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MICHAEL SEED STORE

Annual Catalog, 1932

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U. S. Department of Agriculture

Alfalfa
Seed

SUPERFINE

From
The Michael
Seed Store
Sioux City,
Iowa

Alfalfa
Seed

VERIFIED
ORIGIN

From
The Michael
Seed Store
Sioux City,
Iowa

316
Pearl Street

Sioux City, Iowa

Phone
88666

Vegetable Seed Trials

FEB 4 1932

THIS PICTURE SHOWS HOW MICHAEL'S FAMOUS LAWN GRASS GROWS

HOW TO MAKE A LAWN

In preparing a seed bed so as to insure an everlasting lawn it is well that the earth be stirred deeper than merely scratching the surface, either with a good stirring plow or spade to the depth of a foot or fifteen inches, or even more. This is the first step to be taken, and the next consideration is the fertility of the soil where you are making the lawn. Among the various methods which increase the fertility of the soil we find that **Humus** plays a most important part. The very best time to do the work of preparing the soil for a lawn is in the autumn season and then left for the winter. The soil is solidified by the winter condition. Then in the spring the surface should be lightly stirred and the seed sown, well raked in and rolled. When the summer is over and the winter comes on again, the lawn needs attention, and it is a wise plan after the ground is slightly frozen to cover it with a moderate coat of well rotted manure. In the springtime before the growth of grass is started, this coat of manure should be well raked in the soil, and the roughage raked off, giving the grass a chance to get plenty of sunlight. Should, however, this be overlooked in the autumn, then in the springtime again it is well to apply a moderate amount of sheep manure, phosphate, or ground bone fertilizer, well raked into the soil just as soon as is possible and at such time it is well to apply a sprinkle of our blend of **Reseeding Lawn Grass**.

These suggestions in regard to the making of a lawn will well repay the time and expense by the increased growth of grass.

SHADY NOOK GRASS

For shady places in the lawn and about the home where many kinds of grasses do not flourish and do well it is well to secure something in the way of a grass that will do better, if not as well as in open spaces. Our **SHADY NOOK** is a blend of several varieties of velvety fine bladed grasses which grow and do as well in shaded places as in open spaces and we highly recommend it where such conditions prevail. **Price per lb. 50c.**

DEEP ROOTED LAWN GRASS

This is a blend of strong, powerful rooted grasses. It is especially valuable and is blended on purpose for just such places where we have had trouble to get sod firmly set. Shady nooks, terraces, slopes, sun-baked corners, and other trying places difficult to get a catch and sod started with those velvety foliage surface rooted grasses. In these places **Deep Rooted Lawn Grass** planted early in the spring time with some good fertilizer well mixed in the soil brings the desired results. **Per lb. 25c.**

BLUE GRASS

The best and most velvety lawn grass is our native grown **Kentucky Blue Grass**. It comes earliest in the spring and is the last and freshest green anywhere to be seen in the Autumn until winter comes again. There is sometimes trouble in getting it to come up quick and make a permanent sod, but this is often due perhaps to weather conditions and the quality of seed used. After years of experience we have come to understand and realize the importance and the requisite attention necessary to secure quality in **Blue Grass** seed. Quality of **Blue Grass** seed that we are now offering for lawn purposes is a high grade product grown especially for us, extra re-cleaned, sun-dried, highest germination, double weight, all chaff eliminated and in no sense to be compared to the chaffy grades of **Blue Grass** Seed usually offered for sale. This quality we handle under the name of **Purity Brand** which when sown on a well prepared seed bed in early spring-time will soon make a well sodded lawn. **Purity Brand, 30 lb. quality, limited 40c lb.**

MAGIC LAWN SEED

This is a special lawn grass of our own blend. It is made up of the best kinds and highest grades of domestic and imported grasses used in lawn work. It comes up quick and grows like magic, giving a continuous green turf throughout the season. The soil should be well prepared with a surface of black earth or some well rotted manure mixed in the soil and sown as early in the spring time as you can have the ground prepared. Sow at the rate of one pound to every 500 square feet. Remember that this is our own blend and sold only by ourselves at our **Seed Store, 316 Pearl Street. Per lb. 40c.**

RESEEDING LAWN GRASS

This is a special blend of grasses for reseeding the lawn after it is well raked and cleaned in the spring time. It has the effect to liven up an old lawn where the grass shows the effect of age and needs reviving. Sprinkle this seed over the lawn with a liberal application of sheep fertilizer well raked in, early in the spring time, which will bring the desired result. **Per lb. 40c.**

WHITE CLOVER SEED, Superfine quality, 50c per lb; 5 lbs. \$2.50. FERTILIZERS. See page 45.

THE MICHAEL SEED STORE

Phone 88666

J. S. MICHAEL, Proprietor

316 Pearl St., SIOUX CITY, IOWA.

INDEX

VEGETABLE SEEDS

Beans	2
Peas	3
Sweet Corn	4
Beets	4
Mangel, Sugar Beets	5
Cabbage	5, 6
Cauliflower	6
Carrots	6
Celery	6
Cucumber	7
Lettuce	7, 8
Muskmelons	8
Mushroom Spawn	14
Watermelons	9
Onions	10
Onion Sets	10
Pepper	11
Parsnip	12
Pumpkin	12
Radish	11
Spinach	12
Squash	12
Tomatoes	13
Turnips	13
Rutabaga	13
Miscellaneous seeds	14
Herb Seeds	14

FLOWER SEEDS

Sweet Peas	15
Nasturtium	15
Aster	16
Zinnia	16
Pansy	17
Petunia	17
Alphabetical list	18, 19
Perennial flowers	20
Hollyhocks	21
Novelties	21

ROOTS, BULBS, PLANTS

Dahlia	27
Peony	27
Gladiali Bulbs	28
Canna Roots	28
Hardy Bulb Roots	29
Tender Bulb Roots	29
Hibiscus Roots	21
Hollyhock Roots	21
Lilies	29
Chrysanthemums	29
Water Lilies	30
Iris	30
Aquatic Plants	30
Flowering Plants	31
Vegetable Plants	31
Canna plants	28
Perennial Plants	29
Plant Supports	47

GRASS SEEDS

Alfalfa	22
Bent Grass	23
Bromus Inermis	23
Clovers	22
Eng. Blue Grass	23

Ky. Blue Grass	23
Orchard Grass	23
Poa Trivialis	23
Red Top	23
Rye Grass	23
Sweet Clover	22

REED'S CANARY GRASS

THE HOME OF GOOD SEEDS

Bulbs, Plants and Nursery Stock

THE HOUSE THAT MICHAEL BUILT

A FRIENDLY TIP: Plant a home garden this spring. It is a sure cure for spring fever, a healthful exercise and a swat at the High Cost of Living. This applies to the city man, the suburbanite and the farmer too. For the latter it is a boon. Any farmer can save \$500.00 a year with a good home garden.

CATALOG: In handing you our new catalog we wish to express our thanks and appreciation and good will in days gone by.

VEGETABLE AND FLOWER SEEDS: We carry a full line of these seeds and they are the best the country affords. Purest quality, of strong germination, grown and carefully selected for us by special growers; men who exercise the greatest care to have the seeds choice, pure and reliable.

CLOVER AND GRASS SEEDS: Our field and grass seeds are of superfine quality, extra re-cleaned, pure, free from foul and obnoxious weed seed as it is possible to render them by the best process of re-cleaning.

