of color for so little cost and care. The flrst sowing should be made as soon as the frost is out of the ground in spring, later ones in May, either where the plants are to bloom or in a seed-bed, as the Phlox transplants readily. (See cut.)

## Phlox Drummondi

342-Grandifiora-Alba, pure white..... $1 / 4 \mathrm{oz} ., 50 \mathrm{c}$; 10c pkt. 343-Grandiflora-Deep rose............ 1/4 oz., 50c; 10c pkt 344-Grandiflora-Scarlet. . . . . . . . . . . . $1 / 4 \mathrm{oz}$., 50c; 10c pkt.

## McCullough's Giant Phlox


Is a special mixture of Phlox has very large, perfectly round flowers, and will produce immense trusses of flowers which will sur-
pass every other variety in extreme richness of color and duration of bloom. It grows very compact. To prolong blooming, the seed pods should be removed as soon as they form. A bed of McCullough's Giant Phlox makes a grand display all summer. . . . . . . . . . . . . . . . . . 1/8 oz., $25 \mathrm{c} ; 1 / 4 \mathrm{OZ} ., 40 \mathrm{c}$; 10c pkt. 346-Phlox Drummondi, Mixed Colors. Flowers not so large as the Grandiflora type offered, but are very free flowering and effective............. 1/4 Oz., 30c; oz., $\$ 1.00$.

## Phlox, Large-Flowering Dwarf

A type combining the size of the individual flower and head of the Grandifloras, but of dwarf. compact growth.
347-Fireball. Fiery scarlet.
1/8 OZ., 50c; 15c pkt 348-Snowball. Pure white
$1 / 8 \mathrm{oz} ., 50 \mathrm{c} ; 15 \mathrm{c}$ pkt.
349-Finest Mixed Colors (Dwarf Varieties).
1/8 oz., 30c; 10c pkt.

## Hardy Perennial Phlox (P. Decussata)

Hardy Herbaceous Perennial and quite distinct from the varieties of Phlox Drummondi, which are annuals. For best results, should be sown as soon as frost is out of the ground in spring or as soon as gathered in the autumn.
350 -Mixed. All varieties.
.10c pkt.

## StimUplanT <br> Makes a <br> Wonder Garden

## StimUplanT <br> Makes a <br> Wonder Garden

## POPPIES

## Double Annual Poppies

TTHEY make a gorgeous show during their flowering period, and are largely used for beds and borders. Should be sown as early in the spring as possible where they are to remain, as they do not stand transplanting. Sow very thinly. Hardy Annual.

of colors. $\qquad$ $1 / 2$ Oz., 15c; Oz., 25c ; 10c pkt.

## Single Annual Poppies

ANNUAL Poppies should be sown as early in the spring as possible where they are to remain, as they do not stand transplanting. Sow very thinly. If they come up too thickly they must be thinned out to stand 3 to 4 inches or more apart if you wish best results. Hardy Annual.

$\left\lvert\, \begin{gathered}352-M C C u l l o u g h ' s \\ \text { Select Shirley }\end{gathered}\right.$They are single and occasionally semi-double, and range in color from the purest white through the delicate shades of pale pink, rose and carmine to the deepest crimson and blood-red, while many are daintily edged and striped. In fact, so varied are they that scarcely any two flowers are exactly alike. (See cut.)
$1 / 4 \mathrm{oz} ., 15 \mathrm{c}$; oz., 40 c ; 10c pkt.


This mixture includes all the choicest Poppies and is really extra choice....................1/2 oz., 15c; oz., 25c; 10c pkt.

## Hardy Perennial Poppies

ORIENTAL Poppies should be sown in early spring in the open ground as soon as it is fit to work. The plants disappear during July and August, appearing again as soon as the weather gets cool. When this fall growth starts is the time they should be transplanted to their permanent flowering quarters. It is well to mark the places they are planted with a stake to insure the roots against disturbances during their annual resting period.

354-Orientale. (The large Oriental Poppy.) A charming summer-flowering hardy plant, producing numerous leafy stems about $21 / 2$ feet high, with large, deep crimson flowers, having a conspicuous black blotch on each petal; exceedingly showy.. $1 / 4 \mathrm{oz} ., 25 \mathrm{c}$; 10c pkt.


Contains the preceding and many more beautiful hybrids of the Oriental Poppy, producing flowers of immense size, 6 inches and over in diameter, and of $1 / 4 \mathrm{oz} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.



## Iceland Poppies (Papaver Nudicaule)

W
HILE these are hardy perennials, they flower the first year from seed, blooming almost as quickly as the annual sorts. They are of graceful, neat habit, with bright green, fern-like foliage, formed in tufts from which issue slender stalks about 12 inches high, bearing their brilliant flowers in endless profusion; most useful for cutting, for which purpose pick when in bud, for if the seed pods are picked off, they continue in flower the entire season. They remain evergreen throughout the winter, coming into bloom early the following spring. Hardy Perennial. 356-Finest Mixed. All colors..... $1 / 4 \mathrm{oz} ., 25 c$; 10c pkt.

## PORTULACA (sun Plant or Rose Moss)

0NE of our finest Hardy Annual plants, of easy culture, thriving best in a light loam or sandy soil, and luxuriating in an exposed, sunny situation, the flowers are of the richest colors, and produced throughout the summer in great profusion; fine for massing in beds, edgings or rock-work; 6 inches. (See cut.)
357-Single Mixed Colors.
.Oz., 60c; 10c pkt.
358-Double Mixed. A large percentage of the flowers will come perfectly double..........1/4 oz., 75 c ; 10 c pkt.

## PYRETHRUM

0NE of the most valuable of our summer flowers. They flower in May and June, and frequently in August and September the second time. Hardy Perennial.
359-Hybridum Grandiflorum. This large flowering single strain is saved from a fine collection. Bears large Daisy or Cosmos-like flowers, ranging in color from light pink to deep red, with bright yellow centers blooms in May and June and again in the fall. One of the most graceful and long-lasting cut flowers.
$1 / 4 \mathrm{oz} ., 50 \mathrm{c}$; 10 c pkt.
360-Hybridum F1. Pl. Large semi-double flowers, resembling a China Aster, only more refined; extra choice selected seed; mixed colors. . . . . . . . . . . 25 . pkt .
361-Pyrethrum Aureum. It is the well-known Golden Feather used for edging, carpet-bedding, etc. . 10c pkt.

## PRIMULA

THE beautiful Chinese Fringed Primroses and Obconica and Forbesi varieties are indispensable for winter or spring decorations in the home or conservatory. They are among the most important winter blooming pot plants. The seed we offer has been saved from the best strains of English and Continental growth. Sow in March, April or May. The hardy varieties are also deserving of wide cultivation.

## Primula Chinensis Fimbriata fringed chinese primroses

The seed should be sown in light soil, but for final potting a richer soil is necessary, consisting of two parts loam to one each of well decayed manure and leafmould. Greenhouse Perennial.
362-Alba Magnifica. The finest pure white with bright yellow eye, beautifully fringed............................20c pkt. 363-Chiswick Red. Large brilliant scarlet, finely fringed.....................20c pkt. 364-Coerulea. Fine blue; excellent.

20 c pkt. 365-Delicata. Delicate rose, finely fringed.



This mixture contains nothing but the finest sorts of Chinese Primroses. (See cut.)

20 c pkt.

## Primula Obconica

THESE are of the easiest culture in greenhouse or light window of dwelling house, flowering abundantly and continuously with little care, and should be sown during the spring in good, porous loam. They will not germinate well in any compost containing peat or leaf-mould. To develop the colors to the highest degree, grow in beavy soil, and at a temperature as near 60 degrees as possible. The Grandiflora varieties are the freest flowering, but lack the very large individual blooms of the newer Gigantea type. Greenhouse Perennial.


RICINUS (Castor Bean) Zanzibariensis

367-Primula Obconica Grandiflora. Very large flowers with nicely fringed and toothed petals. The flowers are produced in constant succession, ranging in color from white and red to rose.

368-Primula Obconica Gigantea. This new variety is the finest yet introduced; of strong, vigorous growth with immense heads of large individual blooms. Varies in color from pale lilac to rose, white and red.

15 c pkt.

## Hardy Primroses

These are among the best of the early spring-blooming plants. Half-hardy Perennial.
369-Auricula. Finest mixed. Extra choice; saved from a prize collection.... . . . . . . . . . . . . . . . . . . . . . . 10c pkt. 370-Veris. (Polyanthus.) Splendid colors: extra inne. 10 c pkt.
371-Vulgaris. True English Primrose; canary yellow, fragrant flowers. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10c pkt.

## Primula, Various Sorts

372-Forbesi. (Baby Primrose.) This is the freest-flowering Primula we know of. The little plants throw up tiny rosy-like flowers when only a few weeks old......10c pkt 373-Malacoides. A fine house plant, somewhat like $P$ Forbesi, but larger in all its parts, flowers delicate lilac

15 c pkt.

## RICIN US (Castor Bean)

KNOWN as "Castor Oil Plant"' and "Palma Christi." Highly ornamental and stately growing plants of tropical origin with luxuriant foliage of varied colors and brilliant colored fruit. Sow as soon as the ground is warm. Half-hardy Annual. 374-Sanguineus. Blood-red stalks and clusters of red fruit; 8 feet............................. Oz, 30c; 10c pkt. 375-Zanzibariensis. A distinct class, which surpasses in size and beauty all varieties. The plants attain great dimensions, pres€nting a splendid aspect with their gigantic leaves. The different varieties included in our mixture have light and dark green leaves and some of copperybronze, changing to dark green, with reddish ribs. The seeds are quite distinct in color and beautifully marked. 8 to 12 feet. . . . . . . . . . . . . . . . . . . . . .Oz., 30 c ; 10c pkt 376-Mixed. All sorts.................... Oz., 25c; 10c pkt.

## SALPIGLOSSIS (Painted Trumpet)

THE blossoms are tube shaped much like a Petunia, but rivaling the latter in the beautiful colors displayed. Seed should be sown early in spring in a hot-bed or window and transplanted when weather is settled, or directly out-of-doors after danger of frost is past. Half-hardy Annual.


This mixture is put up by ourselves from separate varieties and is without doubt the best mixture obtainable. . $1 / 8 \mathrm{oz}$., $25 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## S A L V I A (Flowering sage)

SEED should be sown as early as possible, either indoors or in a hot-bed, and the young plants transferred to their flowering quarters when the weather has become settled and warm. Halfhardy Perennial.
378-America, or Globe of Fire. A variety of dwarf, bushy, compact growth, uniform in height and shape, and literally aglow with large spikes of brilliant scarlet flowers from early in the season until late in fall........................... . $1 / 8 \mathrm{oz} ., \mathbf{7 5 c}$; 10c pkt
379-Bonfire, or Clara Bedman. Grows in a compact bush about 2 feet high by 2 feet in diameter. Its erect spikes of flowers of brilliant scarlet stand clear above the dark-green foliage and completely cover the plant. (See cut.)
$1 / 8 \mathrm{OZ} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.
380-Patens. A tender perennial variety; flowers intense bright blue, of large size; a beautiful plant for the border; can be kept as a house plant in a warm room....20c pkt.
381-Splendens. (Scarlet Sage.) One of the finest summer and fall plants with magnificent brilliant scarlet flowers; 2 feet. . . . . . . . . . . . . . . . . . . . . . . . . . . $1 / 8 \mathrm{oz} ., 35 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## S C A B I O S A

(Mourning Bride, Sweet Scabious, Pincushion Flower) The beautiful flowers in exquisite shades are borne on long stems, and when cut keep in perfect condition for the best part of a week. Hardy Annual.
382-Azure Fairy. Lavender blue.
383-Crimson. Rich, rosy crimson.
384-Pink. Delicate tone of pink.
385-Rose. Soft rose color.
386-White. Pure white.
Any of the above colors. . . . . . . . . . . $1 / 4 \mathrm{oz}$., 30c; 10c pkt.
387 -Mixed. All colors of the Improved Large-flowering sorts.............. $1 / 4 \mathrm{oz} ., 15 c$; oz., 50c; 10c pkt.

## Scabiosa, Hardy Perennial Varieties

388-Caucasica. (Blue Bonnet.) Especially valuable for cutting, the blooms lasting a long time in water; lilacblue; 3 feet. Hardy Perennial................ 10 c pkt.

## SGARLET RUNNER BEANS

389-A great favorite in Europe, not only as an ornamental climber, but for the delicious, edible pods which succeed the bright scarlet, pea-shaped blossoms. Tender Annual..

10c pkt.
SENSITIVE PLANT. (See Mimosa.)
SHASTA DAISY. (See Hardy Chrysanthemum.)


Salvia-"Bonfire"

## STOCKS (Gillioomer)

STOCK seed may be sown in the open ground, or in the hot-bed or cold frame, but if transplanted, let this be done when the plants are small, just out of the seedleaf, or the plants become slender and never make good plants nor flower well.

393-Princess Alice. (Cut and Come Again.) If sown early it commences blooming in June and continues until frost. It throws out numerous side branches bearing clusters of very double, pure white, fragrant blossoms and is excellent for cutting. . . . . . . . . . . . . . . . . . . 10c pkt.

## Giant Perfection Ten Week Stock

This magnificent strain is without a rival for open ground planting, attaining a height of $21 / 2$ feet. The spikes of bloom are long and the individual flowers are enormous in size and very double. Half-hardy Annual. (See cut.)
394-Finest Mixed Perfection. All colors..........10c pkt.

## Mammoth-Flowering Beauty Stock

A magnificent recently developed strain of early flowering Winter Stocks, forming many-branched plants about 2 feet high and having numerous spikes of very large, double, delightfully fragrant flowers. If sown in March will produce plants that will bloom out of doors. Half-hardy Biennial.
395-Beauty Stocks, Mixed
.10c pkt.

## STOKESIA (Cornfower or Stokes' Aster)

P
LANTS grow about 15 to 18 inches high, bearing freely from July to October handsome Centaurea-like blossoms, each measuring from 4 to 5 inches across; it is of easy culture. and one of the most desirable plants for the hardy border, and also for cutting. Hardy Perennial.
396-Cyanea. Light blue.
.10c pkt.

## S U N F L O W ER (Helianthus)

R
EMARKABLE for the stately growth, size and brilliancy of their flowers, making a very good effect among shrubbery and for screens. Hardy Annual.

## Double Annual Sunflowers

397-Chrysanthemum-Flowered. The plants grow 6 to 7 feet and produce a great number of double flowers. large, double, of a rich saffron color, 6 feet. 399-Mammoth Russian. Extra large fiowers, with an abundance of seed.......Oz., 15c; $1 / 4 \mathrm{lb}, 25 \mathrm{c}$; 10 c pkt. 400-Double Varieties, Mixed............Oz., 25c; 10c pkt.

## Single Annual Sunflowers

(Dwarf-Branching "Cut-and-Come-Again'")
401-Stella. (Improved Miniature Sunflower.) Flowers of the purest golden yellow, with black disc. The plants form bushes 2 to 3 feet high, bearing a continuous succession of flowers from June until frost. They are easily grown, commencing to flower in a few weeks from seed. Hardy Annual. . . . . . . . . . . . . . . . . . . $1 / 4$ oz., 20c; 10c pkt.


## Hardy Perennial Sunflowers

402-Mixed. Contains the finest single-flowering Hardy Perennial sorts. Seeds sown early will produce flowering plants the first year; as subjects for the hardy border as well as for cutting, they are of great value. $1 / 4 \mathrm{oz} ., 65 \mathrm{c}$; 10c pkt.

## HINTS ON THE CULTURE OF FLOWERS

Much annoyance and disappointment may be saved by giving close attention to the following: Avoid especially deep planting; overwatering, underwatering, or sowing too thickly.



## SWEET

WILLIAM
(Dianthus Barbatus)

The best varieties of Sweet William are of exceedingly beautiful colors, and the large fragrant flowers are borne in trusses of great size. They make a splendid show in the garden or hardy border and last well as cut flowers.

Seed may be sown at any time from spring to midsummer. Seed planted early will bloom in the fall. It is better to sow seed every year to have young plants, as they flower more freely Hardy Perennial. Height, $11 / 2$ to 2 feet.

403-Holborn Glory. This strain is a large-flowered selection of the auricula-eyed section, the most beautiful and admired of all Sweet Williams. The individual flowers and trusses are of extraordinary size, and the range of color. all showing a clear, white eye, is superb.............. $1 / 4 \mathrm{Oz}$, 30c; 10c pkt.
404-Newport Pink. Beautiful light pink flowers borne in massive heads on stems 18 inches high. Very effective for cutting. . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1 / 4$ oz., 50c; 10c pkt.


A very choice assortment of all the best single-flowering varieties.

1/4 oz., 20c; 10c pkt.
406-Double Mixed. This mixture you will find of very superior quality; containing all colors and shades.....10c pkt.

SWEET SULTANS. (See Centaurea.)
SNOW-ON-THE-MOUNTAIN. (See Euphorbia.)
SNAPDRAGON. (See Antirrhinum.)

## McCULLOUGH'S SELECT SWEET PEAS

It Would be an Easy Matter for Us to Greatly Extend Our List. but We Think it Best to Confine Our Offers to Such Sorts as are Really First-Class

HOW TO GROW SWEET PEAS.-The principal essential for the best success is a cool, deep, moist soil and a sunny situation. The ground should be prepared deep and rich. Fall preparation, where possible, is preferable, but if done in the spring, use no green manure. Bone meal is good if old rotted manure can not be obtained. Sow early, as Sweet Peas need the cold, moist spring ground to make the root growth. In the latitude of Cincinnati, February is not too early. In the South, sow in the fall. Sow the seed in deep furrows, the bottom of which must be at least 6 inches below the level of the soil; this is to guard against a summer drought. Cover the seeds only one inch, after which the furrow is still five inches deep. When the plants are 2 to 3 inches high, thin out to 2 inches apart and fill in another inch or so of soil around the plants, always leaving a portion of the plant above the surface; do this at intervals until the furrow is nearly full; it should always remain a little hollow to hold the rains, and to allow water to be applied by the bucketful when necessary.

During dry weather they should be watered thoroughly and frequently and given an application of liquid manure once a week. A mulch of hay or rakings from the lawn will be found beneficial during hot weather. The flowers should be picked as often as possible, and all withered blooms should be removed, to prevent the plants from running to seed, which would stop them from blooming.

## Early Flowering Spencer Varieties

NOTHING within reeent years can approach in importance the introatuction of the "spencer" sweet Peas. They are distinguished from the standard sorts by the enormous flowers with crinkled and wavy petals, and also from the fact that they usually bear four blossoms on a long stout stem.

In presenting the following varieties of Spencer $S$ weet Peas, we wish to emphasize the fact that these are the "Early Flowering Spencers" and are separate and distinct from the late or standard Spencer types, as they continue blooming two or three weeks longer than the standard Spencer varieties.
407-Blue Bird. A charming shade of blue. Large and exquisitely waved.
$1 / 2 \mathrm{Oz} ., 30 \mathrm{c}$; Oz., 50 c ; 10c pkt.
408-Burpee's Orange. The most outstanding Sweet Pea. It is a clear, pure orange self. $1 / 2$ oz., 40c; oz., 75c ; 10c pkt.
409-Columbia. The standard is bright salmon rose, the wings being pure white. Vines are strong and vigorous, bearing large well waved flowers in threes and fours.
$1 / 2$ oz., 30c; Oz., 50c ; 10c pkt.
410-Glitters. Glitters and scintillates, with a fire-like sheen radiating over the flowers. The standard is a bright, fiery orange and the wings are deep orange.
$1 / 2 \mathrm{oz}, \mathbf{3 0 c} ; \mathrm{oz} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.
411-Liberty. A rich, deep, sumproof crimson. The flowers are large, well waved and borne in fours and threes. The vines are vigorous. $1 / 2 \mathrm{oz} ., 30 \mathrm{c}$; oz., $50 \mathrm{c} ; 10 \mathrm{c}$ pkt.
412-Miss Louise Gude. The color of this charming variety is a shell-pink throughout. The flowers are large and well formed. Carried four on a stem of great length.
$1 / 2 \mathrm{oz} ., 30 \mathrm{c}$; oz., 50 c ; 10c pkt.
413-Mrs. Harding. The flowers are a beautiful shade of silvery blue, of exquisite texture, large, well waved, and displayed in fours on a long stem... $1 / 2 \mathrm{oz} ., 40 \mathrm{c}$; oz., $75 \mathrm{c} ; 10 \mathrm{c}$ pkt.
414-Mrs. Kerr. The best early flowering salmon Sweet Pea. Large, well-waved blooms carried on long stems.
$1 / 2 \mathrm{Oz} ., 40 \mathrm{c} ; \mathrm{oz} ., 75 \mathrm{c} ; 10 \mathrm{c}$ pkt.
415-Princess. Flowers are a lovely shade of soft lavender, suffused mauve. Attractively waved....... $1 / 2$ oz., 30c; oz., 50c; 10c pkt.
416-Snowstorm. The white flowers are extra large and of fine form.
$1 / 2 \mathrm{Oz}, \mathrm{30c} ; \mathrm{Oz} ., 50 \mathrm{c} ; 10 \mathrm{c}$ pkt.
417-Yarrawa. The color on opening is rose, changing as the flower developes, to a light pink standard, tinted buff, with blush wings. $1 / 2 \mathrm{Oz} ., 30 \mathrm{c}$; oz., 50c; 10c pkt.
418-Zvolanek's Rose. Flowers are deep pink and large. . . $1 / 2 \mathrm{oz}$., 30 c ; oz., $50 \mathrm{c} ; 10 \mathrm{c}$ pkt.

419-Early Flowering Spencers, Mixed. A carefully composed mixture of the finest standard named varieties, colors properly blended.
$1 / 2 \mathrm{Oz} ., 25 \mathrm{c}$; oz., 40c; 10c pkt.

## Spencer Varieties

420-Dobbies Cream. Deep cream or primrose colored, nicely waved, with an abundance of four-bloom sprays. Oz., 30c; 10c pkt.
421-Dobbies Sunproof Crimson. This beautiful crimson flowering variety does not scorch or burn under intense sunshine. Flowers are freely borne on long stems in threes and fours.........Oz., 30c; 10c pkt.
422-Fiery Cross. Color a scorching fire-red, or scarlet. It does not scorch or burn and the beautifully waved and fluted flowers are borne freely in threes and fours, on long stems...


423-Hercules. A magnificent soft rose-pink. The broad and beautifully waved standards frequently measure two and one-half inches in diameter . Oz., 30c; 10c pkt.

424-Jean Ireland. Flowers creamy buff, standards margined carmine-rose... $1 / 2$ oz., 20c; oz., 35c; 10c pkt.

425-King White. The grandest of all White Sweet Peas and of the most up-to-date Spencer form. It is the largest of White Spencers and the buds are of unusual size before opening. The stems are long, stouti and bear practically always four blossoms.

Oz., 30c; 10c pkt.
426-Margaret Atlee. The flowers are a rich glowing pink on cream ground, suffused with salmon in the standard, while the wings are pinkish-rose and salmon. The flowers are exquisitely waved, and freely produced in fours on long stout stems.........Oz., 30c; 10c pkt.

## McGULLOUGH'S SELEGTSWEETPEAS

## SPENCER VARIETIES-Continued

427-Margaret Madison. The flowers are azure blue, slightly tinted with mauve, of good size, both standard and wings being delightfully waved and frilled. Oz., 30c; 10c pkt.
428-Mrs. Cuthbertson. The standard is a clear, rosepink in color, wings white, slightly flushed light rose.

Oz., 30c; 10c pkt.
429-R. F. Felton. The color is a soft, pleasing shade of lavender, suffused rose; wings French gray, flowers large and waved................. Oz., 30c; 10c pkt.
430-Rosabelle. A fine rose-colored flower, and a strong grower.............................. Oz., 30c; 10c pkt.
431-Royal Purple. A rich royal purple, a distinct color and large size. . . . . . . . . . . . . . . . . . Oz., 30c; 10c pkt.
432-The President. Flowers are scarlet, of largest size, carried on strong, stiff stems, usually in fours, always beautifully waved. . . . . . . . . . . . . . . Oz., 30c; 10c pkt.


This mixture is made up by ourcream of this class in all possible color variations, and we are confident many surprises will result, as we have included in this not only the above sorts, but many others which are new and striking in this class.... $11 \mathrm{lb} ., \$ 1.50$; $1 / 4 \mathrm{lb} ., 50 \mathrm{c}$; oz.,15c; 10 c pkt.

## Grandiflora Varieties

Are considered easier to grow than the Spencers.
The varieties listed below are the cream of all known sorts. All inferior varieties have been discarded.
MCCULLOUGH'S SELECTED LIST INCLUDES THE BEST $\operatorname{VARIETIES}$ IN ALL COLORS Oz., 15c; 1/4 lb., 40c; 10c pkt.
434-Black Knight. Pure maroon, self-colored, large size.
435-Blanche Ferry. Rose-pink standard, white wings.
436-Dorothy Eckford. The finest pure white. The plant is short-jointed, and grows an enormous mass of bloom.
437-Flora Norton. Pure bright self-blue; quite distinct.
438-King Edward VII. A lovely, intense, bright crimson, giant flowering variety with strong stems and growth; does not burn in the sun.
439-Lady Grisel Hamilton. Beautiful pale lavender; in form it is one of the most advanced giant flowering type.
440-Lord Nelson. Standard, dark navy blue, wings shaded purple.
441-Miss Wilmott. Standard, orange-pink, wings rose, tinted orange.
442-Mrs. E. Kenyon. A most desirable rariety having bold, giant flowers of a beautiful primrose color.
443-Mrs. Geo. Higginson, Jr. A clear, delicate light blue.
444-Nora Unwin. Giant white flowering variety.
445-Prima Donna. Bright blush pink; large size and fine form.

Each of the above, oz, 15c; $1 / 4 \mathrm{lb} ., 40 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## McGULLOUGH'S "PREMIER" MIXED SWEET PEAS

## THE FINEST AND MOST COMPLETE MIXTURE EVER OFFERED

446 -This mixture contains all the best-named large-flowering varieties and novelties and is undoubtedly a truly superb mixture blended by us with extraordinary care from named varieties of the most approved largeflowering type including recent American and European varieties, as well as a great many Spencer and Unwin sorts and other hybrids insuring a gorgeous color effect...... $11 \mathrm{lb} ., \$ 1.00$; $1 / 4 \mathrm{lb} ., 30 \mathrm{c} ; \mathrm{oz} ., 15 \mathrm{c} ; 10 \mathrm{c}$ 'pkt.

## Mc CULLOUGH'S Special Collections

## EARLY FLOWERING "SPENCER" SWEET PEAS

One (regular size) packet of each of the Thirteen Early Flowering Spencer Varieties for 95c postpaid; or 6 packets for 50 c , customer's selection, postpaid.
"SPENCER" SWEET PEAS
One (regular size) packet of each of the Thirteen
Spencer Varieties for 90c, postpaid.
12 packets for 90 c , or 6 packets ior 50 c customer's selection, postpaid.
"GRANDIFLORA" SWEET PEAS
Twelve Best Grandiflora or Large Flowering Varieties for only 80c-postpaid. (One regular size packet of each variety listed)
or 6 packets for 40 c , customer's selection, postpaid.
(See also McCullough's "Premier" Mixture.)

## THUNBERGIA (Black-Eyed Susan)

447-Beautiful, rapid-growing annual climbers. preferring a warm, sunny situation; used extensively in hanging baskets, vases, low fences, etc.; very pretty flowers in buff, white, orange, etc.; with dark eyes; mixed colors, Half-hardy Annual. 4 feet..... $1 / 4 \mathrm{oz} ., 30 c$; 10c pkt.

## TORENIA

448-Fournieri. A very fine annual; a splendid plant for vases, hanging-baskets, borders, etc.; covered the entire season with a mass of bloom. Sky-blue, with three spots of dark-blue, bright yellow center. Half-hardy Annual.......................................... . . . . 10c pkt.


VINGA (Madagascar Periwinkle, or Old Maid)
Ornamental, free-blooming plants and one of the most satisfactory flowering bedding plants we have. It is best to start the seed early indoors or in a hot-bed, but they begin blooming in August from seed sown out-of-doors in May, or as soon as the ground is warm, continuing until frost; or they may be potted and kept in bloom through the winter; a fine cut flower, every bud opening when placed in water; 2 feet. Tender Annual. (See cut.)
449-Rosea. Rose, dark eye. . . . . . . . . . . . . . . . . . 10c pkt. 450-Alba Rosea. White, crimson eye........... 10c pkt. 451-Alba Pura. Pure white....................... 10c pkt. 452-Mixed.......................... . . $1 / 4 \mathrm{oz} ., 40 \mathrm{c}$; 10c pkt. VERBENAS. (See next page.)


## VERBENAS

To have the best results, seeds should be started early in the house and the young plants bedded out by the first of June, and they will make a lavish and showy display of flowers until frost. Half-hardy Annual.
453-Gigantea Lucifer. Flowers intense brilliant scarlet with no eye.
 455-Mammoth Defiance. Brilliant scarlet; fine for
bedding......................... . . $1 / 8 \mathrm{oz} ., 35 \mathrm{c}$; 10c plst. 456-Mammoth Candidissima. Large trusses of pure
white flowers ...................1/8 oz., 35c; 10c pkt. 457-Mammoth Blue. Bright blue, in various shades.

458-Mammoth Pink. Bright shades of., $35 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## 459-McCullough's <br> Mammoth Mixed Verbenas

and for enormous flowers of rich
and for enormous flowers of rich 460 -Fine Mixed. A very satisfactory assortment, containing many fine colors and shades.
$1 / 8$ oz., 15c ; 1/4 OZ., 25 c .

## VIOLET (viola odorata)

A great favorite, suitable for groups, or borders, and much in demand on account of its profusion of bloom and delightful fragrance. Violet seeds germinate very slowly. Hardy Perennial.
461-Finest Mixed $1 / 8$ oz., $35 \mathrm{c} ; 1 \mathbf{1 0 c}$ pkt. 1/8 oz., 35c; 10c pkt. tains every desirable color and shade. They bloom most profusely,

IOLAS, or TUFTED PANSIES. (See Pansies.)

## W ALLFLOWER (Goldack)

WELL-KNOWN, deliciously fragrant, half-hardy annuals and perennials, blooming early in the spring, with spikes of beautiful flowers. They should be protected in a cold frame in the winter and planted out in April. 462-Single Mixed. Half-hardy Perennial. All colors.
463-Double Finest Mixed. Half-hardy Perennial.
10c pkt.

## WILD GUCUMBER

## (Echinocystis Lobata)

THIS is one of the quickest growing climbers on our list. Should be sown late in the fall or very early in the spring. It is thickly dotted over with pretty, white fragrant flowers followed by an abundance of ornamental and prickly seed pods. For a trellis or pillar, no annual vine is more chaste, and it will quickly cover an old tree or an unsightly building. Hardy Annual.



## 'WILD GARDEN" FLOWER SEED

EACH package contains about 100 varieties of hardy flower seeds mixed together, and wherever planted will insure something new almost every day. Is suitable for sowing in shrubbery, under trees, and in beds on which no care will be bestowed, or even for sowing in exposed situations, where wildness is preferred to order and precision.

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 unusual and varied effect, for cheapness and small amount of labor necessary for its construction, has no rival.
465-Dwarf Sorts. Growing from 12 to 18 inches high.
466-Climbing and Trailing Sorts. Fine for piding fences, brush and rubbish heaps...Oz., 25 c ; 10c pkt.

## XERANTHEMUM

## (Everlasting, or Immortelle)

467-Double Mixed. Bright and pretty "Everlasting" with silvery foliage and silky flowers in pink, white and purple. Half-hardy Annual.. $1 / 4 \mathrm{oz} ., 20 \mathrm{c} ; 10 \mathrm{c}$ pkt.

## Z I N N I A S (Youth and Old Age)

THESE attractive and decorative half-hardy annuals are most desirable plants for mixed borders or bedding purposes, and are remarkable for the profusion and duration of their flowers, which are extremely useful for bouquets. The double Zinnias are exceedingly handsome, the flowers being notable for their large size, fine form, brilliancy and diversity of color. The seed can be sown early in the hot-bed or light window and transplanted, or sown later in the open ground. They come into flower early in the summer and keep on blooming until hard frost. Half-hardy Annual.

## Dahlia Flowered

When in full bloom the flowers of ten measure 4 inches in depth and 6 to 8 inches in diameter, in form like a perfect decorative Dahlia. When cut from the plant and placed by Dahlias, it is difficult to distinguish one from the other.

We offer the following varieties of the Dahlia Flowered Type in separate colors:-
468-Crimson Monarch. Largest and best red.. 15c pkt. 469-Dream. Lavender turning to purple. . . . . . . 15c pkt. 470 -Illumination. Deep rose...................... 15c pkt. 471-Meteor. Dark red........
472 -Oriole. Orange and gold
15 c pkt.
15c pkt.
473-Polar Bear. Pure white...................... 15c pkt. 474-Collection.-One packet each of the above six
varieties
475-Finest Mixed....................... $1 / 40$ oz., 60 c ; 10 c pkt.

## Giant Picotee

The flowers are very effective in appearance, as the edges of the petals are well marked with a distinct color to the body of the flower, making them very attractive as bedders and cut flowers.

476-Finest Mixed. All colors........ $1 / 4 \mathrm{oz} ., 50 c ; 10 c$ pkt.

## McCullough's Superb Mammoth Zinnias

This is the finest strain obtainable. The flowers are of enormous size, thickly set with velvety petals. The plants are healthy, robust, vigorous growers, branching freely, and make excellent material for groups or cutting. McCullough's Superb Mammoth will be found very superior to ordinary Zinnias. New colors have been added, depth and size given to blooms and a rich velvety lustre to the petals.
477-Mammoth White.
478-Mammoth Yellow.
480-Mammoth Crimson.
481 - Mammoth Scarlet.
479-Mammoth Flesh Color. 482-Mammoth Violet.
Each of the above
483-Collection. One packet of each of the above 6 varieties.
 Mammoth Mixed

Contains all the -nn- -act shades. Be sure and try this wonderful strain of this grand old favorite flower. $1 / 4 \mathrm{OZ}, 30 \mathrm{c} ; 10 \mathrm{c}$ pkt. 485-Victory Quilled. The petals ane quilled and twisted, the outside is of a copper-golden color and on the underside various shades of rose and lilac. .
486-Red Fiding Hood. Of compact form and covered the entire season with little button-like, intense scarlet flowers not over an inch across; as a border plant it is highly

487-Elegans Double, Finest Mixed. Semi-dwarf varieties. Many colors. . . . . . . . . . . . . . . . . . . . . $1 / 4 \mathrm{oz}$, 15 c ; oz., 50 c

# Mrecullough's $\mathfrak{G r a s s}$ Seeds 

## We specialize in Grass Seeds of all kinds and for every purpose.

$F^{0}$OR many years Grass Seeds have been one of our most important specialties, and our improved facilities for recleaning and handling in small or car lots, enable us to offer our customers the best possible service, both as to quality and promptness in executing orders. All seeds after being recleaned are tested for both purity and germination in our well equipped laboratory, and tagged to comply with state seed laws, although as tests are subject to some variation they can not be guaranteed.

The J. M. McCullough's Sons Company has always recognized the importance of co-operation with all government agencies for the improvement of agriculture and were among the first seed houses in the United States to establish a testing laboratory which has been in constant operation for over sixteen years.

We have two or three different grades of Grass Seeds, especially of the kinds most in demand, such as Clovers, Timothy, Blue Grass, Red Top, Orchard Grass, etc. Will quote lowest market prices on application.

For best results, we advise the use of our highest brands. Our "BUCKEYE BRAND" signifies standard No. 1 quality. Our "XXXX BRAND" signifies extra fancy quality. Our Buckeye Brand is the average standard Number One quality produced on the crop. Our XXXX Brand is extra fancy, representing the very best obtainable and as seed of this standard is sometimes only available in small quantities, our XXXX Brand sells at somewhat higher price than standard Number One. We are the largest buyers in this section of high-grade Seeds and will always pay the highest market price. Submit samples and name quantity to offer.

Our prices include delivery to freight or express depots here, purchaser paying transportation charges. We make no charge for burlap bags for Blue Grass, Red Top in Chaff, Orchard Grass, Perennial Rye and other light Grass Seeds. Seamless bags for Clovers, Timothy, Fancy Red Top and other heavy Seeds and Seed Grains are 36c each, extra. The number of pounds to the bushel, in brackets is the old way of offering grasses, and is mentioned merely for reference. We expect to adhere closely to prices quoted in this list, but owing to market fluctuations, it is impossible to guarantee prices. All orders will be filled at lowest market price on the day of receipt.

Postage Must be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.

## KENTUCKY BLUE GRASS (Poa Pratensis)

ALSO known as June Grass, Green Grass, etc. This is rated as the finest permanent pasture grass. Especially suited to rich lands. It is the grass of the famous and fertile limestone soils of Kentucky, and is no less a favorite all through the Northern States. A perfect lawn grass. Sow 40 to 50 lbs. per acre for lawns, and 100 to 150 lbs . per acre for fairways. 2 bushels ( 28 lbs .) to the acre for pasture ( 14 lbs. per bushel).

## Kentucky Blue Grass Seed, Fancy Cleaned.

Per lb., $45 \mathrm{c} ; 5 \mathrm{lbs}$., $\$ 2.00$; 10 lbs., $\$ 3.75 ; 20 \mathrm{lbs} ., \$ 7.25$.
Write for special prices on large quantities and other grades.

## ORCHARD GRASS <br> (Dactylis Glomerata)

ROUGH Cocksfoot. Perennial. Height, 3 feet. It blossoms about the same time as Red Clover, making it, on that account, a desirable mixture with that plant. It is exceedingly palatable to stock of all kinds, and its powers of enduring the cropping of cattle commend it as one of the very best pasture grasses. Sow 25 to 35 lbs. to the acre. ( 14 lbs. per bushel.) Market price.