NURSERY STOCK: Our cellar arrangements for handling nursery stock surpasses anything in the country for keeping this stock in just as nice shape after it is dug up in the spring time and brought to our house as if it was just dug out of the ground when the purchaser comes to get it. We call your attention to page 32 for the Nursery Department.

DISCLAIMER: While we exercise the greatest care to have all seeds pure and reliable, it is positively understood we sell no seeds, plants, bulbs or nursery stock with any warranty expressed or implied in any respect and will not be in any way responsible for the crop.

FARM SEEDS

Timothy	23
Millet	25
Cane Seed	25
Sudan Grass	25
Peteria	24
Field Peas	24
Kaffir Corn	24
Oats	24
Rye	24
Barley Velvet	24
Speltz	24
Flax	24
Seed potatoes	25
Sweet Potatoes	25
Rape	25
Soy Beans	25
Buckwheat	24
Seed Corn	26
Wheat	24

NURSERY DEPARTMENT, 32

Apples	32
Apricots	33
Crab Apples	33
Dwarf Apples	33
Cherries	33
Currants	35
Plums	34
Pears	34
Gooseberries	35
Grapes	36
Blackberries	35
Mulberry	34
Raspberries	35
Strawberry Plants	37
Ornamental Shrubs	38
Spirea	39
Climbing Vines	40
Hedge Shrubs	40
Ornamental Trees	41
Shade Trees	41
Weeping Trees	41
Evergreens	44
Roses	42-43
Seedlings	44

SUNDRIES

Insecticides	46
Fertilizers	45
Mulch Paper	45
Poultry Foods	48
Animals Foods	48
Sprayers	47
Seeders	47
Garden Implements	47
Nitragin	45
Hot Kaps	31
Bayers Dust	46
Dip Dust	46
Berry Boxes	47
Peat Pots	48
Paper Pots	48

The Michael Seed Store

J. S. MICHAEL, Proprietor

316 Pearl Street, Sioux City, Iowa

Phone 88666

Prices and Description VEGETABLE SEEDS

BEANS, PEAS AND SWEET CORN come first—other SEEDS in alphabetical order.

NOTICE—Prices quoted are f. o. b. Sioux City, Iowa. If ordered sent by mail, add 10c per pint, 15c per quart or 8c per pound to catalog prices.

Price per trade packet on seeds described below, except otherwise quoted: 8c each, 2 for 15c.

All prices quoted are subject to stocks on hand and market fluctuation.

Beans

Beans are very sensitive to both cold and wet. It would be useless to plant them until the ground is warm. They can be safely planted first when the apple is in bloom. For garden culture make your rows about 18 inches apart and 8 inches apart in the rows. One quart plants about 100 foot rows. Special price on application in 50 or 100 lbs.

Golden Wax The old standard wax sort. Productive and early with yellow semi-round pods of good quality. Prices: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.25.

American Black Wax The old standard Black Wax Bush Bean. The pods are round, brittle, yellow color. Prices: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.25.

Round Pod Kidney Wax (Brittle Wax.) Is early, of vigorous growth with heavy yielding vines; pods are long, round and entirely stringless; have fine flavor. One of the highest quality beans. One of the best of the round pods. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 20c; 1 lb. 35c; 10 lbs. \$3.00.

Davis White Wax A new, white, rustless, productive, wax-podded bean; pods flat, very long, white waxy color, and handsome; seeds clear white. Price: $\frac{1}{2}$ lb. 15c; 1 lb. 30c; 10 lbs. \$2.50.

Stringless Green Pod The earliest sorts of all green podded sorts; large, handsome pods, six inches in length. Very productive, pods, perfectly round, straight, broad, tender, brittle, fleshy and entirely stringless. Prices: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 20c; 1 lb. 35c; 10 lbs. \$3.00.

Extra Early Round Pod Red Valentine Nothing superior to this dwarf green-podded sort, both for the home and market garden. Many prefer it to the wax varieties. Pods medium length, curved cylindrical, with crease in back, very fleshy, crisp and tender. Price: $\frac{1}{2}$ lb. 10c; 1 lb. 20c; 10 lbs. \$2.00.

Improved Dwarf Lima A true bush form of the large White Lima, a circular bush 15 to 20 inches high, self-supported by its own thick stems, handsome pods. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 20c; 1 lb. 35c; 10 lbs. \$3.00.

Large White Lima Vine, tall growing, requires poles or support, pods borne in clusters, long, broad, dark green; Price: $\frac{1}{2}$ lb. 20c; 1 lb. 35c; 10 lbs. \$3.00.

Kentucky Wonder, or old Homestead. Pole variety long, flat green pods, seven to nine inches in length, fleshy and stringless. Heavy yielder. Excellent for snap beans. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 30c; 10 lbs. \$2.50.

Field Bean The finest white field bean. Price: 1 lb. 15c; 10 lbs. \$1.25; per 100 lbs. \$12.50. Bags extra.

Royal Round Pod
Purple Wax Bean

Royal Round Pod Purple Wax Bean This has been our specialty in wax beans now for several years, for it has proven itself to be one of the very best of all the wax sorts. We are the originators of it. The plants are good size without runners; leaves are dark green. Pods are very round and deep yellow in color, very brittle, stringless without fibre, and unsurpassed in quality. For the market gardener who wants a first class round podded wax bean, this is one of the best that has ever appeared. Prices: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 30c; 10 lbs. \$2.75.

PEAS

PEAS are among the earliest seeds that can be planted at the close of winter. The round, smooth sorts are the hardiest and are often planted without danger before the frost is out of the ground. The wrinkled sorts are not so hardy and cannot with safety be planted quite so early; but plant all kinds as early as possible and plant on a warm, quick, rich soil. Peas will mature earlier if planted only an inch deep. Where earliness is most important they should not be planted deeper, but larger pods and more of them may be had by deeper planting. Dwarf varieties are planted in rows 15 inches to 2 feet apart. Two quarts of seeds sow a hundred yards of rows.

Alaska or Earliest of All The vines are of medium height and of distinctive light color. The pods are of good size, about two and one-half to two and three-fourths inches long. Seed small, smooth, and bluish green in color. This sort matures all of its crop at once and is an invaluable variety for market gardeners and canners. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.00; 25 lbs. \$3.75.

Potlatch One of the largest, best and most productive of all the large podded Peas; superior to the Telephone, Harvester, Laxtonia or any of the others for a general home garden crop. Foliage a healthy dark green, growing to the height of about 20 inches. Crop maturing and ready to use in 60 days. Pods are borne in pairs, long, dark green, well filled with large berries. Second early. Planted at the same time you plant Little Gem and they come in right after the Gems are gone. Price $\frac{1}{4}$ lb. 10c; per lb. 25c; 10 lbs. for \$1.75.

Little Marvel New improved variety lately introduced. The most valuable home garden variety yet introduced, very early, large podded and a great cropper, 18 inches high, pods very dark green, produced in pairs and always well filled. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 30c; 10 lbs. \$2.50.

Telephone The Telephone is medium early in season, bears a long time; the pods are always of good size, well filled and the quality is of the very best. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.00.

Nott's Excelsior A very sweet, very dwarf, early pea, small bush, about 15 inches high. Bears very heavily in a favorable season, but subject to weather conditions more than the smooth peas. Very high quality. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.50.