## RED TOP GRASS

## (Agrostis Palustris or Alba)

HERD'S Grass, Quick Grass. Perennial. Height, 1 to 2 feet. Valuable either for lawn mixtures, mixing in hay, or permanent pasture grasses; succeeds almost everywhere, but reaches its highest state of perfection in a moist, rich soil, in which it attains a height of 2 to $21 / 2$ feet.

## Fancy Red Top Pure Seed.

Weight, about 30 lbs. per bushel. Sow 10 to 12 lbs . per acre for Hay and Pasture. For Putting Greens, sow 5 lbs. to 1,000 square feet. For Fairways, sow 50 to 75 lbs. per acre.

Per lb., 45c ; 10 lbs., $\$ 4.25$; per $100 \mathrm{lbs} ., \$ 35.00$.

## Meadow Fescue (Festuca Pratensis)

(Erroneously called English Blue Grass).

HIGHLY valuable for permanent grass land. Does not, however, attain its full productive power till the second or third year. Relished by live stock, both in hay and permanent pasture and is one of the most desirable grasses for general culture. Sow 30 to 40 lbs. to the acre. ( 24 lbs. per bushel.) This is the true Evergreen Grass of the South. Price on application.

## Perennial or English Rye Grass (Lolium Perenne)

TMPORTED English Blue Grass. Height, 15 to 24 inches. Considered invaluable for permanent pastures. It produces an abundance of remarkably fine foliage, tillers out close to the ground and soon forms a compact sward. After being cut it grows up in a very short time and remains bright and green throughout the season, consequently is well adapted for lawn mixtures. Valuable for shady places. Also a good variety for hay, if cut when in blossom, as it is then most nutritious. Sow, if alone, 50 to 60 lbs . per acre, ( 24 lbs. per bushel).

Per lb., 25 c ; $10 \mathrm{lbs} ., \$ 2.25 ; 100 \mathrm{lbs} ., \$ 18.00$.
NOTE-Rye Grass production is increasing in America and supplies are this season drawn from the United States. American Rye Grass contains 30 to $50 \%$ Italian Rye Grass. Seed is heavier and of higher germination than Inmported seed but essentially the same in growth.

## Heavy Recleaned Short Seeded Rye Grass

S
IMILAR to Pacey's. Recleaned from American grown seed. Sow, if alone, 50 to 60 lbs . per acre.

Per lb., 25c; 10 lbs., $\$ 2.25 ; 20$ lbs., $\$ 4.25$.

## South German Mixed Bent

TORMERLY called Creeping Bent, is a natural mixture of several fine bent grasses, including Rhode Island and Creeping Bent. The best turf grass for Putting Greens. Sow 5 lbs. to $1,000 \mathrm{sq}$. ft. Per lb., $\$ 1.25 ; 5$ lbs., $\$ 6.00 ; 10$ lbs., $\$ 11.75$.

NOTE-Pure Creeping Bent turf cannot be secured from German Bent Seed, but may be produced from the American Creeping Bent (Seaside Bent) seed, or from planting Creeping Bent Stolons. Two popular strains of Creeping Bent (Washington and Metropolitan) are produced from stolons only.

Information and prices of Stolons on request.

## American Creeping Bent, (Seaside Bent) (Agrostis Maritima)

A pure strain of Creeping Bent grown in the United States. Should produce a green equal to one planted from stolons at a fraction of the cost. Sow 3 to 5 lbs. to 1000 square feet. . $1 \mathrm{lb} ., \$ 2.50 ; 3 \mathrm{lbs} ., \$ 7.25 ; 5 \mathrm{lbs} ., \$ 11.50$.

## Awnless Brome Grass (Bromus Inermis)

AHARDY perennial, standing extremes of heat, cold and drought. In the south it remains green all winter. It will grow well on all kinds of soil. The seed should be sown as early in the spring as the ground can be worked. ( 10 lbs. per bushel). Sow 25 to 30 lbs. to the acre. Market price.

## G R A S S S E E D S-Continued

## Bermuda Grass (Cynodon Dactylon)

AVALUABLE grass for the south and for tropical climates; will not endure frost. Sow 10 to 15 lbs. per acre. Write for price.

## Canadian Blue Grass (Poa Compressa)

A
LSO called Flat-Stemmed Poa, Flat-Stalked Meadow Grass. Grows a foot or more high. Recommended for horses, cows and sheep. Thrives well on clay. Sow 30 to 40 lbs. per acre. Market price.

## Crested Dogstail (cynosurus crsstatus)

AN excellent grass for hard, dry soils, valuable for pastures and lawns, as it is very hardy, tender, nutritious and relished by all stock. ( 21 lbs. per bushel). Sow, if alone, 30 to 35 lbs. per acre. Perennial. Height, 1 to $11 / 2$ feet.

## Sheep's Fescue (Festuca Ovina)

Perennial. Height varies from 6 to 20 inches. Grows naturally on light, dry, sandy soils. Sheep are very fond of it. Used in the rough on golf courses. ( 14 lbs . per bushel.) Sow 30 to 35 lbs. per acre...... Per lb., 50 c ; 10 lbs ., $\$ 4.50$.

## Italian Rye Grass (Lolium Italicum)

ANNUAL. Height, 18 to 30 inches. As it is not perennial, it is not adapted for permanent pastures, but for one or two years hay it is unsurpassed. Sow, if alone, 45 to 50 lbs. per acre. Used in the South as a winter grass for Putting Greens. ( 18 lbs . per bushel.) Per lb., 30c; 10 lbs., $\$ 2.75$; 100 lbs., $\$ 18.00$.


## Rough Stalked Meadow Grass

## (Poa Trivialis)

No Grass is better adapted for pleasure grounds, particularly under trees, as it will not only grow in such places, but forms a fine sward where few other Grasses can exist. Sow 20 to 25 lbs. to the acre.

Per lb., 85 c ; $5 \mathrm{lbs} ., \$ 4.50$; 10 lbs., $\$ 7.50$.
Hard Fescue (Festuca Duriuscula)
Similar to Sheep's Fescue. Used in the rough on Golf Courses. . . . . . . . . . . . . . . . . . . . . Per lb., 50c ; 10 lbs., $\$ 4.50$.

## Red or Chewings Fescue (Festuca Rubra)

ACREEPING-ROOTED species, forming a close and lasting turf and especially adapted for dry sandy soils. It resists extreme drought and thrives on poor soils also valuable for shady places in lawns as well as for golfcourses and particularly on Putting Greens. 40 lbs ., to the acre. On Putting Greens sow 8 lbs., to 1000 square feet. (24 lbs. per bushel.) Per lb., 50c; 10 lbs., \$4.50.

## Tall Meadow Oat Grass (Avena Elatoir)

A perennial. Has broad, flat leaves, and grows about 3 feet high; has an abundance of long, fibrous roots, penetrating deeply in the soil, enabling it to withstand drought and cold. Sow 25 to 30 lbs. per acre.

Market Price.

## Timothy (Phleum Pratense)

Herd's Grass. Cat's-tail Grass. This Grass stands at the head for meadows. Never use less than a peck to the acre, then up to one-half bushel, as to circumstances.

Market Price.

## Wood Meadow Grass

Used in shady places, but now displaced to a large extent by Rough Stalked Meadow Grass. Market Price.


## McCULLOUGH'S MIXED GRASSES For Meadows and Pastures

$\mathrm{A}^{\mathrm{F}}$
FTER years of experimenting we have aided largely in establishing the fact that a thicker and more prolonged growth is produced by a mixture of several varieties than when only one or two are used. There are always certain Grasses that are especially adapted to certain kinds of soils, and these are so carefully combined in our mixtures that in our Mixture for Permanent Pastures, grasses will be found that mature at intervals during the season, thereby insuring continuous pasturage, while our Mixture for Permanent Meadow will furnish excellent hay as well as late pasturage.

We are prepared to furnish seeds adapted to all soils and all situations, and for all purposes, composed of Grasses for light, medium or heavy soils; by light soil we mean that which is more or less of a sandy or gravelly nature; the heavy, clay and heavy loams; while the medium is an intermediate between these two. A light, wet soil, with respect to the Grasses suited to it, may be considered same as to the heavy soils, and a dry, heavy soil, more as to light soils.

Our best mixture is made entirely with our choice recleaned seeds, while in our second quality we use the same seeds, but without as thoroughly recleaning and quality will be equal to seed usually to be had on the market. Quantity to be used per acre, 25 to 30 pounds, and half this quantity for renovating. In ordering, always state the soil and position on which you wish to use it and whether you wish Sweet Clover included in mixture.

## First Quality Mixtures

## For Meadows

Per lb., 40 c ; $10 \mathrm{lbs} ., \$ 3.90 ; 20 \mathrm{lbs} ., \$ 7.60 ; 100 \mathrm{lbs} ., \$ 35.00$. For Permanent Pasture
Per lb., $40 \mathrm{c} ; 10$ lbs., $\$ 3.90$; 20 lbs., $\$ 7.60 ; 100 \mathrm{lbs} ., \$ 35.00$. For Pasture and Hay in Orchard and Other Shady Places
Per lb., 40c ; $10 \mathrm{lbs} ., \$ 3.90$; $20 \mathrm{lbs} ., \$ 7.60$; $100 \mathrm{lbs} ., \$ 35.00$.

For Marshy Grounds
Per lb., $40 \mathrm{c} ; 10 \mathrm{lbs} ., \$ 3.90 ; 20 \mathrm{lbs} ., \$ 7.60 ; 100 \mathrm{lbs} ., \$ 35.00$.
For Sandy and Rocky Grounds
Per lb., $40 \mathrm{c} ; 10 \mathrm{lbs} ., \$ 3.90 ; 20 \mathrm{lbs} ., \$ 7.60 ; 100 \mathrm{lbs} ., \$ 35.00$. Postage must be added if wanted by mail. See Postal Rates, Second Page of Cover.

We supply SECOND QUALITY MIXTURES of any of the above at a reduction of 2c per pound. We specialize in Grass Seeds of all Kinds and for every purpose. For larger quantities-write for special prices.
Prices fluctuate considerably throughout the year. The prices now quoted are those ruling as we go to press, and may be higher or lower as the season advances.

# Mectullough's Jrigh-Grade Clover Seed 

Where prices are given on Field Seeds they only represent market values at time of going to press. Purchasers of large quantities should write for latest prices. Grain bags, holding two bushels, 36c each, extra. Postage must be added if wanted by mail.

$\mathrm{O}^{+}$UR "Buckeye Brand" Clovers and Timothy Seeds furnished, if desired, in one bushel sealed bags at 30c per bushel over prevailing market prices. Bags free, net weight when packed.

## Alfalfa, or Lucerne (medicago Sativa)

$A^{1}$LFALFA is one of the most profitable crops the dairyman or stock farmer can raise, due to the high yield of palatable hay which contains a large percentage of protein. Alfalfa as grown in the United States yields more than twice the digestable nutriments that Red Clover does and more than three times the digestable protein to the acre. Alfalfa and corn make a perfectly balanced ration. Many farmers are using it in their rotation to take the place of Red Clover. This practice is satisfactory where the soil contains a large supply of lime and organic matter and the seed has been inoculated, or the land has been in Alfalfa previously.

Alfalfa is best adapted to steep limestone hillsides and gravelly river bottoms, where the water can get away from the roots. Will grow on acid soils providing the water is drained off and sufficient lime is added to correct the acidity.

## Seeding Alfalfa

The ground should be plowed in late fall and worked in spring once or twice to kill the weeds. If the land is acid it should be limed at the rate of three tons ground limestone to the acre. With a Wheat drill sow 15 to 20 lbs . of inoculated Alfalfa seed to the acre any time between April 15 th and May 10th. Apply 400 lbs . of a good high grade fertilizer, carrying a small per cent of ammonia and high per cent of phosphorus to the acre. If land is to be seeded following early potatoes, work ground up with disc and drag down. Sow seed the same as in spring. Where land is being seeded to Alfalfa for the first time it will pay to inoculate the seed with Nitragin for Alfalfa. The bacteria will be present and if there is not enough available nitrogen present they will gather the nitrogen from the air and supply your young plants, thus insuring a good stand.

We handle only seed which to the best of our belief is adapted to this section. We do not handle Southwestern seed.

## Grimm Alfalfa

This variety of Alfalfa is being raised all over the United States. It seems to be much hardier than common Alfalfa, partly due to its root system, which is somewhat variable, enabling it to withstand freezing and thawing weather, droughts and other hardships which the common alfalfa will not endure.

Genuine Ontario Grimm from fields of the original Lyman Grimm strain is giving fully as good satisfaction and is lower in price than North-Western seed.

We handle both North-Western and Ontario Grimm Alfalfa.

To secure a stand the following requirements are essential-good seed bed, limestone soil, or addition of 3 tons of fine ground limestone per acre, inoculation of seed, and plenty of
 available plant food. Sow in the of 10 to 15 lbs. per acre. Prices
on application.

## Canadian Variegated Alfalfa

This is considered by many to be fully as hardy as Grimm and is of the Grimm type.

We recommend it very highly and it can be obtained at a small advance in price over common Alfalfa.

In Ohio, Grimm or Canadian Variegated Alfalfa is the best insurance against winter killing and thinning out of stands.

Where winter killing is not a factor, common Alfalfa from Utah and sections north gives satisfaction.

A long series of tests shows no difference in yields of the different varieties.

Write for special literature on Canadian Variegated and Ontario Grimm Alfalfa.
 <br> \title{
View of a Field of Alfalfa Clover
} <br> \title{
View of a Field of Alfalfa Clover
}

Crimson, or Scarlet Clover (Trifolium Incarnatum)

## Crimson, Scarlet or Carnation Clover

$T$HIS Clover is grown in Italy, France, Great Britain and other European countries. Was introduced into this country in 1822 and has proved especially adapted to the light sandy soils of the Eastern and Southern parts of the United States. Largely used as a cover crop in orchards.

Crimson Clover should be seeded shallow in August on a moist, reasonably fertile, well drained, well settled seed bed. Inoculation is essential when seeding the first time.

Crimson Clover makes a good cover crop to be sowed on potato fields after the potatoes are dug. It makes a good growth in the fall and early spring and may be plowed under for potatoes the following spring.

It may be seeded alone following any farm crop which can be removed from the land by early summer, so that seed can be sown in late summer or very early fall. It may also be seeded for hay in mixture with grain such as Wheat, Rye, Barley, or Winter Oats, which are ready to cut for hay at about the same time as the Clover the following spring. Apply seed at the rate of 12 to 15 lbs . per acre.

Prices on application.

\section*{White or Dutch Clover | (Trifliium |
| :---: |
| Repens) |}

THIS variety thrives on nearly all soils; is a low closegrowing Clover and on account of its earliness and hardiness should be used in mixtures for permanent pastures. Is very hardy, spreads rapidly, acts as a binder, and when mixed with other grasses for lawn purposes is very desirable. Is also excellent for bee food. Sow 6 to 8 lbs. per acre. . . . . . . . . . . . . . . . Per lb., 70 c ; 10 lbs., $\$ 6.50$.

## Alsike or Swedish Clover $\begin{gathered}\text { (Trirolium } \\ \text { Hybridum) }\end{gathered}$

This variety is perennial and on account of its fibrous root system does not winter-kill. Will grow well on poor soil, and will do better on moist land than any other variety of Clovir. It is a valuable acquisition to the forage plants of this country and is highly esteemed as pasturage for bees. Sow 6 to 8 lbs. per acre. Market price.

## Japan Clover (Lespedeza Striata)

THIS Clover is especially adapted for the South because it occupies the same position in pasture mixtures in the South that White Clover does in the North. Will thrive on poor land, and as it grows thickly, soon furnishes abundant pasturage. Good stands have been secured by simply sowing the seed broadcast during late winter or early spring at the rate of 10 to 12 lbs. per acre. This Clover is a half-hardy annual without any objectionable root system. Sow 10 to 12 lbs. per acre. ( 25 lbs. per bushel.)

Per lb., 35 c ; 10 lbs., $\$ 3.25$.

# McGULLOUGH'S HIGH-GRADE CLOVER SEED Bokhara or Sweet Clover 

SWEET CLOVER is a biennial plant, which closely resembles Alfalfa. It requires practically the same soil treatment as Alfalfa, but will grow under a wider variation of soil conditions than Alfalfa. Sweet Clover produces 150 to 250 lbs. of Nitragin to the acre. 3 to 6 tons of Hay or Organic Matter to the acre and is equal to 20 tons of Manure to the acre. Three things are essential-lime, inoculation and scarified seed. If the land has raised Alfalfa previously, then the addition of lime may not be necessary. Inoculation with Nitragin tends to insure a stand, by securing nitrogen for the young plant at a time when it needs it the most. Scarified seed is seed that has been so treated as to scratch or crack the hard coating and make it easy for moisture to penetrate and hasten germination, thus insuring a stand. Sweet Clover gathers nitrogen from the air and stores it up in the soil for the use of future crops.
Yellow Flowered. (Melilotus Officinalis.) Is a biennial producing seed the second year, and will reseed itself if left undisturbed. It is the variety which is best adapted for hay, as it blossoms three weeks earlier than the White Sweet Clover, has a finer stem and does not grow so tall. It makes excellent pasture where 10 to 15 lbs . of seed is mixed with 6 lbs . of Timothy sowed in Wheat or Rye, then pastured in the fall. The following spring the Sweet Clover will be three weeks earlier than any other grass, thus making a fine early pasture. When sowing unhulled seed in the fall with wheat for hay, apply 10 to 15 lbs. per acre. Do not sow unhulled seed in the spring and expect results the same year.
Yellow Flowered, Unhulled Seed. Prices on application.
Yellow Flowered, Hulled Seed, Scarified. Prices on application.
White Flowered. (Melilotus Alba.) Is a biennial producing seed the second year, and will reseed itself if left undisturbed. The White Sweet Clover is much coarser than the yellow, and is especially well adapted for soiling purposes. Many farmers are taking advantage of this crop in the bottoms where annual flooding prevents the use of Red Clover in a crop rotation, corn being planted
 year after year with an occasional crop of wheat. Scarified year after year with an occasional crop of wheat. 15 lbs . per acre in the corn at the last cultivation. This makes a growth of 10 to 15 inches by the time the corn is husked off of the stalk in the fall, and is plowed under late the following spring for corn.

It is being widely used where farmers wish to shorten their crop rotation and secure a crop of hay. To do this, sow scarified seed which has been inoculated with Nitragin in the Wheat, from the middle of April to the 1st of May, at the rate of 15 lbs . per acre. The following September as much as one ton of hay per acre may be cut from this land and the next May the second growth may be turned under for corn. The Sweet Clover, being young and tender, rots early and forms a mulch which holds the water, thus making ideal conditions for a good corn crop. Farmers can increase their yield of corn from one-third to one-half by using Sweet Clover as a green manure crop.
White Flowered, Unhulled Seed. Prices on application. White Flowered, Hulled Seed, Scarified.

Prices on application.
Unhulled Seed of both varieties is very slow to germinate. Unhulled Seed ( 30 lbs . per bushel.) Hulled Seed ( 60 lbs. per bushel.)

NOTE:-We have installed scarifying machinery and our Hulled Sweet Clover is all scarified, which increases the germination 40 to 50 per cent.

## Red Clover-Medium <br> (Trifolium Pratense)

$S^{0}$OW 10 to 12 pounds to the acre. according to quality of seed used and condition of the soil. Write the United States Department of Agriculture, Washington, D. C., for Farmers Bulletin No. 1365 on Clover Failure. Every farmer should be familiar with information contained in this valuable booklet. Nothing takes the place of Red Clover on land adapted to it. In ordering, always state quality desired, otherwise will send the best. Market price.

## Hubam Clover (Annual white swoet clover)

The advantage of Hubam over other clovers is its remarkable vigor and its value as a hay, green manure and pasture crop.

It also affords splendid pasturage for bees, as it blossoms early and continues in blossom till the first frosts.

By its use a full year is saved in the farm rotation.
It will grow on a wide variation of soils and under various climatic conditions, but thrives best in limestone soils that are not acid.

Hubam will not benefit the soil upon which it grows without inoculation, except on soil that has previously grown Alfalfa or Sweet Clover.

Hubam may be sown in our latitude about the first of April.

If planted in drills 18 to 30 inches apart, use 2 to 4 pounds per acre. If sown broadcast, use 12 to 14 pounds per acre. May be sown in grain, but makes a better yield when sown alone.

Never sow unscarified Hubam Seed, as the germination is low, when scarified will germinate as high as $90 \%$.

All of our Hubam Seed is scarified, quality is genuine and crop of 1926.

Write for special prices and descriptive circular giving more detailed information.

## Red Clover-Sapling or Mammoth (Trifolium Pratense Perenne)

Also called English Clover, Cow Grass, Perennial Red Clover. Sow 10 to 12 lbs., per acre. Market price.

## INOCULATION

Those who analyze the matter will be made aware of the fact that inoculation of Clover Seed practically costs nothing, because when inoculated seed is sown the smallest quantity specified will be sufficient; the saving in cost being represented by the saving in seed.

## Inoculate Alfalfa and Other Clovers and Vetches with Nitragin


to feed your plants. Easy to use. Sent by mail or express, prepaid.
For Alfalfa, Clover, Vetch, Peas and Beans
$1 / 4$ bushel size ( 15 lbs . of Seed)........ . $\$ 0.40$
$1 / 2$ bushel size ( 30 lbs. of Seed) ........... 0.60
$1 / 2$ buskel size ( 30 lbs. of Seed) ................... $\mathbf{1 . 0 0}$ 5 bushel size ( 300 lbs . of Seed) $\ldots \ldots \ldots$. 4.75 State What Crop You Want the Nitragin For.

## For Soy Beans and Cow Peas

$1 / 2$ bushel size ( 30 lbs . of Seed) . . . . . . . . $\$ 0.40$
1 bushel size ( 60 lbs. of Seed) . . . . . . . . 0.70
5 bushel size ( 300 lbs . of Seed). . . . . . . . 2.50
In ordering, be sure to name crop to be inoculated.

# Farm, Field, Forage and Silo Seeds 

## WTE give special attention to the quality of our FARM SEEDS and can furnish

 best quality of recleaned stocks. This fact should be borne in mind when making comparisons of prices.For best results, we advise the use of our highest brands. Our "BUCKEYE BRAND" signifies standard No. 1 quality. Our "XXXX BRAND"; signifies extra fancy quality. Our Buckeye Brand is the average standard number one quality produced on the crop. Our XXXX Brand is extra fancy, representing the very best obtainable, and as seed of this standard is sometimes only available in small quantities, our XXXX Brand sells at somewhat higher price than Standard Number One.

Trade Marks registered, McCullough's Seeds, XXXX, Buckeye, Suburban Lawn Grass, Central Park Lawn Grass.

The prices quoted are subject to market fluctuations. When customers are in need of large quantities, we will be pleased to submit samples and quote, on application, the lowest prices that the market will justify at the time. Please specify quantities when writing for prices. Grain Bags, holding two bushels, 36 c each, extra.

Postage Must be Added if Wanted by Mail, See Postal Rates, Second Page of Cover.

## Tennessee, or Southern German Millet

Far superior to Western grown. Will grow in any climate or soil, and make a large yield of most nutritious feed. Sow not less than 50 lbs . per acre, at any time between May 1st and June 15th. Cover with a single stroke of a light harrow, or roll without harrowing, or it may be sown with a wheat drill, barely covering the seed. Cut the crop while in bloom, before the seed hardens. We have secured a full supply of Tennessee, or Southern German Millet (cultivated seed), which we know will give the best satisfaction. Sow one bushel per acre ( 50 lbs. per bushel). Write for Special Quotations.

## Northern or Western German Millet

Does not yield so much hay nor so good hay as the Southern German Seed. Sow about a bushel to the acre. ( 50 lbs . per bushel.) Write for Special Quotations.

## Hungarian Millet (Grass)

A valuable forage plant of the Millet family, but not so coarse. Sown and cultivated same as Millet. Quite a favorite with stockmen. It is of fine growth, and makes an excellent hay. Sow 1 bushel per acre. ( 50 lbs . per bushel.) Write for prices.

## Japanese Barnyard Millet

Sometimes called Billion Dollar Grass. It has proven an enormous yielder in all sections of the United States, producing hay and fodder of most excellent quality and growing on any soil. It grows to a height of 6 to 8 feet and produces from 12 to 30 tons per acre. Cattle and horses eat it greedily and fatten rapidly. It is a remarkable stooler and should not be sown very thickly- 15 pounds per acre broadcast being sufficient. In drills 3 pounds
 per acre. ( 35 pounds per bushel.) Market price.

## Hog Millet

Known also as Broom Corn Millet. The name Hog Millet has been applied to emphasize the use to which it is now being put as a valuable food for hogs; also good food for birds and poultry. Sow one bushel per acre. ( 50 lbs . per bushel.)

## Kafir-Corn

A Great Fodder Crop. The Finest Grain for Poultry and Pigeons.
White Kafir-Corn. The stalks keep green, making excellent fodder. The seed heads form at the top of each stalk, and as soon as these show the grain well, the joints next below the top send up shoots, which yield the second seed heads. For grain sow in rows 3 feet apart; 5 lbs. of seed to the acre. For fodder sow 5 to 15 lbs., either broadcast or in drills. ( 50 lbs. per bushel.) Price on application.

## Broom Corn

Improved Evergreen. The best variety for general cultivation on account of the color and quality of brush. Ripens early; about 8 to 10 feet high; brush of good length, fine and straight, and always of green appearance when ripe. Plant 30 to 35 lbs. to the acre.

Per lb., 20c; 10 lbs., $\$ 1.50$.

## Barley

Barley needs a rich land, more sandy and lighter than that adapted to Wheat, and can be grown farther North than any other grain. It should be cut before fully ripe (unless intended for seed), as it is then better quality and less liable to shell. Sow $11 / 2$ to 2 bushels if drilled; 2 to $21 / 2$ bushels broadcast. ( 48 lbs. per bushel.) Spring Barley. Market price.
Beardless Barley. Market price.

## Buckwheat

In this locality it is sown anywhere from June 1st to July 15 th; one bushel of 50 lbs., broadcast, to the acre. It makes a very fine quality of flour; is largely used for poultry food and frequently yields as much as 80 bushels to the acre. ( 50 lbs. per bushel.)
Japanese. This superior variety is earlier, more prolific and yields double the weight per acre of other sorts. The grains are nearly twice as large as those of Silver Hull, and of fine color. Market price.
Silver Hull. The grain is of light gray color. Market price.

## Sudan Grass (Andropogon Sorghum)

A sweet heavy-yielding grass, foliage and seed resembles Johnson Grass, but is an annual. Root system is like Oats. Seeds from 300 to 400 pounds per acre from Florida to Montana. Absolutely drought-proof. Grows 6 to 10 feet high. Stems erect, unbranched, very leafy and three to four cuttings, $41 / 2$ to $61 / 2$ tons per acre of dry, sweet hay that cattle prefer to Cow Pea Hay. Ripe for hay cutting in 70 days, and cut every 30 days following. Plant from March to July in 18 to 30 inch rows, 5 pounds to acre, or broadcast 10 pounds. Each seed stools wonderfully- 20 to 40 stools per seed.

NOTE:-On account of the similarity of this seed to Johnson Grass Seed, we have gone to a great deal of trouble and expense to procure seed that we have every reason to believe is free from this seed.

There are all kinds of Sudan Grass Seed on the market, and on this account you should be doubly careful. Buy your seed from a reputable house at a reasonable price.

Price on application.

## Sorghum or Sugar Cane

Plant in drills $3 / 4$ to 1 bushel; broadcast, 1 to $11 / 2$ bushels to the acre. Sorghum is being used extensively as a green food for cattle, horses and mules. ( 50 lbs. per bushel.)
Early Orange Cane. A strong grower; much more juicy than any other variety. The stalk is heavier and a little later than the Amber. Write for prices.
Early Amber Cane. This popular and well-known variety is the earliest and makes the finest quality of both sugar and syrup. Write for prices.

## Speltz or Emmer

This grain resembles wheat, but is a much larger yielder, producing frequently as high as 80 bushels of grain per acre, and that on the poorest land. The hay, if cut green is desirable for horse or cattle feed, while the straw after thrashing, is equal to the best wheat straw.

The heads are somewhat similar to two-rowed barley. For fattening cattle, poultry, horses, sheep, pigs, etc., it is claimed to be ahead of any other grain. Cultivation similar to wheat or oats. Sow at the rate of 50 to 60 lbs . per acre. Price on application.

# FARM, FIELD, FORAGE AND SILO SEEDS-Continued 

## SOY, OR SOJA BEANS

The Great Land Renovator

## The King of Summer Forage Crops

THIS very valuable farm plant enriches the ground in which it is planted by the free nitrogen gathered from the air and which is deposited in the ground by the roots, leaving it in ideal condition and rich in nitrogen for the next crop. Fodder is relished in either green or dry form by cattle and dairy cows.

The Soy or Soja Bean is an annual. Its character or growth resembles ordinary field beans. During the past few years the United States Department of Agriculture and State Experiment Stations have tested many varieties of Soy Beans and pronounce them forage and grain plants of great promise. They are grown chiefly for hay, grain, silage, soiling, pasture and as a soil renovator; are not hard to grow, not exacting to the character of soil and a valuable plant for forage; some claim they have a higher protein content than Alfalfa. These beans should not be seeded until all danger of frost is past and the ground is thoroughly warmed, and are usually sown from the middle of May until July. It is best to plant Beans only about one or two inches deep, or as shallow as moisture supply will permit, for the forming of a crust may prevent the beans from growing. If grown for seed or silage in drills 24 to 30 inches apart, sow about 3 pecks per acre. If grown for hay or soiling, the foliage will be of a finer quality and be consumed with less waste; drilled solid, or sown broadcast, using from $11 / 2$ to 2 bushels per acre. For hay, cut when pod begins to form. For grain, cut just before beans are ripe, or when pods are beginning to take on a brownish or black appearance. For silage, cut as near maturing as possible without dropping the leaves. Will Quote Prices on Application.


## Descriptions of the SOY or SOJA BEANS that we can furnish.

## Southern Grown

Mammoth Yellow. One of the oldest and best known varieties, producing a large hay crop and giving good satisfaction at all times. A fine fertilizer when plowed under.

## Northern Grown

Ito San. One of the earliest yellow seeded varieties, being 10 to 15 days earlier than the Medium Green; will mature seed in this section. Fine if put in corn to hog down or grown separately in solid blocks for seed.
Manchu. One of the very highest seed yielding beans. Analysis of this seed almost invariably shows it to be at the top or very near the top in oil content. It matures as far as north-western Minnesota. Has been planted as late as July in central Illinois and has matured and made seed. One of the good points of Manchu is that, although it is early, it is high yielding. These two qualities usually do not go together. In handling Soy Beans in the central west, any variety that matures in time to be taken off the ground early enough so wheat can be planted, is a good variety. Manchu certainly is this.
Midwest or Hollybrook. These two strains are now included in the general term "Midwest". The Midwest runs very high in oil content and the bean is one of the most popular grown and will continue to be until some of the other varieties, such as Manchu, become better known.
A. K. or Early Yellow. A. K. has come to mean "AllKinds," A. K. is one of the very best varieties and matures in between Ito San and Midwest. As a hay bean or oil bean, or bean to put in corn to hog down, it is among the best
Wilson Black. Plants slender, erect, maturing in 120 to 130 days. Seeds black. One of the best for hay. Ebony Black. Similar to Wilson Black but shorter in growth.

## Vetch or Tares

THIS has been used in Europe for many years as a stock food and green manuring or cover crop. It fertilizes the ground without further trouble or cost, on account of the free nitrogen it gathers from the air. It produces a peculiar vine plant with very narrow foliage and elongated flowers of pinkish white in clusters. The height when supported is frequently 4 feet.
Sand, Hairy, or Winter Vetch. (Vicia Villosa.) Our stock of this is the true type, which will absolutely live throughout the winter, and buyers should beware when buying that they procure the right article, which is a small, round, black seed; this is far superior to Crimson Clover, as it never winter-kills. Sow from August 1st to October 1st, broadcast, 1 to $11 / 2$ bushels per acre, to which we suggest adding half a bushel of winter rye or wheat. In the spring it can be plowed in as green manure, or when in flower cut for hay. All stock relish it keenly. ( 60 lbs. per bushel.) Write the U. S. Dept. of Agriculture for Farmers Bulletin No. 515 on Vetches.

## COW PEAS

## The Great Soil Improver-Makes Poor Land

 Rich-Makes Good Land More Productive.COW PEAS make one of the largest yielding and most nutritious forage crops grown. There is also no surer or cheaper means of improving and increasing the productiveness of your soils than by sowing the Cow Peas. There is a wide difference between Cow Peas and Canadian Peas. Bear in mind that the Southern Cow Peas belong to the Bean family, therefore must not be sown until the ground is thoroughly warm and all danger from frost is past. The value as a fertilizeing crop exceeds that of clover, for, in addition to being a larger nitrogen gatherer than the clover, they draw from the subsoil to the surface large amounts of potash and phosphoric acid, thus putting the soil in most excellent condition for following crops. The feeding value of Cow Peas is very high, being considerably above that of Red Clover. The yield of green vines per acre runs ordinarily from 5 to 15 tons.

Sow $11 / 4$ to $13 / 4$ bushels per acre, on land thoroughly pulverized and disc or plow with a cultivator or double shovel plow. If wanted for hay, cut when peas are forming; cure as clover. If peas are for fertilizer, sow same quantity after same preparation as for hay; turn under when peas are in bloom. If farmers will first roll and disc peas they will turn under much easier and be more satisfactory. For a fertilizer, expecially to be followed by wheat or corn, they are simply the best.

Will Quote Prices on Application. All orders accompanied with the money will be filled at the lowest market price, upon receipt.
Whip-Poor-Will. An early variety, tall, upright, medium yield of vines, large yield of peas, for which they are particularly, grown. Highly recommended for "hogging down.,
Clay. The leading variety in the South. Large yield of vines and peas, but require longer season to mature than the former-named varieties.
New Era. Seed small, dun colored; earlier than Whip-
Poor-Will, but more trailing in habit. A great favorite in many places.
Mixed Cow Peas. These are splendidly adapted for those who merely wish same for feeding purposes, and being mixed, we are able to offer them at a lower price.

## Canada Field Peas

THESE are sown with oats about April 1st at the rate of $11 / 2$ bushel of Peas and $11 / 2$ bushel of Oats to the acre either drilled or broadcast. The oats are intended as a support for the peas. They are cut just after the peas flower and fed green; sheep, hogs and cattle relish them keenly. They may be sown successively up to July if one has the available land. Peas may also be sown alone at the rate of 3 bushels per acre and furnish excellent pea hay. For plowing under as green manure, they add a vast amount of nitrogen to the soil, and succeeding crops, particularly wheat, are wonderfully benefited. The dried peas are extensively fed to pigeons, while when ground as meal is an excellent addition to the regular soft food of cows, sheep and horses. ( 60 lbs. per bushel.) Per lb., 15 c ; $10 \mathrm{lbs} ., 85 \mathrm{c}$;
 100 lbs., \$6.50.

## FARM, FIELD, FORAGE AND SILO SEEDS-Continued

## Dwarf Essex Rape

AFORAGE plant of highest value. It can be sown in April for an early crop, and for fall crop in July, August and September, and still later further South, in a few weeks from the time of sowing, sheep, hogs or cattle can be turned on it. Under favorable conditions Rape is ready for pasturing sheep or cattle within six weeks from time of sowing, and on an average one acre will carry 12 to 15 sheep six weeks to two months. When on the Rape they should at all times have access to salt. Pigs and cattle are also very fond of it. Rape has a high feeding value. It is excellent for fattening sheep and swine, produces an abundant flow of milk in cows, and is the ideal pasture for weaning lambs. Its value as sheep pasture has been demonstrated in every State in the Union, and it is recommended by authorities everywhere as of superior value for hogs, furnishing the finest pasturage, or can be fed after cutting. Rape has strong-growing roots which penetrate the ground for a considerable depth. A rich, loamy soil is preferable, considerable depth. A rich, loamy soil is preferable, for sowing after a crop of wheat has been taken off, or when corn has been worked the last time. The plant is a rank grower and should have heavy manuring. Sow the seed by the end of June and the crop can be ready to feed at a season when it is most needed. It does well sown with oats. After oats are cut, the Rape grows rapidly. If the soil is rich and clean, sow broadcast; if not so clean, sow in drills and cultivate as for corn. When sown broadcast, use flve to six pounds, and if in drills, two to three pounds to the acre............. Per lb., 20c; 10 lbs., $\$ 1.20$.

Postage Must be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.

## Field Corn

## Northern Grown Seed

oUR strains of Corn are not the common kinds usually found in abundance on the market; we pay special attention to the selecting of stocks in all lines of farm seeds. This is particularly true of Field Corn where reselection means the limit of crops with little or no increase in cost. It is amazing to realize that where the old unselected seed is used the average crop per acre is only half, compared to the more intelligent selection of strains. Our stock is selected for size of ear and fodder, which means a considerable increase in production. ( 56 lbs . per bushel.) Plant 8 to 10 quarts per acre in hills, sow $21 / 2$ to 3 bushels broadcast for fodder.

Never use Feeding Corn for Seeding Purposes.

Never use Feeding Corn for
McCullough's Champion
White DentThe best White Dent Corn. Ears 10 to 12 inches long, well filled at tip and butt; will mature in any corn country and in strong land and good season will make from 100 to 125 bushels per acre.
Peerless. (White). Produces generally two large ears to the stalk.
Hickory King. The ears are rather small, but as they are borne 2 to 3 on a stalk it is a fairly good yielder.
Reid's Yellow Dent. Has from 18 to 24 rows; ear medium in size and of a bright yellow color.
King of the Earliest Dent. An early yellow corn, adapted for high latitude; will mature in 80 to 85 days.
Gold Mine. Early Yellow Dent, ripening only a few days later than King of the Earliest; ears are of good size. Leaming Yellow. Ears of good size, cob red and small, ripens quite early frequently in 100 days from planting. Yields from 75 to 100 bushels per acre. Adapted to rich soils.
Red Cob Ensilage. A Southern type of large, white corn, with deep red cob and strong leafy stalks.
Sugar Corn for Ensilage. There is nothing better for green feed or curing for winter than sweet corn.