Michael's Early June Pea This is actually the earliest pea known. Being a dented solid berry, it will stand planting two weeks earlier than the wrinkled varieties without injury from weather conditions which hardy quality gives it an extra early start... The berry is bluish green in color; vines grow about knee high and good averaged size pod; well filled and of a very rich quality. Price per $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.00; 25 lbs. \$3.75.

Michael's Early June Pea

EVERY GARDEN NEEDS
NITRAGIN—New Garden Culture for Peas and Beans.

$\frac{1}{4}$ Bushel size, postage, 4c.

$\frac{1}{2}$ Bushel size, postage, 5c.

5 Bushel size, postage, 7c.

1 Bushel size, postage, 10c.

The lack of bacteria in the soil is often the cause of a poor crop of peas and beans.

American Wonder Somewhat similar to Nott's Excelsior, a very early wrinkled pea; very dwarf. Pods quite large but not many to a vine. Prices: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.50; 25 lbs. \$4.00.

Little Gem Probably the best known and most widely grown second early. It comes in following the first earliest, grows about 15 to 18 inches high and bears heavily of large, plump pods. The peas are wrinkled and very sweet. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.00; 25 lbs. \$4.00.

Champion of England The best late season tall pea. One of the oldest varieties of peas. There is no sweeter pea than the Champion of England. The vines grow almost 5 feet high, are very vigorous and produce a heavy crop of good sized pods filled from end to end with luscious peas. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.00.

Marrowfat (Late) One of the oldest and best known peas. A great yielder of ordinary quality peas. Price: 1 lb. 20c; 10 lbs. \$1.75; 25 lbs. \$3.00.

Edible Pod Pea This class of pea is but little known. They have a sweet, brittle, succulent pod, and can be used same as snap beans, cooking both pod and pea together. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c.

Canada Field Pea A splendid crop to sow with oats or barley for green feed. Will produce a crop and enrich the soil at the same time. Succeeds well almost anywhere and is very prolific. Price: 1 lb. 15c; 15 lbs. \$1.75; Per 100 lbs. \$8.00. Bags extra.

SWEET CORN

DON'T PLANT SWEET CORN DEEP—Sweet Corn should not be planted over one inch deep; most people plant two or three inches deep—most sure to rot. Also do not plant too early. Not as early as field corn.

Golden Giant Sweet Corn

Golden Giant This is an early Sweet Corn recently introduced which is as early as the Golden Bantam. It is superior in size of ear and quality to that well known sort. The ears are fully a half larger; corn much sweeter, much more productive and as a roasting ear for market garden trade is much more desirable and a better seller. Price: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 20c; 10 lbs. \$1.50.

SUNSHINE This is a very early yellow variety of sweet corn which was brought out the first place by the North Dakota Agricultural College. In our trial grounds this year it has proven all that has been claimed for. It is ten days earlier yet than Golden Bantam; a somewhat larger ear with more rows on it. The quality is tender and sweet and retains its tenderness longer than most early varieties. A combination of earliness and quality. Prices are: $\frac{1}{4}$ lb. 10c; $\frac{1}{2}$ lb. 15c; 1 lb. 25c; 10 lbs. \$2.00.

Golden Bantam A yellow variety of sweet corn; the richest and sweetest of all corns. It may be planted thickly and as late as July 15 with splendid results for table use as green corn. Price: $\frac{1}{2}$ lb. 10c; 1 lb. 20c; 10 lbs. \$1.50; 25 lbs. \$3.00.

White Mexican Originated at Sioux City. Early as the Extra Earlies and far sweeter than any of them. Price: 1 lb., 20c; 15 lbs. \$2.25.

Country Gentleman This variety frequently has four good sized ears, while the average is three to a stalk. The cob is very small, giving good kernels of pearly whiteness. It is without doubt the sweetest and most tender of all sweet corn. Price: $\frac{1}{2}$ lb., 15c; 1 lb. 25c; 10 lbs. \$2.00.

Michael's Improved Evergreen This is an improvement over Stowell's. Deeper kernels and a sweeter roasting ear. Earlier and will last a long time in a green and tender condition. The ideal variety for market gardeners. Price: $\frac{1}{2}$ lb. 10c; 1 lb. 20c; 10 lbs. \$1.75; 25 lbs. \$4.00.

Minnesota Early The best and most popular of the older varieties, having eight rows of very sweet and tender kernels. Price: $\frac{1}{2}$ lb., 10c; 1 lb., 15c; 15 lbs., \$2.00.

Stowell's Evergreen The standard big late corn. Good, big ears, sweet and solid, and heavy yielder. Stays green and tender for a long time. Price: $\frac{1}{2}$ lb. 10c; 1 lb. 20c; 10 lbs. \$1.60; 25 lbs. \$3.00.

Sweet Corn for Fodder Good vitality; early or late. \$3.00 per bushel.

TABLE BEETS

For earliest use sow seed of any round sort. Seed for main crop may be sown as soon as the ground can be gotten in proper condition. For table beets sow in drills 18 inches apart, and thin to stand 3 to 4 inches apart in the row. Use 1 ounce to 200 feet of drill and cover lightly; 5 to 6 lbs. per acre. Round and turnip shaped beets are the best for spring and summer; the half long kinds for winter. For sugar beets and mangels make the rows 2 $\frac{1}{2}$ to 3 feet apart, and sow 6 to 8 pounds per acre. A light loamy soil is best for all beets.

Early Wonder A rather new variety of recent introduction and one of the earliest Beets known, almost round leaves, small, very dark rich crimson color. Price: oz. 10c; $\frac{1}{4}$ lb. 25c; 1 lb. 75c.

Extra Early Flat Egyptian An early variety. The tops are small and the beets are round on top, but flat at bottom end. The color of flesh is light red. Price: oz. 10c; $\frac{1}{4}$ lb. 25c; $\frac{1}{2}$ lb. 40c; 1 lb. 70c.

Crosby's Egyptian A variety of beet which has nearly supplanted the original Egyptian and is more desirable because of its shape and fine quality. It is extremely early. Price: oz. 10c; $\frac{1}{4}$ lb. 25c; $\frac{1}{2}$ lb. 40c; 1 lb. 75c.

Swiss Chard, or Spinach Beet The leaves of Swiss Chard are used as greens, cooked in the same manner as Spinach. Price: oz. 10c.

Half Long Blood Dark Red flesh. Price: oz. 10c; $\frac{1}{2}$ lb. 30c; 1 lb. 50c.

Long Smooth Dark Blood Price: oz. 10c; 2 ozs. 15c; $\frac{1}{2}$ lb. 30c.

Detroit Dark Red A grand beet with tops exceptionally small and up-right; roots are perfect turnip shape with small tap root. Color dark blood red. One of the best for market gardener and the home gardener. Price: 1 oz., 10c; $\frac{1}{4}$ lb. 25c; $\frac{1}{2}$ lb. 40c; 1 lb. 75c.

Detroit Dark Red

Mangel Wurzel and Sugar Beets

The Best for Stock Feeding

Half Sugar Mangel

A strain of beets very desirable for stock feeding, affording not only a very large crop much easier to harvest than other sorts, but much richer in sugar and other nutritive elements growing out of the ground. Can be harvested easily. Price 1 lb. 50c; 10 lbs. \$1.00.