## SEED POP GORN

Plant Two Quarts to the Acre.
Japanese Hull-less. The leading commercial variety. Per 1b., 15c; 10 lbs., $\$ 1.00$. White Rice. A handsome variety, kernels long and pointed, very prolific. . . . . . . . . . . . . .Per lb., 15c ; 10 lbs., \$1.00.
Queen's Golden. It pops perfectly white.
Per lb., 15c; $10 \mathrm{lbs} ., \$ 1.00$.

## Postage Must be Added if Wanted by Mail. Sunflower (Mammoth Russian)

IMMENSE yielder- 125 bushels of seed to the acre has been grown at less expense than corn. Very highly recommended for poultry. Best egg producing food known. Good feed for horses as well. May be grown to great advantage in waste ground, from early spring to the latter part of July. Plant 10 to 12 lbs., per acre.

Per lb., $15 \mathrm{c} ; 10 \mathrm{lbs} ., \$ 1.00$.


## White Navy Beans

PLANTED in June or July, these usually make a very profitable crop to grow as shelled white beans for market. Plant in rows three feet apart, dropping two or three beans together a foot apart in the rows. Cultivate early, as they grow rapidly, but do not work them while the dew is on the foliage. ( 60 lbs., per bushel.) Special price on application.

## Flax Seed

Northwestern. Sow at rate of $3 / 4$ to 1 bushel per acre. Market price. ( 56 lbs . per bushel.)

## Choice Seed Oats

Broadcast, $21 / 2$ to 3 bushels to the acre.
We handle enormous quantities of these and trace the demand to the excellent quality we handle; they are grown especially for us in cool regions, where they grow to perfection. (32 lbs. per bushel.)
Winter Turf. Perfectly hardy in the Southern and Middle
States. Yields on good land, from 50 to 70 bushels to
the acre of fine, heavy grain, weighing from 35 to 50 pounds to the measured bushel.
Heavy White. Market price.

## Rosen Rye (Michigan Grown)

Grain unusually large and yield surpasses the old standard sorts. Our XXXX grade of Rosen Rye is grown for us in Michigan and is much superior to ordinary qualities offered under this name. Price on Application.

## Seed Wheat Prices on Application

## Seed flotatoes

## Northern Grown Stocks

Selected and Grown Specially for Seed Purposes, Superior Both in Quality and Productiveness.

Prices of Potatoes are unsettled at time our Catalogue is printed. We will always fill orders from customers at our lowest prevailing prices for first-class seed potatoes, or we will cheerfully quote prices at any time upon request.

One peck will plant about 100 feet of row, or 100 hills. Ten bushels are required to plant an acre. Early Ohio. (Red River Stock.) Is fully two weeks ahead of the Early Rose, and is a general favorite. Early Rose. It is productive, of most excellent table qualities, and a most satisfactory early variety.
Early Six Weeks. Extra early, oblong in shape; flesh solid; cooks dry and mealy.
Early Triumph. It is from seven to ten days earlier than the Ohio. Skin is red, flesh is very white and firm. Irish Cobbler. One of the first varieties of Potatoes to be ready for market. The flesh is white and of fine flavor. Burbank. A white-skinned medium early variety. The flesh is white, very mealy and of fine flavor.
Carman No. 3. Prolific, averaging nearly a pound apiece; flesh snow-white and of fine cooking qualities.
Chicago Market. Very popular, early, good quality and yields well.
Hoosier Boy. A late variety and very productive.
Bull Moose. Late, large, very productive and of excellent flavor.
Will be able to supply certified stock of Early Ohio and Early Triumph Seed Potatoes, only.

## Seed Sweet Potatoes

Yellow Jersey. Write for prices. Ready for shipment about April 1. For plants, see page 25.

# Summer JFlowering Sulbs and Koots 

AMARYLLIS



P LANT in equal parts sandy loam and leaf mould. If convenient, start in hotbed, beginning with fifty degrees of heat, increasing to sixty or seventy. When the leaves appear, water carefully and not in too great quantity. The Rosea planted in May make rich and showy border plants.

Equestris. Flowers scarlet with broad, white stripes, extending from the throat to half-way up the segments...20c each; $\$ 2.25$ per dozen.
Halli, Hardy Amaryllis. (Lycoris Squamigera.) Produces in early spring attractive green foliage which grows until July, when it ripens off and disappears. About one month later the flower stalks appear and grow to a height of two to three feet, developing an umbel of large and beautiful lily-shaped flowers three to four inches across and from eight to twelve in number, of a delicate lilac-pink, shaded with clear blue. In planting, cover the crown about four inches. Fine bulbs.

Rosea. (Zephyranthus.) Flowers all summer. Small, delicate pink.
15c each; $\$ 1.50$ per dozen. Johnsonii.: Large flower, crimson-scarlet striped with white.

50c each; $\$ 5.50$ per dozen.
Giant American Hybrids. The flowers are exceedingly rich in colors and markings, spikes are usually from two to three feet in height, bearing from three to five enormous trumpet-shaped flowers.

50c each; \$5.50 per dozen.

## BEGONIAS, TUBEROUS-ROOTED

THEY are now used extensively for outdoor planting. Give them a partially shaded position in a light soil and well-drained location, and they will give more bloom than any other plant which will grow in such a place. A soil that will grow it to perfection is turfy matter scraped from the bottom of old sod-one part, and one part sand. Mix these well together, and you have a compost that is friable, porous, and well adapted to any plants having fine, fibrous roots. It is more satisfactory to apply plant-food when needed, and in such quantities as seem to be required, than to make the soil very rich from the start. Water very cautiously until active growth begins, then increase the amount. But at no time during its existence will the plant require more than enough to make-and keep the soil moist all through. Good drainage should be provided to guard against over-watering.

## DOUBLE FLOWERING VARIETIES

Double. Crimson, rose, orange, scarlet, white and yellow, in separate colors....30c each; \$3.00 per dozen: \$22.50 per 100. Double, Mixed........25c each; \$2.50 per dozen; \$20.00 per 100.


## 【JSINGLE FLOWERING VARIETIES

Single. Crimson, orange, rose, scarlet, white and yellow, in separate colors. 25c each; \$2.50 perdozen; \$20.00 per 100.

Single, Mixed.
20c each; $\$ 2.00$ per dozen; $\$ 15.00$ per 100 .


## GALADIUM ESCULENTUM

## (Elephant's Ear)

ONE of the most effective plants in cultivation for the flower border, or for planting out upon the lawn. It will grow in any garden soil, and is of easiest culture. It should be planted in a rich compost, where it will obtain plenty "of water. Foliage light green. (See cut.)
No. 1 Size. Small bulbs, 10 c each; $\$ 1.00$ per dozen. By mail, $\mathbf{1 5 c}$ each.
No. 2 Size. Large Bulbs, 15 c each; $\$ 1.50$ per dozen. By mail, 20 c each.
No. 3 Size. Extra large bulbs, 25 c each; $\$ 2.50$ per dozen. By mail, 30 c each. No. 4 Size. Selected extra large, 35c each; $\$ 3.50$ per dozen. By mail, 45 c each. No. 5 Size. Monster bulbs, 50 c each; $\$ 5.00$ per dozen. By mail, 60c each.

## CANNAS,

## Select Large-Flowering

THEY do well in all sections of the country, and stand pre-eminently at the head of the list, succeeding in any sunny position in any kind of soil, but responding quickly to liberal treatment. Cannas should be planted in good, rich garden soil mixed with half of old rotten stable manure, by the end of May, when danger from frost is past. Water sparingly for first two weeks after planting. When growing freely water liberally. Should be planted about 18 inches apart each way, and if more than one kind is used be careful to plant the taller growing kinds in the center and the dwarf ones along the edge. This applies to planting in beds.

## Named Varieties

Dormant Roots, as listed.
10c each; $\$ 1.00$ per dozen; (By mail, $\$ 1.15$ per dozen.)
Allemania. Orchid-flowered; bright scarlet, with broad and irregular yellow border, beautifully mottled and variegated; green foliage; five feet.
City of Portland. The flowers are of the largest size, borne on heavy trusses. Color a glowing shade of pink, foliage rich green color. $31 / 2$ feet.

Eureka. The best white Canna; the large flowers are freely produced on strong vigorous plants; four feet.

Florence Vaughan. Bright, rich golden yellow, spotted with red; of large size and perfect form; green foliage; four feet.
Golden Gate. The flowers open almost pure gold but soon become richly rayed with orange crimson and apricot centering to the throat.
 Four feet.
Humbert. Its flowers measure 6 inches in diameter, produced in gigantic trusses, a brilliant orange scarlet with bright red markings; foliage broad and massive, of a rich, coppery-bronze; four to five feet.
Hungaria. Large flowers, borne in trusses of immense size. Color a pure La France pink with satiny sheen. The most popular pink; green foliage; three and one-half feet.
President. Flowers of immense size of a rich, glowing scarlet produced on strong, erect stalks well above the green foliage; three and one-half feet.
Richard Wallace. In color it is a pleasing canary-yellow with exceptionally large flowers, which are carried well above the bright green foliage; four and one-half to five feet.

Rosea Gigantea. Large flowers, borne in such abundance that the mass of color is amazing. A deep, rich rose, almost a coral-carmine; green foliage; four feet.


Yellow Humbert. Has the same habit of growth as the Humbert. Has green foliage and produces yellow flowers, dotted with red; four to five feet.
Mixed Tall Varieties. Our selection; dormant roots.
10c each; 75 c per dozen; (By mail, 85c per dozen.) Mixed Dwarf Varieties. Our selection; dormant roots.

10c each; 75c per dozen; (By mail, 85c per dozen.)

## CANNA PLANTS

Large plants of the following varieties. Cincinnati Deep Yellow, David Harum, Hungaria, Kate Gray, Madame Crozy, Miss May Wallace, Mrs. Conard, Orange Bedder, Rosea Gigantea, The President, Wyoming, Yellow Humbert. 25 c each; $\$ 2.50$ per dozen. Ready about May 10 th . Sent by express only at purchaser's expense.

## CALLA, SPOTTED

Golden Yellow. (Richardia Elliottiana.) This is the best of the yellow Callas, its flowers being as large as the popular white variety, but of a rich lustrous golden yellow of velvety texture; the foliage is dark green, with translucent creamy-white spots, which add much to its beauty..............................40c each; $\$ 4.00$ per dozen.

## MADEIRA, or Mignonette Vine

ARAPID-GROWING vine, covering a large space in a short time. Fleshy, heart-shaped leaves of a light green and numerous racemes of feathery flowers of delicious fragrance...5c each; 40c per dozen.

## D A HLIAS

THE Dahlia is one of the most important Summer and Autumn flowers. Commencing to flower in July, they are a perfect blaze of bloom until stopped by frost. Especially fine for cut flowers. One of the most important points in the cultivation of the Dahlia is to select a well-drained position where they will receive the full benefit of the sun during the greater part of the day. As to soil, they are not at all particular, except that in the case of a stiff clay some loose material should be added, such as coarse sand, old mortar, or anything which will make the soil loose and friable. The soil must be deeply dug, if possible to a depth of two spades, and a liberal amount of suitable plant food incorporated. For this nothing is more satisfactory than well-decayed stable manure, but where this can not be conveniently procured, pure bone meal, sheep manure, or any chemical fertilizer rich in ammonia and phosphoric acid will answer as a substitute.

The planting of dormant roots in the latitude of Cincinnati may be done at any time between April 25th and June 15th, the earlier planting being preferable. Plant the bulbs three inches below the surface of the ground, laying the bulb on its side. Do not crowd your plants, but plant at a distance of not less than two and one-half or three feet, and as soon as the shoots appear, remove all but two or three of the strongest, and these, when about a foot high should be secured to stout stakes.

Keep free from grass and weeds, and water regularly in dry weather.

NOTE:-We fill all orders with strong, field grown clumps, not divisions.


We offer the following varieties in strong field grown clumps at 30 c each; $\$ 3.25$ per dozen. If wanted, by mail, add 15 c per dozen for postage.

## Show Dahlias

Are perfectly full, rounded, regular form, cupped or quilled petals and solid color, or tipped darker than the ground color. (See cultural directions.)
A. D. Livoni. A clear pink, beautifully quilled, of perfect form and very free flowering. (See cut.)
Caleb Powers. Light pink, suffused with white.
Dreer's White. A pure glistening white, a large ballshaped flower with closely quilled petals, unsurpassed by any other variety in freedom of flowering.
Maid of Kent. A broad flowering variety of rich crimson red, sometimes splashed with white spots and stripes; free bloomer.
Maude Adams. Flowers white, overlaid with soft pink. Very early and free bloomer.
Mina Burgle. Flowers rich cardinal red of fine form, produced on long, stiff stems.
Queen of Yellows. Flowers are pure chrome yellow on strong, long and wiry stems. Probably the earliest blooming yellow variety.
Queen Victoria. Rich golden yellow, very fine.
Queen Wilhelmina. Peony flowered. Immense, fluffy flowers of pure white, with yellow center.
Sylvia. White, shading to soft pink on the outer petals.
White $\mathbf{S w a n}$. Pure white, large and fine; the hardiest and easiest grown, long stem.


## GLADIOLUS

WITH its great diversity of color and splendid spikes of bloom which can be had from July until frost, the Gladiolus is pre-eminently the people's flower. Bulbs can be planted from the middle of April to July and should be set about 3 to 4 inches deep and 8 to 10 inches apart, according to the effect to be produced. Can be planted in succession for different blooming periods.

If wanted by mail, add 5c per dozen for postage. Single bulbs mailed without additional charge.

Gladioli in quantity by Parcel Post. If to be sent by this means, estimate postage at rate of 8 lbs. per 100 bulbs.
Alice Tiplady. Large flower; beautiful orange-saffron color; choice.

10c each; $\$ 1.00$ per dozen; $\$ 6.00$ per 100 .
America. One of the finest varieties for cutting or bedding; color a beautiful soft flesh-pink; orchidlike in its coloring and texture; growth and habit perfect......7c each; 50c per dozen; $\$ 3.00$ per 100 .
Anna Eberius. Rhodamine purple with pansy purple blotch in throat.

10c each; $\$ 1.00$ per dozen; $\$ 6.00$ per 100.
Augusta. A lovely and useful pure white variety. 7c each; 60c per dozen; $\$ 4.00$ per 100 .
Crimson Glow. Glowing crimson-scarlet, massive spikes and flowers of large size.

10 c each; $\$ 1.00$ per dozen; $\$ 6.00$ per 100 .
Evelyn Kirtland. A beautiful shade of rosy pink, darker at the edges, fading to shell-pink at the center, with brilliant scarlet blotches on lower petals. Very tall spike.

10c each; $\$ 1.00$ per dozen; $\$ 6.00$ per 100 .
Gretchen Zang. The blooms are pink, blending into scarlet on lower petals.

7c each; 60c per dozen; \$4.00 per 100.
Halley. Large, well expanded flowers of salmon pink, lower segments blotched yellow with carmine markings...7c each; 60c per dozen; $\$ 4.00$ per 100 .
Herada. The large blooms are pure mauve, glistening and clear, with deeper markings in throat.

8c each; 80c per dozen; $\$ 6.00$ per 100.
Le Marechal Foch. Salmon Pink, flaked and striped deeper at edge of petals, large flowers and beautifully ruffled....7c each; 60c per dozen; $\$ 4.00$ per 100 .
Lily White. Pure white. Large flowers. Early.
7c each; 60c per dozen; $\$ 4.00$ per 100.
Louise. Exquisite shade of bright lavender, growing brighter towards center

10 c each; $\$ 1.00$ per dozen; $\$ 6.00$ per 100 .
Maiden's Blush. An exquisite pink with lighter throat. Very dainty flower on graceful spike.

10 c each; $\$ 1.00$ per dozen; $\$ 6.00$ per 100.
Mrs. Francis King. A magniflcent new variety. The large blooms are of a delightful light scarlet and are well placed on the large spikes, bearing six open flowers at one time.

Mris ndeton. Color a lovely salmon-pink, with brilliant deep red blotches in the throat.

7c each; 60c per dozen; $\$ 4.00$ per 100 .
Panama. A new seedling of America which resembles the parent variety in every way except that it is a much deeper pink. A grand variety. Spike very long with flowers large and well arranged.

7c each: 60c per dozen; $\$ 4.00$ per 100.
Peace. Tall, graceful spikes of large, pure white flowers with a touch of carmine in the lower petals.

7c earh: 60c per dozen: $\$ 4.00$ per 100.
Princepine. An especially fine variety with large flowers of good substance. Color is a brilliant red, marked with a pinkish-white blotch and borne on strong spikes.

7c each; 60c per dozen: $\$ 4.00$ per 100 .
Purity. A pure white seedling of America, having the same habit of growth, form of flower and substance. A strong grower and free bloomer with tall, well-furnished spikes...........7c each; 60c per dozen; $\$ 4.00$ per 100.
Schwaben. Clear canary yellow, shading to soft sulphur. Largest flower stalk and leaves of all. 7c each: 60c per dozen: $\$ 4.00$ per 100.

Primulinus Hybrids, Mixed. The flowers of this variety of Gladiolus vary in color from light yellow to orange, apricot and crimson; are of good size, borne on tall graceful spikes and plants are strong and robust. A rather late-blooming variety.
Mixed colors...6c each; 50c per doz.; \$3.50 per 100.


McCullough's Superb Mixed. This superb mixture is composed exclusively of high-grade varietios, including many new and rare kinds. It embraces the greatest possible range of color, and contains the best largeflowering sorts...6c each; 50c per dozen; $\$ 3.50$ per 100.

Extra Fine Mixed. This mixture contains a very complete range of splendid varieties, and while not as fine as the preceding, the size and coloring of many of the sorts will be found out of the ordinary.

5 c each; 40 c per dozen; $\$ 3.00$ per 100.
If Gladioli are wanted by mail, add 5 c per dozen for postage. Single bulbs mailed without additional charge.

Gladiolus Bulbs weigh about 8 pounds per 100 and, if wanted in quantity by mail, include enough to cover postage in your remittance.

## OXALIS (Summer-Flowering)

TALUABLE for edging walks, flower beds, etc. Bulbs planted three inches apart form rounded rows of delicate foliage, about one foot high, and produce flowers in endless succession.
Dieppi Alba. Pure white, very fine.
Lasandria. Fine rose-pink, beautiful cut foliage.
Shamrock. Clover-like foliage, pink blossoms. Each variety..........15c per dozen; $\$ 1.00$ per 100

## TUBEROSES

oNE of the most fragrant and beautiful of the summerflowering bulbs. For flowering in the open border, plant about the first of May.

Excelsior Pearl. Mammoth bulbs. Robust stem and long spikes of flowers. which are more double and twice as large as those of the old sort.

10c each; 85 c per dozen: $\$ 6.00$ per 100
Dwarf Pearl. Large Size.
6c each; 65c per dozen. $\$ 4.00$ per 100
Albino. Branching single variety, early and free flowering. 6 c each; 65 c per dozen; $\$ 4.00$ per 100 O CLASS of plants capable of being cultivated out of doors possesses so many charms. Rich and varied in color, stately and handsome in habit, profuse in variety, and of delicious fragrance, they stand out prominently from all other hardy plants, and no herbaceous border, however select, should be without a few of its best sorts. With a well selected collection, Liliums may be had in bloom from June till October.

Culture.-They should be planted in good, rich, loamy soil, abundantly mixed with very rotten cow manure. Plant about four inches deep, and during the winter it is advisable to cover the surface of the bed with a thin layer of manure, which will not only afford a slight protection to the bulbs, but will materially enrich the soil. In spring the manure may either be removed or dug in between the rows.

Pot Culture.-The best soil to use is a rich loam, with the addition of one-third well-rotted manure. Select a large sized pot, say eight or ten inches, so as to allow of deep plant-ing-a most essential matter where there are upper roots to protect. Dust a little charcoal about the bulb to keep it fresh, and cover at least two inches with soil.

After potting, one of the most important things to observe is the proper placing of the pots containing the bulbs. Like all other bulbs, to get the best results in flowering, the pots must be filled with roots before the top starts to grow; and to do this, they must be placed in some cool place and excluded from the light, until, on examination, the roots are found to be formed around the ball of earth.

Prices on single bulbs are postpaid. By the dozen or hundred, they will be forwarded at expense of purchaser.
AURATUM. (Golden-banded Lily.) Undoubtedly one of the finest. Its large, graceful, fragrant flowers are composed of six petals of a delicate Ivory-white color, thickly studded with chocolate crimson spots, and striped through the center with a golden yellow band; 3 to 5 feet.

Large Bulbs, 8 to 9 inches, 25c each; $\$ 2.75$ per dozen; $\$ 20.00$ per 100.
Extra Large Bulbs, 9 to 11 inches, 40 c each; $\$ 4.00$ perdozen; $\$ 30.00$ per 100 .


Lilium Longiflorum Giganteum

TIGRINUM. "Tiger Lily." Orange-salmon, spotted with black. .

## LILY OF THE VALLEY

This popular and fragrant flower should receive more attention than is usually given. Like most other plants it well repays for being well treated, and if given a liberal top-dressing of wellrotted stable or sheep manure in fall or early spring, it will show the effect by increased size and vigor of the flowers. We offer strong clumps suitable for out door planting.

50 c each; $\$ 5.00$ per dozen; $\$ 40.00$ per 100; by mail, 60c each.

## HARDY WATER LILIES

Ready for delivery about the middle of May, weather permitting.
ODORATA. This is the fragrant Pond Lily of the United States; flowers white, 3 to 5 inches in diameter, stamens yellow, leaves dark green above, under surface deep red to reddish green; splendidly adapted for planting in quantity in natural ponds.

30c each; $\$ 3.00$ per dozen.
TUBEROSA ROSEA. Flowers an exquisite shade of pink, standing above the water. A good vigorous grower, without being rank; a free bloomer.

75 c each; $\$ 7.50$ per dozen.
TUBEROSA RICHARDSONI. Flowers pure white and quite double, the stamens being converted into petals which are more or less fluted in the center. The flowers stand well above the water, the sepals and outer petals drooping, forming immense snowball-like flowers, 8 inches in diameter.

75c each; $\$ 7.50$ per dozen.
MARLIACEA ROSEA. Flowers large, deep rose color, young leaves purplish-red, changing to deep green. A free and continuous bloomer............... $\$ 1.25$ each; $\$ 12.50$ per dozen.

If wanted by parcel post, add 5c each, or 30c per dozen,
for postage.
If you contemplate making a Lily bed, kindly give us dimensions of same, and we will be pleased to submit you an estimate, stating suitable varieties and lowest cost.

## One-year: Each, 35c; Three, $\$ 1.00$; Six, $\$ 1.75$; Dozen, $\$ 3.00$; postpaid. <br> Two-year: Each, 75c; Three, $\$ 2.00$; Six, $\$ 3.75$; Dozen, $\$ 7.00$; postpaid <br> Dozen by express, charges collect, $\$ 6.00$.

EVERBLOOMING HYBRID TEAS
American Beauty. (Mme. Ferd. Jamin.) Generally conceded to be the most grandly beautiful of Roses in size, form and color. Rich red, passing to crimson, very delicately veined and shaded and surpassingly fragrant.
Columbia. Peach-blow pink, deepening as it opens to a glowing and enduring color, resembling a perfect Shawyer rather than the other parent, Ophelia. A large rose with long stiff stems nearly thornless; absolutely free from mildew and an easy doer.
Etoile de France. (Star of France.) A brilliant shade of clear redcrimson velvet, centering to vivid cerise; large flowers on long, stiff stems; remarkably vigorous, free-blooming and hardy. Grown to some extent as a cut flower variety, but its chief value lies in its striking beauty as an outdoor bloomer and bedder with bronzy-green foliage.
Francis Scott Key. Red, shading to cerise; very large, with a profusion of petals opening to a high center. Easy of culture, needs no pinching.
Helen Gould. (Baldwin.) An incessant grower and bloomer, hardy everywhere. Long, beautiful buds and full, double flowers of warm, rosy-crimson, resembling a red ripe watermelon.
Hoosier Beauty. Glowing crimsonscarlet with darker shadings; buds of good length and splendid shape; ample petalage with a texture like velvet, opening into a magnificent bloom of dazzling brilliance, fragrant as "Richmond." A strong and clean grower, free from spot or mildew, producing long, stiff stems with a bud on every shoot, needing no pinching.
Jonkheer J. L. Mock. Clear imperial pink, reverse of petals rosy, silvery-white; blooms of magnificent size and form, produced freely on stiff, erect canes; the strongest grower in the Hybrid Tea class. A giant of the La France type. Awarded two gold and one silver medals and five first prizes in Europe.
Kaiserin Augusta Victoria. Pure white, does not pink when planted out; splendid, large buds and superb, full, double blooms, making the choicest cut flowers. A most sturdy grower, blooming steadily from early spring until late frost.
Killarney. (The Irish Beauty.) Brilliant sparkling pink with large, pointed buds, broad, wax-like petals with silvery edges and enormous semi-full flowers of exceeding beauty.
La France. Silvery-rose, with pink shades and satin-like petals of unsurpassable beauty; large, symmetrical and deliciously fragrant blooms from June until frost; hardy with protection.
Madame Butterfly. The tight buds are a lovely shade of Indian red, yellow at the base, unique for corsage and low table decorations; the opening flowers are perfect In form and texture, clear and brilliant in color and of delicious fragrance.
Madame Jenny Guillemot. Deep saffron-yellow, opening canary with dark golden shadings; buds long and pointed; petals and blooms immense. A very beautiful upright grower and free brancher.
Mistress Aaron Ward. A most striking color-Indianyellow shading to lemon-cream at edges of petals. Very large and full, of refined form, cupped and very deep, effectively showing the golden heart. Conceded to be a splendid new garden Rose.
Ophelia. Brilliant salmon-flesh shaded with rose on outer edges of petals, with a heart of glowing peach-pink and orange-yellow blendings, all passing finally to lighter shades; fragrant as Richmond, faultless form in bud and flower; erect habit, stiff. long stems; free and continuous in growth and bloom; handsome, bright foliage; immune to mildew and black spot.
President Taft. Shell-pink of a shining, intense and distinctive color; of beautiful, globular form, perfect in stem and handsome, glossy foliage.
Radiance. Brilliant rosy-carmine, shaded with rich opalinepink tints in the open flower, which is large, full, of fine form, with cupped petals.

Red Radiance. A bright, cheerful and even shade of pure red; size, foliage, growth and habit same as in the parent "Radiance;" an admirable nursery Rose. Ours is the true Washington sport.
Sunburst. Orange-copper or golden-orange and goldenyellow, all intense shades, giving an extremely brilliant effect. A giant Rose, long stems, long, pointed buds, vigorous, free and healthy, with splendid keeping qualities and also an excellent bedder.

White Killarney. A pure white sport from the pink parent, admittedly a strong competitor of The Bride. Our stock is of the true Waban strain.

## TEA ROSES

Alexander Hill Gray. Deep lemonyellow, similar in color to Marechal Niel, more intense as the bloom expands. Large, full flowers with high pointed center and perfect form, freely produced and strongly tea perfumed. Robust, vigorous and erect. The best pure yellow Tea Rose yet offered.
Lady Hillingdon. Deep apricotyellow to orange; long, pointed buds; very free-flowering and a striking decorative Rose.

Maman Cochet. Rich, rosy-pink, shaded silvery-rose on outer petals; exquisite in color and graceful in form from bud to bloom and delightfully fragrant; beautiful, healthy foliage and long, stiff stems.
Mistress Benjamin R. Cant. (Red Maman Cochet.) Bright, clear rose-pink; a beautiful bedding Rose similar to Papa Gontier in style and color; a free grower and bloomer.
White Maman Cochet. Very large and beautifully formed in bud and bloom; pure waxy-white under glass, taking on a faint pink flush out of doors which enhances its beauty. Vigorous and produces abundantly for cutting. William R. Smith. Creamy-white with shadings of pink; a seedling from Maman Cochet and Kaiserin Augusta Victoria; beautiful in form and colors; glossy foliage; long, stiff stems; vigorous in growth; a superb summer bedder and hardy with light protection.

## NEW ROSES

Latest Merit Proven Introductions. One Year and Two Year old.
Amelia Gude. Color shade of "Sunburst" with touches of orange on the reverse, a fancy yellow forcer with blooms of an individual beauty not common to the rotund buds of modern varieties. A prolific producer and keeper. One year, 45 c each; two year, $\$ 1.00$ each.
Betty Uprichard. Artistic shades of color with varying dominance under different lights, most difficult to portray, The inner face of petal is a delicate salmonpink to carmine, while the reverse is glowing carmine with coppery sheen and a suffusion of orange; large smooth petals, Verbena perfumed. Vigorous and free branching with sage-green foliage and erect stems carrying elegantly pointed beds, free-flowering from June to frost. One year, 50 c each; two year, $\$ 1.25$ each.
Golden Ophelia. Bright golden-yellow, paling slightly at outer petals; medium sized and beautifully formed compact bud, opening to a symmetrically perfect form.

One year, 40c each; two year, $\$ 1.00$ each.
La Champagne. Peach-blossom tinted outer petals, orange-yellow at base with chamois and apricot-yellow center. Long, perfect buds; large, firm petals; marvelously beautiful flowers freely produced on vigorous growth. . . ...One year, 60c each; two year, $\$ 1.50$ each.
Rev. F. Page Roberts. Rich "Marechal Niel", yellow, occasionally veined with buff markings in the bud and young stages; large, full, well formed and sweetly scented. Growth strong and upright with good foliage not addicted to mildew

One year, 50c each; two year, \$1.25 each. Sensation. Scarlet-crimson of a magnificent shade, with maroon markings; of extremely large size and double. Strong long-jointed stems with a heavy, luxuriant foliage. Roots and grows well, keeps and ships well; a prolific and profitable producer.

One year, 40c each; two year, $\$ 1.00$ each. (Roses continued to next page.)

Pot-grown, on own roots; never throw up "suckers".

One-year: Each, 35 c ; Three, $\$ 1.00$; Six, $\$ 1.75$; Dozen, $\$ 3.00$; postpaid.
Two-year: Each, 75 c ; Three, $\$ 2.00$; Six, $\$ 3.75$; Dozen, $\$ 7.00$; postpaid.
Dozen by express, charges collect, $\$ 6.00$.

## HYBRID PERPETUAL ROSES

A
MONG all the hardy plants few are so commonly well liked or more valuable than the roses, particularly the "June Roses," as the Hybrid Perpetuals are called. They are strong growers, bearing large globular flowers and are so hardy that they succeed in any locality.


Boule de Neige. (Ball of Snow.) Pure white, showing light flesh upon opening; elegantly formed, very full and double, with beautifully shaped petals evenly arranged; hardy.
Frau Karl Druschki. The White American Beauty or Snow Queen. An everywhere hardy, vigorous grower, with bright green leaves, delicately veined; splendid long buds and magnificent snow-white blooms with large saucer-shaped petals. Rightly named and deservedly a prize winner.
General Jacqueminot. A celebrated and much sought after variety for planting out; shapely buds and handsome blooms of bright, shining crimson, rich, brilliant, velvety and fragrant. Everybody knows and wants the "Jack" for its all 'round good qualities.
Marshall P. Wilder. Deep, rich, glowing red; extra large, semi-globular and full; a very strong grower and free bloomer.
Mistress John Laing. A beauty in clear, bright, shining pink; each bud in its long, serrated calyx with adjacent green foliage, forms a dainty and lovely boutonniere; immense, full blooms on long, stiff stems; sweetly scented.
Paul Neyron. The largest of all Rose blooms; bright, shining pink, clear and beautiful; very double and full; finely scented; blooms first season and all summer. Grows to a great height in a single season and stems are almost thornless.

## MOSS ROSES

Crimson Globe. Deep crimson, large and full, nicely mossed.
Elizabeth Rowe. Large, deep pink; well mossed.
Mousseline. Pure white, heavily mossed.

## DWARF, POLYANTHA or BABY RAMBLER ROSES

White Baby Rambler.
Red Baby Rambler. Pink $\boldsymbol{L}_{2}$ Baby Rambler. Crimson Baby Rambler. Yellow Baby Rambler.

## HARDY CLIMBING ROSES

Alida Lovett. Large buds and full blooms of ideal form; bright shell-pink, with rich sulphur at base of petals, in size and form similar to but brighter than Dr. W. Van Fleet; fragrant; long-lived flowers on long, stiff stems; disease resistant.

American Pillar, Large single flowers of rich rosy-pink, approaching brilliant carmine, just a glint of white at center and golden-yellow stamens, a profusion of bloom almost covering the foliage. Grows thick, vigorous canes and broad dark green leaflets, tough, shining and insect proof. A new and valuable climber originated by the U. S. Government Department of Plant Introduction.
Bess Lovett. Clear, bright red, resembling "Climbing American Beauty" in form but much brighter in color; double full, cupped, most fragrant and lasting flowers of good size; beauty enhanced by large, glossy green foliage.

Christine Wright. Bright wild-rose pink; flowers double and of immense size and perfect form; blooms singly and in clusters; profuse during June and more or less throughout the season; heavy, dark green foliage, immune from disease; strong climbing habit.

Climbing Clothilde Soupert. Ivory-white, shading toward center to silvery-rose; perfectly full and double; rapid climber, abundant bloomer and entirely hardy.
Doctor W. Van Fleet. A delicate shade of flesh-pink' deepening to rosy-flesh in the center, resembling Souvenir du President Carnot. High center, petals beautifully undulated and cupped; buds pointed, flowers full and double, open to an immense diameter, sweetly perfumed. Beautiful bronze-green foliage.
Excelsa. (Red Dorothy Perkins.) Intense crimson-scarlet; double flowers in brilliant clusters set in glossy, shining foliage which never mildews not spots.

Gardenia. Bright yellow, opening cream; early flowering; fragrant and free. Called "The Hardy Marechal Neil.";
Mary Wallace. Bright, clear rose-pink with salmon base to the petals; very large, shapely, free blooming. Pillar rose type with glossy, disease resistant foliage.

Paul's Scarlet Climber. Vivid scarlet, shaded crimson, non-fading; semi-double flowers of medium size in large trusses produced in great profusion during an exceptionally long blooming period. Vigorous and freebranching habit with large healthy foliage.

Rosarie. True cerise-pink; good grower and producer; sport from "Tausendschoen."
Silver Moon. Clear silvery-white with a mass of bright yellow stamens; petals of splendid substance and beautifully cupped; exceedingly large and fragrant flowers; growth vigorous and very free blooming. Wichuraiana X Cherokee.

## ROSA HUGONIS

THIS grand new rose was introduced from China by Mr. E. H. Wilson, of the Arnold Arboretum, who describes it as follows. "It is an upright growing shrub with slender and spreading branches on which the fragrant flowers are borne in yard-long sprays of soft yellow, holding its foliage until late in the fall, when it assumes a dark purple tint. It makes a symmetrical bush about 6 feet in height and about the same in diameter, when fully developed. Perfectly hardy, flowers very early."

We recommend this variety for hedges between properties and can supply strong healthy plants at $\$ 1.00$ each; $\$ 10.00$ per dozen; 25 for $\$ 20.00 ; 100$ for $\$ 75.00$.

NOTE:-If planters will use our Prepared Humus in planting Shrubs, Trees, Roses, Evergreens and Hardy Perennial Plants, and mulch them with Granulated Peat Moss, much of the loss due to imperfect planting will be eliminated. (See pages 72 and 73.

## HARDY HERBACEOUS PERENNIAL PLANTS

The steadily increasing demand for hardy plants has induced us to make arrangements whereby all the plants we offer are tested to determine their relative merits. Consequently, the amateur or professional gardener may rest assured that all the varieties offered will produce the desired effects, when judgment in arranging and care in planting are observed.

For such of our customers who are not acquainted with the different varieties, we shall be pleased to make suitable selections of the most desirable species, that once planted, with very little care, will keep the garden gay with flowers from the time frost leaves the ground until late in autumn.

All plants are forwarded on receipt of order (weather permitting), unless instructed to the contrary, and are sent by Express, purchaser paying charges. We can forward plants by Parcel Post, and if wanted sent in this way add 5c each, or 30 c per dozen. Six plants of a kind at dozen rate.

## ACHILLEA (Milfoil or Yarrow)

Plants suitable for dry, sunny places. The dwarf kinds are useful for carpeting or for rockeries, the taller varieties as border plants.
Boule De Neige. (Ball of Snow.) An improved variety bearing pure white flowers of perfect form all summer. Fine for cut flowers. 40 c each; 3 for $\mathbf{7 5 c}$; $\$ 2.50$ per dozen.

## ACONITUM (Monkshood)

Summer and late autumn-flowering plants with bold spikes of hood-shaped flowers thriving in either sun or shade. The roots are poisonous and should not be planted where the tubers might be mistaken for vegetables.
Fischeri. A dwarf variety with pale blue flowers. 18 inches. September. 50 c each; 3 for $\$ 1.05 ; \$ 3.50$ per dozen.

## AJUGA (Bugle)

A useful plant for the rockery and for carpeting the ground, particularly in shady positions, as under trees where grass will not grow.
Reptans Rubra. Grows 3 to 4 inches high, with large spikes of purplish-blue flowers in May. 45 c each; 3 for $90 \mathrm{c} ; \$ 3.00$ per dozen.

## ALYSSUM (Rock Madwort)

Very popular for beds, borders and winter flowering. Of easiest culture and very free blooming.
Saxatile Compactum. (Basket of Gold, Gold Tuft, Rock Madwort.) A fine plant for the rockery or border, grows 1 foot high and produces broad flat heads of yellow flowers in May. 40c each; 3 for 75c; $\$ 2.50$ per dozen.

## ANCHUSA ITALICA

Dropmore $\nabla$ ariety. Remarkable for its free and continual flowering all summer and the beautiful gentian-blue of its flowers; grows about five feet high. 45c each; 3 for 90c; $\$ 3.00$ per dozen.

## ANEMONE JAPONICA <br> (Japanese Wind-flower)

THEY grow two to three feet high and are in bloom from August till mid-November, furnishing abundant cut flowers and a brilliant display.
Queen Charlotte. Very large, semi-double flowers of La France pink, a color that is rare among hardy plants.........45c each; 3 for $90 \mathrm{c} ; \$ 3.00$ per dozen. Whirlwind. Large, semi-double, white flowers. 45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.

## ANTHEMIS (Marguerite)

Tinctoria. Handsome, finely cut foliage, and large, golden yellow flowers produced all summer. Succeeds in the poorest soil. .35c each; 3 for $\mathbf{6 0 c} ; \$ 2.00$ per dozen.

## ANTIRRHINUM (Snap Dragon)

THEY are undoubtedly one of the best cut flowers which can be grown, while for beds or borders they are a constant source of pleasure, being in flower all the time. Our collection embraces several colors in mixture. Not ready before May 10th.

35c each; 3 for 60c; $\$ 2.00$ per dozen.

## A QUILEGIA (Columbine)

Charming hardy plants, with distinct clear-cut foliage, bearing in countless numbers through May and June exquisite clear blue, white, rose, yellow, purple and striped blossoms. They thrive well with ordinary garden culture, but do best in partially shaded nooks.
Long Spurred Hybrids. Beautiful variations from the standard type. 40c each; 3 for 75 c ; $\$ 2.50$ per dozen.
Wayside Pink. A beautiful strain of nothing but clear pink colors. We do not think that they can be surpassed. 45 c each; 3 for $90 \mathrm{c} ; \$ 3.00$ per dozen.
Canadensis. (American Columbine.) A bright red and yellow variety, very attractive. 40c each; 3 for 75c; $\$ 2.50$ per dozen.


## ARABIS (Rock Cress)

Alpina. A desirable early spring flowering plant, adapted for edging and the rock garden, but does equally well in the border, forming a dense carpet, completely covered with pure white flowers, which last a long time in bloom. 40c each; 3 for 75; $\$ 2.50$ per dozen.

## ARMERIA (Sea Pink or Thrift)

Attractive dwarf plants forming evergreen tufts of bright green foliage, from which innumerable flowers appear in dense heads, on stiff wiry stems, from 9 to 12 inches high. Laucheana Rosea. Bright rose. 3 to 6 inches. 40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## ASCLEPIAS (Butterfly Weed)

Showy native plants about $21 / 2$ feet high, blooming during July and August.
Tuberosa. Brilliant orange-colored flowers. 40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## ASTERS (Michaelmas Daisies or Starworts)

The hardy sorts are entirely distinct from Annual Asters, being smaller in bloom, but produced in greater quantity.
Feltham Blue. A pretty aniline blue; very free bloomer.
40c each; 3 for 75 c ; $\$ 2.50$ per dozen.
Novae-Angliae Roseum Superbum. Color almost red and a profuse bloomer. 45c each; 3 for 90 c ; $\$ 3.00$ per dozen.
Novi-Belgii Climax. The plant is of strong, vigorous habit, over 5 feet high, with pyramidical shaped flower stems filled with light lavender-blue flowers, each $11 / 4$ inches or more in diameter. August to October. 50c each; 3 for $\$ 1.05$; $\$ 3.50$ per dozen.

## BAPTISIA (False Indigo)

Australis. Grows about 2 feet high with dark green, deeply-cut foliage and spikes of dark blue flowers in June. 40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## BELLIS PERENNIS (English Daisy)

Double Flowering, white and pink.
15c each; 3 for 30 c ; $\$ 1.00$ per dozen.

## BOCCONIA (Plume Poppy)

Cordata. A splendid plant, growing sometimes six feet high, bearing panicles of creamy-white flowers in July and August; makes a grand effect as a center in a hardy bed or a border background.

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## CALLIRHOE (Poppy Mallow)

Involucrata. A showy trailing plant with finely divided foliage and rosy-crimson flowers, with white center; blooms all summer.

45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.

## HARDY HERBACEOUS PERENNIAL PLANTS-Continued

## CAMPANULAS (Bell Flower)

CUP AND SAUCER CANTERBURY BELLS
(Campanula Calycanthema).
Large semi-double flowers, each resembling a cup and saucer.
Pink. Beautiful variety with charming pink flowers.
White Similar to 35 c each; 3 for $60 \mathrm{c} ; \mathbf{2 . 0 0}$ per dozen. Blue. Beautiful light blue flowers.
$\mathbf{3 5} \mathrm{c}$ each; 3 for 60 c ; $\$ 2.00$ per dozen.
CARNATION (Hardy Border)
Choice Mixed. Seedlings from seed supplied by a specialist. Strong plants that will furnish an abundance of flowers. . . . . .40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## COREOPSIS

Lanceolata Grandifiora. A beautiful hardy border plant; grows eighteen inches high, and produces its bright golden yellow flowers in great profusion the entire season..........35c each; 3 for 60c; $\$ 2.00$ per dozen.

## CHRYSANTHEMUMS

## (Hardy Pompon)

THESE are becoming universally popular for bedding, as well as for cut flowers. They bloom profusely at a time when so many other flowering plants are destroyed by frost. While they are perfectly hardy they should be planted in a well drained position and protected with a light mulching in winter. Ready for delivery about May 1st.

## Large Flowering and Button Varieties

Boston Orange. Orange bronze.
Bruno Poitivine. Velvety red.
Elkton. Light pink.
Excelsior. Bright yellow; Aster flowering.
Indian Red. Red over copper.
Jerry. Single white, tinted pink.
Mitzi. Bright yellow; button.
Oconto. White, large flowering.
Old Homestead. Salmon pink, Aster flowering.
Pride of Riga. Bright red; button.
Red Riding Hood. Deep red.
Zelia. Orange bronze, single.
25 c each; $\$ 2.50$ per dozen.

## DELPHINIUMS (Perennial Larkspur)

THESE are deservedly popular. They are perfectly hardy and will establish themselves in almost any garden soil, but respond quickly to liberal treatment. Will begin blooming about the middle of June. If stalks are cut off as soon as flowers fade, they will continue blooming all summer.
Belladonna Hybrids. The freest and most continuous bloomer of all. The clear turquoise-blue flowers are not surpassed by any; 3 feet.

40c each; 3 for 75c; \$2.50 per dozen. Bellamosa. A dark blue of the type of Belladonna with the color of the old Formosum variety, but not liable to mildew like the latter and of stronger growth.

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.
Giant Hybrids. Unquestionably the finest strain of mixed hybrids ever offered. The plants are of strong, vigorous habit, with large flowers on spikes two feet and over long. 45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.
Chinensis. A pretty dwarf species, with fine feathery foliage and intense gentian-blue flowers in open panicles.
Chinensis Alba. A pure white form of the above. 40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## DIELYTRA OR DICENTRA

Spectabilis. (Bleeding Heart or Seal Flower.) An oldfashioned favorite; its long racemes of graceful, heartshaped pink flowers are always attractive; is perfectly at home in any part of the hardy border, and especially valuable for planting in the shade

50 c each; 3 for $\$ 1.05$; $\$ 3.50$ per dozen.

## D I G I T A L I S (Foxglove)

$\Gamma^{1}$HE strong flowerstalks-frequently four to six feet high-rising from rich and luxuriant masses of leaves, always give an appearance of strength to the hardy border.
Gloxiniaeflora. Finely-spotted varieties. White, purple, rose or mixed. 3 to 4 feet.

40c each: 3 for 75 c ; $\$ 2.50$ per dozen.


## EUPATORIUM (Hardy Ageratum)

A splendid native plant, growing 6 to 10 inches high; immense heads of purplish-pink flowers; fine for naturalizing along streams and ponds, and for planting among shrubbery. Coelestinum. Lavender flowers, similar to the Ageratum. blooms from August until frost.

40c each; 3 for 75c; \$2.50 per dozen.

## FEVERFEW (Matricaria)

Little Gem. A most useful border plant and valuable summer cut flower, with large double white flowers; June until October; 18 to 24 inches high.

45 c each; 3 for $90 \mathrm{c} ; \$ 3.00$ per dozen.

## F UNKIA (Plantain Lily)

TTHE Plantain Lilies are among the easiest plants to manage; their broad, massive foliage makes them attractive subjects for the border, even when not in flower. They succeed equally well in sun or shade.
Subcordata Grandiflora Alba. (White Day Lily, August Lily). Pure white, lily-shaped, fragrant flowers.

45 c each; 3 for 90c; $\$ 3.00$ per dozen.
Undulata Variegata. Foliage green, striped with white.
40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## GAILLARDIA (Blanket Flower)

Grandiflora. Beginning to flower in June, they continue one mass of bloom the entire summer. Flowers three inches in diameter; center dark reddish-brown; petals orange to crimson. (See cut.)

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## G E U M

Coccineum. (Mrs. Bradshaw, Chiloense.) A splendid new variety, with large double flowers of a fiery red, blooming nearly all summer. 18 inches.

40c each; 3 for 75c; \$2.50 per dozen.

## GYPSOPMILA (Baby's Breath)

DURING August and September the plant is a mass of delicate feathery blooms. These may be used as fresh cut flowers, also for a semi-everlasting effect.
Paniculata. Loose, feathery sprays of white flowers, making a mist-like effect; fine for bouquets.

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.
GRASSES, Ornamental. (See page 67.)

## HELIANTHUS (Hardy Sunflower)

TTHE perennial Sunflower is very effective either in borders, among shrubbery, or as clumps on the lawn, etc.
Maximiliana. Flowers in long, graceful sprays during October, when all others have finished flowering; five to seven feet...40c each; 3 for $\mathbf{7 5 c}$; $\$ 2.50$ per dozen.

## HARDY HERBACEOUS PERENNIAL PLANTS-Continued

## HELENIUM (Sneezewort)

HANDSOME plants, allied to the sunflowers. Of the easiest culture, forming dense masses of blooms in late autumn.
Autumnale Superbum. Broad heads of deep goldenyellow flowers in late summer. Grows 5 to 6 feet high. 45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.
Autumnale Rubrum. A splendid new variety; deep ox-blood-red, changing to terra-cotta. 5 to 6 feet. September..........45c each; 3 for 90c; $\$ 3.00$ per dozen.

## HELIOPSIS (Orange Sunflower)

Pitcheriana. Very similar to a small sunflower, but blooming earlier; deep golden yellow; all summer, June till frost; 3 feet high.

40c each; 3 for 75 c; $\$ 2.50$ per dozen.

## HEMEROCALLIS (Yellow Day Lily)

Lily-like plants, which flower in greatest profusion during the summer.
Flava. The best known variety, very fragrant, deep lemonyellow flowers in June and July

40c each; 3 for 75c; \$2.50 per dozen.
Dr. Regel. Handsome, rich orange-yellow flowers in May. Very fragrant. Fine for cutting. $11 / 2$ feet.

40 c each; 3 for $75 \mathrm{c} ; \$ 2.50$ per dozen.
Thunbergii. Bears rich, buttercup-yellow, funnel-shaped flowers in July and August.

40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## HEUCHERA (Alum Root)

FOLIAGE remains close to the ground. During July and August the graceful, thin flower spikes, 2 feet high, appear in profusion.
Sanguinea. Bright scarlet.
50c each; 3 for $\$ 1.05$; $\$ 3.50$ per dozen.

## HIBISCUS (Mallow)

These are a mass of bloom during the entire summer, when they produce large flowers in gorgeous colors.
Mallow Marvels, Giant-flowering. Flowers of enormous size, frequently 10 to 12 inches in diameter, have been developed. They appear to be equally at home in all positions, having the same vigor in dry and wet ground, and are perfectly hardy. They grow from 5 to 8 feet high, and are very floriferous, blooming from early in July until late in autumn. We offer three distinct colors-red, pink and white-strong three distinct colors-red, pink and white-strong
roots......... 45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.

## HOLLYHOCK

FOR planting in rows or in groups on the lawn, or for interspersing among shrubbery, they are invaluable. They require rich, deep soil, well drained.
Newport Pink. Finest pure pink, double flowering variety.
40c each; 3 for 75c; $\$ 2.50$ per dozen.
Double White, Double Rose, Double' Yellow, Double Red, Double Mixed.

40c each; 3 for 75 c ; $\$ 2.50$ per dozen.
Single Mixed. A wide range of colors
35c each; 3 for 60c; $\$ 2.00$ per dozen.

## IBERIS (Hardy Candytuft)

Sempervirens. Low growing, with evergreen foliage. In spring and early summer, is completely covered with dense heads of pure white flowers.

45c each; 3 for 90 c ; $\$ 3.00$ per dozen.

## LIBERTY IRIS (Iris Germanica) (Flag Iris) The "Fleur-de-Lis" of France

THE Liberty Iris is one of the most desirable May flowering plants. The flowers are of large size and exquisite colors. For the best results plant in a well-drained sunny position, barely covering the roots. Avoid fresh manure in preparing your border.
Alcazar. Standards light bluish violet with bronze reflections; falls deep purple, with bronze-veined throat. Tall and vigorous grower...30c each; $\$ 3.00$ per dozen.
Caprice. Standard rosy red; falls deep rosy red. Large and handsome. 24 inches. 25 c each; $\$ 2.50$ per dozen.
Ingeborg. The only pure white intermediate in cultivation. Strong grower and free bloomer.

20c each; $\$ 2.00$ per dozen.
Jeanne D' Arc. Standards very large, ruffled, spreading after the manner of the Japanese, white, with a border delicately penciled bright lilac; falls white, bordered lilac at base. 31 inches. . . ...... 20 c each; $\$ 2.00$ per dozen.

King of Iris. Standards clear lemon-yellow; falls rich maroon, bordered yellow...30c each; $\$ 3.00$ per dozen.
Madame Chereau. White, elegantly frilled with a wide border of clear blue. . . . . . .20c each; $\$ 2.00$ per dozen.
Mandraliscae. Rich lavender-purple, tall, large and handsome; very early......20c each; \$2.00 per dozen.
Monsignor. Standards violet; falls heavily veined purple, leaving a border of the violet; late flowering.

20c each; $\$ 2.00$ per dozen.
Midnight. A rich deep purple, the finest in this color; a fine cut flower. . . . . . . . . 30c each; $\$ 3.00$ per dozen.
Pallida Dalmatica. Standards lavender; falls lavender, shaded blue...............30c each; $\$ 3.00$ per dozen.
Prosper Laugier. Standards light bronze-red; falls velvety ruby-purple, with white beard yellow tipped.

20c each; \$2.00 per dozen.
Sherwin-Wright. This variety has splendid golden-yellow flowers without shading or markings. Strong, vigorous plants about two feet high. Flowers of good texture and lavishly produced. . . . . . . 40c each; $\$ 4.00$ per dozen. Collection of one each of the 12 varieties, $\$ 2.50$ postpaid.


## JAPANESE IRIS (Iris Kaempferi)

THEY are most effective when planted in groups and thrive best in a moist soil. The flowers are of immense size, from six to eight inches in diameter, and of the most beautiful and delicate shades. They are perfectly hardy, flowering in great profusion during June and July. We offer the following varieties:

50c each; $\$ 5.00$ per dozen.
Gold Bound. A fine double, pure white flower, enriched by a creamy glow from the gold banded center.
Koko-no-Iro. Purple flowers with golden center.
Minerva. Single flowers, white, tinted rose.
Patrocle. Single flowers of superb dark, reddish violet.
Purple and Gold. Enormous double flowers ten inches across; early and free blooming. Color rich violet-purple with white petaloides tipped violet. Conspicuous golden throat.
Royal Purple. Double, deep purple blue with strong, stiff petals. One of the best of this color.
Tori Odori. Vinous purple, speckled and splashed gray. Six petals.
Finest Mixed (Our Selection). Our mixed varieties embrace a wide range of colors and markings. 35c each; \$3.50 per dozen.

# HARDY HERBACEOUS PERENNIAL PLANTS-Continued <br> LINUM (Flax) <br> <br> PHLOXES of Sorts 

 <br> <br> PHLOXES of Sorts}

Perenne. A fine plant for the border or rockery; grows 2 feet high, with light, graceful foliage and large blue flowers all summer. 40 c each; 3 for $75 \mathrm{c} ; \$ 2.50$ per doz.

## LUPINUS (Lupine)

They grow about three feet high, producing large spikes of flowers. latter part of May and early June.
Polyphylius. Clear blue. 50 c each; 3 for $\$ 1.05$; $\$ 3.50$ per dozen.

## LYCHNIS

Chalcedonica. A desirable plant, growing two to three feet high; flowers brilliant orange scarlet. 35c each ; 3 for 60 c ; $\$ 2.00$ per dozen.

## LYTHRUM

Roseum Superbum. (Rose Loose Strife.) A strong growing plant three to four feet high, producing large spikes of rose colored flowers from July to September.

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## MONARDA (Bergamot)

SHOWY plants, growing from two to three feet high, succeeding in any soil or position, with aromatic foliage. and producing their bright flowers during July and August.
Didyma. Cambridge Scarlet. (Oswego Tea.) Flowers bright scarlet....40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## MYOSOTIS

Palustris Semperflorens. Large, rich blue flowers with yellow eye, a charming plant for damp places and a more profuse bloomer than the type.

40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## OENOTHERA (Evening Primrose)

ELEGANT subjects for growing in an exposed, sunny position, either in the border, or on rockery, blooming all summer
Missouriensis.
$\underset{40 \mathrm{c} \text { each; }}{\text { Large; }}$ for 75 c ; $\$ 2.50$ per 10 inches. - 40c each; 3 for 75 c; $\$ 2.50$ per dozen.

## PENTSTEMON

## (Beard Tongue)

Barbatus Torreyi. Spikes of brilliant scarlet flowers from June to August. Grows 3 to 4 feet high.

40 c each; 3 for $\mathbf{7 5}$ c ; $\$ 2.50$ per dozen.

## PEONIES

While these are only suitable for fall planting during the months of September, October and November, we have some demand from those who wish to complete their planting designs. For the convenience of those we will be pleased to submit a list of the sorts we can supply.

## HARDY PHLOX (Phlox Decussata)

Perennial Phioxes succeed in almost any soil enriched with manure in spring, and in hot weather an occasional soaking of water. If the first spikes of bloom are removed as soon as over, they will produce a second supply of flowers, continuing the display until late in Autumn. These later blooms are often finer than the first. (We offer nothing but strong, 2-year-old plants.)

We offer the following collection of extra choice varieties:
40 c each; 3 of a kind for 75 c ; $\$ 2.50$ per dozen.
Athis. Deep, clear salmon. Very fine.
Crepuscle. White with delicate mauve suffusion and rosy purple eye.
Champs Elysee. Fine, rich crimson.
Europa. A new variety, white with large crimson-carmine eye. Very large flower and truss.
Gefion. Tender peach-blossom pink with bright rose eye, creating a soft mauve effect. Flower and truss very large on erect, compact stems
Jules Sandeau. Large, fine, very free flowering, pure pink.
La Vague. An improvement over older varieties of similar color, with immense, conical heads, borne in great profusion. Warm mauve with emphatic carmine eye.
Mrs. Jenkins. White; immense panicles; free bloomer.
Rheinlander. A beautiful salmon pink, with flowers and trusses of immense size.
Rijnstroom. Lively rose-pink, much like Paul Neyron rose. Immense trusses of flowers.
Thor. A beautiful lively shade of deep salmon-pink, suffused and overlaid with a scarlet glow; has aniline-red eye.
White Lady. Very fine late pure white.
Any of the above varieties. 40 c each; 3 of a kind for 75 c ; $\$ 2.50$ per dozen.
If wanted by mail, add 5c each; 30c per dozen; for postage.

Divaricata Canadensis. This variety is worthy of extensive planting, as it commences to bloom early in April and continues through May, with large, fragrant lavender flowers, on stems 10 inches high.

45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.
Subulata. (Moss or Mountain Pink.) An early springflowering type, with pretty moss-like evergreen foliage, which, during the flowering season, is hidden under the masses of bloom. An excellent plant for the rockery, the border, and invaluable for carpeting the ground or covering graves.
Alba. Pure White. Rosea, Bright Rose.
40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.
Suffruticosa. Miss Lingard. This early flowering variety grows about 2 feet high and blooms from May to October. Flowers white with pale pink eye, long graceful panicles.... 50c each; 3 for $\$ 1.05 ; \$ 3.50$ per dozen.

## PHYSOSTEGIA (False Dragonhead)

Virginica. Forms large clumps 3 to 4 feet high, bearing long spikes of delicate pink flowers, tubular in form. July and August.

40c each; 3 for 75c; $\$ 2.50$ per dozen.

## PINKS, HARDY GARDEN

THESE old-fashioned favorites are absolutely perfect as an edging for the hardy border; as cut flowers they are indispensable.
Mixed Hardy Garden Pinks. Seedlings grown from a very select strain, which should produce a good percentage of double flowers

40c each; 3 for 75c; \$2.50 per dozen.

## PLATYCODON (Balloon Flower or

The Platycodons are closely allied to the Campanulas. and form neat, branched bushes of upright habit.
Grandiflorum. Deep blue, cupped, star-shaped flowers, one and one-half feet.

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## POPPIES, ORIENTAL

(Papaver Orientale)

FOR a gorgeous display of rich and brilliant coloring, nothing equals them during their period of flowering in May and June. After flowering, the plants die back, usually re-appearing along in early September, or as soon as the weather gets cool. During this resting period, care should be taken in cultivating the beds, that the roots are not disturbed.
Apricot Queen. Large, apricot colored flowers.
Beauty of Livermore. Crimson, with black blotch, fine large flowers.
Mrs. Perry. Orange-apricot; very fine.
Any of the above Varieties-
45 c each; 3 of a kind for 90 c ; $\$ 3.00$ per dozen. Mixed $\nabla$ arieties....40c each; 3 for 75c; $\$ 2.50$ per dozen.

## PYRETHRUM

TTHE large daisy-like blooms appear as early as June and continue in abundance continuously until September. They delight in a rich soil with a natural drainage. They thrive best in the full sunlight. As the flowers die, the old stems should be cut off to encourage new blooms. Hybridum. All Colors Mixed.

40c each: 3 for 75 c ; $\$ 2.50$ per dozen.

## RUDBECKIA (Cone Flower)

A VARIETY of these will furnish a supply of cut flowers
from early July until September. They are extremely
hardy, doing well with every one. They could be hardy, doing well with every one. They could be termed "a city garden perennial", doing so well with little attention.
Golden Glow. Double canary yellow flowers; six feet; August. . . ......35c each; 3 for 60c; $\$ 2.00$ per dozen.
Newmanni. Single dark orange, with deep purple cone center; three feet high; flowers from July to September.

40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.
Purpurea. (Giant Purple Cone Flower.) The flowers remain in perfect condition on the plants for weeks at a time. In fact, we do not know of any other perennial where the flowers last so long in perfect condition. Flowers from July to September; two and one-half feet high.......45c each; 3 for $90 \mathrm{c} ; \$ 3.00$ per dozen.

## SALVIA

Azurea. Grows two to three feet high and produces pretty skyblue flowers in great profusion during August and September....40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

# HARDY HERBACEOUS PERENNIAL PLANTS-Continued 

## SCABIOSA

Taponica. They last a long time when picked and placed in water. Bear lavender-blue flowers on long stems from July to September.

45 c each; 3 for $90 \mathrm{c} ; \mathbf{\$ 3 . 0 0}$ per dozen.

## SED U M (Stone Crop)

Spectabilis. Erect growing; height 18 inches with broad, light-green foliage and immense heads of handsome, showy, rose-colored flowers.

45c each; 3 for 90c; $\$ 3.00$ per dozen.
Spectabilis Brilliant. Similar to the above with bright, amaranth-red flowers.

45 c each; 3 for 90 c ; $\$ \mathbf{3 . 0 0}$ per dozen.

## SHASTA DAISY

ARGE, snowy-white flowers, in bloom continuously throughout the summer and fall. Height $21 / 2$ feet.
Aiaska. A decided improvement on the original, very freeflowering, with blooms $41 / 2$ to 5 inches across, of pure, glistening white...40c each; 3 for 75c; $\$ 2.50$ per dozen.

## SPIREA (Goat's Beard, Meadow Sweet)

LEGANT border plants with feathery plumes of flowers and neat attractive foliage; succeed best in a half shaded location in rich. moist soil.
Filipendula. (Drop Wort.) Numerous corymbs of white flowers on stems 15 inches high; pretty fern-like foliage. June to July....35c each; 3 for 60 c ; $\$ 2.00$ per dozen.
Filipendula, fl. pl. (Double Flowered Drop-wort.) Pretty fern-like foliage, with double white flowers on stem 15 inches high during June and July.

45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.

## STOKESIA (Cornflower or Stokes' Aster)

Cyanea. Produces showy, aster-like, deep blue flowers which measure from 4 to 5 inches across. 18 to 24 inches high, blooming freely from July until frost.

45c each; 3 for 90 c ; $\$ 3.00$ per dozen.

SWEETWILLIAM (Dianthus Barbatus)
Well known hardy plant. We offer a superb strain of mixed single and double-flowering sorts. 35 c each; 3 for 60c; $\$ 2.00$ per dozen.
Newport Pink. Salmon or watermelon-pink flowers. 40 c each; 3 for $75 \mathrm{c} ; \mathbf{2 . 5 0}$ per dozen.

## VERONICA (Speedwel)

Longifolia Subsessilis. A pretty species with blue flowers, produced on spikes a foot long, continuing in bloom the entire summer and fall. 45c each; 3 for 90 c ; $\$ 3.00$ per dozen.
Spicata. An elegant border plant, growing about $11 / 2$ feet high, producing long spikes of bright blue flowers. 40 c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## VINCA MINOR

Dwarf evergreen trailing plant, is used for carpeting the ground where it is too shady for other plants to thrive. 40c each; 3 for 75 c ; $\$ 2.50$ per dozen.

## YUCCA FILAMENTOSA (Adam's Needle)

A hardy ornamental foliage and evergreen plant with long, narrow leaves that are bright green the whole year round. The flowers are white, produced on long spikes. 45 c each; 3 for 90 c ; $\$ 3.00$ per dozen.

## ORNAMENTAL GRASSES

Eulalia Gracillima. (Japan Rush.) The most beautiful of all the Eulalias, with narrow, graceful foliage, entirely green without variegation, except that the midrib is of a silver sheen.
Eulalia Japonica Variegata. Leaves striped white and green longitudinally.
Eulalia Zebrina. (Zebra Grass.) A peculiar variegated grass, growing six feet high. The variegation is unlike that of any other plant, being across the leaf in regular bands, dark green and light. 40c each; 3 of a kind for $75 \mathrm{c} ; \mathbf{\$ 2 . 5 0}$ per dozen.

When ordering Perennial Plants sent via Parcel Post, add 5ceach or 30c per dozen, for postage.
We do not guarantee or replace plants, shrubs or trees at prices quoted.

## Serdira Tarcis (Ready about may io)

These should not be mailed, as we send out strong plants, which travel best by express. If wanted by mail, at buyer's risk, add 5 c each or 30c per dozen, for postage.

| risk, add 5c each or 30c per dozen, | Each | Per Doz. | Lobelias. | Tra | Each | $\begin{array}{r} \text { Per Doz. } \\ \$ 1.00 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ageratum. Blue | . 15 c | \$1.50 | Pansies. | Fancy. | 10 c | 1.00 |
| Asters. Best varieties, all colors | 10c | 1.00 | Petunia. | Double sorts | 25 c | 2.50 |
| Cannas. Large flowering kinds. | 25 c | 2.50 | Petunia. | Single sorts. | 15 c | 1.50 |
| Centaurea. (Dusty Miller) | 15 c | 1.50 | Salvia. | Scarlet varieties | 20c | 2.00 |
| Coleus. Standard sorts.... | 15 c | 1.50 | Verbenas | . Finest. | 15c | 1.50 |
| Geraniums. Standard sorts | 25 c | 2.50 | Vincas. | Bedding sorts | 15 c | 1.50 |
| Lantanas. . | 15 c | 1.50 | Vincas. | Variegated, trai | 20c | 2.00 |

## EVERGREEN TREES

ARBORVITAE AMERICAN (Thuya ${ }_{\text {Occidentalis) }}^{\text {( }}$
They are very quick growers and may be trimmed to any desired height. Fine for hedges.

2 to 3 feet. $\$ 2.50$ each; $\$ \mathbf{2 5 . 0 0}$ per dozen. 3 to 4 feet. $\$ 4.00$ each; $\$ 40.00$ per dozen.

## ARBORVITAE PYRAMIDALIS <br> \section*{(Thuya Occidentalis Pyramidalis)}

Suitable for tubs and forms a tall, slender column of densely branched, dark green foliage. A very graceful tree, having a number of uses.
$\begin{array}{ll}2 \text { to } 3 \text { feet. } & \$ 4.25 \text { each; } \$ 42.50 \text { per dozen. } \\ 3 \text { to } 4 \text { feet. } & \mathbf{\$ 5 . 2 5} \text { each; } \$ 52.50 \text { per dozen. }\end{array}$

## ARBORVITAE GLOBE (Thuya Occidentalis

A dense, dark green form of the arborvitae, growing naturally in globe form. Dwarf habit.

1 to $1 \frac{1}{2}$ feet. $\$ 2.25$ each; $\mathbf{\$ 2 2 . 5 0}$ per dozen.

## IRISH JUNIPER (Juniperus Hibernica)

A narrow, columnar form, with upright branches, deep green, tips of branchlets erect.

2 to 3 feet. $\$ 3.25$ each; $\$ 32.50$ per dozen.

## AUSTRIAN PINE (Pinus Austriaca)

This species is very popular for grouping or as specimens. 2 to 3 feet. $\$ 2.25$ each; $\$ 22.50$ per dozen.

## SCOTCH PINE (Pinus Sylvestris)

This grows to be a large tree, 70 to 120 feet in height; quite hardy.... 3 to 4 feet. $\$ 3.00$ each; $\$ 30.00$ per dozen.

## WHITE PINE (Pinus Strobus)

A valuable, ornamental, hardy pine, of rapid growth 2 to 3 feet. $\$ 2.25$ each; $\$ 22.50$ per dozen

## DWARF MUGHO PINE (Mughus)

This pine is very valuable in habit, with dark brown branches, bright green leaves, stout and acutish. The tree is broader than it is high, forming a dark, dome-shaped bush 12 to 18 inches. $\$ 3.00$ each; $\$ 30.00$ per dozen.

## NORWAY SPRUCE (Picea Excelsa)

This tree is extensively planted in many of the States. It is of rapid growth, with graceful habits and dark green foliage. It is one of the best conifers to plant for shelter and windbreaks.
$11 / 2$ to 2 feet.
2 to 3 feet.
3 to 4 feet.
\$1.50 each; \$15:00 per dozen $\$ 2.25$ each; $\$ 22.50$ per dozen \$3.25 each; \$32.50 per dozen.

## Ornamental Flowering Shrubs

Shrubs are as much a part of the garden as the lawn or flower borders, and a well arranged planting presents an attractive appearance throughout the entire year. Our Shrubs are transplanted every two or three years and are furnished with plenty of fibrous roots and should not be compared to stock that is never moved from the cutting beds until sold.

Stocks of ORNAIMENTAL FLOWERING SHRUBS have become greatly depleted in the last few years, consequently it is no longer possible to offer two or more sizes, except in a few instances. Our prices contemplate furnishing the largest sizes now obtainable. We do not guarantee or replace plants, shrubs or trees at prices quoted.
ALMOND Double Flowering. A desirable class of early flowering shrubs, erect slender branches, covered with small double pink flowers. $\$ 1.00$ each: $\$ 10.00$ per dozen.
ALTHEA. (Rose of Sharon.) Valuable on account of their late season of blooming, which is from August to October. Are also extensively used as hedge plants.
Boule-De-Feu. Double red............60c each; $\$ 6.00$ per dozen. Jeanne D'Arc. Double white.........60c each; $\$ 6.00$ per dozen. Meehani. Variegated foliage with satiny, lavender-colored, single flowers.......................75c each; \$7.50 per dozen.
Double Rose, White and Purple. Three to four feet.
45 c each; $\$ 4.50$ per dozen.
BERBERIS THUNBERGII. (Japanese Barberry.) One of the most beautiful shrubs either for hedging or general purposes. It is of neat, compact growth and the foliage is beautiful at all times, turning in the fall to a most brilliant crimson color. The plant is covered with bright scarlet berries all the fall and winter. It seldom grows over four feet high.
$15-18 \mathrm{in} \ldots 40 \mathrm{c}$ each; $\$ 4.00$ per dozen; $\$ 20.00$ per 100. $18-24 \mathrm{in} \ldots 45 \mathrm{c}$ each; $\$ 4.50$ per dozen; $\$ 25.00$ per 100. 24-30 in ...60c each; \$6.00 per dozen; \$30.00 per 100.

BUDDLEYA. (Butterfly Shrub or Summer Lilac.) Variabilis Magnifica. Flowers are the shape and color of lilacs. Flowers all season. . .60c each; $\$ 6.00$ per dozen.

CALYCANTHUS FLORIDUS. (Sweet-Scented Shrub.) Flowers fragrant, double and of a chocolate color. Blooms in April..............75c each; $\$ 7.50$ per dozen.

CERCIS CANADENSIS. (Judas Tree or Red Bud.) All the branches and twigs are covered with a mass of small pink flowers early in the spring, before the leaves appear.
$\$ 1.00$ each; $\$ 10.00$ per dozen.
CLETHRA ALNIFOLIA. (Sweet Pepper Bush.) Dark green foliage and upright spikes of creamy white, fragrant flowers in August......60c each; $\$ 6.00$ per dozen.
CORCHORUS. (Kerria.) Globe Flower or Japanese Rose. Japonica. Flowers bright yellow, large and showy......................75c each; \$7.50 per dozen.

CORNUS FLORIDA. (White Flowering Dogwood.) Flowers white and very showy....75c each; $\$ 7.50$ per dozen.
CORNUS FLORIDA RUBRA (Red Flowering Dogwood.) The flowers are rich, rosy-red.
$\$ 5.00$ each; $\$ 50.00$ per dozen.
CORNUS MASCULA. (Cornelian Cherry.) Clusters of bright, yellow flowers early in spring which are followed by red berries..............75c each; $\$ 7.50$ per dozen.

CRAB. (Bechtel's Double Flowering.) Most beautiful of all the flowering Crabs; hardy. Trees are covered in early spring with large beautiful, double, fragrant flowers, resembling small roses of a delicate pink. 3 to 4 feet................ $\$ 2.00$ each; $\$ 20.00$ per dozen.

DESMODIUM PENDULIFLORUM. A shrub-like plant that dies to the ground in winter, but comes up vigorously in spring. Bears during September sprays of rose-colored flowers........75c each; $\$ 7.50$ per dozen.

DEUTZIA GRACILIS. A dwarf bush, covered with spikes of pure white flowers in early summer.

60c each; $\$ 6.00$ per dozen.
DEUTZIA LEMOINEII. Habit dwarf, flowers white. One and one-half to two feet....60c each; $\$ 6.00$ per dozen.

DEUTZIA PRIDE OF ROCHESTER. Large double white flowers, slightly tinted with rose.

60c each; $\$ 6.00$ per dozen.
ELDER, GOLDEN. (Sambucus.) Golden yellow foliage. 75 c each; $\$ 7.50$ per dozen.
EXOCHORDA GRANDIFLORA. (Pearl Bush.) The early buds look like pearls, opening up to long, gleaming sprays of pure white....90c each; $\$ 9.00$ per dozen.


## HYDRANGEA ARBORESCENS STERILIS (Snowball-Hydrangea.)

FORSYTHIA SUSPENSA. (Weeping Golden Bell.) Willowy growth and yellow flowers.

75 c each; $\$ 7.50$ per dozen.
FORSYTHIA VIRIDISSIMA. (Golden Bell.) Erect growth and spreading branches; flowers bright yellow. 75 c each; $\$ 7.50$ per dozen.

HYDRANGEA ARBORESCENS STERILIS. (Snowball Hydrangea.) Snowy white bloom; will flower for fully three months; a very showy variety, excellent for borders. (See cut.)
18 to 24 inches............. . 75 c each; $\$ 7.50$ per dozen.
2 to 3 feet. $\qquad$ 90c each; $\$ 9.00$ per dozen.
HYDRANGEA PANICULATA GRANDIFLORA. The flowers which are borne in dense pyramidal panicles in the greatest profusion, are white when they first open, but gradually change to rose and remain in good condition for weeks.
18 to 24 inches.
2 to 3 feet.
75 c each; $\$ 7.50$ per dozen.
HYDRANGEA PANICULATA GRANDIFLORA. Standard or Tree-Shaped Plants. These are four and five years old, trained to tree shape with about three feet of straight stem and nicely shaped heads. Four to five feet. . . . . . . . . . . . $\$ 2.00$ each; $\$ 20.00$ per dozen.
LILAC, Purple. (Syringa Vulgaris.) Purple flowers. White. (Syringa Vulgaris Alba.) White flowers.

75 c each; $\$ 7.50$ per dozen. Prices of any of the following named Lilacs, fine plants; 2 to 3 feet. . . . . . . . . . . . . . . $\$ 1.00$ each; $\$ 10.00$ per dozen.

Charles X. Reddish purple flowers.
Michael Buchner. Double pale-lilac flowers.
Madame Lemoine. Double white flowers.
LONICERA. (Bush or Upright Honeysuckle.)
Morrowi. White flowers during May, followed by red fruit during the summer and autumn months.

75 c each; $\$ 7.50$ per dozen.
PHILADELPHUS or SYRINGA. Grandiflorus. (Large flowered Mock-Orange.) Flowers are pure white and very large. . . . .............75c each; $\$ 7.50$ per dozen.
PHILADELPHUS VIRGINAL. Produces an immense mass of beautiful white flowers and blooms all summer. $\$ 1.00$ each; $\$ 10.00$ per dozen.