Mangel Wurzel

Mammoth Long Red This is the heaviest all mangels. The roots grow from one-half to two-thirds above the surface and are frequently two or more feet in length by six inches in diameter. Dark, richly colored foliage; skin bright red; flesh white, with veined rings of rosy-pink. Price: oz. 10c; ½ lb. 25c; 1 lb. 40c; postpaid, 10 lbs. \$3.50.

Golden Tankard Best for dairy farming. It is of rich, deep yellow throughout. Early, hardy and a heavy cropper. Price: oz. 10c; 1 lb. 50c; 5 lbs. \$2.00.

Sugar Beets

Sugar Beets may be grown in any tillable soil that is capable of producing good crops of vegetables. A few rows of Sugar Beets in the garden will be sufficient for a supply of syrup for home use. A bushel of Sugar Beets will produce about a gallon of syrup. Splendid for stock food.

White French Sugar Price: oz., 10c; ¼ lb. 20c; 1 lb. 50c.

Write for U. S. Department of Agriculture for Farm Bulletin No. 823.

Cauliflower

One ounce of seed will produce about 3,000 plants.

Cauliflower (Danish Grown Seed)

Early Snowball Esteemed for its earliness and its heading qualities, producing large, solid, pure white heads; dwarf in habit and as early as any; one of the best sorts for forcing. Price: Pkt., 15c; ¼ oz., \$1.00; ½ oz., \$1.50; oz., \$2.50.

Danish Giant One of the finest late varieties of robust habit; heads large, compact and thoroughly protected by leaves. Price: Pkt. 15c; ¼ oz. 80c; ½ oz. \$1.50; oz. \$2.50.

CABBAGE

CULTURE—The Cabbage is a great feeder and well repays heavy manuring and high culture. It succeeds best on well drained soil. Early cabbage may be started in early spring in a hot-bed. For main crop, summer and autumn cabbage, the seed should be sown in a rich bed in the open air in May or June. Sow shallow; 1 oz. of seed to 4,000 plants, 3 to 4 ozs. for an acre. Set the plants 2 to 3 feet apart each way. Give frequent cultivation. SEE PAGE 31 FOR PLANTS.

Iacope Cabbage

Iacope Cabbage

This is a late introduction in cabbage, bred especially to withstand a disease called 'Yellows' in cabbage plants as they grow in the field, brought out after many years of selection by the Department of Plant Pathology of the

Iowa Agricultural Experiment Station. It is a strain that has been developed from the Copenhagen Market. It is especially valuable to commercial growers who want an early cabbage and market gardeners who have trouble in getting a good crop from ordinary varieties. Price: ½ oz. 35c; oz. 60c; ¼ lb. \$2.00; 1 lb. \$7.50.

Danish Ball-Head (120 days) (Dutch Winter or Hollander). The heads are of medium size, solid and deep, averaging in weight nearly eight pounds. Their quality is superior and they are just as solid in spring as when put away in the fall. Price: ½ oz., 10c; oz., 20c; ¼ lb., 75c; 1 lb., \$2.50.

Copenhagen An entirely new type of early cabbage. As early as Early Jersey Wakefield, as large as All Head, solidier and better quality than either. Price: ½ oz., 15c; oz. 25c; ¼ lb., 75c; 1 lb., \$2.50.

Early Jersey Wakefield Considered by many gardeners the very best early variety. Price: ½ oz. 10c; oz. 20c.

Early Flat Dutch Cabbage A valuable second early sort. Price: ½ oz. 10c; oz. 20c; ¼ lb. 75c.

Premium Late Flat Dutch Old and well-known variety. Price: ½ oz. 10c; oz. 20c; 1 lb. \$2.00.

Late Drumhead A very deep, solid, sure heading variety. Price: ½ oz. 15c; oz. 25c; 1 lb. \$2.75.

Red Dutch Price: ½ oz. 15c; oz. 25c.

For Cabbage Plants see page 31.

Early Jersey Wakefield

Early Flat Dutch

CARROTS

Carrots require a deep, well worked soil. Plant in rows 15 inches apart for table sorts; cover half inch deep. One ounce plants 50 feet. Carrots are excellent for stock, especially for horses. Sow any time before July 1st in rows 24 inches apart. Thin to 6 inches in the rows; two pounds of seed to the acre. Store in winter the same as turnips. For feeding stock grow the **White or Yellow Belgian**, which yields big crops.

Oxheart Carrots

Oxheart or Guerande We do not hesitate to call this the most valuable variety in existence. It is intermediate between the Half Long and Horn varieties, attaining a diameter of 3 to 4 inches at the neck, of beautiful shape and rich orange color. It is excellent for hogs and other live stock and has yielded 1,200 bushels per acre. Price: oz., 10c; ¼ lb., 25c; 1 lb., 75c.

Earliest Short Horn (French Forcing). This variety is small, reddish-orange, of globular shape and excellent flavor. Price: oz. 15c; 3 ozs. 35c; ½ lb. 75c; 1 lb. \$1.50.

Danvers Half Long A popular standard variety of rich, dark, orange color. Very smooth and handsome. In form halfway between Oxheart and the Long Orange, and wonderfully productive. Price: oz. 10c; ¼ lb. 25c; 1 lb. 75c.

Chantenay Half-Long Resembling the Danvers, with larger shoulder. Medium early and heavy cropper. Price: oz. 10c; ¼ lb. 25c; 1 lb. 75c.

Improved Long Orange A well-known sort, roots long, thickset near the crown, tapering regularly up to a point, color deep orange. Price: oz. 10c; 2 oz. 15c; ½ lb. 40c; 1 lb. 75c.

Large Yellow Belgian Used for feeding cattle; grows large and is very productive. Price: oz. 10c; ¼ lb. 25c; 1 lb. 60c; 5 lbs. \$2.50.

CUCUMBERS

Cucumbers thrive best on warm, rich, sandy soil, the richer the better. Crop should never be planted until soil is warm and the trees are out in full leaf. Plant in hills 4 feet apart and thin to about 4 plants to the hill. Second planting about the middle of July for fall. One ounce for 50 hills.

The Davis Perfect Cucumber An excellent new cucumber for both outdoor use and forcing. It is a most carefully selected strain of the White Spine type. It is slim, slightly pointed, a dark glossy green color, very tender, brittle and of fine flavor, vigorous grower, withstanding blight and disease better than other sorts. Price: ½ oz. 10c; 1 oz. 15c; ¼ lb. 40c; ½ lb. 60c; 1 lb. \$1.00.

Improved Early White Spine An excellent variety which produces an early crop of cucumbers. The fruits are straight, light green, with white spines. Price: ½ oz. 10c; 1 oz. 15c; 3 ozs. 35c; ½ lb. 60c; 1 lb. \$1.00.

Boston Pickling A distinct and very productive variety extensively grown for pickles. The fruits are of medium size, very smooth, symmetrical and bright green. Price: ½ oz. 10c; 1 oz. 15c; ¼ lb. 35c; ½ lb. 60c; 1 lb. \$1.00.

Early Cluster Vine vigorous, producing the bulk of the crop near the root and in clusters. Fruit short, with uniformly thick end, dark green, but paler at blossom end. A hardy and very productive sort. Price: ½ oz. 10c; 1 oz. 15c; ¼ lb. 35c; ½ lb. 60c; 1 lb. \$1.00.