ROBINIA HISPIDA. (Rose Acacia.) A very handsome shrub. The leaves are similar to those of the Locust. In June and July long panicles of rose-colored flowers hang from the branches.. $\$ 1.50$ each; $\$ 15.00$ per dozen.
SAMBUCUS. Aurea. (Golden Elder.) Attractive golden foliage and desirable to mix with other shrubs.

75 c each; $\$ 7.50$ per dozen.

## ORNAMENTAL FLOWERING SHRUBS-Continued

SPIREA. A large group of showy, free-flowering, hardy shrubs.
Anthony Waterer. Makes nice, round bushes, three feet; beginning to bloom in summer, continuing until fall. Rose red flowers in large, round clusters all over the bush.

12 to 15 inches, 65 c each; $\$ 6.50$ per dozen.
Billardii. Pink flowers in bloom nearly all summer. It is grand for planting in masses. 60c each; $\$ 6.00$ per dozen.
Callosa Alba. A white flowering variety of dwarf, bushy, symmetrical form. Blooms all summer.

18 to 24 inches, 90 c each; $\$ 9.00$ per dozen.

## SORBIFOLIA (Ash Leaf Spirea)

This shrub at maturity grows from 6 to 15 feet tall and its claim to recognition lies not alone in its perfect hardiness, but the unique effect it offers with its delicate green foliage, Mountain Ash like in form but fern-like in texture. Appearing early in the spring, the foliage is a distinct factor in the beauty of the shrub throughout the season.

2 to 3 feet. 75 c each; $\$ 7.50$ per dozen.
Van Houttei. (Improved Bridal Wreath.) This is without a doubt the most beautiful and useful of shrubs. Always effective if planted singly or in groups on lawn, in front of porch, in shrub borders or in a hedge. Handsome throughout the entire season, but when in flower it is a complete fountain of white bloom. Clusters of white florets are set close along the drooping stems. (See cut.) Two to three feet, 50c each; $\$ 5.00$ per dozen. Three to four feet, 65 c each; $\$ 6.50$ per dozen.

S YMPHORICARPUS. Racemosus. (Snowberry.) Flowers white or pinkish, in loose racemes in summer. Berries white, produced in showy, profuse clusters, the branches bending under their weight

75 c each; $\$ 7.50$ per dozen.
S YMPHORICARPUS. Vulgaris. (Coral-Berry or Indian Currant.) A grand shrub, producing a wealth of red or purplish berries, which remain on the branches all winter. Flowers greenish red in summer. Does well in shade. . . .....................75c each; $\$ 7.50$ per dozen.

TAMARIX. Africana. (Tamarisk.) Strong, slender, tall growing, irregular shrubs, with feathery foliage and small delicate pink flowers in May.

60c each; $\$ 6.00$ per dozen.
TAMARIX. Hispida Aestivalis. A graceful shrub with upright branches, flowers pink, appearing in July and August.
VIBURNUM. (Snowballs and High Bush Cranberry ) The Viburnums are one of the most useful shrubs, being very hardy and of good habit. They all have white flowers mostly on flat heads and with a few exceptions are noted for their handsome clusters of berries.
Opulus. (High Bush Cranberry.) The white flowers in June are followed in autumn by bright scarlet berries, which are very attractive until late in winter.

90 c each; $\$ 9.00$ per dozen.
Opulus Sterilis. (Guilder Rose or Snowball.) Of spreading habit, bearing flat clusters of single white flowers, which afterwards produce brilliant red berries which hang to the plant all winter; very decorative.

90c each; $\$ 9.00$ per dozen.
Plicatum. (Japan Snowball.) One of the choicest hardy shrubs, with healthy dark foliage; the perfect balls of pure white flowers are borne in great profusion in May. 90c each; $\$ 9.00$ per dozen.
WEIGELIA. (Diervilla.) These shrubs bloom after the lilacs in June and July. Their large flowers are of wide trumpet-shape, colors from white to red, and borne in clusters thickly along the branches.
Candida. White flowering Weigelia, flowering throughout the summer. . . . . . . . . . . . . . 75c each; $\$ 7.50$ per dozen.
Eva Rathke. The finest Weigelia in cultivation. Flowers continuously throughout the summer and autumn; of an entirely distinct color, being a rich, ruby carmine. Should be in every garden.
\$1.25 each; \$12.50 per dozen.
Rosea. A beautiful shrub, with rose-colored flowers in May and June. . . . . . . . . . 75 c each; $\$ 7.50$ per dozen.
Rosea Nana Variegata. A neat dwarf shrub, valuable for the clearly defined variegation of green, yellow and pink in its leaves; flowers delicate rose and pink; one of the finest variegated-leaved shrubs.

75 c each; $\$ 7.50$ per dozen.

## HEDGE PLANTS

California Privet. (Ligustrum Ovalifolium.) The most advantageous manner of planting is in double rows, the two rows being about 8 inches apart. The plants should be set 12 inches apart in the row, alternating the plants. In order to secure a dense hedge from the
base up, the plants should be severely pruned the first two seasons.

15 to 18 inches. $\$ .75$ per dozen; $\$ 4.00$ per 100.
18 to 24 inches. 24 to 30 inches.
$\$ 1.00$ per dozen; $\$ 5.50$ per 100 $\$ 1.20$ per dozen; $\$ 6.50$ per 100 .

## FRUIT TREES, SMALL FRUITS, GRAPE VINES, ETC.

Select thrifty young trees in preference to old or very large ones, as the roots are more tender and fibrous. They bear transplanting better and are more apt to live; they can also be more easily trimmed and shaped to any desired form and in the course of a few years will usually out-strip the older ones in growth. If not prepared to plant when your stock arrives, "heel in" by digging a trench deep enough to admit all the roots and setting the trees therein, carefully pack the earth about the roots, taking up when required. Never leave the roots exposed to the sun and air.

SENT BY EXPRESS AT EXPENSE OF PURCHASER.

## APPLES-STANDARD

5 to 7 feet high, 90 c each; $\$ 9.00$ per dozen.

## SUMMER VARIETIES

EARLY HARDEST. Pale yellow, fine flavor; August.
RED ASTRACHAN. Large, crimson, juicy, with rich subacid flavor; hardy; July.
YELLOW TRANSPARENT. Pale yellow; good quality.

## AUTUMN VARIETIES

DELICIOUS. Large, dark red, juicy, aromatic
DUCHESS OF OLDENBURG OR' DUCHESS. Large, rounded, yellow, striped red, tender, juicy
FALL RAMBO. Yellow, streaked with red
MAIDEN'S BLUSH. Large, beautiful blush cheek.

## WINTER VARIETIES

BALDWIN. Large, dark red; productive.
BANANA. Large, golden yellow, shaded crimson.
ENSEE. Bright red in color and a splendid keeper
GRIMES GOLDEN. Medium to large, skin golden yellow, flesh crisp, tender, juicy; long keeper.
JONATHAN. Medium, red and yellow, flesh tender, juicy. NORTHERN SPY. Large, striped red; good keeper.
ROME BEAUTY. Large, yellow, shaded red, tender.

## WINTER VARIETIES (Continued)

STAYMAN'S WINESAP. Fruit medium size, mostly covered with red on a yellow ground; flesh fine, crisp, juicy.
WINESAP. Medium, deep red, rich, sub-acid.
YORK IMPERIAL. Medium, yellow, shaded red, firm, juicy, sub-acid; an excellent shipping apple.

## ONE YEAR OLD APPLE TREES <br> Of the Above Varieties

3 to 4 feet high, 35c each; $\$ 3.50$ per dozen; 25 for $\$ 7.00$; 50 for $\$ 13.00 ; 100$ for $\$ 25.00$.

## CRAB APPLES

5 to 7 feet high. 90 c each; $\$ 9.00$ per dozen.
HYSLOP. Deep crimson; very popular on account of its large size, beauty and hardiness.
TRANSCENDENT. Skin yellow, striped with red.
QUINCES
3 to 5 feet high. $\$ 1.25$ each; $\$ 12.50$ per dozen.
APPLE OR ORANGE. Large, bright golden yellow, fine quality; flesh firm, cooks tender; October.

# FRUIT TREES, GRAPE VINES AND SMALL FRUITS-Continued <br> <br> CHERRIES <br> <br> CHERRIES <br> \section*{HEART AND BIGARREAU (Sweet)} <br> <br> DEWBERRY 

 <br> <br> DEWBERRY}

4 to 6 feet, first-class. $\$ 1.25$ each; $\$ 12.50$ per dozen.
BLACK TARTARIAN. Very large, purplish-black, juicy rich, excellent, productive; last of June
GOVERNOR WOOD. Large, light red, juicy, rich, delicious; tree healthy and productive; June.
YELLOW SPANISH. Large, pale yellow with light red cheek; late June.

## DUKE AND MORELLO (Sour)

4 to 6 feet, first-class. $\$ 1.50$ each; $\$ 15.00$ per dozen. DYEHOUSE. A very early and sure bearer; ripens a week before Early Richmond; fine quality; June.
EARLY RICHMOND. Medium, dark red, fine quality. ENGLISH MORELLO. Dark red, rich, acid, juicy, and good. Late July.

## PEACHES

4 to 5 feet. 60 c each; $\$ 6.00$ per dozen.
CHAMPION. Creamy white with red cheeks, freestone, excellent quality; early in August.
CRAWFORD'S EARLY. Large, yellow, of good quality, freestone; early in September.
CRAWFORD'S LATE. Large, yellow with red cheeks, freestone; last of September.
ELBERTA. Large, yellow with red cheek, flesh yellow, firm, juicy, of high quality; very prolific; September.
HEATH CLING. Large, flesh white, juicy and melting; October.
J. H. HALE. Deep golden yellow overlaid with bright carmine. Large size and productive.
OLD MIXON FREE. Large, yellow with red cheek; September.

## PEARS—STANDARD

5 to 7 feet, first-class. $\$ 1.50$ each; $\$ 15.00$ per dozen.
BARTLETT. Large, clear yellow, juicy August.
FLEMISH BEAUTY. Fruit is large, skin pale yellow, flavor sweet and melting; September and October.
KIEFER'S HYBRID. Large, rich color and good quality.
SECKEL. Small, yellowish brown; one of the best.

## PLUMS

STANDARD ON PLUM STOCKS
5 to 7 feet. $\$ 1.25$ each; $\$ 12.50$ per dozen.
ABUNDANCE. Large, yellow with heavy bloom, good quality; very prolific.
BURBANK. The largest and best variety; color red; excellent quality; hardy and vigorous grower.
RED JUNE. Large, red, fine quality; strong, vigorous grower; finest extra early plum.
SHIPPER'S PRIDE. Large, purple, fine, juicy and sweet. YELLOW EGG. A beautiful yellow, egg-shaped plum of large size, flesh yellow; late August.

## BLACKBERRIES

$\$ 1.00$ per dozen; $\$ 6.00$ per 100 .
The Blackberry is one of the most profitable fruits to grow when properly managed, as it thrives well in almost any soil, but reaches perfection in a strong loam tending towards clay.
Ancient Briton. Large fruit, stems loaded with good sized berries of fine quality; vigorous grower, one of the best.
Eldorado. Large fruit, borne in large clusters and ripen well together, fine quality; good keeper.
Mersereau. Extremely hardy, berries large, extra quality, sweet, rich and melting without core; good keeper and shipper; vigorous grower.
Taylor. Medium-sized fruit of fine flavor, extremely hardy and very productive; ripens late.

## CURRANTS

## Two-Year-Old Plants

A cool, moist soil is best adapted to the growth of Currants. Strong, moist loams with a considerable mixture of clay, are good. Even well-drained, stiff clay will give good results.
Cherry. Large, bright red berries, with a thin skin and fine flavor. . ...................30c each; $\$ 3.00$ per dozen. Perfection. A new red variety which promises to eclipse all other sorts, combining size, color, high quality and productiveness. 40 c each; $\$ 4.00$ per dozen.
White Grape. Best white variety. 30c each; $\$ 3.00$ per dozen.

Lucretia. One of the low-growing, trailing blackberries. It has proved highly satisfactory wherever tried, and many say it is the best of all the blackberry family. $\$ 1.00$ per dozen; $\$ 6.00$ per 100 .

## GOOSEBERRIES

## Two-Year-Old Plants

The best results are obtained by planting in moist, but not soggy, clay loam, but they will do reasonably well in any well drained soil if they are well fertilized once each year.
Downing. Large, pale green, and of splendid quality for both cooking and table use. 30c each; $\$ 3.00$ per dozen. Houghton's. Small to medium; roundish, oval, pale red, sweet, tender. 25 c each; $\$ 2.50$ per dozen.
Industry. Berries of largest size, excellent flavor, pleasant and rich, dark red color when fully ripe; strong upright grower; an immense cropper. 25 c each; $\$ 2.50$ per dozen.
Smith's Improved. Large, pale, greenish yellow, skin thin, of excellent quality. 25 c each; $\$ 2.50$ per dozen.

## GRAPE VINES

ALL TWO-YEAR-OLD SELECTED STOCK
Grape vines will grow almost anywhere, but they should be carefully cultivated and pruned.

## BLACK OR PURPLE GRAPES

*Concord. Large, black grape, hardy and productive; juicy and sweet. 20c each; $\$ 2.00$ per dozen.
Ives' Seedling. Dark purple, sweet. 30c each; \$3.00 per dozen.
Moore's Early. Ripens ten days earlier than Concord; bunch and berry round and large. 30c each; \$3.00 per dozen.

## RED GRAPES

Catawba. Berries large, round; when ripe a dark copper color, sweet, rich. 30c each; $\$ 3.00$ per dozen.
Delaware. Small, light red, thin skin; very juicy, sweet, sprightly. 30 c each; $\$ 3.00$ per dozen.

## WHITE OR YELLOW GRAPES

*Niagara. Bunch and berries large, light greenish white, slightly ambered. 30c each; $\$ 3.00$ per dozen.
Pocklington. Bunch and berry very large; attractive, golden yellow color. 30c each; $\$ 3.00$ per dozen.
Varieties marked with a * are best for arbors.

## RASPBERRIES

They will do well in any good soil, but thrive best in deep, moist (not over wet) soil. The lighter loams are preferable for the red varieties. while the heavier loams suit the black varieties best

The following varieties are all 75c per dozen, $\$ 5.00$ per 100 .
Cardinal. Produces a fine quality of dark red or almost purple berries through a long season.
Cumberland. The largest black cap; a healthy, vigorous grower; very productive.
Cuthbert. Large, firm, deep rich crimson, of excellent quality, tall, strong and vigorous.
t. Regis. The berries are a bright crimson, of large size and surpassing quality-rich, sugary with full raspberry flavor.

## STRAWBERRIES

Strawberries will do well in any soil that will grow good corn. Soil should be made fine and loose. A generous supply of well rotted manure incorporated in the soil is of great benefit.

## EVER-BEARING STRAWBERRY

Champion. Has no equal as to quality, productiveness, and hardiness of plants. Quality of the fruit is of the very best. Size much larger than any other fall-bearing variety. 60c per dozen; \$2.50 per 100.

## The following varieties are all 50c per dozen;

 $\$ 1.25$ per 100.Aroma. One of the finest for long-distance shipping. The large berries are bright red to the center, of conical shape with prominent and attractive yellow seeds.
Gandy. One of the best late varieties. Berries large, of fine form and excellent quality.
Glen Mary. Large to very large, sometimes flattened; sweet, rich, delightful.
Senator Dunlap. Exceedingly vigorous. Fruit large, regular and attractive in form, deep red to the center; firm in substance.

## Grees

## SHADE AND ORNAMENTAL

## FOR LAWN, STREET AND FOREST PLANTING

ASH. American White. A handsome, hardy. broad-headed tree. 8 to 10 feet....... $\$ 2.25$ each; $\$ 22.50$ per dozen.
CATALPA SPECIOSA. A handsome, rapid growing tree. 8 to 10 feet... . . . . . . . . . $\$ 2.25$ each; $\$ 22.50$ per dozen.
ELIM. American. A hardy. rapid grower; resists drought and is long lived. 6 to 8 feet. $\$ 1.50$ each; $\$ 15.00$ per dozen.
LARCH. European. A pyramidal, cone-bearing tree. 6 to 8 feet................ $\$ 3.00$ each; $\$ 30.00$ per dozen. LINDEN. European. This is probably the largest leaved Linden. 6 to 8 feet..... $\$ \mathbf{3 . 0 0}$ each; $\$ \mathbf{3 0 . 0 0}$ per dozen.
MAPLE. Norway. A large, handsome tree with a compact. rounded head of spreading branches. One of the best trees for lawn, park, street or cemeterv planting. 8 to 10 feet.............. $\$ 4.00$ each; $\$ 40.00$ per dozen,
MAPLE. Rock or Sugar. An excellent shade tree of upright dense growth. Grows to a large size and is long lived 8 to 10 feet......... $\$ 3.00$ each; $\$ 30.00$ per dozen.
MAPLE Silver or Soft. Has wide, slender, spreading branches and thrives almost anywhere.
8 to 10 feet. . . . . . . . . . . $\$ 2.00$ each; $\$ 20.00$ per dozen. 10 to 12 feet................... $\$ 2.25$ each; $\$ 22.50$ per dozen.
OAK. Red. A beautiful tree of rapid growth, growing into a large majestic tree, with broad, round head, the foliage turning dark red in fall. 6 to 8 feet.
$\$ 2.25$ each; $\$ 22.50$ per dozen.
OAK. Scarlet. A noble tree with gradually spreading branches, which form a rather open head. Leaves turn scarlet in fall. 6 to 8 feet $\mathbf{\$ 2} \mathbf{2 5}$ each; $\$ 22.50$ per dozen.
OAK. Pin. A handsome tree, especially when young. Tree is fibrous rooted, transplants well and grows rapidly Foliage turns bright red in fall. 6 to 8 feet . . . . . . . . . . . $\$ 2.25$ each; $\$ 22.50$ per dozen.
POPLAR. Carolina. One of the surest and most rapid growing trees. The leaves are glossy and fresh looking. Valuable for quick effects.
8 to 10 feet. . . . . . . . . . . . $\$ 1.50$ each; $\$ 15.00$ per dozen.
POPIAR. Bolleana. Its habit of growth is broader than the Lombardy. Tall growing with cottony leaves. 8 to 10 feet. . . . . . . . . . $\$ 1.50$ each; $\$ 15.00$ per dozen.
POPLAR. Lombardy. With age this tree becomes picturesque. 8 to 10 feet. $\qquad$ \$1.75 each; $\$ 17.50$ per dozen. 10 to 12 feet.
$\$ 2.00$ each; $\$ 20.00$ per dozen.
SALISBURIA. (Maiden Hair or Ginkgo.) A tall, sparsely branched, usually slender tree, with leaves similar in shape to the Maiden Hair Fern.
6 to 8 feet. . . . . . . . . . . . $\$ 2.50$ each; $\$ 25.00$ per dozen.
TULIP TREE. (Liriodendron Tulipfera.) A tall, handsome, hardy, ornamental tree of pyramidal habit and rapid growth. Bears numerous tulip-shaped, fragrant flowers of a creamy yellow and orange color in June. 6 to 8 feet . . . . . . . . . . . . $\$ 2.00$ each; $\$ 20.00$ per dozen.

## ORNAMENTAL TREES

CATALPA BUNGEI. (Umbrella Catalpa.) Grafted on stems 6 to 7 feet high, it makes an umbrella shaped top without prunning. Perfectly hardy Leaves large, glossy, heart-shaped, deep green, lay like shingles on a roof, always making a symmetrical head. One of the most unique trees; desirable for lawns, park and cemetery planting. 6 to 7 feet. 1 year heads, $\$ 2.00$ each. 2 year heads, $\$ 3.00$ each.
MULBERRY, TEAS' WEEPING. The most graceful hardy weeping tree in existence. Forms a perfectshaped head and the slender branches grow downward parallel with the stem, forming an umbrella-like shape. It takes the foremost place among weeping trees; has beautiful foliage and luscious fruit, is hardy, enduring the cold of the North and the heat of the South, safe and easy to transplant. Admirably adapted for ornamenting small or large grounds, or for cemetery planting. 2 year heads, $\$ 4.00$ each.
WILLOW. Wisconsin. A large tree with drooping branches. Leaves are bright green. Excellent for wet locations, but a credit to any lawn. 6 to 8 feet. \$1.75 each; \$17.50 per dozen.

## HARDY CLIMING PLANTS

THE need of vines for home improvement is well known, and there is absolutely nothing that adds more to the beauty of the home than appropriate vines. A porch without a vine is desolate and incomplete. Vines are exceptionally valuable for turning unsightly fences and buildings into things of beauty.
AMPELOPSIS VEITCHII. (Japan Creeper or Boston Ivy.) This vine undoubtedly stands higher in the estimation of the people than any other. The glossy green leaves turn to a brilliant orange-scarlet in the fall. 50 c each; $\$ 5.00$ per dozen. AMPELOPSIS QUINQUEFOLIA. (Virginia Creeper.) For covering walls, verandas and trunks of trees. The leaves turn to bright scarlet and purple in the fall. The dark blue berries remain quite late

50 c each; $\$ \mathbf{5 . 0 0}$ per dozen. ARISTOLOCHIA SIPHO. (Dutchman's Pipe.) Bears brownish-colored flowers, resembling a pipe in shape. Has fine, large, green leaves.
$\$ 1.50$ each; $\$ 15.00$ per dozen. BIGNONIA RADICANS. (Trumpet Creeper.) Should be grown on posts, stumps, etc. Flowers trumpet-shaped, bright scarlet. . ..........45c each; $\$ 4.50$ per dozen.
CELASTRUS SCANDENS. (Climbing Bitter Sweet.) Hardy ornamental vine with yellow flowers, followed in the autumn with yellow fruit about one-half inch in diameter.

60c each; $\$ 6.00$ per dozen.
EUON YMUS RADICANS. This vine is adapted for covering low foundation walls. Has deep, ever-green foliage and is hardy...............60c each; $\$ 6.00$ per dozen.

## CLEMATIS (Large Flowering)

HENRYII. This is a robust plant, free bloomer, flowers creamy white, becoming fully expanded when grown in the sun. It blooms through August and September. $\$ 1.00$ each.
JACKMANII. One of the best-known of all the clematises. The velvety-purple flowers, when expanded, are four to six inches across, very velvety and distinctly veined.
MAD.ED. ANDRE. This is the nearest approach to a bright red Clematis. It is a very free bloomer and very satisfactory. $\$ 1.00$ each. We send out strong, healthy roots of Clematis and cannot entertain any claims for non-success with these plants.

## CLEMATMS(Small Flowering)

PANICULATA. This Clematis is by far the most popular of all the species in American gardens. It is extremely showy when covered with the small, white fragrant flowers which appear late in the season.

60c each; $\$ 6.00$ per dozen.
IVY. English. An invaluable evergreen variety, used for covering walls, etc.; has become very popular for covering graves, especially if in the shade, where grass will not succeed......75c each; $\$ 7.50$ per dozen.
KUDZU VINE. (Or Jack-and-the-Bean-Stalk.) A rapid growing hardy vine. Bears small racemes of rosypurple, pea-shaped blossoms towards the end of August.

20 c each; $\$ 2.00$ per dozen.
POLYGONUM AUBERTI. (Silver Lace Vine.) One of the most desirable flowering climbers. The plant is of strong vigorous growth, attaining a height of 25 feet or more, producing through the summer and fall great foamy sprays of white flowers, and a wellestablished plant during its long flowering period is a mass of bloom. We have received numerous expressions of praise from our customers regarding this vine.
WISTARIA, CHINESE PURPLE. It has pale green pinnate leaves and bears profusely dense drooping clusters of purplish pea-shaped flowers. It blooms in May and usually gives a smaller crop of blooms in August or September. They should be liberally fed when first planted to give them a vigorous start.

60c each; $\$ 6.00$ per dozen. WISTARIA CHINESE WHITE. Of similar habit of growth to the above, but with white flowers.

60c each; $\$ 6.00$ per dozen.

## H O N E Y S U CKLES

MONTHLY FRAGRANT OR DUTCH. Blooms all HA summer. . . (Hail's Japan .....50c each; $\$ 5.00$ per dozen HALLEANA. (Hall's Japan Evergreen Honeysuckle.) The flowers are white, turning to yellow, and are very fragrant.....................30c each; $\$ 3.00$ per dozen.

## TENDER CLIMBING PLANTS

MOON FLOWER PLANTS. 25c each; $\$ 2.50$ per dozen If wanted by mail, add $5 \mathbf{c}$ each; 50 c per dozen for postage.
MADEIRAVINE. Strong tubers. 5c each; 40c per dozen. By mail, 50c per dozen.

# Mnccullough's Jligh ©্Trade Frertilizers 

## All Fertilizers Delivered Free on Board Cincinnati.

THE benefits arising from the use of Commercial Fertilizers are too well known, and their value too well established, to require any argument or explanation. Soils that have been almost entirely exhausted by successive croppings have by their use, been restored to their former fertility; in fact, bring larger crops than when the soil is new.

## SHEEP MANURE-Pulverized

THIS is a natural manure; excellent for mixing with the soil. Strewn over and dug into the vegetable garden or placed directly in drills or hills, it promotes a rapid, steady growth. Especially valuable for lawns, contains all the constituents for promoting a quick, luxuriant growth and a rich green color. Use at the rate of from 500 to 600 pounds per acre. For pot plants, mix one part of sheep manure to six parts of soil. For use in the vegetable garden spread over the surface and dig in. Being soluble, it readily makes a safe liquid manure-one pound to five gallons of water can be used. $5 \mathrm{lbs} ., 30 \mathrm{c}$; $10 \mathrm{lbs} ., 50 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 1.00$; 50 lbs., $\$ 1.50$; 100 lbs., $\$ 2.25$.

## GROWN PREPARED HUMUS

THIS article is prepared from deposits of decayed vegetable matter. It has been successfully used for years and has proven to be worthy of extensive use. It is desirable for greenhouse and flower garden work, also for lawns and vegetables.

For pot plants, mix about one-third humus with twothirds regular potting soil.

For lawns and greenhouse benches, it is applied as a top dressing from one-half to one inch in depth, which should be then worked in.

If grass seed is to be sown, then is the time to apply it, and on golf links it is used in a similar way.

For flower and vegetable garden, apply at the rate of one-half to two inches deep and fork in well in the soil, or apply it in trenches the same as you would well rotted manure.

The prepared Humus is dry, thoroughly pulverized, odorless and clean to handle and apply and absolutely free from weed growth.

The following quantities are required to effectively cover an acre. If applied $1 / 2$-inch in thickness, thirty tons per acre; if 1 -inch thick, sixty tons per acre, and for general lawn work as a top dressing, one hundred pounds will effectively treat about 800 square feet, or three tons per acre.

5 lbs., $25 \mathrm{c} ; 10 \mathrm{lbs} ., 40 \mathrm{c} ; 25 \mathrm{lbs} ., 75 \mathrm{c} ; 50$ lbs., $\$ 1.25$; 100 lbs., $\$ 1.75 ; 500 \mathrm{lbs} ., \$ 8.00 ; 1,000 \mathrm{lbs} ., \$ 15.00$.

## PURE BONE MEAL

THIS pulverized ground bone is excellent for rose culture and lawns. It decomposes rapidly and is quickly effective. Should be applied at the rate of 500 to 600 lbs. per acre. Analysis: Ammonia $2 \%$; total phos. acid, $27 \%$.
$1 \mathrm{lb} ., 10 \mathrm{c} ; 5 \mathrm{lbs}, 40 \mathrm{c} ; 10 \mathrm{lbs} ., 70 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 1.25 ;$ $50 \mathrm{lbs} ., \$ 2.00$; per bag of 125 lbs., $\$ 4.00$.

## A D C 0

## ARTIFICIAL STABLE MANURE

Make It Yourself-In Your Own Garden
The process consists of making a heap of all garden trash as it is collected, wetting it thoroughly, and adding to it a bacterial food-known as ADCO. In the course of three or four months the heap is converted by the action of the growing bacteria into a pile of excellent manure.

The recipe or formula is two pounds of ADCO with each wheelbarrow load of garden waste. Fifty pounds of ADCO make a ton of well-rotted manure.

To each ton of straw, hay, cornstalks or dried leaves, add 150 lbs. of ADCO to make four tons of fresh or three tons of rotted manure.

Each shipment is accompanied by simple directions which make any mistake impossible.
ADCO , in $25-\mathrm{lb}$. bags, each.
$\$ 2.00$
(Enough for 12 wheelbarrow loads of garden waste, making one-half ton of manure.)
ADCO, in special 150-lb. bags, each. . . . . . . . . . . . \$10.50
(Enough for a heap $10 \mathrm{ft} . \times 10 \mathrm{ft} . \times 6 \mathrm{ft} .$, making about three tons of manure.)

## AMMO-PHOS (ammonium phosphate)

A MMO-PHOS contains $20 \%$ of ammonia, practically all soluble and readily available, and $20 \%$ of available phosphoric acid.
The product is dry and granular. It contains no free acid. It does not absorb moisture from the air.

Its continued use tends to check the growth of white clover, goose grass, chick-weed and other noxious northern putting green weeds.

Send for descriptive circular.
$1 \mathrm{lb} ., 15 \mathrm{c} ; 2 \mathrm{lbs} ., 25 \mathrm{c} ; 10 \mathrm{lbs} ., \$ 1.00 ; 25 \mathrm{lbs} ., \$ 2.00$; 50 lbs., $\$ 3.75$; 100 lbs., $\$ 7.00$.

## EVERGREEN LAWN LIME THE GRASS AND GARDEN TONIC

THIS lime is especially prepared for use on soil, as it is essentially a plant food, useful for correcting acid soils, also for binding sandy soils and loosening clay soils. Should be applied at the rate of 1,000 to $2,000 \mathrm{lbs}$ per acre for sandy soils and 2,000 to 3,000 lbs. per acre for clay soils, a few weeks before applying Commercial Fertilizers.

If the ground is covered with moss and the grass seems sour and unsightly, sprinkle Lawn Lime freely over the surface and watch the satisfying results.

Per bag of 80 lbs., $\$ 1.00 ; 5$ bags, $\$ 4.50 ; 10$ bags, $\$ 8.00$.

## REGULAR BONE MIXTURE

## (HALF AND HALF)

TS especially valuable for Field Crops, Potatoes and Grain Should be applied at the rate of 400 to 500 lbs . per acre. Analysis: Ammonia, $2 \%$; total phos. acid, $16 \%$; potash $\mathrm{K}^{2} \mathrm{O}, 2 \%$.

5 lbs., 30c; $10 \mathrm{lbs} ., 50 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 1.10 ; 50 \mathrm{lbs} ., \$ 2.00$; per bag of 125 lbs., $\$ 3.25$.

## CATTLE MANURE-Shredded

A
SUBSTITUTE for stable manure in gardens and greenhouses, as it supplies plant food, humus and organic matter; largely used for rose culture and for mulching. The quality we offer is selected manure taken from paved Stock Yards cattle pens-dried and sterilized by a high temperature direct heat process which kills weed seeds, fungus and disease germs. 100 lb . bags only. Per bag of 100 lbs., $\$ 2.25$.

## AGRICULTURAL LIMESTONE DESTROYS SOIL ACIDITY-LOOSENS UP CLAY SOILS—TIGHTENS UP SANDY SOILS

DUTS soils in better mechanical condition and therefore aids in the development of beneficial soil Bacteria, which acts as a plant food for leguminous crops, such as Alfalfa, Sweet Clover, Red and Crimson Clovers, Soy Beans, Garden Beans and Peas, Cow Peas, Vetches, etc. Apply at the rate of 2,000 to 4,000 lbs. per acre, and may be applied at any season of the year. Per bag of 80 lbs., $\$ 1.00 ; 5$ bags, $\$ 4.25 ; 10$ bags, $\$ 7.75$.

## NITRATE OF SODA

As a top dressing use at the rate of 100 lbs., per acre between the rows when the plants are well established, on the following vegetables: Cabbage, Cauliflower, Egg Plant, Lettuce, Spinach, Beets, Celery and Onions. For Asparagus, a top dressing of 250 lbs . per acre when the young shoots are starting in the spring. For Strawberries, apply between the rows at the rate of 100 lbs. per acre at the time of blossoming. For the home garden, apply a solution of one ounce to two gallons of water.
$1 \mathrm{lb} ., 15 \mathrm{c} ; 2$ lbs., 25 c ; $10 \mathrm{lbs} .$, \$1.00; $25 \mathrm{lbs} .$, \$2.00; 50 lbs., $\$ 3.00$; 100 lbs., $\$ 5.50$.

## SULPHATE OF AMMONIA

Owing to the fact that it carries $5 \%$ more ammonia to the weight than Nitrate of Soda, the user should apply four pounds of Sulphate of Ammonia where he uses five pounds of Nitrate of Soda. $1 \mathrm{lb} ., 15 \mathrm{c} ; 2 \mathrm{lbs} ., 25 \mathrm{c}$; 10 lbs. $\$ 1.00 ; 25$ lbs., $\$ 2.00 ; 50$ lbs., $\$ 3.00 ; 100$ lbs., $\$ 5.50$.

## COTTON SEED MEAL

Rich in Ammonia and Potash. An excellent fertilizer for Lawns and Golf Greens. Apply 15 lbs . to 1000 square feet. Per bag of 100 lbs ., $\$ 2.50$.
(Fertilizers continued to next page.)

## FERTILIZERS-Continued

## PLANT STIMULANT TABLET

## MAKES A WONDER GARDEN

U
SE it and you will have the largest crops of fruit and vegetables, and an abundance of the largest and sweet-est-scented flowers of intense and vivid colors.
Here is the secret. Science has produced a tablet that is rich in plant food, containing 11 per cent Nitrogen, 12 per cent Phosphoric Acid and 15 per cent Potash, and it is odorless and clean. Compare this analysis with that of any other fertilizer.

It is not applied broadcast, but is put at the feeder roots of individual plants, so there is no waste and you feed the plants that need it. It produces no weeds, like ordinary stable manure, so it economizes in labor.

Each tablet contains highly concentrated, immediately available plant food, and enables the grower to control the development of plants. They increase production, heighten color and improve quality

Simply insert tablets in the soil near plants. Or, four tablets dissolved in a gallon of water is the solution used instead of liquid manure and is less trouble and gives better results than the objectionable manure water. Make liquid applications to the soil-not on foliage or stems.

Complete directions with every package.
Price, postpaid; trial size ( 10 tablets) $15 \mathrm{c} ; 30$ tablets, 25 c ; 100 tablets, 75 c ; 1,000 tablets, $\$ 3.50$.

## STADLER'S "SUPERIOR" PLANT FOOD



HOR Potted House Plants, Garden, Shrubs, Lawn and Trees, contains all the essential elements of plant life. For both indoor and outdoor plants, it is universal in its year-round use.

Put a tablespoonful of Superior Plant Food in the watering pot every time you sprinkle your garden, or a teaspoonful in the pitcher when you water your house plants-and then watch results! You will be amazed at the new glow of health and rich beauty your plants will show almost at once.
 Prices Postpaid

## ZENKE'S

NEW PLANT LIFE
(Liquid)

I$T$ is a plant food containing in proper percentages all elements essential to plant growth.

Mix one quart with 50 gallons of water and water plants sufficiently to saturate soil. Use about one quart to one square foot of soil.

It is immediately available to absorption by plants and saves time and labor. 8 oz . can 25 c ; gallon, $\$ 3.00$. (One galgon is sufficient to make 200 gallons of solution.)

# P IMPORTED GRANULATED EAT MOSS 

## Prepared Bulb Fibre

Ferns, Palms and other potted foliage plants that are placed in jardinieres or window boxes, will keep wonderfully well, if the space between the pots is filled in with moistened Granulated Peat Moss to the height of the shoulder of the plant pots. Flower pots are porous, and the capillary attraction of the roots draws the moisture from the moss through the pots; furthermore the air is allowed free access and is always somewhat damp-a natural condition for most pot plants.

This Granulated Peat Moss or Mull is especially selected for horticultural purposes. It is finely granulated, of little weight, and is entirely free from foreign matter. It is packed in compressed bales, burlaped on all sides, sticked and wire strapped. When loosened the contents will cover 240 sq. ft. 1 inch deep. It is not sold by weight, because the weight of the bale is dependent on its moisture content, which varies according to atmospheric conditions.

A few of the many purposes for which it is used: Fertilizer Carrier, Mulching, Cold Frames, Lawns, Improving Soils, Propagating, Cuttings, Landscape Work, Benches (Greenhouse), Golf Courses, Packing, Storing Bulbs, Potting, Layering, Seed Beds, etc. Send for booklet giving detailed information.
Prices: 60c per $1 / 2$ bushel; $\$ 1.00$ per bushel; large bale ( $13 \mathrm{cu} . \mathrm{ft}$. and covers 240 sq . ft. one inch deep). . $\$ 4.50$

## ACID PHOSPHATE $16 \%$

SOME soils contain a large percentage of Nitrogen and some Potash. but still are deficient in Phosphoric Acid. This must be supplied for the purpose of producing a balanced combination of fertilizer elements, by the application of $16 \%$ Acid Phosphate which produces a beneficial effect by supplying the proper proportion of Phosphoric Acid. Apply from 200 to 400 lbs. per acre. Analysis: Available phos. acid $16 \%$; insoluble, $1 \%$.

5 lbs., $30 \mathrm{c} ; 10 \mathrm{lbs} ., 50 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 1.00 ; 50 \mathrm{lbs} ., \$ 1.50$; per bag of 125 lbs., $\$ 2.50$.

## MURIATE OF POTASH

$A^{1}$PPLY 100 to 150 lbs. per acre, usually with other fertilizers. This must be used witn great care as it is very powerful. Excellent for Potatoes, Corn, Grain, etc. $1 \mathrm{lb} ., 15 \mathrm{c} ; 2 \mathrm{lbs} ., 25 \mathrm{c} ; 10 \mathrm{lbs} ., \$ 1.00 ; 25 \mathrm{lbs} ., \$ 2.00$; 50 lbs., $\$ 3.00 ; 100 \mathrm{lbs} ., \mathbf{\$ 5 . 0 0}$.