Early Frame Short Green This variety is an excellent sort, both for table use and for pickling. Plants very vigorous, fruit straight, a little smaller at the ends, bright green, light at the blossom end. Comes into condition for use a little later than the Early Cluster. Price: ½ oz. 10c; 1 oz. 15c; ¼ lb. 35c; ½ lb. \$1.00.

Improved Long Green (Jersey Pickle). Fruits are long, firm and crisp. The small fruits are used for pickles and larger ones are excellent for slicing. The vines make a strong growth and are very productive. Price: ½ oz. 10c; oz. 15c; ¼ lb. 35c; 1 lb. \$1.00.

The Davis Perfect Cucumber

LETTUCE

Culture. Lettuce, to be at its best, should be grown rapidly, hence the soil should be made as rich and friable as possible by liberal manuring and thorough preparation. For winter, sow under glass from November to February and thin out as necessary. For general crop, sow out-doors as early in the spring as the ground can be worked, in drills 18 inches apart, and thin young plants to 4 inches apart in the row. As the plants begin to crowd, thin them out and use as required. In this way a much longer succession of cutting may be had from the same ground.

Black Seeded Simpson

Black Seeded Simpson Nearly double the size of an ordinary Curled Simpson. Stands summer well without becoming tough or running to seed quickly. By far the most popular variety for greenhouse forcing, making large handsome heads in a very short time. Price: oz., 10c; ¼ lb. 35c; ½ lb., 60c; 1 lb. \$1.00.

Hanson Leaves are curly and tender and form a head as large as an early cabbage. Slow to run to seed. Creamy white inside. Price: oz. 10c; ½ lb. 75c; 1 lb. \$1.00.

Celery

One ounce will produce 5,000 plants.

Celery—Celery seed is slow to germinate and ample time must be given. Sow thinly and cover lightly, keep constantly moist. Count on about 4,000 plants per ounce of seed. When the seedling plants are 3 inches high they should be clipped at the top. Favor stock growth or else transplant.

White Plume Celery The earliest celery. The easiest to grow, as it blanches without even earthing up. Price: ½ oz. 10c; oz., 25c; ¼ lb., 75c; 1 lb., \$2.25.

Giant Pascal A superior keeping sort. The stalks are very large, solid, crisp and of rich nutty flavor; it blanches very easily and retains its freshness a long time. Price: ½ oz. 10c; oz. 25c; ¼ lb. 75c; 1 lb. \$2.25.

Golden Self Blanching The leading early variety. Stalks are broad-er and heavier than those of White Plume, and superior in quality, while it is only a little later. Price: ½ oz., 15c; oz. 25c; 1 lb. \$3.00.

Grand Rapids (Seed black). A lettuce for greenhouse forcing, quick growth, hardy, little liable to rot and remaining in condition several days after being fit to cut. Will stand shipping long distances better than most sorts. Price: Oz. 10c; ¼ lb., 35c; ½ lb. 60c; 1 lb., \$1.00.

New York This is one of the finest head lettuce now being grown, extra tender and very brittle. While not as early variety as some it is one of the best for the garden or market. If you are fond of good lettuce don't fail to sow some of this excellent variety. Price: ½ oz. 10c; oz. 15c; ¼ lb. 50c; per lb. \$1.50.

Early Prize Head. B (Seed White). A large clustering, non-heading lettuce. The most easily grown variety in cultivation. The leaves of the variety are crimped, bright green tinged with brownish red, very tender and sweet. Price: oz. 10c; ½ lb. 60c; 1 lb. \$1.00.

Early Curled Simpson White seeded. One of the best of the leaf lettuces. Quite similar to Early Curled Silesia. Price: oz. 10c; ½ lb. 60c; 1 lb. \$1.00.

Egg Plant

A tender plant that should be started quite early in a hotbed and transplanted.

New York Improved Large Purple

New York Improved Large Purple. Fruits large, nearly round, dark purple, free of thorns. Price: ¼ oz., 30c; oz., 50c.

Black Beauty. Fruit large, symmetrical in shape and of a rich dark purple color. Little earlier than our Improved Large Purple. Price: ¼ oz., 30c; oz., 50c.

MUSKMELON SEED

Our melon seed is saved from fields in which only seed melons are grown.

Culture. Plant seeds in hills 4 to 6 feet apart each way, after danger of frost is over. Use well rotted manure in the hills. One ounce of seed to 50 hills; 2 to 3 pounds to the acre. A light warm soil is best. In hoeing, draw the soil well up to the plants. Fight bugs with tobacco dust and slug shot.

Hearts of Gold

Hearts of Gold Vines strong and vigorous, disease resistant, prolific bearer, improved strain. Hoodoo. Melons of medium size, round, rich deep orange color. Price: oz., 10c; ¼ lb., 35c; lb., \$1.00; 5 lbs., \$4.00. 1 lb. sealed cloth bags, \$1.50 each.

Honey Rock Shaped nearly round and netted. Rich salmon color. Price: oz. 15c; ¼ lb. 50c; lb. \$1.50; 1 lb. sealed cloth bags, \$2.00.

Honey Ball Cross between Green Meated Honey Dew and Cannon Ball. Price: oz. 15c; ¼ lb. 50c; lb. \$1.50; 1 lb. sealed cloth bags, \$1.50.

Hale's Best Salmon fleshed variety. Well netted. No ribs. Good roadside market kind. Price: oz. 15c; ¼ lb. 50c; lb. \$1.25; 1 lb. sealed cloth bags, \$1.50.

Honey Dew The skin is a very delicate yellow; surface almost perfectly smooth. Price: ½ oz., 10c; oz., 15c; ¼ lb., 40c; lb., \$1.50; 5 lbs., \$4.50.

"Hoodoo" Melon A new orange fleshed variety of the finest quality. Very vigorous, remarkably blight resisting and very productive. Price: oz. 15c; ¼ lb. 50c; lb. \$1.00. Introducer's Strain, lb. \$3.00.

Extra Early Hackensack Ten days earlier than the old Hackensack. Flesh light green and excellent in flavor. Price: oz. 15c; ¼ lb. 40c; lb. \$1.50; 5 lbs. \$4.50.

Milwaukee Market Earliest, large size, good quality, yellow meated muskmelon to appear in the markets. Heavily muskmelon to appear in the markets. Price: ½ oz. 10c; 1 oz. 15c; ¼ lb. 40c; lb. \$1.00.

Jumbo Giant Largest muskmelon grown. Very heavily ribbed, noticeable and attractive. Quick seller. Best quality of large melon, great yielder and a good money maker. Everybody wants one that sees it in the market. Price: oz. 10c; ¼ lb. 35c; lb. \$1.00.

Rocky Ford (Netted Gem). The flesh is deep and thick, and light green in color. The flavor is exceedingly fine. The skin is regularly ribbed and thickly netted. It is a heavy cropper, and in wide favor as a market melon. Very dependable. Price: oz. 10c; ½ lb. 60c; lb. \$1.00; 5 lbs. \$4.00.

Emerald Gem One of the sweetest melons in cultivation; smooth skin, deep salmon colored flesh; early and prolific. The ideal home melon. Price: ½ oz. 10c; oz. 15c; ¼ lb. 75c; lb. \$1.25.

Osage (Salmon and Green). Medium to large sized, oval, slightly ribbed, dark green in color. Flesh is deep salmon color and very thick. Covered more or less with shallow netting. Price: oz. 10c; ½ lb. 60c; lb. \$1.00.

WATERMELON SEED

Culture. The essential thing in melon culture is to get good strong vines early in the season. To this end plant your melons in hills 8 ft. apart, made rich with some good fertilizer or well rotted manure thoroughly mixed with the soil. As soon as the ground is warm and dry plant 15 to 20 seeds in each hill, and thin out when the plants begin to grow, leaving only 3 to 5 of the most vigorous. Protect the young plants from insects and hasten their growth by the use of liquid manure. From 3 to 5 pounds plant an acre. Fight bugs with slug shot and tobacco dust.

One ounce will plant 50 hills and four pounds will plant one acre.

Dixie Bell (Stone Mountain)—The latest thing in melons to appear in the northern market. It is a big round one, slightly oblong but nearly round. Green color with bright red flesh that is a scream and as sweet as honey. The most popular of all melons in the southern market and becoming the same in the northern market wherever it appears. Several carloads reached Sioux City this season from Southeastern Missouri and swept aside everything else until they were all gone. If you plant any melons for your home use or for market don't forget to plant some Dixie Bell.

It pays to buy the best that can be obtained. Dixie Bell is the aristocrat of all melons. If you raise but one kind of melon raise Dixie Bell.

We are offering the Dixie Bell Watermelon Seed in two grades as follows: Standard Grown Seed Stock. Price: oz. 15c; ¼ lb. 40c; ½ lb. 60c; 1 lb. \$1.00.

Originator's Seed Stock saved from selected melons of 40 lbs. weight and up. Price: oz. 35c; ¼ lb. \$1.00; ½ lb. \$1.50; state sealed bags, 1 lb. \$2.50.

Irish Gray A superb new sort. Bright sparkling red flesh, sweet, firm, with a yellowish gray rind. For the home it's better and sweeter than Kleckley's Sweet; has a tough rind; better than Tom Watson and outyields either of those. Price: Oz. 10c; ¼ lb. 30c; ½ lb. 75c; 5 lbs. \$3.00.

Kleckley's Sweets Unsurpassed for home use or near markets. Melons of medium size, oblong, tapering slightly towards the stem end; dark green. Flesh very bright rich red, exceedingly sweet. Price: Oz. 10c; ½ lb. 60c; 1 lb. 75c; 5 lbs. \$3.50.

Dixie Bell

Golden Heart Light green color with unsurpassed rich golden yellow flesh. Price: oz. 15c; ¼ lb. 50c; ½ lb. \$1.50.

Cole's Early The earliest in cultivation. Black seed, rich red flesh.

Georgia Rattlesnake Oblong, dark and striped; bright red flesh.

Halbert Honey A variety somewhat similar to Kleckley Sweets.

McIvor's Wonderful Sugar The melons are long, good size. The rind is thin, but tough. Flesh is delicate.

Peerless or Ice Cream

Very early; red flesh; good home melon.

Sweet Heart

Mottled light green; large, oval, heavy; red flesh; fine shipper.

Tom Watson

A large, oblong, dark green melon, red color, crisp, sweet and delicious.

Above varieties not priced we quote as follows: Price: Oz. 10c; ¼ lb. 40c; ½ lb. 75c; in 5 lb. lots and over, 60c; per lb.: 10 lbs. \$5

Kleckley Sweet

ONION SEED

The onion not only contains considerable nutriment and has valuable medicinal properties, but is most useful in counteracting the bad effects of sedentary life. The odor it imparts to the breath may be avoided by thorough cooking.

In onion culture, thorough preparation of the ground, careful sowing and the best of after culture, though essential, avail nothing unless seed of the best quality be used.

Sow the seed as soon as the ground can be gotten ready, and it can be done best with a Planet Jr. hand seed drill adjusted to sow the desired quantity of seed about one-half inch deep. The quantity needed will vary with the soil, the seed used and the kind of onions desired. Thin seedling gives much larger onions than thick seeding. Four to five pounds per acre is the usual quantity needed to grow large onions.

Gathering. As soon as the tops die and fall the bulbs should be gathered into windrows. Cut off the tops when perfectly dry; leave lay a few days.

Southport Red Globe

Southport Red Globe On account of its beautiful shape and rich red color, these onions bring a premium in any market and is an excellent keeper. The seed we offer is grown from true type bulbs. Subject to test before planting and if not absolutely satisfactory, money will be refunded. Price: ½ oz. 10c; oz. 15c; ½ lb. \$1.00; lb. \$1.50; 10 lbs. \$13.75.

White Globe This is the largest successful pure white onion in cultivation. Perfect globe shaped, very solid; keeps well and always brings the top of the market. Price: ½ oz. 15c; 1 oz. 25c; ½ lb. \$1.25; 1 lb. \$2.50.

Large Red Wethersfield The best known of all the onions. Price: ½ oz. 10c; oz. 15c; ½ lb. 75c; lb. \$1.50; 10 lbs. \$10.00.

Yellow Globe Danvers The most extensively used yellow onion. Price: ½ oz. 15c; oz. 25c; ½ lb. 90c; lb. \$1.50. Prizetaker (the largest onion grown; very mild). Price: ½ lb. \$1.00; lb. \$1.75.

White Silver Skin, round, white, medium. Price ½ lb. \$1.25; lb. \$2.25.

Valencia Onion A variety of late introduction. A very mild variety. Bronze color. Thin tough skin, solid and substantial. One of the best keepers of all onions. Grows very large. Good specimens weigh about 2 lbs. Price: ½ oz. 10c; oz. 15c; ½ lb. \$1.00; lb. \$1.75.

Mammoth Silver Skin, a large, white onion. Price ½ oz. 15c; 1 oz. 25c; ¼ lb. 75c; lb. \$2.25.

New Queen, early, small white onion for pickling. Price: 1 oz. 25c; ¼ lb. \$1.00; ½ lb. \$1.50; lb. \$2.50.

ONION SETS

Many prefer to grow onions from sets, as they are less trouble and are ready for use earlier than those grown from seed. Sets grown from seed are known as bottom sets. One quart will plant a row 50 feet long. Ten bushels will plant one acre. We sell by the pound only. Special prices in large lots on all varieties. Bottom Onion Sets, per lb. 15c; 3 lbs. 40c. Perennial Sets, lb. 15c; 3 lbs. 40c. Chives—Perennial Onion, per clump, 25c; Garlic Bulbs, 25c per pound. Add 6c per lb.; 2 lbs. 8c; 5 lbs. 14c; if by parcel post.

ONION PLANTS

Onion plants are becoming more popular each season. These plants are grown in the south and ready to ship north by April, when the young onion can be set out then in our climate here. These plants are mostly white or yellow Bermuda onions, good keepers and quick sellers. White Bermuda Onion Plants, or Yellow Bermuda either, 25c per 100 plants; \$1.00 per 1000. Crate of 6000, \$5.00 per crate. 10 crates \$4.50 per crate.

NOTICE—ALL PRICES SUBJECT TO MARKET CHANGES AND STOCKS ON HAND. When out of any one kind we reserve the right to fill with next best at price of next best.

RADISH SEED

SPECIAL PRICES 5 to 10 POUND LOTS ON ALL SORTS.