## HYDRATED LIME

## (Marble Cliff Lawn Lime)

THIS lime is used for sweetening acid or sour soils. For lawns, use 10 pounds of Marble Cliff Lawn Lime to the 100 square feet 10 lb . bag, 35 c ; bag of $50 \mathrm{lbs} ., \$ 1.10$; 5 bags ( 250 lbs .), $\$ 4.50$; 10 bags (500 lbs.), $\$ 8.00$.

## DRIED BLOOD MEAL

CHIS is a splendid fertilizer for Roses, Carnations, Crysanthemums, etc., as well as for pot plants. Can be mixed with the soil or applied in liquid form. $1 \mathrm{lb} ., 15 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 2.00 ; 50 \mathrm{lbs} ., \$ 3.75 ; 100 \mathrm{lbs} ., \$ 7.00$.

## LAND PLASTER (Gypsum)

Used for top dressing newly plowed land prior to harrowing, also for mixing with Powdered Insecticides. Used on manure piles will prevent ammonia from vaporizing. 5 lbs., 25 c ; 10 lbs., 40 c ; 25 lbs ., 90 c ; $100 \mathrm{lbs} ., \$ 2.00$.

## MOSS, PEAT AND POTTING SOIL

Moss, Green Sheet. For hanging baskets, etc. Per bale, 50 c ; large bundle ( 5 bales), $\$ 2.00$.
Moss, Sphagnum. For packing plants and growing orchids, etc. $1 \mathrm{lb} ., 15 \mathrm{c}$; per bale, $\$ 2.50$. Potting Soil. Peck, 35 c ; per bushel, $\$ 1.25$.

# Insecticides and Fungicides 

Liquid Insecticides and Poisons cannot be sent by mail.

THE annual loss of Fruit and Vegetables from ravages of insects and fungous diseases is not due to poor material, but is primarily caused by lack of properly identifying the insect or fungous disease affecting the crop and applying the wrong material, or applying the material after it is too late to control the insect or disease.

In general, the following Insecticides and Fungicides are made for the purpose of controlling certain insects and fungous diseases and if the users will follow directions they should obtain good results.

## $\star$ Ant Remedy (Liquid)

Useful against Ants in lawns, gardens, etc. 8-oz. can, 25 c ; 1 gallon can, $\$ 2.00$.

## $\star$ Aphine

THE Insecticide that kills plant lice of many species. This is a most effective remedy for all sap sucking insects, as the Green, Black and White Fly (the Aphis),
 Thrips, Soft Scale, and such softAphine is a concentrated liquid, mixing readily with water and is applied at various strengths as per directions on each can. $1 / 2 \mathrm{pt} ., 40 \mathrm{c} ; \mathrm{pt} ., 65 \mathrm{c} ; \mathrm{qt}$., $\$ 1.00$; gallon, $\$ 3.00$.


## $\star$ Arsenate of Lead

## (Dry Powdered)

FOR Potatoes use 2 to 3 pounds to 50 gallons of water, applying 50 gallons or more per acre. For all other purposes use 1 to $11 / 2$ pounds to 50 gallons of water, or one teaspoonful to 1 gallon of water. It is best to reduce to a thin paste by mixing with a small amount of water, before putting into spray tank. On tender foliaged Trees and Plants add about two pounds of lime to each 50 gallons spray liquid, 1/2-lb. pkg., 25c; 1 lb. pkg., 45c; 4 lb. pkg., $\$ 1.50$; 12 lb . pkg., $\$ 4.25$.

## *"Black Leaf 40"

HOR Aphis indoors use $3 / 4$ pint "BLACK LEAF 40" to 100 gallons of water or 1 teaspoonful to 1 gallon of water, with sufficient soap in water to make a good suds. For outside use apply solution double strength. Several formulas for destroying other sucking insects on each package. This is also a contact remedy. $1-\mathrm{oz}$. bottle, 35 c ; $1 / 2-\mathrm{lb}$. tin, $\$ 1.25$; 2-lb. tin, $\$ 3.50$; 10-lb. tin, $\$ 13.50$.


## $\star$ Bordo Lead Powder



COMBINED Insecticide and Fungicide Kills bugs and prevents Biight, Rot, Mildew and Fungus, in one spray ing operation. Can be used for wet spraying or dry dusting. Can be used for Fruits, Vegetables or Flowers. 1 lb. makes about 7 gallons-ready to apply. $1 / 2 \mathrm{lb} ., 25 \mathrm{c} ; 1 \mathrm{lb} ., 45 \mathrm{c}$; 4 lbs., $\$ 1.50$; $12 \mathrm{lbs} ., \$ 4.25$.

## * Bordo Mixture (Dry Powder)

MANUFACTURED by a new process and will not dry out or deteriorate. Quantity to be used not over one-third the amount used in Bordo Paste Mixture. Mix with the required amount enough water to make a thin paste before putting into the spray tank.

Do not use on Peach, Japanese Plum or other tender foliaged plants, unless diluted to one-half strength. $1 / 2-1 \mathrm{~b}$. pkg., 20 c ; 1-lb. pkg., 35c; 4-lb. pkg., $\$ 1.20$; 12-lb. pkg., $\$ 3.00$.

## Bug Death

ESPECIALLY valuable for Cucumbers, Egg Plants, Melons, Rose Bushes, Currants and Potatoes. It drives ants from lawns, and will not injure the grass. Apply with powder bellows and dust Bug Death evenly over the plant. The best time for applying is early in the morning while the plant is wet with dew, as the powder will adhere more readily. Bug Death will not injure any Plant, Tree, or Vine. $1 \mathrm{lb} ., 20 \mathrm{c} ; 3 \mathrm{lbs} ., 40 \mathrm{c} ; 5 \mathrm{lbs} ., 60 \mathrm{c} ; 121 / 2 \mathrm{lbs} ., 1.40$.

## Bug Death Alpha

For sucking insects, Lice, Aphis, Flea Beetles and Fungus; also Currant Worms, Rose or Tree Aphis, etc.

12 oz. pkg., 25c; 10 lbs., $\$ 1.50$.

## $\star$ Calcium Arsenate (Dry Powdered)

In all garden operations this remedy offers protection against the Bean Beetle, Potato Beetle, Cabbage and Tobacco Worms and other leaf-eating insects. Can also be used effectively in combination with Sulfocide. Use 1 part of Calcium Arsenate to 9 parts of Hydrated lime for Bean Beetle. $1 / 2-\mathrm{lb}$. pkg., $20 \mathrm{c} ; 1 \mathrm{lb} ., 35 \mathrm{c} ; 4 \mathrm{lbs} ., \$ 1.25$; 12 lbs., $\$ 2.75$.

## $\star$ Cut Worm Killer

HOR use as Poisonous Bait Against Cut Worms and Slugs by placing around plants subject to attack. It has an enticing odor that worms prefer to vegetation.
NOTE: One pound is sufficient for 100 plants in hills or 75 in rows.

Packed in substantial packages and sift proof printed boxes...................................... 1 lb., 50 c ; 5 lbs., $\$ 2.00$.

## $\star$ GYANOGAS (calcium cyanide) (FOR GREENHOUSE FUMIGATION)

ALL fumigation should be started by using one-quarter ounce of Calcium Cyanide for each 1,000 cubic feet of space, the correct dosage for a tight house, "This dosage should kill 100 per cent of aphis ("black fly," "green fly," etc.) such as rose aphis and chrysanthemum aphis; 100 per cent of the adult and larvae of the white fly; all exposed thrips, and the younger stages of the soft scale.

Fumigation is started at dark by simply scattering the Calcium Cyanide evenly on the walks, after which the house is closed for the night. The material is scattered evenly from end to end of the house on several of the walks, it being unnecessary to treat every walk.

If it is inconvenient to weigh out the Calcium Cyanide it may be measured with sufficient accuracy on the basis of one-half ounce for the average level tablespoonful.

By the following morning the gas will have practically disappeared; hence it is not necessary to open the ventilators and air out the house.

Fumigating Greenhouses with Calcium Cyanide, will effect a saving to most growers of more than 75 per cent over the cost of present methods of fumigation.

Cyanogas Calcium Cyanide is also effective for the control of Ants, Moles and Rats. Write for booklet. Per lb., 60 c ; 5 lbs., $\$ 2.50$; 25 lbs., $\$ 8.50$.

## Fish Oil Soap

HOR destroying scale insects on Plants, Trees, Vines, etc. for washing down the bark of Trees, Grape Vines, etc. Dissolve one pound in one gallon of hot water, then add 9 to 10 gallons of cold water; for trunks and branches of trees use a thicker solution and apply with a brush. This is also a contact remedy. $1 \mathrm{lb} ., 35 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 1.50$; 25 lbs. in bulk, $\$ 5.00$.

## $\star$ Hellebore Powder

HOR destruction of Slugs, Worms, Caterpillars, etc. Apply with powder bellows and dust evenly over plants early in the morning while plants are wet with dew. $1 / 2 \mathrm{lb} ., 30 \mathrm{c} ; 1 \mathrm{lb} ., 50 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 2.25$.

## $\star$ Zenke's Plant Insecticide

TS a contact remedy (Liquid). Very effective against Plant Lice, Black and White Fly, Mealy Bugs, Scale Insects, Eggs and Larva. A very effective wash for Palms and Rubber Plants. (One gallon is sufficient to make 20 to 35 gallons of solution.)

## *Zenke’s Liquid Fungicide

APOWERFUL, reliable remedy for Leaf Spot, Leaf Rust, Scab, Mildew, Black and Brown Rot and most other Fungoid troubles. Per gallon $\$ 3.00$.
(Sufficient to make 50 gallons of solution.)

# INSEGTICIDES AND FUNGICIDES-Continued 



## Grape Dust

ANON-POISONOUS powder, usually effectual for the remedy and control of most powdery mildews on Grapes, Gooseberries, Roses, etc. Apply with powder bellows and dust evenly over plants.
$1 \mathrm{lb} ., 25 \mathrm{c}$; $5 \mathrm{lbs} ., \$ 1.00 ; 10 \mathrm{lbs}$. $\$ 1.90$.

## $\star$ Lime-Sulphur Solution

FOR fall, winter and early spring spray. Destroys San Jose Scale, Peach Leaf Curl, Bud Moth, Apple Aphis, Blister Mite, any Scale Insects or Bark Lice. 1 gallon will make 8 gallons spraying liquid. $1 \mathrm{qt.}, \mathrm{50c}$; $1 / 2$ gal. 7 Ec; 1 gal., $\$ 1.00$; 5 gals., $\$ 4.00 ; 1 / 2 \mathrm{bbl}$. (30 gals.), $\$ 10.00$ 1 bbl. (50 gals.), \$15.00.

## Dry Lime-Sulphur

From 10 to 12 pounds of Dry Powdered Lime-Sulphur should be used with 50 gallons of water, for a dormant spray.

From 2 to 3 pounds to 50 gallons of water in combination with $11 / 2$ pounds of Dry Powdered Arsenate of Lead should be used for summer spraying on all seed fruits such as Apples, Pears and Quinces, and half this strength on all stone fruits. $1-\mathrm{lb}$. can 35c; 5-lb. can, \$1.50; 10-1b. can, $\$ 2.75$; 25-lb. can, $\$ 5.00$.

## Melrosine

The One Universal Contact Remedy for Rose Bugs, Aphis (Plant Lice of all kinds), Black Flies, Green Flies, Soft Scale Insects, Leaf Hoppers, Saw Flies, Japanese Beetles, Thrips, Red Spiders, Aster Bugs, Mealy Bugs, etc. Dilute with from 20 to 25 parts water. Trial size, 50 c ; (by mail 60 c ) ; pt., $\$ 1.00$; qt., $\$ 1.75$.

## $\star$ Magnesium Arsenate

For Control of the Mexican Bean Beetle
From the start of the Mexican Bean Beetle in 1920 the National as well as the State Etymologists have worked with different sprays for control with various results. For the last four seasons Magnesium Arsenate has given the best results because it does not burn foliage.

## DIRECTIONS FOR APPLYING

Direct the dust to the under sides of the leaves, with a Powder Duster, since the bean beetle feeds there. Cover the plant thoroughly, using 12 to 15 pounds per acre, depending on size of plants and degree of infestation.
$1 \mathrm{lb} ., 40 \mathrm{c} ; 4 \mathrm{lbs} ., \$ 1.50$; $12 \mathrm{lbs} ., \$ 4.00$.

## $\star$ Nico-Fume Liquid

FOR destroying Aphis, Thrip and Red Spider. Contains 40 per cent nicotine.
Use one to two teaspoonfuls of Liquid to each gallon of water.

This is a contact remedy. $1 / 4 \mathrm{lb} ., 75 \mathrm{c} ; 1 \mathrm{lb} ., \$ 2.25 ; 4 \mathrm{lbs}$. $\$ 8.00$; 8 lbs., $\$ 15.00$.

## $\star$ Nico-Fume <br> Tobacco Powder

## For fumigating greenhouses.

F
OR Florists and growers
 who prefer a high-strength especially prepared, tobacco powder fumigant, to destroy Aphis, Thrips, etc., we hereby offer "NicoFume" Powder-which may confidently be relied upon as being worthy to bear the name of "Nico-Fume." 1-1b. $\operatorname{tin}, \$ 1.25 ; 5-\mathrm{lb} . \operatorname{tin}, \$ 4.75 ; 10-\mathrm{lb}$. tin, $\$ 8.50$.

## $\star$ Paris Green

APOISONOUS Insecticide in powder form for insects that chew. Largely used on Potatoes and Tobacco. Can be used as a spray, or dry and applied with Dry Powder Dusters

When used as a spray, dilute one pound Paris Green in 150 to 300 gallons of water. When used on Fruit Trees add two pounds lime. $1 / 4-\mathrm{lb} ., 20 \mathrm{c}$; $1 / 2-\mathrm{lb} ., 30 \mathrm{c} ; 1 \mathrm{lb} ., 50 \mathrm{c}$.

## PARADOW (Para-Dichlor-Benzene)

## Kills the Peach Tree Borer

Time of Application: The best time to apply is in the fall of the year after all the eggs have hatched. In case a fall application has not been made, a spring treatment is desirable. One annual treatment in the fall, if properly made, will give a high degree of protection. Apply about September 1st for Michigan, Ohio, Connecticut and New York; about September 10th for New Jersey, West Virginia, Maryland, Illinois and Indiana; about September 25th for North Carolina and the Ozarks; about October 10th for Georgia and Texas.

Full directions on each package. Must not be used on young trees. Ask for descriptive circular.

Prices; $1 \mathrm{lb} ., 60 \mathrm{c} ; 5 \mathrm{lbs} ., \$ 2.50 ; 10 \mathrm{lbs} ., \$ 4.25$.

## $\star$ Pyrox

Pyrox is a dependable all-around spray for use on vegetables and fruits. It combines a strong poison for controlling leaf-eating insects and a powerful fungicide for the control of plant diseases such as potato blight, rots, and rusts. It has filled the need for a reliable material for general purpose spraying for twenty-five years-it has stood the test of time and practical field experience.

Pyrox is packed in convenient sizes and is all ready for use by mixing with cold water. $1 \mathrm{lb} . j a r, 50 \mathrm{c} ; 5 \mathrm{lb}$. drum, \$2.00; 10 lb . drum, $\$ 3.50$.


## Slug Shot

WERY effectual in destroying Caterpillars, Currant, Gooseberry and Cabbage Worms, Mexican Bean Beetle, Potato, Melon, Squash and Cucumber Bugs, Rose Slugs, etc.

When used on Melon, Squash and Cucumber Vines should be put on lightly. 1 lb. carton, 25c; 5 lbs., 75c; 10 lbs., $\$ 1.35$.

## $\star$ Sulfocide

THIS is a powerful Fungicide for many fungous diseases of Apples, Pears, Quinces, Peaches, Plums, Cherries, Grapes and small fruits.
Is also very effective for Blight on Potatoes, Beans, Melons and other vegetables; in fact, anywhere a strong

## SUIFOCIDE

 fungicidal spray is needed.SULFOCIDE does not deteriorate with age, contains no lime or oil and is non-poisonous.

A few minutes after being sprayed it decomposes, leaving a coating of sulphur so fine as to be almost invisible except where drops accumulate.

Dilute at the rate of 1 gallon in 200 gallons of water; this is equivalent to 1 quart in 50 gallons of water, 1 cupful ( 8 oz .) in 12 gallons of water, 2 oz . in 3 gallons of water, 1 tablespoonful in 3 quarts of water. When a stronger solution is desirable dilute at the rate of 1 gallon to 150 gallons of water.

When Sulfocide is used alone or in a combination with nicotine or Cal-arsenate, it is advisable to mix a casein spreader in the water first: soap may be used in place of the casein spreader when Sulfocide is used alone or with nicotine only. When desirable, Scalecide may be combined with dilute Sulfocide, but no spreader is needed.

## If Used With Arsenate of Lead

If used with Arsenate of Lead or in a spray ${ }^{-}$tank that may contain arsenical residue, a good casein spreader may be mixed in the spray tank first-Sulfocide last. Never combine with an Arsenate of Lead containing a self spreader.

For Peaches, Plums, Apricots and Stone Fruits
When the buds are ready to open and just show color use "Sulfocide", 1 quart to 50 gallons of water.

1 pt., 70c; 1 qt., $\$ 1.00 ; 1$ gallon, $\$ 2.75$.

## Sulphur, Powdered

USED principally to prevent and cure mildew on Roses and Plants in greenhouses. $1 \mathrm{lb} ., 15 \mathrm{c}$; $2 \mathrm{lbs} ., 25 \mathrm{c}$; 5 lbs., $60 \mathrm{c} ; 10 \mathrm{lbs}$., $\$ 1.00$.

## INSECTICIDES AND *Scalecide

Controls Scale. If your trees are infested with scale give them a Scalecide spray in the fall. Scalecide does a thorough job by creeping under the protective scales and into cracks and crevices of the rough bark.

Scalecide also controls Pear Psylla, Leaf-Curl, Fire Blight, Case Bearer, Bud Moth and Makes Trees Vigorous and Productive, because it Spreads into Cracks and Crevices.

The Oldest Commercial Dormant Spray. Scalecide has been in use since 1904. It antedates commercial limesulfur and all other commercial dormant sprays. Almost a quarter century of successful use is convincing evidence that Scalecide offers real value to the fruit grower.

1 qt., 75 c ; 1 gallon, $\$ 1.75$; 5 gallons, $\$ 6.25$; 10 gallons, $\$ 10.60$; 15 gallons, $\$ 14.00$.

## *Garden Guard

## INSECTICIDE AND FUNGICIDE



T
HIS product is effective against many of the chewing insects that prey upon house and garden plants, shrubs, vines, melons, tomatoes, cabbages, currants, vegetables and flowers. It is, in addition, less harmful to vegetation than many other forms of insecticides. The Bordeaux Misture found in Garden Guard acts, in a measure, as a fungicide.

## Directions:

Apply Garden Guard on the plants late in the evening or early in the morning while the dew is on.

Use liberally when pests, against which this product is effective, first appear.

Use as a dust. Do not mix with water. 1 lb. can, 25c; 5 lb. pkg., $\$ 1.00$.

## $\star$ Flit

Destroys Flies, Mosquitoes, Moths, Ants, Bed Bugs, Roaches-Other Insects and Their Eggs.
No longer need you tolerate a single insect in your home.
Flit clears the house in a few minutes of mosquitoes and disease-bearing flies.

Flit spray penetrates cracks and crevices where bed bugs and roaches breed, destroying the insects, their eggs and larvae.
Flit, sprayed on garments destroys moths, their eggs and the tiny worms called larvae that eat holes.
Spray Flit freely about the room, keeping doors and windows closed. After five or ten minutes flies will be found dead on the floor. All odor will found dead on the floor. All odor

Spray Flit liberally on standing water, drains, etc., to kill mosquito larvae.
$1 / 2$-pt., $50 \mathrm{c} ; 1$ pt., 75 c ; 1 qt., $\$ 1.25$; 1 gallon, $\$ 4.00$.

$\star$ Weed Killer, Key Brand

AHIGHLY concentrated solution which dilutes one part to 50 parts of water. It is effective within 12 hours after application and one application will keep paths and roadways free from weeds for an entire season.

1 qt., 65c; 1 gal., $\$ 1.75 ; 5$ gals., $\$ 7.50$.

## Volck

AMONG the many pests growers have to contend with are red spiders,mites, aphis (green fly), thrips, mealy bugs, scales, white flies, caterpillars, leaf rollers. Most every grower has experienced difficulty in the control of one or more of these pests. All of them are of these pests.
safely and effectively of them are with Volck. Rose mildew can be prevented and stopped by Volck. $1 / 2 \mathrm{pt}$ can, $\mathbf{5 0 c}$; 1 pt. can, 75 c ; 1 qt., $\$ 1.00$; 1 gal., $\$ 3.00$.
Full directions on each can.

## F U N G I C I D E S-Continued

## $\star$ Thrip Juice

## (Hammond's)

FFFECTIVE against Thrips and Black Fly, Aphis, Red Spider, White Fly, Soft Scale, Mealy Bugs and certain other insects of this class on Roses, Chrysanthemums, Carnations, Grapes, Cherry and Apple Trees. This is a contact Insecticide concentrated. Diluted for use, 1 part of Thrip
 Juice with 40 parts of water.

1 pt., 75c; 1 qt., \$1.25; 1 gallon, \$3.75.

## Tobacco Dust

ASURE remedy for Green Fly, Aphis, Fleas, Beetles, etc. $1 \mathrm{lb} ., 10 \mathrm{c}: 4 \mathrm{lbs} ., 25 \mathrm{c}$; 10 lbs., $50 \mathrm{c}: 100 \mathrm{lbs} ., \$ 4.00$. TOBACCO DUST FOR FUMIGATING. $1 \mathrm{lb} ., 15 \mathrm{c}$; 3 lbs., 40 c ; $10 \mathrm{lbs} ., 90 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 2.00$; 100 lbs., $\$ 6.00$.

## Tobacco Stems

USED for fumigating plants to kill insects, and as a mulch for Roses, Asters, Lettuce, etc. 1 lb., 5 c ; bale of about $125 \mathrm{lbs} ., \$ 2.00$.

## $\star$ Uspulun

USPULUN is the one well established organic mercury disinfectant for agricultural application. There are over 600 papers in the scientific literature of the world reporting highly favorable results. Uspulun is superior as a seed disinfectant for the treatment of all seed-borne diseases of plants. It is particularly applicable to the following important major purposes:

Corn Seed Treatment. For the control of seedling blight and ear rot diseases.

Wheat and Barley Seed Treatment. For the control of both closed and loose smut, and Barley stripe disease, and other seed-borne diseases.

Damping-Off Control. In propagating beds for both seedlings and cuttings. in greenhouses and out-of-door beds. Brown-Patch Disease of lawns and golf greens.
For all of these purposes Uspulun is applied in the proportion of 1 to 400 . At this rate, 1 oz . of material will make 3 gallons of solution, and 1 lb . a 50 gallon barrel.

Price List: $2-\mathrm{oz}$. tin, 50 c ; $1 / 2-\mathrm{lb}$. tin, $\$ 1.60$; 1 lb . tin, $\$ 2.75 ; 5 \mathrm{lb}$. tin, $\$ 13.00$.

## $\star$ Bayer Dust

Its composition is the same as Uspulun, and is to be used for the same purpose, but being in powder form is preferred by some planters.

1 lb . tins, $\$ 1.25 ; 5 \mathrm{lb}$. tins, $\$ 5.50$; 25 lb . tins, $\$ 25.00$.

## $\star$ Vermine

T
HIS is a soil sterilizer and vermicide which will destroy many of the insects and other vermin working in the soil at the roots of plants.
For potted plants, which are frequently infested with Angle and Eel Worms when confined in the house, a thorough drenching of the soil with Vermine will destroy the worms. $1 / 2$ pt., 40 c ; 1 pt., $65 \mathrm{c} ; 1$ qt., $\$ 1.00 ; 1$ gallon, $\$ 3.00$.

## Tree Tanglefoot

FOR protecting trees against climbing insect pests in a simple, economical and effective way; put a band of Tree Tanglefoot, from 3 to 5 inches wide completely around the tree. A perfect safe-guard against Gypsy, Brown-tail and Tussock Moth, Canker Worms and Ants, and other creeping insects. 1 lb., 60c; 5 lbs., $\$ 2.75$; 10 lbs., $\$ 5.25$; 25 lbs., $\$ 11.00$.

## Non-Poisonous Weed Killer

$\mathbf{S}^{1}$IMPLY dilute with twenty parts of water and apply to pernicious vegetation with a sprinkling can.

Will exterminate all undeirable vegetation including poison ivy-as easily as watering a garden, without endangerng human or animal life. One densely vegetated area. 1 qt. can, $75 \mathrm{c} ; 1$ gal. can, $\$ 2.00$; 5 gal. drum, $\$ 8.00$.

# Jlow and 2 hen to Sprap 



CPRAYING is of such importance that the Experiment Stations all over this country have given much of their attention to it, and their findings have been of incalculable value. Diseases and insects can no longer exist if the proper Insecticide is applied through the medium of an up-to-date spray apparatus.


## Paragon Sprayers

THESE Sprayers are strongly constructed and can be easily operated by one man. They can be brought in close proximity to the work, thereby eliminating the use of a long, expensive hose. Our patented, self-cleaning strainer prevents the necessity of first straining the liquid to be sprayed. The agitator also keeps the liquid thoroughly stirred.

The spray nozzle has only $\frac{1}{32}$ inch outlet and spreads the liquid well, thereby covering a large surface with a small amount of liquid, making it a very economical sprayer. All parts of the machine are made of the best material obtainable.

The reservoir is made of heavy galvanized iron. All essential fittings and valves are made of brass, making it strong and durable. The body of pump is cast iron, well ribbed to prevent breakage. The screen is of heavy perforated brass and will last many years. The pump frame can easily be removed from tank when it needs cleaning and by running water through machine after using, the entire machinery can be easily and thoroughly cleaned.
Suitable for spraying Insecticides and Fungicides on trees, shrubs and vines, as well as the application of Whitewash and Cold Water Paints.


## Price List of Paragon Sprayers

No. 0. Capacity, $31 / 2$ gallons. Equipment, 4 feet spray hose, 3 feet spray pipe, 1 mist spray nozzle, 1 steel cap for mist nozzle, 1 straight spray. Price. . . . $\$ 12.50$
No. 1. Capacity, 6 gallons. Equipment, 5 feet 6-ply hose, 5 feet spray pipe, two spray nozzles. Price. . . . . $\$ 17.50$
No. 2. Same capacity and equipment as No. 1, but mounted on strong steel truck which can easily be wheeled to any desired place. Truck is easily detached when desired. Price. . . . . . . . . . . . . . . . . . . . . . . $\$ 22.50$
No. 3. Capacity, 12 gallons. Equipment, 10 feet 6-ply hose, $71 / 2$ feet spray pipe, two spray nozzles. Mounted on strong steel truck and can easily be wheeled to any desired place. Truck is easily detached when desired. Price. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 25.00$ No. 3. Machine without truck. Price............... . . . $\$ 21.50$

No. 4. Capacity, 28 gallons. Equipment, 20 feet 6-ply hose, 10 feet spray pipe, two spray nozzles. Mounted on two strong 30-inch wheels. Price. . . . . . . . . $\$ 39.50$ No. 4. Machine without wheels. Price. . . . . . . . . . $\$ 29.50$
No. 5. Capacity, 50 gallons. Equipment, 25 feet 6-ply hose, 10 feet spray pipe, one 3 -way spray nozzle, one single spray nozzle. This sprayer has solid cast brass pump and large air chamber. It is positively the very best hand power sprayer made for tree spraying. Price................................................... $\$ 45.00$
Nos. 1 and 3 Sprayers can be furnished with solid all cast brass pumps for-additional. . . . . . . . . . . . . . . . $\$ 5.00$
No. 4 Sprayer can be furnished with solid all cast brass pump for-additional . .............................. $\$ 6.00$ Send for descriptive circular giving detailed information.

Bamboo Brass Lined Spray Poles
12 -foot lengths.
10 -foot lengths.

## Paragon Bucket Spray Pump

INN DEVELOPING the Paragon Bucket Spray Pump, it has been the aim to produce an efficient spray pump at the lowest possible cost at the same time to incorporate in this pump the features that have built up the wonderful reputation of Paragon Sprayers.

The non-clogging feature of this spray pump is guaranteed by the combination of the circular strainer which contains SIXTEEN square inches and the all metal agitator which automatically cleans the strainer at each stroke of the pump and keeps the solution thoroughly stirred.


PARAGON BUCKET SPRAY PUMP

The adjustable clamp makes it possible to attach this spray pump to any pail or like container, holding the spray pump in a rigid upright position.

The circular strainer, the all metal agitator and the adjustable clamp are exclusive features found only in the Paragon.

The spray hose is of high quality five ply. Three nozzles are furnished with each spray pump, one brass mist spray, one brass straight spray and one steel spray tip for whitewash, water, paint, etc. Each pump is rigidly inspected and tested and is covered by guarantee. Price. . . . . . . . . . . . . . . . . . . . . . . . . $\$ 7.00$

HVERY owner of a garden should keep on hand the proper size of Spray Pump as well as a supply of spraying material for immediate use when needed.

We carry a large line of various equipments and remedies all described in this catalog.

We are prepared to quote special prices on Insecticides in large quantities.

Paragon Sprayers Do Not Clog.


## SPRAY PUMPS AND HAND SPRAYERS-Continued



MYER'S SPRAY PUMPS
Myer's Lever Bucket Brass Spray Pump. Complete with hose and graduating Vermorel fine, coarse spray and solid stream nozzle..................... $\$ 6.00$ Myer's Defiance Brass Spray Pump. Complete with hose and graduating Vermorel fine, coarse spray and solid stream nozzle . . . . . . . . . . . . . . . . . . . $\$ 5.00$
Myer's Little Giant Brass Spray Pump. Complete with hose and imperial combination, fine, coarse spray and solid stream nozzle, ..................... . $\$ 4.00$
Four-foot Pipe Extension................60c
Bordeaux Nozzle............... . . . . $\$ 1.00$

## Graduating Vermorel Nozzle

.90 c

## HUDSON PERFECTION COMPRESSED AIR SPRAYER

It is just the thing for general work around the house, in gardens and small farms. Used for potato spraying, whitewashing, spraying disinfectants, cold water paints, etc. Seams are all riveted and soldered, giving the great strength necessary for the high pressure it develops, and which is necessary for good results.

Pump. $13 / 4$ inches diameter, 15 inches long seamless brass tubing. The plunger is
 equipped with Hudson special plunger leathers. The valve is brass.

Tank. $71 / 2$ inches diameter, 20 inches long, capacity 4 gallons. Made of first quality galvanized sheets or all brass as ordered.

Package. One in a heavy carton; shipping weight ten pounds
No. 110 G. Galvanized Steel Tank, 4 Gallons $\$ 6.50$. No. 110B. Brass Tank, 4 Gallons $\$ 9.50$

## Auto Compressed Air Sprayer

Can be suspended from the shoulder, allowing the free use of the arms. A few strokes of plunger in air chamber will compress enough air to discharge the entire contents. A practical machine for potatoes, tobacco, small fruits. vineyards, poultry houses, green houses, etc. Extension pipe for spraying trees.
Auto Spray No. 9-B. Brass tank, capacity, $31 / 2$ gals. with Auto-Pop
Nozzle . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 9.50$ Auto Spray No. 9-D. Galvanized tank, capacity, $31 / 2$ gals. with Auto-

Pop Nozzle.


JIM DANDY SPRAYER
Adapted for spraying Garden and Farm Vegetables of every description; Shrubberv, Grape Vines, Currant Bushes, Fruit Trees, etc. Will spray rapidly, Disinfectants in Schools, Public Buildings, Poultry Houses and Stables; Fly Spray on cattle; Whitewash, Carbola, etc. Capacity two quarts; Galvanized tank............... $\$ \mathbf{3 . 5 0}$

## HUDSON CHEMICAL SPRAYER

Can not be used with any solution in which there is any sediment.
No. 160G. Chemical Sprayer one and one-half gallon galvanized tank, steel pump. Price............ $\$ 4.25$

## Hudson Perfection Junior

 Compressed Air SprayerTank, $61 / 2$ inches diameter, 17 inches long, capacity about $21 / 2$ gallons. Made of first quality galvanized sheets. Tested under actual working conditions at the factory No. 140-G. Galvanized Tank. Price, each..... $\$ 5.00$ No. 140-B. Brass Tank. . . . . . . . . . . . . . . . . . . . . . . $\$ 7.00$

## ROBERTSON COMPRESSED AIR SPRAYER

They give a continuous spray. By means of the universal nozzle the spray can be thrown on the under side of the leaves of plants and shrubs, the under side of beds and other furniture, into corners, behind doors, on top of mouldings, window casings, behind steam pipes, and other difficult places. Capacity, one quart. Tin Pump with Tin Reservoir, each 90 c ; Tin Pump with Galvanized Reservoir, each, $\$ 1.15$; Brass Pump with Brass Reservoir, each, \$1.65.

## ATOMIZERS, <br> BELLOWS

ACME CYCLONE ATOMIZER. Well made of heavy, bright tin plate. Tank 4 by 5 inches, air chamber $14 \frac{1}{5}$ inches long, $13 / 4$ inches in diameter. Capacity, 5 pints. Price, each....................................... 50 c ACME GLASS TANR ATOMIZER. Tank, standard quart Mason jar, air chamber $13 / 4$ inches in diameter, $181 / 2$ inches long. Plunger rod copper bessemer of our own special type which will not corrode or rust. If jar is accidentally broken can be replaced at once with a Mason Fruit Jar. Price, each......................... 75 c
ACME FOG ATOMIZER. Strong, durable and satisfactory. Price, each................................... . . 50 c
MIDGET ATOMIZER. A small compact, substantial and very efficient Tin Sprayer. Price, each.........35c

## Savage Dry Powder Duster



The Savage is free running and easy cranking, has no brushes or wipers. Bronze and steel gears packed in grease, sealed in gear case, never require any attention. Fan shaft runs on ball bearings. Large opening for easily filling with poison.

The nozzle tube may be raised up or down for spraying short or tall plants, or trees. Does not discharge poison in "chunks" or "gobs" but thoroughly breaks it up and dusts evenly. Feed lever adjusted from 1 to 20 pounds per acre, which is a wonderful improvement over any duster made.

These Dusters are used extensively for tobacco, vegetables, grapes, melons, celery, citrous fruits, golf courses, etc. All kinds of powdered insecticides may be used with the greatest economy. Price........................... $\$ 18.00$

## WOODASON'S POWDER BELLOWS

Single cone, small, $\$ 2.50$; single cone, large, $\$ 3.75$. ACME POWDER BELLOWS. It requires no base of supplies; all you need carry is a can of dry Insecticide and bellows. Without stooping-the elbow does it -it applies any powdered poison on any plant in any desired quantity. The elbow may be detached, if desired. We also furnish a spreader for distributing the blast. Price, each.
 plants from seed.

## Paper Plant Bands and Pots <br> Packed 250 to a box

Saves time and labor to anyone growing their own



## Neponset Waterproof Paper Flower Pots

## Lower In Cost Than Earthen Pots and Unbreakable.

For over twenty years florists, nurserymen and market gardeners have used the NEPONSET Flower Pot with entire satisfaction. The pot eliminates the troubles and loss caused to shippers of plants and nursery stock in clay pots. For transplanting and shipping potted plants, and for rooting or shipping Strawberry, Tomato and Cabbage plants, NEPONSET Waterproof Pots are almost ideal.

| Size | Dozen | Per 100 | Per 1000 | Size | Dozen | Per 100 | Per 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $21 / 4$ inch. | \$0.10 | \$0.60 | \$ 5.00 | $31 / 2 \mathrm{inch}$ | \$0.20 | \$1.15 | \$10.00 |
| $21 / 2 "$ | . 10 | . 70 | 6.00 | 4 " | . 25 | 1.40 | 12.50 |
| 3 " | . 15 | . 85 | 7.50 | 5 | . 30 | 2.00 | 17.50 |

# IVorticultural Tools and Sundries 

BASKETS, WIRE HANGING. 8-inch, 20c; 10-inch, 25c; 12-inch, 35c; 14-inch, 40c; 16-inch, 50c; 18-inch, 65c; 20-inch, 80 c
BELLOWS, ACME. Well made, with a solid hard wood head block, hard wood handles, best leather for the bellows, and extra elbow is furnished to tilt the funnel for getting under the leaves of plants and shrubs. Each.
BELLOWS, WOODASON'S. Single cone, small.... $\$ 2.50$ Single cone, large . . . . 3.75
BLUE GRASS STRIPPER. Each. 2.00

CULTIVATOR, NORCROSS. Hand Garden. The Prongs are square spring steel bent corner-wise with forged shovels at the ends. The Socket Frame and Clamping Bar are made of toughest malleable. Handle, best grade of White Ash. 5 Prong, 4 ft., each.......... $\$ 1.25$


CANES. Six to nine feet long, for plant stakes. Per 100.
$\$ 2.00$
CANES. Four to six feet long, per 100. . . . . . . . . . $\$ 1.75$
CANES. Japanese, green dyed, 3 feet long, per 100.. \$1.50
DANDELION DIGGER. Made from steel............25c
DANDELION KNIFE, with long handle............. $\$ 1.00$
DIBBLE. Iron, with wood handle; for transplanting plants. Price........................................... 75 c
EDGING KNIFE. For cutting edges of walks and beds. Price...
\$1.25
FORKS, DIGGING OR SPADING...... $\$ 1.75$ to $\$ 2.00$ FORKS, HAND-WEEDING.

Small size, 25c; large size, 50c
FRUIT PICKER. Made of galvanized steel wire; attaches to pole of any length. Price, without pole. . . . . . . . .75c
GARDEN LINE. Per ball of about 150 feet. . . . . . . . . $\$ 1.00$
GARDEN LINE REEL. Iron. . . . . . . . . . . . . . . . . . . . $\$ 1.50$
GLASS CLOTH. A substitute for glass; per yard, 40c; 10 yards, $\$ 3.50 ; 100$ yards, $\$ 32.00$.
GLASS CUTTER, CRESCENT. The best cheap cutter on the market. For all around usefulness we prefer it to a diamond. Each, 20c; per dozen. . . . . . . . . . . . $\$ 2.00$
GLASS REPAIR CLAIMP, PEERLESS. For Greenhouse roof. Box of 100 Clamps. . . . . . . . . . . . . . . . . . . . $\$ 1.20$
GLAZING POINTS, PEERLESS. Will stop your glass from sliding. Made of galvanized steel wire. No rights or lefts. Can be used on either side.
No. 1. For small single-thick glass. Per 1,000.......75c
No. 2. For large single-thick glass. Per 1,000.......75c
No. $21 / 2$. For double-thick glass. Per 1,000.......75c
GLAZING POINTS, ZINC CITY. Are positively the best; last forever; a sure preventive of glass slipping. Effective on large or small glass; easy to drive, easy to extract. Per lb.............................................. 60 c


GRASS HOOKS. American.....50c GRASS HOOKS. English, riveted back; No. 2. . . . . . . . . . . . . . . 85 c
GRASS HOOKS. English, riveted back; No. 3. . . . . . . . . . . . . . $\$ 1.00$
GRASS HOOKS. With long
handle....... . . . . . . . . . . . . $\$ 1.50$
GRASS SHEARS. American.
$50 \mathrm{c}, \mathbf{7 5} \mathrm{c}$, and $\$ 1.00$
GRASS SHEARS. Imported.. $\$ 1.75$
GRASS SHEARS. With long handle.
$\$ 2.00$

## Improved Grass Shear



HEDGE SHEARS. American, 6-in., \$1.75; 8-in., \$2.25; 9-in., \$2.50.
HEDGE SHEARS. English, 8-in., \$3.00; 9-in., \$3.25
HEDGE
TRIMMER THE
SIMPLICITY It has 19 big, safe, keen teeth, cutting cleanly both when opening when opening
a $n d$ closing Is the on ly trimmer successfully demonstrated and proved to be a wonderful a d vancement a d vancement style hedge shear.
Price. . . . $\$ 4.00$


SIMPLICITY HEDGE PRUNER AND TRIMMER
With this tool you can actually do as much work in one hour as you formerly did in four hours with the oldstyle pruner or lopping shears. It has 31 big, safe, keen fluted teeth, cutting cleanly both when opening and closing. Price.
HOES, STANDARD SOCKET GARDEN............ $\$ 1.00$
HOES, ONION. One end square; opposite end one prong . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50 c HOES, ONION. One end square; opposite end two prongs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 60 HOES, GRUBBING. With handle................... $\$ 1.00$ HOES, SANDUSKY................................... $\$ 1.00$ HOES, ENGLISH SCUFFLE OR PUSH. Without handle...... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.25$ HOES, AMERICAN SCUFFLE. 8-inch with handle. . $\$ 1.25$ HOSE, RUBBER. (See Lawn Requisites.)
KNIVES, PRUNING.
G. . . . . . . . . . . . . . . . . . . $\$ 1.25$ to $\$ 2.00$

KNIVES, BUDDING........................ 50 c to $\$ 3.00$
KNIVES, ASPARAGUS. American. 50c to $\$ 3.00$
LABELS, WOOD. For pots, painted:
Per 100 Per 1,000


LABELS. Tree, copper; No. 1, per 100
$\$ 1.50$
EELS, PYRALIN WATERPROOF.
Pot Labels, 4-inch, per 100, 40c; per 1,000, \$3.00 Tree Labels, copper wired, $31 / 2$-inch, per $100,60 \mathrm{c}$; per 1,000, \$5.00.
LAMP, DEFIANCE FUMIGATING: (For use in greenhouses.) It burns kerosene. It is made of heavy tin throughout. Each, 65c; per dozen................\$6.50
LAWN ROLLERS, LAWN MOWERS, ETC.
See pages 86 and 87.
MASTICA. For glazing greenhouses. The use of Mastica avoids the necessity of repeatedly reglazing the house saving much time and expense. One gallon will cover about 300 running feet (one side). One gallon. . $\$ 2.75$
MASTICA GLAZING MACHINE . . . . . . . . . . . . . . $\$ 2.75$
MATCH PLANT STICKS, painted green 12-inch, per $100,30 \mathrm{c}$; per $1,000, \$ 2.50$. 18-inch, per 100, 40 c ; per 1,000, \$3.00.

## Milo Hot Bed Mats

Made from heavy weight burlap, absorbent pulp and felt cemented together with a specially prepared water-proof compound.

This combination forms a covering both airtight and waterproof. Also make ideal truck covers for marketing vegetables. Size $78 \times 80$ inches. Price.... $\$ 5.00$

## HORTICULTURAL TOOLS AND SUNDRIES-Continued



MATTOCK, LONG CUTTER. With handle............. $\$ 2.00$

MATTOCK, CRONK'S GARDEN..................... . $\$ 1.00$

MOLE-TRAP, LITTLE GIANT. The best trap on the market. No mole can pass under this trap and live. . . . . . . . . . . $\$ 1.00$

OIL, LAWN MOWER. This is a handy can filled with fine oil, manufactured expressly for lawn mowers, bicycles, etc. Per can....................20c

POTATO HOOKS. 4-tine, $\$ 1.50$
PLANT BED CLOTH. A cheap substitute for glass, answering many uses equally well. Light and easily shipped; made of stout, tarred muslin that sheds water, protects against weather, etc. Medium grade, per yard...... . . . . . . . . . . . . . . 25 c Heavy grade, per yard. . . . 30 c Write for special prices on large lots.

PLANT STAKES, (wood, painted green) $3 / 8$ by $3 / 4$ inch, 6 feet long, per dozen, 75 c ; per $100, \$ 5.00$; $3 / 4$ by $3 / 4$ inch, 6 feet long, per dozen, $\$ 1.00$; per $100, \$ 7.50$

PLANT STAKES (wire rods for Roses).
4 feet long, per dozen, 75 c ; per 100.
$\$ 5.00$

## PRUNING KNIVES, TREE



Happy Thought. Will cut a limb threequarters of an inch in diameter. 6 ft . Price. . . . . . . . . . . . . . . . $\$ 2.00$ Waters. 8 ft., $\$ 1.75$; 10 ft., $\$ 2.25$; $12 \mathrm{ft} ., \$ 2.75$.
Pruning Shears. Lopping shears; 24inch handles... . . . . . . . . . . . . . . $\$ 2.75$


PRUNING SHEARS, HAND
California Pattern, 9-inch.......... . $\$ 1.00$ California Pattern, Polished, 9-inch.. 1.50 Wiss heavy, extra fine quality, 9 -in ... 3.50 Wiss, Shear Steel, 9-inch............ . 2.50 Ladies' Hand. 1.50 PUTTY, TWEMLOW'S LIQUID, GLAZING. For bedding glass in sash or for filling cracks or seams in roof joints or frames of greenhouses or hotbeds. It is applied with machine, bulb or brush. One gallon will cover about 600 running feet (one side). Gallon... . . . . . . . . . . . . . . . . . . . $\$ 3.00$
PUTTY, BLACK, PEERLESS GLAZING CEMENT. For glazing greenhouses. Durable and inexpensive. Apply with machine. Gallon, $\$ 2.00$.

PUTTY BULB. A useful tool for applying liquid putty when glazing greenhouses.......................... $\$ 1.25$

RAFFIA, NATURAL. The best tying material for plants, also used for making hats, baskets, etc. Per lb., 50c; 5 lbs., \$1.75.

## 

RAFFIA, COLORED. For making baskets and fancy work in following colors: Black, Blue, Brown, Green, Orange, Pink, Red and Yellow. $1 \mathrm{oz} ., 15 \mathrm{c} ; 1 \mathrm{lb} ., \$ 1.25$.

RAKES. See page 84 .
SAWS, PRUNING, 16-inch, $\$ 1.25$; 18-inch . . . . . . . $\$ 1.50$
SAWS, PRUNING, DISSTON SWIVEL. Swiveled in steel frame to cut in any position. . . . . . . . . . . . . . $\$ 2.50$
SASH, HOTBED, UNGLAZED. Made from strictly clear cypress lumber. White lead used on the tenons, and iron dowel pins at the corners.
No. 1. $3 \times 6 \mathrm{ft}$., three rows, 10 -inch glass. Each. . . . $\$ 3.50$
No. 2. $4 \times 6$ ft., five rows, 8 -inch glass. Each . . . . $\$ 4.50$
SCISSORS. Flower gatherer and cutter.............. $\$ 1.75$
SCISSORS. Vine or grape scissors . . . . . . . . . . . . . . . $\$ 1.25$
SCYTHES, ENGLISH LAWN. 30-inch, \$2.75; 32-inch, \$3.00; 34-inch, \$3.25.
SCYTHES SNATH, PEERLESS. Each............. $\$ 1.50$
SCYTHE STONES, TALACRE. English round.....40c


SEED SOWER, CYCLONE. For sowing wheat, oats, rye, flax, grass seed, clover seed, etc.; in fact any kind of seed, broadcast. They will save their cost almost daily in saving of seed, to say nothing about saving of time and more even distribution, which will have a great effect on the crop. Price. . $\$ 2.00$

SEED SOWER, CAHOON BROADCAST. The standard broadcast Seeder and one of the best manufactured. Sows all kinds of grain, Clover, Timothy and heavy seeds. Has a capacity of 4 to 6 acres per hour at a common walking gait and distributes seeds uniformly in about one-fifth the time required by hand. Very simple in operation and easy to adjust for quantity. Price
SEED SOWER, TIN HORN. A light, accurate Seeder which will broadcast clean seed from 30 to 40 ft . Length of the tube when extended is 30 inches. Weight only 12 ounces....... . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.00$
SHOVELS, STEEL. Square point. . . . . . . . . . . . . . . . $\$ 1.75$
SHOVELS, STEEL. Round point.................... $\$ 1.75$
SPADE, Boy's D-Handle . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.25$
SPADES. Steel polished...... . . . . . . . . . . . . . . . . . . . . . $\$ 1.75$
SPADES. Ames steel. . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 2.75$
SPADES, NURSERY. Steel, extra heavy strapped. .\$3.75


SPRINKLER, R UBBER, SCOLLAY'S. Indispensable for floral work and window gardening. Large size. . . . . . . . . . . $\$ 1.25$

THISTLE OR DOCK CUTTERS. Narrow blade, with handle for removing thistles or weeds from lawns. with foot rest. . $\$ 1.25$

THERMOMETER,Special Grade No. 5150, 8 -inch. .50c


THERMOMETERS
Medium Grade
Dairy, 10-inch glass.
Hotbed or Mushroom
Incubator. Prairie State. . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.00$
Incubator. Buckeye................................... $\$ 1.00$
Brooder. Prairie State. . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.00$
TROWELS. Maynard steel shank, $61 / 2$ inch........... 75 C
English steel, 6-inch . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 60c
Solid shank, forged steel, 6-inch. . . . . . . . . . . . . . . . . . 60c
Solid steel, 6-inch. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 40c
All steel, one piece, 6-inch. . . . . . . . . . . . . . . . . . . . . . 25 c
Ordinary, 6-inch. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10 c
TROWEL, TRANSPLANTING. 6-inch, 25 c ; 8-inch, 30c
WAX, GRAFTING. 1/4-lb., 20c; 1/2-lb., 30c; $1 \mathrm{lb} . .50 \mathrm{c}$

## HORTICULTURAL TOOLS AND SUNDRIES-Continued

Long Spout. Made from best quality of iron, and heavily galvanized. Two roses with each pot for fine and coarse watering. 6-quart 8-quart . $\$ 4.50$ ...... $\$ 5.00$

12-quart 5.50 ............... 6.00
Ladies' size 4-quart
4.25


WATERING POTS GAIVANIZED

WEEDERS.
Brown's Easy Weeder................................25c
Cleveland Lawn, with long handle for removing
weeds . . . . . . . . . .
Magic. 3 -prong, single handle. . . . . . . . . . 20c Excelsior. For weeding seed beds, stirring the ground, etc.......15c
Market Gardener's. Allows use of hands in working . . . . . . . 25 c


## DIAMOND WEEDER

The Gardener's Favorite.25c

## IDEAL HAND WEEDER

It fits the hand so comfortably that the fingers are entirely free for use whereever necessary..............25c

## Wire Folding Plant Stand

The most compact, strong, dur able Plant Stand. They pack closer than any other plant stand for shipment. The ends are made of flat steel and have porcelain castors. Can be opened or folded in a few seconds time by simply spreading
 thestand apart at the bottom, and dropping the cross bars into their places.

There is more room for the pots and foliage than on any other plant stand that takes the same amount of room on the floor.
3 Tray Stand-Trays $7 \frac{1}{2}$ in. wide $x{ }_{6} 30$ in. long . . . . . . $\$ 5.00$


## The Dodson Improved Sparrow Trap



The Dodson Sparrow Trap is made of tinned wire, electrically welded, strong and durable-will last for years. It has sharp, adjustable needle points projecting from the mouth of each of the two funnels, which effectively prevent any sparrows from getting out of either the front or second enclosure. Size $36 \times 18 \times 12$ inches.
Price, complete with receiving box.
. $\$ 9.00$

## "Best Ever" Self-Watering

## Flower Boxes

(Galvanized Metal) Specially Designed with Ventilating Subway. Neat and Strong, Green Lustre Weather-Proof Finish.


This box embodies attractive appearance, general utility and durability. The heavy roll edge adds greatly to the appearance, a device inside the box permits of the application of water to the plants without the slightest degree of untidiness which frequently arises from watering the plants by sprinkling, and the good quality japan over galvanized metal warrants long life. Made in lengths as follows: $18,24,30,36$ and 48 inches.

All boxes $71 / 4$ inches wide at bottom and $61 / 2$ inches deep. Width at top over curled flange. $83 / 4$ inches.
Prices:-18-inch, each...$\$ 1.25 \quad$ 24-inch, each.... $\$ 1.50$ 30-inch, each.... $\$ 2.00 \quad 36$-inch, each . . . . $\$ 2.50$

## STUCGO BIRD HOUSES

THE birds which nest and harbor in cavities and hollows are in most instances the most valuable of our native birds, which love the vicinity of man, seemingly not only to delight him with chirp and song, but are the most diligent to keep plant life free from parasites and devouring insects.

Our model hutlets and cabins which we provide for these charming entertainers are appreciated by all bird lovers.


## PRICE LIST OF HUTS AND CABINS

Wren Hutlet, each... \$2.75 Bluebird Hut, each... $\$ 3.00$ Titmouse, each...\$2.75 Chickadee Hutlet, each.. 2.75 Woodpecker and Flicker Hut, each................ 3.00 Martin Houses. . . . . . . . . . . . . . . . . . . . . . . . . $\$ 8.00$ to 50.00 Feederies, Small............................. . . 2.75 to 5.00
Squirrel Cabins, each................................. . . . 8.00
Wren Hutlet, Plain Small, each . . . . . . . . . . . . . . . . . 50

## BIRCH BARK BIRD HOUSES

Wren Hut... $\$ 1.25$ Blue Bird Hut................... $\$ 2.25$
24 Apartment $\mathbb{M}^{2}$ artin House. . . . . . . . . . . . . . . . . . . 16.00

## RUSTIC BIRD HOUSES

No. 1 Wren..... $\$ 1.00$ No. 6 Chickadee...... $\$ 1.50$
No. 9 Blue Bird..... $\$ 1.50$ No. 7 Woodpecker. . . . 2.00
No. 8 Robin Nest or Feedery. . . . . . . . . . . . . . . . . . . . 1.50
No. 14 Six Room Martin House. . . . . . . . . . . . . . . . . 6.00
No. 13 Twelve Room Martin House . . . . . . . . . . . . . 10.00

## SUET HOLDER

Neat, durable, inexpensive, effective.
Suet is most attractive to chickadees, nuthatches and downy woodpeckers. Fill the holder, snap the lid down and hang it on a nail or a twig. The birds will do the rest
Each.
Postage First and Second Zones, 7c each, extra.

# Lawn Requisites 

## Imperial Lawn Edge Trimmer



The Imperial Lawn Edge Trimmer trims the rough, straggling, overhanging grass along the walk. It plows a clean U-shaped trench, and does the work in a fraction of the time required by less efficient tools . . . . . . . . . . . . . $\$ 1.50$

## Lawn and Garden Rakes



Lawn Queen. Wire: is reversible and can be used for grass or Ole Olsen. Made of best hickory,

Hudson Dandelion Rake. For clipping off daisy and dandelion heads....................... . $\$ 1.25$
Rakes, Steel Garden. 12 teeth, $\$ 1.00 ; 14$ teeth, $\$ 1.15 ; 16$ teeth. . . . . . . . . . . . . . . . . $\$ 1.25$

## Japanese <br> Broom Rake

An ingenious device for cleaning the debris out of a lawn or grass plot, leaving it as free from refuse as though swept with a broom. In fact, to get the best results it should be used with the motion of a broom. Made of split bamboo, rigidly secured, with a suitable length handle. Just the thing for cleaning grass clippings from walks, flower beds, borders and from the lawn. Light, durable-efficientweighs but 12 ounces-yet tough and strong. Contains 44 teeth. Spreads 18 inches. Price.................... $\$ 1.00$

## Rainbow Lawn Sprinkler

What Rainbow Lawn Sprinklers Will Do. Revolve Rapidly on any Pressure.
Wearing and friction almost eliminated by use of water absorbing fibre washers. Made of Brass. Will not stick or corrode. Heavy Steel Sled. Green enameled stand. Distributes about 5 gallons of water per minute evenly over every portion of ground, 20 feet from sprinkler. Will indefi-
 nitely, without repair or
attention, do the work it was built for.
No. $51 / 2-$ Stands 7 inches high. 7-inch revolving head. $\$ 2.00$


## Ring Lawn Sprinkler

The simplest lawn sprinkler made. No revolving parts to wear and get out of order or leak. Easily moved about the lawn. Made of polished brass. Light, durable and economical. Each......75c

## Mitchell All-Wood Lawn Rake



Substantially built of Hardwood but light in weight. Special shaped teeth make it easy to use, getting the loose grass without digging out the grass roots. For raking Leaves it is the finest thing on the market. It will not spear the leaves, so it does away with cleaning off the teeth with the hands. The head will not split. The round Hickory brace keeps the head solid on the handle. With twenty Hickory teeth set in a head 22 inches wide and a 6-foot handle, this rake is the ideal size for general use. . . . . . . . \$1.00

## Pennsylvania Lawn Cleaner

This machine will clean your lawn more thoroughly and quicker $t h a n$ three or four men can do it with hand rakes, and greatly benefit theturf-it leaves the grass standing up straight and straightens up
 crab grass and other running weeds so they will be cut close by the lawn mower and sooner destroyed. In the autumn it takes up the heaviest fall of leaves. It is made of metal, wood and canvas, and is put together in the most durable and thorough manner. It combines strength and durability with light construction. Price. . . . . . . . . . $\$ 35.00$

We can now supply a brush attachment for the purpose of sweeping worm casts on Putting Greens. This attachment can be readily attached to the cleaner, in place of the rakes now supplied, at an additional cost of $\$ 8.00$.


The Rain King is a real innovation in the sprinkler line, and radically different from any other sprinkler made.

## A Most Wonderful Variety of Uses

Circular or stationary spray-fine or coarse-fast or slow-large lawn, small lawn-trees, shrubs, flower bedstakes care of them all.

Small, compact, easily handled. No cumbersome contrivance always in the way. Simple adjustments-made easily. Set instantly as a revolving or stationary sprinkler.

Nozzles adjust immediately to a fine spray or coarse spray, with any pressure, and runs fast or slow, as wanted. Never clogs up and stops-a common fault, with other sprinklers, both revolving and stationary. Price.... $\$ \mathbf{3 . 5 0}$

## Market Gardener's Sprinkler

Every Market Gardener, Florist, and others who use a hose for watering hot beds, cold frames, gardens and lawns should have one of these sprinklers. Simply attach to hose in place of nozzle. to hose in place of

## ERECTO GARDENCRAFT

CABINET MADE
SELEGTED DRY-KILNED CYPRESS "THE WOOD EVERLASTING"


825
COZY CORNER
No. 825-Width, 5 ft., 2 in.; Height, 6 ft., 8 in.; Depth, 2 ft . Price, $\$ 95.00$.


850
JOSEPHINE ARBOR
No. $850-$ Width, $4 \mathrm{ft} ., 2 \mathrm{in}$.; Height, 7 ft., 8 in.;
Depth, 2 ft . Price, $\$ 91.00$.


No. 950-Width, 7 ft., 6 in.
Height, 7 ft., 3 in.; Depth, 4 feet. Price, $\$ 68.00$.


250
TRELLIS
o. 250-Width, 2 ft., 4
in.; Height, 8 ft.;
Price, $\$ 8.00$.
All pieces are painted with three coats of best quality weather resisting out-of-door enamel. They can also be furnished unpainted at reduction of fifteen per cent ( $15 \%$ ) from above prices.

Each piece is shipped completely assembled, well crated, ready for installation. Anchor Boots furnished with Nos. 700, 725,750 and 950.

No. 925-Width, 6 ft., 6 in.; Height, 7 ft., 1 in.; Depth, 4 feet, 8 in., Price, $\$ 51.00$.


975 CHAIR
No. 975-Width, 2 ft.,;Height $2 \mathrm{ft} ., 9$ in.; Depth, 1 ft., 9 in . Price, \$12.75.


Table and four chairs nested.
No. 775-40 in. x 40 in . Price, $\$ 109.00$.


## GRECIAN BENCH

No. 900 - Width, 4 ft.; Height $191 / 2$ in.; Depth, 24 in. Price, $\$ 41.00$.

900


925
BOWER
TRELL.IS
No. $200-$ Width, 2
ft., 8 in.; Height, 8 ft. Price,


725
ARBOR
No. 725-Width, 5 ft., 6 in.; Height, 7 ft., 3 in.; Depth, 3 ft ., 8 in. ( 4 ft . path.) Price, \$45.00.


750
ROSEGATE
No. 750-Width, 5 ft., 6 in.; Height, 7 ft., 3 in.; Depth, 3 ft., 8 in. Price, $\$ 60.00$.

700
ARBOR PERGOLA WITH 500 TABLE
No. 700-Width, 7 ft., 6 in. ; Height, 7 ft., 3 in.; Depth. $4 \_\mathrm{ft}$. Price, $\$ 95.00$.

## LAWN REQUISITES-Continued

## The Dayton Rotary and Oscillating Sprinkler

THE most practical, durable, efficient machine ever devised for sprinkling lawns, parks, or irrigating truck gardens. Saves time, labor, hose wear. Dayton Lawn Sprinklers are fitted with $3 / 4$-inch or $1 / 2$-inch hose connections, as may be desired.



Lawn Type Style C. Price....... $\$ 2.00$


## Flaring Rose Sprinkler

Attach to hose in place of nozzle......... Each 75c


Whirling Fairy Lawn Sprinkler
Light, durable, will operate on very low pressure.
Each.. . . . . . . . . . . . . . $\$ 1.50$

## Bink's Chicago Sprayer

Is made of aluminum. Adapted for watering garden frames, etc. Each. . $\$ 3.00$

## DUNHAM WATER-WEIGHT LAWN ROLLERS WITH ROLLER BEARINGS

Dunham Water-Weight Rollers are electric welded-no rivets usedthe drum cannot possibly leak.
The Dunham Water-Weight Roller can be made as heavy or as light as desired by simply putting in the right amount of water. For storing away or for moving, it can be emptied entirely and is light and easy to handle.
W. B. Style. Is equipped with a "No-Tip" lock and scraper. The lock holds the handle upright when not in use.
W. B. No. 5. 1 section, 24 inches long and 18 inches in diameter. Weight, empty, $85 \mathrm{lbs} . ;$ weight, filled with water, 300 lbs ; weight, filled with sand, 450 lbs. Price. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 15.00$
W. B. No. 7. 1 section, 24 inches long and 24 inches in diameter. Weight, empty, 110 lbs.; weight, filled with water, 500 lbs ; weight, filled with sand, 750 lbs. Price. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 18.00$

## DUNHAM WATER-WEIGHT LAWN ROLLERS

## WITH PLAIN BEARINGS

No. 2. 1 section, 24 in . long and 14 in . in diameter, weight empty, 68 lbs.; weight, filled with water, 177 lbs ; Price $\$ 10.00$ No. 4. 1 section, 24 in . long and 18 in . in diameter, weight empty, $82 \mathrm{lbs} . ;$ weight, filled with water, 265 lbs.; Price $\$ 12.50$ DUNHAM ROLLERS are painted green on body and ends with red handles and always bear the name DUNHAM.

## DUNHAM WATER-WEIGHT PONY ROLLER

$\square$HIS Roller is useful for lawns, gardens, etc. Is well made, and with care will last a life-time. Built with two drums each drum $231 / 4$ inches in diameter, and 35 inches in width, making a rolling width of 70 inches. Weight of empty roller is 372 pounds; when filled with water 1405 pounds; when filled with sand 2193 pounds. Furnished complete with shafts; also fitted for use with Tractor; each.


Hose. For Paragon Spray Pumps. Per ft. . $\$ 2 . \ldots$. Hose Coupling Baids. . .ach $10 \mathrm{c} \cdot \ldots$..... $\$ 2.50$ to 4.00 Hose Cupling Bands. Each, 10 ; per dozen . . . . . . 1.00
Eose Coupling Bands. For Paragon Pump, each... . 10

## GARDEN HOSE AND APPLIANCES

Hose, Rubber, "Non-Kink," best hose on the market, finest quality of rubber being used' in its manufacture. Will not kink and will last for years. We can supply in any length.......... $1 / 2$-in., 18c per ft.; $5 / 8$-in., 20 c per ft . $3 / 4$-in., 22c per ft.
Hose, Wingfoot. $5 / 8$-inch, 2 braid, a good hose for general purposes. (Made in one size only.) In 50 ft . lengths, or over.................................. per ft.

Hose Washers. Rubber, $3 / 4$-in, per dozen........... . $\$ 0.10$
Hose Menders. Perfect clinching, each.................. . 15
Per dozen................................ . . . . . . . . . . . 1.50

## McCullough's Plant Tubs

An excellent tub, neat and durable. Made from 3/4-inch Cypress, with iron handles and feet, 3 steel hoops and 2 coats of green paint.


## Cypress Plant Tubs

Made of seasoned selected Cypress, bound with steel hoops. Painted green, inside and out, and top edge finished with round bevel.
No. No feet, but furnished with iron handles.
No. 7-12 inches diameter, 11 inches high. $\qquad$ 2.00
$\mathbf{2 . 2 5}$

No. 9-14
No. 10-15
No. 11-16
No. 12-17
No. 13-18
$\begin{array}{lll}\text { " } & 12 & \text { " } \\ \text { " } & 13 & \text { " }\end{array}$ 2.25
2.50
…............................................. 3.00
" 17 " 6 ........................... 3.
No 14-19 " " 18 " " ................................. 4.25


## Coldwell's Imperial Roller Bearing High Wheel Mower

THE Imperial Roller Bearing Mower is nicely balanced, enabling the operator to handle it with ease. Furnished with five blades in revolving cutter. Specially designed to meet the demands of park and cemetery superintendents. Durable, light running, easy to push and requiring minimum of attention to adjustments. Roller bearings enclosed in dust proof housings. When packed with light grease will need no further oiling for the season. Best Lawn Mower on the market for hard service in parks, cemeteries, etc.
14-inch... $\$ 16.00$ 16-inch... $\$ 17.00$ 18-inch. . . $\$ 18.50$ 20-inch. . $\$ 20.00$.


## Coldwell's Blue Bird Ball Bearing Mower

Tn the "Blue Bird" we have a high-grade, light weight machine, which is 1 positively the best five blade, 10 -inch wheel, ball bearing lawn mower ever built for the price asked. It is provided with flat, sliding pawl ratchet, with direct drive from both sides. The gears are enclosed and protected from flying grass and dirt. The ball bearings are of finest drop-forged steel, case hardened. Height of cut ranges from $1 / 2$ to $11 / 2$ inches, at pleasure of operator. Made in three sizes: 14 -inch, $\$ 12.50$; 16 -inch, $\$ 13.50$; 18 -inch, \$14.50.

## Cadet Lawn Mower

TS a good Lawn Mower to sell at a medium low price and give the purchaser full value for his money.
14-inch . . . . . . . . . . . . . . . . . . . $\$ 6.75$

## Suburban Ball Bearing Mower

IIS MADE to meet the demand for a good ball bearing machine, which can be purchased at a price within the reach of all. It is made throughout of the best grade material. The driving wheels are 8 inches in diameter. The revolving cutter has four blades, which insures fineness and evenness of cut. It has sliding pawl ratchets, and the adjustment of both bearings and bottom knife is the simplest and most effective ever
 made. One screw only is required to adjust the bearings, by means of which all looseness in the revolving cutter bearings can be taken up.
14 -inch. . . . . . . . . . $\$ 10.00$
16 -inch. . . . . 10.00


## Coldwell's Lawn Trimmer

ITT IS equipped with fine cut gears, sliding-pawl ratchet, the best tool steel bottom knife and is made to meet the demands for a really firstclass trimmer. Price. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 10.00$

## Nox All Grass Ciatchers

No. 500. Made to fit mower, 12 to 16 inches. . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.00$
No. 510. Made to fit mower, 16 to 22 inches.
1.25

## JACOBSEN POWER MOWERS

The "Jacobsen Junior" has been designed especially for moderately large lawns, or lawns broken up with numerous obstructions. It has a capacity of fully two acres per day, weighs only 150 pounds and is as easy to handle as an ordinary hand mower. The cutting unit is made with five crucible steel blades, well balanced and accurately ground.

This mower is absolutely the smallest, most compact, and"simple power lawn mower manufactured. It is guaranteed to operate satisfactorily and to be free from defects. Price.
$\$ 205.00$

## Putting Green Mower

ASPECIAL 6-blade cutting reel has been constructed for this mower. The bed knife is also designed for close cutting and is made of high-grade tool steel. Cutting height can be instantly adjusted to the finest degree.

It stands alone, unrivaled as a Putting Green Mower. Price.

## 4 Acre Heavy Duty Mower

$B^{\text {}}$UILT along the same general lines as the "Jacobsen Junior" but with 24 inches width of cut and a capacity of 4 to 5 acres per day, on a fuel consumption of about one gallon of gasoline per day. Price. . . . . . . . . . $\$ 285.00$

## Estate Mower

EMBODIES every refinement and good feature found in any power lawn mower. Being roller driven, the mower is so perfectly balanced that it is exceedingly easy to handle and operate. The cutting unit is adjustable from $1 / 4$ inch to 2 inches cutting height. Price. . . . . . . . $\$ 310.00$ Grass Catcher, "Junior Mower" . . . . . . . . . . . . . . . . . . . 4.25 Grass Catcher, 4 Acre Heavy Duty Mower . . . . . . . . . . 6.00

Lack of space prevents us giving detailed description of the Jacobsen Power Mowers, but will mail complete literature to any one interested.

## " Dlanet $J_{r . "}$ Jf arm and $\mathscr{U}$ arden $^{\text {Oools }}$

DLANET Jr. means, on a farm or garden tool the world over, that it is the latest improved, lightest, strongest, most useful and economical tool of its kind. With Planet Jrs. come less work, bigger crops, more money. The Planet Jr. Catalogue is an instructive handbook of short cuts to best results for farmers and gardeners. It illustrates fifty-five latest improved Planet Jr. tools, showing many in use. Seventy-two helpful pages. Write for it at once.

## The Planet Jr. Seed Drills



DLANTS all garden seeds accurately in hills, 4, 6, 8, 12 or 24 inches, or in drills any thickness. Hoes, cultivates and plows quickly and thoroughly. Popular with farmers and gardeners everywhere.

No. 4D. Planet Jr. as a Hill and Drill Seeder only.\$13.75


THIS combined machine is intended for gardeners who have a large enough acreage in crops for a Double Wheel Hoe to be used to good advantage, and yet prefer not to buy seeders and wheel hoes separately.

> No. 20D. Planet Jr. Fertilizer Drill. Price. $\$ 6.50$


TNSTEAD of distributing all the fertilizer before the seeds are sown, distribute only a portion of it; when the plants are up sidedress them with this drill, as the arrangement of the spouts permits you to distribute fertilizer either to the right or left, also both to the right and left at one time, or all down the center.

This enables you to rush young plants, get more tender crops and better prices.

The Planet Jr. Double Wheel Hoes

$A^{1}$
RE the greatest cultivating tools for the onion, and for every grower of garden crops from drilled seed. They do more and do it better and easier than can possibly be done in any other way. Works both sides of plants thoroughly and rapidly at one passage until crops are 20 inches high. Indestructible steel frame and steel leaf lifters.


Has one pair of 6-inch hoes, one pair $41 / 2$-inch hoes, two pairs hollow steel cultivator teeth, one pair plows, two 3 -tooth rakes, two 5 -tooth rakes and two leaf lifters.


1 there has been a demand for a small seeder that could be attached to a wheel hoe. We are now prepared to furnish this seeding attachment which can be attached to any Planet Jr. Single or Double Wheel Hoe or Garden Plow.

It is quickly attached by a single bolt and will sow in a continuous row practically any garden seeds, accurately, in straight, even rows, at a uniform depth, and cover them.

Everyone raising his own table vegetables should have this attachment; it is efficient, economical, and saves valuable time when needed in the busy days of spring.
Discs, per pair . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 3.50$
3-prong cultivator teeth, per pair . . . . . . . . . . . . . . . . . . . 1.75
Plows for Double Wheel Hoes, per pair.............. . . . 1.40
Handles for Single or Double Wheel Hoe, per pair . . . . 1.00

## PLANET JR. SINGLE WHEEL HOES AND ATTACHMENTS

WE offer these Single Wheel Hoes as the highest type of their class. They have a great variety of tools which adapt the implements to a large variety of work, and there is scarcely any garden culture of which they are not capable.

No. 17 Planet Jr.
Single Wheel Hoe
Price, $\$ 7.25$.


You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The Hoes exchange sides to work to or from the row, and change of wheel regulates the depth.
'The Cultivating Teeth are oil tempered and work admirably, are changeable for pitch and are useful for marking out rows.

The Plow is large and capable of heavy work.


It is light, handy and adapted to almost every garden use. The Steel Wheels are particularly well made, with heavy steel spokes; they run easily and are made up true.

The Frame is steel and practically indestructible. The wheel arm and leaf guard are steel also. The handles are adjustable in height.

The Plow is of superior design, complete with landside; is large and capable of heavy work. It is generally the first attachment to be used in the spring.
Planet Jr.
Juvenile Garden
Cultivator
Price, $\$ 4.00$


This new number of the "Planet Jr." family will appeal to all those who prefer a high wheel for their garden work. Where the soil has not been so thoroughly and carefully prepared, the high wheel undoubtedly makes an easy running tool. The handles are strong and are provided with "plow handle" grip. They are adjustable for height to suit adult or child.

No. 19. Planet Jr. Garden Plow and Cultivator. Equipment: One 2-inch cultivating tooth, one 10 -inch sweep, one plow, one 5 -prong cultivating attachment, 15-inch steel wheel. . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 6.00$
Planet Jr. No. 2 Edger. With this tool you can edge either straight or curved work, paths, drives, open borders or flower beds, rapidly and beautifully . . . . $\$ 1.60$

## ATTACHMENTS

Double Mouldboard Plow for Single Wheel Hoe. . . . $\$ 2.40$
Steel Cultivator Teeth and Bolt. . . . . . . . . . . . . . . . . 40
Hoes, complete, $41 / 2$-inch, per pair . . . . . . . . . . . . . . . . . 1.20
Hoes, complete, 6-inch, per pair. . . . . . . . . . . . . . . . . . . 1.30
Plow for Single Wheel Hoe, each . . . . . . . . . . . . . . . . 1.30
Rakes, 3-teeth, each $\$ 1.00$; 5-teeth, each... . . . . . . . . 1.60
Onion Harvester, 8-inch, each....... . . . . . . . . . . . . . . 1.60

## THE PLANET JR. ONE-HORSE TOOLS



It does more kinds of work better, quicker and easier than any other cultivator. Indispensable on the up-to-date farm.

No. 7. Planet Jr. Horse Hoe and Cultivator. Same as No. 8, without the depth regulator.
With wheel
. $\$ 16.50$
No. 9. Planet Jr. Horse Hoe and Cultivator. This tool has a plain wheel instead of the lever wheel.
With wheel
$\$ 15.00$
Without wheel . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13.0

No. 90. Planet Jr. 12-Tooth Harrow, Cultivator and Pulverizer. Price, complete, $\$ 17.50$.

No. 90B. Without Pulverizer, Price, $\$ 14.25$. No. 90D. Without Pulverizer, or Wheel, Price, \$11.25.


Planet Jr. 12-Tooth Harrow, Cultivator and Pulverizer is invaluable in strawberry, truck patches and the market garden. Its twelve chisel-shaped teeth and pulverizer leave the ground in finest condition without throwing dirt on plants.

No. 91. Planet Jr. 12-Tooth Harrow.
With Wheel... . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 13.25$
No. 4. Planet Jr. Plain Cultivator is equipped with four $3 \times 8$ in. cultivator steels and one $4 \times 8$ in. cultivator steel. Has extra high frame, round throated, hollow steel standards with patent beveled steel teeth, and patent expanders, which make an extra stiff tool, yet allow of quick adjustment for width, and one side may be closed while the other is left open.
Price with Wheel

# Floultry Appliances and Supplies 

## NEWTOWN GIANT COLONY BROODERS

"NEWTOWN" Colony Brooders were the first coal burning, self-feeding, self-regulating colony brooders made. They have proven satisfactory in every State and abroad. Made in three sizes to meet general requirements. The size of the Heater determines


Newtown Colony Brooder Mothering the Chicks the fitness of the brooder for the building. A Brooder with a small heater cannot successfully supply the required heat for a large number of Chicks. "Newtown", Colony Brooders very quickly more than pay for themselves. The magazine holds sufficient fuel to last from 24 to 36 hours. This is very necessary because a brooder must hold fire all the time, night and day, in all kinds, of weather. All "Newtown" Colony Brooder Heaters are made with plenty of room for ashes, so that the grates and drafts will not become clogged. The firebowl is specially designed and ventilated. The bottom is serrated so that a layer of ashes three inches thick cannot check or smother the fire.