Culture. For forcing under glass, scatter evenly over the surface 100 seeds to the square foot and cover with one-half inch of soil, sifted. For open ground culture, sow on rich, sandy soil as soon in the spring as it is fit to work, in drills twelve inches apart and thin out the plants if necessary to prevent crowding. A good dressing of nitrate of soda will greatly stimulate growth and insure tender and brittle roots. Successional sowing from one week to ten days apart will keep up a supply. After the hot weather of summer begins it is better to sow the summer and winter varieties, as they do not become tough and stringy nor pithy as the earlier sorts are apt to do when planted in late summer time. One ounce sows about 50 feet of row.

Remember, a succession is secured by planting seed every ten days.

SPECIAL PRICES 5 TO 10 LB. LOTS ON ALL SORTS.

Saxa Globe Radish

Saxa Globe This is the quickest outdoor Radish known. On account of the remarkably small size of the leaves is indeed one of the safest and best for greenhouse culture. The flesh is firm and crisp, rich crimson, globe shape, and bulbs of even size. With favorable weather Saxa will be ready to eat in twenty days. Originated in Quedlinburg, Germany some years ago. Price per oz. 10c; ¼ lb. 25c; ½ lb. 40c; 1 lb. 75c; 10 lbs. \$6.00.

Cardinal Globe Radish This is the best forcing and quickest outdoor radish to date. A new 20-day variety. Remarkable for the small size of its leaves. The flesh is firm, crisp and fine quality, dark red, globe shaped bulbs of even size. Price: oz. 10c; ¼ lb. 40c.

Icele The finest eating, a most distinctive Long White Radish. The best eating radish, and the best white variety. This sort has long, slender, pure white roots, which remain mild and crisp until they grow of larger size. Tops are quite short, making it early, and also allowing close planting. A succession is secured by planting seed every ten days. Price: oz., 10c; ½ lb. 40c; 1 lb. 75c; 5 lbs. \$2.50.

Scarlet Turnip, White Tipped One of the handsomest of the turnip radishes and a great favorite in many large markets for early outdoor planting. Roots slightly flattened on the under side, color very deep scarlet with a white tip; flesh white and of the best quality. Price: oz., 10c; ½ lb., 40c; 1 lb. 75c; 5 lbs. \$2.75.

Early Scarlet Globe A desirable sort for hotbed forcing and outdoor planting. Very early; top small. One of the best selling and most attractive radishes on account of its bright scarlet color and handsome shape; flesh white and tender, fit to pull in 28 days. Price: oz. 10c; ½ lb. 40c; 1 lb. 75c; 5 lbs. \$3.00.

Crimson Giant An early sort, looking much like the old Early Scarlet Globe, but more perfect in shape. It comes early but keeps on growing and remains tender, solid and sweet until it gets as large as a teacup or larger. Price: oz. 10c; ½ lb. 50c; 1 lb. 75c.

Radishes

	1 oz.	¼ lb.	1 lb.
French Breakfast, stump rooted.....	\$0.10	\$0.50	\$0.75
Early Scarlet Turnip.....	.10	.50	.75
Long Scarlet Short Top.....	.10	.50	.75
Chartier Half Long White bottom.....	.10	.50	.75
White Strasburg.....	.10	.50	.75
Early White Turnip.....	.10	.50	.75

Winter Sorts

	1 oz.	¼ lb.	1 lb.
Cal. Mam. White Winter.....	\$0.10	\$0.60	\$1.00
Rose White Winter.....	.10	.60	1.00
Black Spanish, round or long.....	.10	.60	1.00

PEPPER

(One ounce will produce about 1,800 plants). Sow seed in hotbed early in spring; transplant to open ground when the weather is favorable. Seeds germinate slowly and require considerable heat.

Bull Nose Large blocky fruit, very mild. Popular with home gardeners. Oz. 25c; ¼ lb. \$1.00; 1 lb. \$3.00.

Ruby King Very large size. When ripe they are of a beautiful bright ruby red color. Price: oz. 25c; ¼ lb. \$1.00; 1 lb. \$3.00.

Chinese Giant Most gigantic of all Giant Peppers. A fine mild red pepper, of enormous size, glossy scarlet color. The flesh is mild and unusually thick. Price: ½ oz. 25c; oz. 40c; ¼ lb. \$1.50; 1 lb. \$4.50.

Pimento Flesh extremely thick and very mild. Must be started early in the North to mature its fruits fully. ½ oz. 30c; oz. 50c; ¼ lb. \$1.25; 1 lb. \$4.00.

Red Cayenne Pods long and slim, of medium size. Pungent. Price: oz., 25c; ¼ lb., 75c.

Ruby King

Parsnip

(One ounce will sow 200 feet of drill).

Sow early in spring in good, rich soil, which has been plowed deep. They are improved by frost.

Improved Hollow Crown Fine grained and excellent. per oz.
10c; ¼ lb. 25c; 1 lb. 75c; 5 lbs. \$3.00.

Spinach

An easily grown plant; the seed may be planted in the fall to secure good spinach early in the spring or even throughout the winter. The better and richer the soil, the larger and more tender the leaves will be. Use 8 pounds of seed per acre. For the home garden use one-half ounce for 100 feet of row

New Long Standing Spinach "Antvorskov" (Danish King)

This variety is slower to seed than any other sort. Antvorskov forms quite large tufts, compact and low. The numerous leaves are extra large, broad and rounded, exceedingly bushy, slightly crumpled and of a glossy dark green color. It is vigorous and a rapid grower. It is ready for use practically as early as any Spinach and remains in condition much longer. Oz. 10c; ¼ lb. 20c; 1 lb. 35c; 5 lbs. \$1.75; 10 lbs. \$3.00.

New Zealand A variety of spinach unlike the common kind. Stands all summer and produces a continuous supply of good quality foliage from seed sown in the spring-time. Price: bulk pkt. 10c; oz. 15c; per lb. \$1.00; 5 lbs. \$4.00.

Parsnips

Sugar Pie Pumpkin

Pumpkin

Culture. Plant from May to July in hills 6 feet apart each way. One ounce for 15 hills; two pounds to an acre.

Connecticut Field or Cow Pumpkin The big yellow kind that is grown so much in the corn fields. Price: oz. 5c; 1 lb. 30c; 5 lbs. \$1.25; 10 lbs. \$2.00.

Small Sugar Best of all Pie Pumpkins. Very sweet and tender. Looks like a Yankee Pumpkin, but smaller. Early and prolific. Price: oz. 10c; ¼ lb. 25c; 1 lb. 75c.

Quaker Pie A very prolific variety; a good keeper and one of the best for pies. Price: oz. 10c; ¼ lb. 40c; 1 lb. \$1.25.

Squash

Culture—Scientists have discovered a remarkable abundance of vitamins in summer squash. Highly recommended for children of weak physical development. Plant during first half of May 4 feet apart, later varieties 6 feet. Thin out to three plants in hill. Use tobacco dust for bugs.

(See insecticide, page 46.)

Hubbard Squash

True Warty

Table Queen (Acorn Squash). A smooth dark green squash, small size, six inches long, pointed end with a red block sometimes on the end. Eating quality second to none. Ideal as a half shell individual dish. Prices are ½ oz. 10c; 1 oz. 15c; ¼ lb. 35c; 1 lb. \$1.00.