No. 7. Capacity, 250 chicks or less.. . . . . . . . . . . . . . . . . \$25.00
No. 11. Capacity, 500 chicks or less.. . . . . . . . . . . . . . . . . \$32. 50
No. 12. Capacity, 1200 chicks or less.................... . . $\$ 40.00$

ACTUAL photograph showing absolute Chick comfort under "Newtown" Coal-burning Colony Brooder. The Chicks are happy and contented, because they have plenty of pure, fresh air.
Note the wide circle formed by the Chicks-just where the heat is distributed by the "Newtown's" specially constructed Heat Radiator and cone-shaped Deflector. There is no crowding of Chicks around the "Newtown" and they get the temperature best suited to their individual needs by moving toward or away from the stove. It is unnecessary to raise or swing this conical Deflector around when attending the Brooder and the Chicks are never disturbed.

## NEWTOWN LITTLE GIANT INGUBATOR

THE 600-Egg "Newtown" Little Giant Incubator is a standard section of four $150-\mathrm{egg}$ Compartments fitted with manifold ends and equipped with all details of the Giant sizes.

The only feature in which this machine differs from Giant Incubators is its operation with a blue-flame oilburning, instead of a coal-burning Heater. It is the only incubator of its size built with large machine features and all the details of construction and principles of Incubation embodied in "Newtown" Giant Incubators, apply to this machine.

It can be transformed into a $1200-\mathrm{Egg}$ Little Giant Incubator by adding one Section. These are ideal hatchers for Poultrymen who do not have specially constructed incubator rooms because they are successfully operated in any warm room or basement. No chimney is necessary. Ready for work wherever placed.

## Copper Coil Heater

The Heater used on our 600 and 1200-egg Little Giant Incubator is a copper coil Heater manufactured especially for these machines, and so constructed to give greatest heating efficiency from a minimum amount of oil. Oil flow to the burner is automatically controlled. The temperature, as on our Giant Incubators, is controlled by Regulators at the Heater and on each 150-egg Compartment.
NEWTOWN LITTLE GIANT INCUBATOR, 600-Egg Capacity, \$145.00. 1200-Egg Capacity, \$235.00;

## The Newtown Oil Burning Colony Brooder

0NE of the big faults of oil-burning brooders has been their inability to produce and properly distribute over a large floor space sufficient quantity of heat to make possible the successful brooding of large flocks of chicks in cold weather. This is overcome in the Newtown Oil-Burning Colony Brooder, because its construction is simplicity itself. The-burner is simple and can be lighted with an ordinary match. No smoke or fumes. No flaring up, no going out, nothing to get out of order. If you want an oil brooder this will please you and we sell it to you with the full assurance that it will do everything you have a reasonable right to expect.

It will care for any number of chicks up to 500 , but we do not recommend more than 300 to 350 . We believe that is enough to put under any brooder-you will raise more and better chicks in the end.

Each brooder is shipped with everything complete ready to operate. A thermometer and full instructions for operation are furnished with each brooder. Price.

## Send for descriptive Catalogue of the Newtown line.

Prices on all Poultry Feeds and Appliances subject to change without notice.

## PRAIRIE STATE SAND TRAY INCUBATORS

The Prairie State Incubators are built in four sizes, ranging from 100 to 390 eggs. All Prairie States are equipped with Sand Trays, Egg Trays, Nursery Mats, Thermometers, Egg Testers, Lamps and everything complete ready to operate.

## PRICE LIST OF PRAIRIE STATE S and Tray Diffusion Incubators

 Standard No. 0, 100 hen eggs; 135 lbs., crated. . . . . . $\$ 25.00$Standard No. 1, 150 hen eggs; 160 lbs. crated . . . . . .
Standard No. 2, 240 hen eggs; 240 lbs. crated . . . . .
St.50
Standard No. 3, 390 hen eggs; 325 lbs. crated. . . . . 62.50

Egg capacity considered, the Prairie State Incubators are now the lowest priced high-grade machines on the market.


## BUCKEYE INCUBATORS

We offer these incubators as the best Hot Water Incubators on the market. These Incubators are built in several sizes to meet all requirements both in size and price. Send for Descriptive Catalogue.
No. 14. (Style E). Capacity, 65 eggs. . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 16.50$
No. 16. (Style E). Capacity, 110 eggs. . . . . . . . . . . . . . . . . . . . . . . . . . 27.50
No. 17. (Style E). Capacity, 210 eggs. . . . . . . . . . . . . . . . . . . . . . . . . . 36.76
No. 1. (Standard). Capacity, 110 hen eggs, or 85 duck eggs... .... 37.50
No. 2. (Standard). Capacity, 175 hen eggs, or 140 duck eggs..... . . 44.50
No. 3. (Standard). Capacity, 250 hen eggs, or 200 duck eggs... . . . 57.75
No. 4. (Standard). Capacity, 350 hen eggs, or 280 duck eggs..... . . 68.00
No. 5. (Mammoth Standard). Capacity, 600 hen eggs, or 480
duck eggs. . . . . . .
.107 .00
Buckeye Incubator Thermometer . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1.00
Wire Holder for Thermometer . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

## BUCKEYE PORTABLE BROODER—Built in Three Sizes

The Outside Shell is made of 28-gauge galvanized steel; the inside shell is 28-gauge black iron, with a one-inch dea 1 air space between. The Brooder Body is supported by three cast-iron legs that are rigidly secured to the sides by a set nut, which makes them easily detachable.
No. 20. Diameter, 19 inches; capacity, 60 chicks; shipping weight, 19 lbs. Price................................... $\$ 11.75$
No. 21. Diameter, 22 inches; capacity, 100 chicks; shipping weight, 23 lbs. Price................................... 15.50
No. 22. Diameter, 30 inches; capacity, 150 chicks; shipping weight, 63 lbs. Price. ............................... . . 19.00


THIS is the handiest and easiest to operate of any brooder you ever saw. Its operation is as near automatic in every way as possible. No lamp to bother with, no fumes or smoke to stunt the chicks, no extreme fluctuations in temperature.

Furnished complete with automatic regulating attachments, brooder thermometer and curtain. Made for either 32 or 110 volt current.
No. D-89. 18-inch Electric Hover (50-75 chicks), complete . . . a box ; shipping weight, is libs.
No. D-90. 22-inch Electric Hover (75-100 chicks), complete.
16.50

## OAKES NEW COLONY ELECTRIC BROODER

Each brooder is equipped with Oakes high-quality electric heater, automatic cut-off, detachable legs (which are adjustable to enable operator to adjust brooder to height of chicks), brooder thermometer, and eight feet of drop cord. Has heavy flannel curtain around the edge for retaining heat.

Works on 110 volt A. C. or D. C. Diameter 44 inches. Capacity about 500 chicks.
No. D-94. Shipping weight about 90 lbs . Price... $\$ 20.00$

## LAWN PARK COOP



For successful chicken raising it is necessary to protect the young brood from rats, cats and other pests. The Lawn Park is the most successful coop on the market. Size, closed. $18 \times 24$ inches: with park extended, $18 \times 48$ inches. Height, 24 inches. Price.................. $\$ 5.00$

## RED CHIEF

Rapid Grinding Feed and Grist Mill
For Grinding Small Dry Grain

No. 1. Capacity, 1 to 2 bushels per hour. Fitted with crank......... $\$ 2.70$ No. 2. Capacity, 1 to $11 / 2$ bushels per hour. . . . \$3.75 No. 5. Capacity, $11 / 2$ to 2
bushels per hour. . . . $\$ 5.25$
Nos. 1, 2 and 5 Mills, clamp or bolt to box as desired.

Have hooks on which to hang a bucket.


No. 10. Capacity, 2 to 4 bushels per hour. Fitted with flywheel. .
No. 15. Combined Hand and Power Mill. Capacity, 6 to 8 bushels per hour.
20. Power Mill. Capacity, 10 to 20 bushels per hour Price. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 15.00$
Red Chief Hand Corn Sheller \$1.85

## Mann's Green Bone Cutters

No. 5-C. For flocks of 25 to 50 hens. Weight, 35 lbs. Price......... $\$ 12.50$ No. 5-B. For flocks of 25 to 50 hens. Weight, 60 lbs. Price. . . . . . . . . . . . . $\$ 15.50$ No. 5-B, M. For flocks of 25 to 50 hens. Weight, 85 lbs. Price... . . . . $\$ 18.75$ The No. 5-C, No. 5-B and No. 5-B, M do not have the split hinged cylinder.
No. 7. For flocks of 75 to 150 hens. Weight, 107 lbs. Price......... $\$ 20.75$ No. $7 \frac{1}{2}$. Capacity, 50 to 100 lbs. per hour. Weight, 150 lbs. Price..... . \$29.00 No. 9. For flocks of 200 to 300 hens. Weight, 170 lbs. Price......... \$31.00 No. 11. Capacity, 100 lbs. and upwards per hour.
 Weight, 215 lbs... . $\$ 45.00$ No. 12. Capacity, 150 lbs. per hour. Weight, 260 lbs. Send for Descriptive Cataloge of Bo.......................... Send for Descriptive Catalogue of Bone Cutters.


Cuts vegetables in long, round, slices. Price......... $\$ 6.50$

## DOUBLE QUICK GRAIN SPROUTERS

$\square$ HE Perpetual Poultry Silo that grows Green Feed while you wait. Sprouts in 20 to 30 hours and forces growths of an inch to two a day. Makes 2 to 6 bushels of green feed from one of dry grain. Many thousands of the Double Quick now in every part of the United States and Canada, and is in use in almost every civilized country in the world.

PRICES, CAPACITY, WEIGHT, SIZE
No. 24. -24 Qts.- $3 / 4$ bu. For 75 to 100 hens. Size $22 \times 16 \times 26$ inches; 3 trays, six compartments. Weight, crated, 50 lbs. Price................................... No. $40 .-40$ Qts. $-11 / 4$ bu. For 125 to 175 hens. Size $22 \times 16 \times 40$ inches; 5 trays, 10 compartments. Weight, crated, 90 lbs. Price..................... \$24.00 No. 80.- 80 Qts. $-21 / 2$ bu. For 250 to 325 hens. Size $26 \times 26 \times 42$ inches; 10 trays. Weight, crated, 125 lbs. Price. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 36.00$ No. 160 . -160 Qts. -5 bu. For 500 to 600 hens. Size $50 \times 28 \times 44$ inches. 20
 trays. Weight, crated, 300 lbs. Price.... . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 72.00$

## Banner

Root Cutter
No. 7

## Egg Carriers

Humpty Dumpty. 6 dozen size, each, 50c; 9 dozen size, each, 55 c ; 12 dozen size, each, 65 c .
Moe's Regal. No. 14-15 eggs, each, 20c; No. 15-30 eggs, each, 40 c ; No. $16-50$ eggs, each, 70 c ; No. $17-$ 100 eggs, each, $\$ 1.25$; No. $18-12$ duck or turkey eggs, each, 25 c .

## Nest Eggs

Lice Expelling. Each, 10c; 3 for 25c; per dozen, 75c. Porcelain. 3 for 15 c ; per dozen, 40 c .
Lime. 3 for 15c; per dozen, 40c.

## Egg Boxes

Paper Carton. 1 dozen size, per dozen, 20c; per 100, \$1.50. Continental Safety Carton. 1 dozen size, per dozen, 30c; per 100, \$2.25.

## Leg Bands, Spiralets (Celluloid.)

For American, Asiatic and Mediterranean Breeds. 10 colors-black, white, dark blue, pink, light blue, red, garnet, green, yellow, purple. Per dozen, 15 c ; 25 for 30c; 50 for 50 c ; 100 for 75 c .
Pigeon and Baby Chick Sizes. (Celluloid.) Per dozen, $15 \mathrm{c} ; 25$ for $30 \mathrm{c} ; 50$ for $50 \mathrm{c} ; 100$ for 75 c .

## Bandettes

Colored celluloid legbands with big visible numbers. For American and Mediterranean Breeds. 5 colors; Blue, Red, Yellow, Green and Pink.
'Bandettes are sold only in unbroken sets of 25 in one color. 1 to 25,26 to 50,51 to 75,76 to 100 , and so on. Prices, 25 bands, 60 c ; 50 bands, $\$ 1.10 ; 100$ bands, $\$ 2.00$.

## Union Lock Poultry Fencing

AS all of the cables are the same length, and run the whole length of the fabric, every part can be stretched perfectly. Because of its strength and construction this fence requires no top or bottom rail and no more posts than
 the ordinary
woven stock fence, or about one-half the number needed in ordinary poultry netting. Union Fence is especially adapted for use where a light, attractive and neat appearing fence is re-
quired.

12 -in., bale of 10 rods. $\$ 2.00$ 18 -in., bale of 10 rods. 3.00 24 -in., bale of 10 rods. 3.60 36 -in., bale of 10 rods. $\$ 4.35$ 48 -in., bale of 10 rods. 5.00 $60-\mathrm{in}$., bale of 10 rods. 5.50 $72-\mathrm{in} .$, bale of 10 rods. $\$ 6.00$

## Moe's Fountain Heater

Can be used with all styles of fountains and effectively prevents water from freezing. Effectively solves the supply of fresh clear supply of fresh clear water at all times, no
matter how cold the weather.
The lamp fount or bowl holds sufficient kerosene to burn conkerosene to for s e v e n days. Simple and safe.

Height, 7 in.
Diameter, 11 in.
No. 10, Price each, $\$ 1.90$



## Moe's Single Feeding Trough

For chicks and growing stock. Accurately stamped with dies. No rough edges, and can be hung on the wall. Sliding top.
No. 55. Length 12 inches, each
No. 56. Length 18 inches, each.
No. 57. Length 24 inches, each.

## Moe's Double Feeding Trough



Double trough, with sliding top, easily filled and cleaned. Accurately stamped with dies. No rough edges. No. 58. Length 12 inches, each

## Aluminum Feeding Trough

Excellent for feeding Buttermilk, as the aluminum is not affected by the acids of sour milk and similar feeds. The same design as shown above, with sliding top. Easy to clean and will never rust.
No. 69. Length 10 inches, each
50c
No. 70. Length 20 inches, each

## Moe's Eclipse Feeding Trough

For chicks and growing stock. No seams, rivets or solder. Sliding top, easy to fill and keep clean.
No. 27. Length 10 inches, each .
20 c
No. 28. Length 20 inches, each. 30 c

Atsatt's Poultry Feeds
A splendid mash feeder, 18 inches long, each 50c


## Prairie State Meat Scrap Hopper

Capacity 10 pounds scrap. Each. .50c
Felker's Wall Feeder
Practical dry mash feeders designed to hang on the wall. No. 12 Feeder. 12 in. long. Each. .50c

## Round Bottom

Dry Food Hopper
Dry mash and beef scrap, feed readily and never clog. Each............50c

Improved Handy Hopper


No. $1-12$ inches in length, each
No. $2-18$ inches in length, each
The Improved Handy Hopper is made of galvanized iron throughout. All parts are spot welded together. It is provided with hinged lid over both hopper and trough, making it rat and mouse proof, as well as dirt proof.

It is provided with a swinging front, adjustable to suit any kind of dry mash and which eliminates any possibility of clogging.

Hopper is 15 inches in height and $41 / 2$ inches in width and made in four lengths. $\$ 1.75$

No. 3-24 inches in length, each
2.25

No. 4-36 inches in length, each

## Moe's Dry Mash Hopper

A trial will convince you that it is
a Hopper of the greatest merit.
Manufactured of heavy galvanized iron in four sizes.
No. $35-81 / 2 \mathrm{in}$. wide, each.
No. 36-12 in. wide, each
No. 13-18 in. wide, each
No. 37-24 in. wide, each.


Fowls Pecking the Grain
at it 0 perates Spreader

## Moe's Feeder and Exerciser

The exercise afforded by using this device keeps your hens in prime laying condition at all times. Manufactured in two sizes: No. 52. 8-qt. capacity.. . $\$ 1.45$ No. 53. $1 / 2$-bu. capacity. . 2.00

## Wall Chick Feeder

Wire screen keeps chicks from wasting the food. Sloping top prevents roosting. 10 -inch, each 50c; 20-inch, each, 75c.

## Moe's Grit and Shell Boxes



No. 9. Moe's Grit Box; capacity about $1 / 8$ bushel... . $\$ 0.85$ No. 90. 4 compartments . . 1.10 No. 45. 2 compartments .. . 40

## Moe's Sanitary Feeding Trough

Can be used for feed, wet mash or water.
mo. 21. 12 in. long...........25c
No. 18 in.
No. 23.
No. 24 in. long............ 60 c

## Day Old Baby Chicks

Below are prices of our STRONG, VIGOROUS, PUREBRED BABY CHICKS from flocks that have been culled closely for egg laying, size, type and color; blood tested for Bacillary White Diarrhea and every possible precaution taken to insure healthy chicks. All chicks hatched in modern sectional mammoth incubators operated in well ventilated basement so as to produce those large fluffy chicks that grow and thrive.

We quote the following prices at present:
Barred Plymouth Rocks, Buff Plymouth Rocks, Single Comb Rhode Island Reds, Rose Comb Rhode Island Reds,

25 Chicks of any of the above varieties, $\$ 5.00$; 50 for $\$ 9.50 ; 100$ for $\$ 18.00$.

SINGLE COMB WHITE LEGHORNS
25 for $\$ 5.50 ; 50$ for $\$ 10.50 ; 100$ for $\$ 20.00$.
MIXED VARIETIES (All Heavies)
25 for $\$ 5.00$; 50 for $\$ 9.00$; 100 for $\$ 17.00$.
We guarantee 100 per cent live delivery, sent via Express or Parcel Post, charges prepaid. If shipment is desired within two weeks from date, enclose remittance with order for full amount, otherwise enclose 25 per cent of total amount, balance to be sent ten days before shipment. Satisfaction guaranteed.

Prices quoted are subject to change without notice.

## Moe's Pigeon Feeder

Pigeons are fastidious feeders
 with a tendency, to scatter and waste feed. Moe's Pigeon feeder was designed to overcome this. Made of heavy galvanized iron, with feeding holes properly spaced all around the hopper. The hopper has a slanting bottom leading through a large tube to the feeding bottom. This feeding trough or bottom is also made on a slant, causing the birds to reach for the food and prevents them from billing the feed out and wasting it.
A practical, economical feeder which will soon save its cost.
No. 105. Capacity 3 qts.
Each . . . . . . . . . . . . . . . $\$ 1.00$
No. 106 -Capacity 6 qts.
Each................. . . $\$ 1.50$

Moe's Magazine Chick Feeder and Waterer


A new round chick feeder with a magazine or container to hold a good quantity of feed. The upper magazine is fitted to the feeder top with a spiral thread so it can be adjusted up or down to feed the various kinds of grain. It can also be used as a drinking fountain, as the magazine is water and air tight. Diameter of feeder $81 / 4$ in. Capacity 2 quarts.
No. 18. Each....... . 50c

## DRINKING FOUNTAINS FOR POULTRY AND PIGEONS

## Sanitary Stoneware

The top is removable, allowing the fount to be thoroughly cleaned inside. The proper thing to use where medicine is given in the drinking water. $1-q \mathrm{t} ., 40 \mathrm{c}$; 2 -qt., 50 c ; 4-qt., 60 c .


## Moe's Improved Top Fill Fountain

Provides pure, fresh water at all times. The double wall construction retards freezing, and keeps water cool in summer. Fills from the top, easily cleaned, and feeds automatically.
No. 1. Capacity 1 Gallon, each.
No. 2. Capacity 2 Gallons, each
No. 4. Capacity 4 Gallons, each

## Moe's Star Fountain and Feeder

Made of a single piece of heavy metal. No solder, no seams, no loose parts. Suitable for feed as well as water. Little chicks can not drown. Fits any Mason jar in 1 Pint, 1 Quart, and 2 Quart sizes. No. 32. (Glass jar not included). 10c


Royal Thermic Fountain


## Drop Bottom Fountain

Drop Bottom, easy to fill and to clean. Has wire handle and may be hung on the wall out of the litter and dirt.
2-qt. capacity, each..... $\$ 0.90$
1-gal. capacity, each..... 1.00
2-gal. capacity, each..... 1.35

## Peerless Drinking Fountain

Easy to clean and fill and fowls cannot injure their combs when drinking. Simple in construction, durable and practical.
5-quart size, each. . . . . . . . . . . . . . . . . $\$ 1.00$

. $\$ 1.75$


## Royal Thermic Fountain

## SANITARY <br> THREE SIZES <br> NON-FREEZING

Royal Thermic Fountains are made of the best quality of galvanized iron with double walls and packed with an efficient insulating material; keeps the water warm in winter and cool in summer; insulation is completely around the inside tank. Extra heavy malleable handle, well fastened, for carrying. Special reinforced bottom $7 / 8-\mathrm{in}$. off the ground. Extra wide and deep pockets. Inset pocket and cone top, keeps water in drinking pocket clean. Well crated and absolutely guaranteed.

## FEATURES OF THE "ROYAL FOUNTAIN"

Special Re-inforced Bottom $7 / 8$-in. off ground. Extra wide $31 / 2$-in. inserted drinking pocket. Triple Seam Bottom Roll for strength, no solder. Extra Heavy Malleable handle, fastened securely. Cone Top-Good Workmanship -well crated-Properly Insulated-Absolutely Guaranteed. No. 2. 2 gallon, $\$ 3.50$ each. No. 3. 3 gallon, $\$ 4.00$ each. No. 5. 5 gallon, $\$ 5.00$ each. Made Only in Three Sizes.

## The

 Duplex FountainTop section slides into bottom section.
The latest sanitary fountain on the market. This is a double fount, keeps the water clean and pure. Easy to fill. Easy to care for. 8-qt. capacity, each....................... $\$ 1.50$

## Bottom Fill Fountain

(Cone Shape)
No. 19. 1-qt. capacity, each. 25 c No. 20. 2-qt. capacity, each. 40 c No. 24. 1-gal.capacity, each..50c


Moe's Improved Wall Fountain
$\begin{array}{lrr}\text { No. 97. } & 1 / 2 \text { gallon ......... } \$ \mathbf{\$ 0 . 9 0} \\ \text { No. 98. } & 1 \text { gallon ......... } & 1.00\end{array}$

| No. 98. | 1 |  |
| :--- | :--- | :--- |
| No. gallon | . . . . . . . . . | 1.00 |

# Poultry, Pigeon and Dog Feeds and Supplies 

We have over 50 different feeds for Poultry, Pigeons and Birds, but on account of market fluctuations it is impossible to quote firm prices on Grain Feeds, but will be glad to quote Special Prices on Feeds of all kinds on request. We quote present market values on the following

MEAT SCRAPS. 50 per cent Protein. 3 lbs.. 25c; 25 lbs., $\$ 1.40 ; 50 \mathrm{lbs} ., \$ 2.60 ;$ bag of $100 \mathrm{lbs} ., \$ 4.90$.
digester tankage. 60 per cent Protein. Per bag of 100 lbs ., $\$ 4.85$.
BLOOD MEAL. 80 per cent Protein. 2 lbs., 25c; 25 lbs . $\$ 1.90 ; 50 \mathrm{lbs} ., \$ 3.45$; bag of 100 lbs ., $\$ 6.60$.
GRANULATED BONE. Furnished in two sizes; fine and medium. 4 lbs., $25 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 1.30 ; 50 \mathrm{lbs} ., \$ 2.40 ; \mathrm{bag}$ of 100 lbs., \$4.50.
GRANULATED BONE MEAL, for Poultry and Hogs. 4 lbs., $25 \mathrm{c} ; 25 \mathrm{lbs} ., \$ 1.30 ; 50$ lbs., $\$ 2.40$; bag of 100 lbs., $\$ 4.50$.
CHARCOAL. Furnished in four sizes; fine, chick, medium and coarse. 5 lbs., $25 \mathrm{c} ; 25 \mathrm{lbs} ., 80 \mathrm{c} ; 50 \mathrm{lb} . \mathrm{bag} \$ 1.25$.
CRUSHED OYSTER SHELLS. Furnished in two sizes; fine for chicks and pigeons, coarse for poultry. $5 \mathrm{lbs} ., 15 \mathrm{c}$; 25 lbs., $50 \mathrm{c} ; 50 \mathrm{lbs} ., 80 \mathrm{c}$; bag of $100 \mathrm{lbs} ., \$ 1.25$.
MICA CRYSTAL GRIT. Furnished in three sizes; fine for chicks, medium for pigeons, coarse for poultry. 5 lbs., $15 \mathrm{c} ; 25 \mathrm{lbs} ., 50 \mathrm{c} ; 50 \mathrm{lbs} ., 75 \mathrm{c}$; bag of $100 \mathrm{lbs} ., \$ 1.20$.
SPRATT'S CHICK MEAL. 2 lbs., 30c; $25 \mathrm{lbs} ., \$ 3.40$; 50 lbs., $\$ 6.65$; bag of $100 \mathrm{lbs} ., \$ 13.00$.
SPRATT'S POULTRY MEAL. 2 lbs., 30c; 25 lbs., $\$ 3.40$; 50 lbs., $\$ 6.65$; bag of $100 \mathrm{lbs} ., \$ 13.00$.
SPRATT'S TURKEY MEAL, GAME MEAL AND PHEASANT MEAL. 2 lbs., 30c; $25 \mathrm{lbs} ., \$ 3.40 ; 50 \mathrm{lbs}$. $\$ 6.65$; bag of $100 \mathrm{lbs} ., \$ 13.00$.

## SPRATT'S DOG AND PUPPY FOODS

Require no preparation, no trouble, no cooking, and are adapted for all breeds of dogs.
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| 10 | . 20 | 2.00 |  |
| 12 | . 25 | 2.75 |  |


| Abutilon |  |
| :---: | :---: |
| Achillea |  |
| Aconitum |  |
| Acrocliniun |  |
| Adco |  |
|  |  |
| Ageratum |  |
| Agrostem |  |
|  |  |
|  |  |
| Althea |  |
| Alyssum |  |
| Amaranthus |  |
| Amaryllis. |  |
| Ammobium |  |
| Ammonium Pho |  |
| Ampelopsis |  |
| Anchusa |  |
| Anemones |  |
| Anthemis Ti |  |
| Antirrhinum |  |
| Aquilegia | .30, 63 |
|  |  |
| Arctotis |  |
| Aristolochi |  |
| Armeria. <br> Articliok |  |
| Asclepias |  |
| Asparagus |  |
| Asparagus Plumosus |  |
| Asparagus Sprengeri |  |
| Asters. . . . . . . . . 2 | 63, 67 |
| Balloon V |  |
| Balsam. |  |
| Balsam A |  |
| Baptisia |  |
| Barley |  |
| Baskets, |  |
| Beans. . . . . . 3 to | 5 |
| Bedding Plants. |  |
|  |  |
| Begonias |  |
| Bellis (D |  |
| Bellows |  |
| Berberis |  |
| Bird Fo |  |
| Bird Grave |  |
| Bird Houses |  |
| Bird and Sundry |  |
| Bird Seeds |  |
| Blackberries |  |
| Blood M |  |
| Blue Grass |  |
| Blue Grass Stripper |  |
| Blue Lace Flower |  |
| Bocconia. |  |
| Books...... . 3 rd pa | er |
| Bone Meal. . . |  |
| Broccoli. |  |
| Brooders |  |
| Broom Cor |  |
| Brussels Sprout |  |
| Buckwheat |  |
| Bulbs. | 0 |
| Cabbage |  |
| Cabbage Pl |  |
| Caladium |  |
| Calceolaria |  |
| Calendula |  |
| Calla |  |
| Calliopsis |  |
| Callirhoe |  |
| Campanula | 4 |
| Canary Bird Vine |  |
| Canary Seed |  |
| Candytuft |  |
| Cane St |  |
| Cannas |  |
| Cardinal Climber |  |
| Cardiospermum |  |
| Carnation.... | , 64 |
| Carrots |  |
| Castor Beans |  |
| Catalpa Bungei |  |
| Cattle Manure |  |
| Cauliflower |  |
| Celeriac. |  |
| Celery | .10,26 |
| Celosia |  |
| Centaure |  |
| Centrosem |  |
| Chinese Woolflower |  |
| Chicory |  |
| Chives | .10,26 |
| Chrysanthemum |  |
| Cineraria |  |
| Clarkia |  |
| Clemat |  |
| Climbing |  |
| Clover... |  |
| Scan |  |
|  |  |


| Collards | $\begin{aligned} & \text { gege } \\ & 11 \end{aligned}$ |
| :---: | :---: |
| Convolvulus |  |
| Coreopsis. |  |
| Corn Flowe |  |
| Corn- |  |
| Sugar |  |
| Field |  |
| Gard |  |
| Pop |  |
| Kafi |  |
| Corn Salad |  |
| Corn Sheller |  |
| Cosmos |  |
| Cotton See |  |
| Cow Peas |  |
| Cress |  |
| Cucumbe |  |
| Currants |  |
| Cutters, Green Bon |  |
| Cuttle Bone |  |
| Cyclamen |  |
| Cypress Vine |  |
| Dahlia | 33, 58 |
| Dandelion Knife |  |
| Delphinium. |  |
| Dewberries |  |
| Dianthus |  |
| Dibble |  |
| Didiscu |  |
| Dielytra |  |
| Digitalis |  |
| Dolichos |  |
| Dusty Miller |  |
| Echinocystis |  |
| Edging Knife |  |
| Egg Plant |  |
| Endive |  |
| Eschscholtzia |  |
| Eupatorium |  |
| Euphorbia. |  |
| Evergreen Trees |  |
| Farm,Field .,Fora | 3 to 55 |
| Fertilizers |  |
| Feverfe |  |
| Flax |  |
|  |  |
| Flower Po |  |
| Fork |  |
| Four O'Clocks |  |
| Frost Protector |  |
| Fruit Picker |  |
| Fruit Trees |  |
| Funkia |  |
| Fungicides |  |
| Gaillardia |  |
| Garden Furniture |  |
| Garden Line |  |
| Garlic. |  |
| Geraniums |  |
| Geum. |  |
| Gladiolus |  |
| Glass Cloth |  |
| Glass Cutters |  |
| Glazing Point |  |
| Gomphrena |  |
| Goosebe |  |
| Gourds |  |
| Grape Vine |  |
| Grass Catche |  |
| Grass Hooks |  |
| Grass, Ornamental |  |
| Grass See |  |
| Grevillea |  |
| Gypsophila |  |
| Hedge Plant |  |
| Helenium. |  |
| Helianthus |  |
| Helichrysum |  |
| Heliotrope. |  |
| Heliopsis |  |
| Hemp |  |
| Hemerocallis |  |
| Herb Seeds |  |
| Heuchera. |  |
| Hibiscus. |  |
|  |  |
| Hollyhocks |  |
| Honesty |  |
| Honeysuck |  |
| Hop |  |
| Horse-radish Sets |  |
| Horticultural Tools | 83 |
| Hose, Rubber |  |
| Hose Coupler |  |
| Humulus Japonicus |  |
| Humus |  |
| Hunnemannia |  |
| Hydrangea |  |
| Iberis |  |
| P |  |
|  |  |

Page

| Incubators........... $\begin{array}{r}\text { Page } \\ 90,91\end{array}$ |  |
| :---: | :---: |
|  |  |
|  |  |


| Iris. . . . . . . . . . . . . . . . . . 65Kale............... . 81Knives. . . |  |  |
| :---: | :---: | :---: |
|  |  |  |

Knives...................... 81
Kochia Childii ........... 37
Kohl-Rabi


Larkspur.
37, 67
Lathyrus.
Lawn Cleaner
.... 37
Lawn Grass.
. . 84

Lawn Mowers
Leek.
Lettuce
Lilacs
Lime. . . . . . . . . . $\underset{\sim}{2}, 73$
Limum . . . . . . . . . . . . . 38, 66
Lupins.
38, 66
Lychnis .66

Madeira Vine . . . . . . . . 57,71
Mallows . . . . . . . . . . . 36, 65
Mallows . .....
Marigold
36, 65

Martin Houses
Marvel of Peru
Mastica.
Matricaria
Mats, Hotbed....................... . . . . . . 81
Maurandia
Melon, Musk
Melon, Water . . . . . . . . . . . . . . . . . . 16
Mignonette . . . . . . . . . 38
Millet . . . . . . . . . . . . . . . . $26.3,53$
Mills, Grist
26,53
. .92
Mimosa.
Mimulus
Mole Trap
Momordica
Monarda...
Moon Flower
Morning Glory

## Moss

Mulberry, weeping
Mushroom Spawn
Mushroom Spawn
Mustard
Mustard for Poultry
Myosotis. .
Nigella.
Nicotiana
Nitragin Nitrate of Soda
Oats
Oat Sprouter
Oenothera . ......
Oil, Lawn Mower . . . . . . . . . 82
Onra . . . . . . O d Set
Ornamental Trees
Oxalis.
Pansy.
40,67
Paper Pots
Parsley.
Parsnip.
Peas, Garden
Peas, Cow.
Peas, Cow.
Peas, Field
Peat Moss.
Peat Moss.
Pentstemon.
Peonies
Pepper . . . . . . . . . . . . . . . . . . . 18,26

Perennial Plants . . . . 63 to 67
Petunia.
$40,41,67$
Phlox...
$.41,66$
Physostegia
.34, 66
Pinks
$.34,66$
Plant Bands
.66
.80
.82
Plant Bed Cloth
Planet Jr. Tools
$.88,89$
Plants, Vegetable
Plants, Climbing.
Plant Food, Superior . . . . . . 73
Plant Tubs
Platycodon
Poppy
.4 .66
Portulaca.
Potatoes.
Potato Hooks
Potting Soil.
Poultry Litter

Page
Poultry Supplies . . . . 90 to 95
Powder Guns . . . . . . . . . . . 81
Primula . . . . . . . . . . . . . . . . 43
Primroses . . . . . . . . . . . . . . . . . . . . . . . . 69
Privet.
Prumers.
Pumps, Spray . . . . $78,7 \dot{9}, 80$
Putty Bulbs
Putty, Twemlow's . . . . . . . 82
Putty, Peerless Glazing . . 82
Pyrethrum . . . . . . . . . . . 42, 66
Radish. . . . . . . . . 22
Raffia
Rakes
Rape, Bird
Rape, Dwarf Essex . . . . . . . 55
Raspberries . . . . . . . . . . . . . 70
Rhubarb
$.22,26$
Ricinus.
. .43
Rollers, Lawn . . . . . . . . . . . . . . . . . . . . . 66
Rudbeckia.
Rutabaga. .
Salsify . . . . . . . . . . . . . . . . . . . . . 43
Salvia .................. 44,66
Sash, Hotbed . . . . . . . . . . . . 82
Saws, Pruning . . . . . . . . . .
Scabiosa . . . . . . . . . 42
47
Scale Destroyers ..74, 75, 76
Scarlet Runner Beans. . . . 44
Schizanthus . . . . . . . . . . . . . 44
Scythes.
Seed Sowers
Sedum . . . .
Shears
Sheep Manure . . . . . . . . . . . . . 72
Shovels . . . . . . . . . . . . . . . . . . . . . . . . 82
Smrubs . . . . . . . . . . . . . . . . . . . . . . . . 449
Snapdragon . . . . . . . . . . . $28, ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~$
Soja Beans . . . . . . . . . .
Sorghum . . . . . . . . . . . . . . . . . . . . 53
Spades.
Sparrow Traps . . . . . . . . . . 83
Speltz.
67,69
Spirea......................... . 67,69
Sprayers . . . . . . . . . 78, 79, 80
Sprinklers . . . . . . 82. 84, 86
prinkler. 82. 84,86

Stim-U-Pilant
Stocks .
Stokesia Cyanea . . . . . . 45, 67
Strawberries
Sudan Grass
Sulphate of Ammonia.... . . . 72
Sunflower . . . . . . . . 45, 55, 64
Sweet Peas . . . . . . . . . . 46, 47
Sweet Potato Plants . . . . . 26
Swiss Chard
Thermometers.
. . 82
Thistle Cutters . . . . . . . . . . 82
Thunbergia . . . . . . . . . . . . . 47
Tobacco. . . . . . . . . . . $2 \dot{4}, 2 \dot{2}, 26$
. ..... 47
Tree Tanglefoot. . . . . . . . . . 76
Trees, Evergreen . . . . . . . . 67
Trees, Shade . . . . . . . . . . . . 71
Trowels .71
.82
.59

Tuberoses
Tubs, Plant . . . . . . . . . . . . . . . . 86
Turnip... . . . . . . . . . . . . . 25
Verbena . . . . . . . . . . . . . . . 48
Veronica . . . . . . . . . . . . . . . . . . . . . . . . . . . . 54
Vetches . . 48
Violas . . . . . . . . . . . . . . . . . . . . . 40
Violet. . . . . . . . . . . . . . . .
Vinca. . . . . . . . . . . . . 47
47
Wallflower . . . . . . . . . . . . . . 48
Water Lilies . . . . . . . . . . . . . . 60
Watering Pots . . . . . . . . . . . . . 83
Wax, Grafting . . . . . . . . . . 82
Weeders . . . . . . . . . . . . . 83
Witloof Chicory . . . . . . . . . . 10
Wild Cucumber . . . . . . . . . 48
Wild Garden Flower . . . . . 48
Window Flower Boxes . . . 83
White Clover
Wire Plant Stands . . . . . . . . 73
Xeranthemum . . . . . . . . 48
Yucca. . . . . . . . . . . . . . . . . 6
Zinnia.

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