Boston Marrow This is a very productive fall and winter variety of medium to large size, oval shape, and thin skin. It is much used for canning and making pies. The fruits when ripe are bright orange. The flesh is of rich salmon yellow color. Price: oz. 10c; ¼ lb. 30c; 1 lb. \$1.00.

Mammoth Chili A very large and attractive variety. The skin is a rich orange yellow, flesh thick, fine grained and sweet. Price: oz., 15c; ¼ lb., 50c; 1 lb., \$1.25.

Early White Bush Price: oz. 15c; ¼ lb. 50c.

Golden Summer Crookneck Price: oz. 15c; ¼ pound, 50c.

True Warty Hubbard The standard winter squash. Large, olive-shaped, with dark green skin and very rich flesh. Almost everyone is well acquainted with the Warty Hubbard. Our strain is extra fine and very warty. Price: 1 oz. 10c; ¼ lb. 30c; 1 lb. \$1.00; 5 lbs. \$4.00.

SPECIALLY SAVED TOMATO SEEDS

Culture. Sow in a hotbed in early spring or the seed may be sown in shallow boxes and placed in a window when one does not wish to have the trouble of making a hotbed. Transplant to the open ground when all danger of frost is past, setting the plants three or four feet apart each way. Use Bone and Potash Fertilizer, or well rotted manure in the hills. One ounce produces about 2,000 plants. For early crop sow in hotbeds in January or February. For late crop, in open beds in May.

For Tomato Plants, See Page 31.

MARGLOBE TOMATO BEST LATE VARIETY

A second-early, red-fruited variety equally suitable for trucking or canning. As early as Bonny Best, it produces large, smooth, meaty, globular, red fruits, which ripen uniformly and are relatively free from cracks. They make a splendid canned product and first-class pulp. Pkt. 10c; $\frac{1}{2}$ oz. 25c; oz. 40c; $\frac{1}{4}$ lb. \$1.60.

Marglobe Tomato

BONNY BEST TOMATO GREATEST EARLY VARIETY

The fruits of this desirable early sort are most attractive in shape and color. The crop ripens more uniformly than any other early scarlet fruited sort, and is of superior solidity and interior color. The vines are vigorous and produce a good crop of exceptionally round and deep fruits. One of the best for gardeners whose trade demands fruits of beautiful shape and color. Price: $\frac{1}{2}$ oz. 20c; oz. 35c; $\frac{1}{4}$ lb. 75c; 1 lb. \$2.50.

Earliana This Tomato is not only remarkable for its earliness, but for its handsome shape and bright red color. Price: $\frac{1}{2}$ oz. 15c; oz. 25c; $\frac{1}{4}$ lb. 75c; per lb. \$2.75.

New Stone One of the most solid large tomatoes. Price: $\frac{1}{2}$ oz. 10c; oz. 15c; $\frac{1}{4}$ lb. 60c; 1 lb. \$2.00.

Dwarf Stone Plants grow like Dwarf Champion. Price: $\frac{1}{2}$ oz. 20c; oz. 35c; $\frac{1}{4}$ lb. \$1.25.

Yellow Pear and Yellow Plum Are small yellow tomatoes. Price: $\frac{1}{2}$ oz. 25c; oz. 40c.

Dwarf Champion A purple fruited variety forming a strong, erect, bushy plant two feet high. Often sold as Tree Tomato. Fruit smooth, medium sized, fairly solid and of good flavor. Price: $\frac{1}{2}$ oz. 20c; oz. 35c; $\frac{1}{4}$ lb. \$1.25; 1 lb. \$4.00; 2 lbs. \$7.50.

Ponderosa The largest variety in cultivation. A purplish pink, main crop tomato. The vines are vigorous and very productive. The fruits are very solid, with exceptionally few seeds. Price: $\frac{1}{2}$ oz. 25c; $\frac{1}{4}$ lb. \$1.75; 1 lb. \$6.00.

Other Varieties We can supply any of the standard sorts, whether listed here or not. For Tomato Plants see page 31.

TURNIPS

Early Turnips should be planted very early and will keep growing until the ground freezes.

Extra Early White Milan The earliest turnip. Tops very small, very erect and compact. Price: oz., 15c; $\frac{1}{2}$ lb., 50c; 1 lb. 75c.

Extra Early Purple Top Milan Similar to the White Milan except the upper portion is a beautiful purple-red. Price: oz. 15c; $\frac{1}{2}$ lb. 50c; 1 lb. 75c.

Purple Top, Strap-Leaved The most popular sort. More largely grown than any other turnip; will form good size bulbs in seven or eight weeks. Price: oz., 10c; $\frac{1}{2}$ lb. 35c; 1 lb. 60c; 5 lbs. \$2.50.

Late Turnips can be sown in July or August Use 2 pounds of seeds to an acre.

Purple Top White Globe Of a perfect shape with smooth, white skin. Flesh pure white, firm and crisp and of quick growth. Price: oz. 10c; $\frac{1}{2}$ lb. 35c; 1 lb. 65c; 5 lbs. \$2.00.

Rutabaga or Swedes

Improved American Purple Top For the fine qualities and productiveness this is the best. The roots are finer and larger than the ordinary; the flesh is a rich yellow. Price: oz., 10c; $\frac{1}{2}$ lb., 40c; 1 lb., 65c; 5 lbs. \$2.50.

MISCELLANEOUS VEGETABLES

Asparagus

The Asparagus bed furnishes the first green delicacy for the table in the spring, is universally popular and requires but little care.

Bonvallet's Giant. Price: oz., 15c.

Columbia Mammoth White. Price: oz., 10c.

Conover's Colossal. Price: oz., 10c.

Asparagus Roots. Two years old. See page 31.

Cress or Pepper Grass

Early Curled. Well-known salad. Sow at intervals all season. Price: oz., 20c.

True Water. Sow seeds along the border of running water. Price: ½ oz., 20c.

Endive

(One ounce will sow about 60 square feet).

One of the best salads for fall and winter use. Sow seed in April for early use or in June or July for winter use. When leaves are eight inches long tie them together with a string near top to blanch. Price: oz., 15c.

Broccoli

The culture is the same in all essentials as for cauliflower. Withstands greater extremes of temperature than cauliflower.

Early White Vienna. Extremely early, with distinctly small tops. Price: ½ oz., 15c.

Early Purple Vienna. Very early, with small top, the left stems being tinged with purple. Price: ½ oz., 15c.

Mustard

New White Chinese. Leaves tender and delicious. Price: oz., 10c.

Kohl Rabi

The Kohl Rabi is a vegetable intermediate between the cabbage and turnip and somewhat resembles each in flavor. The edible part is a turnip shaped bush formed by the enlargement of the stem. Price: ½ oz., 15c.

Brussels Sprouts

Improved Half Dwarf. The plants grow two to three feet high and produce from the sides of the stalk numerous little sprouts which resemble small cabbages one or two inches in diameter. Price: ½ oz., 25c.

Kale or Borecole

Dwarf German. Very hardy, with dark green leaves; much improved by frost. Price: oz., 15c.

Dwarf Curled Scotch. Dwarf, beautifully curled, bright green. Price: oz., 15c.

Leek

Belongs to the onion family. Set the roots deep and draw the earth to them when cultivating.

London Flag. The variety generally cultivated in this country. Price: oz., 20c.

Parsley

(One ounce will sow 150 feet of drill).

Sow very early, thinly in drills one foot apart and half an inch deep. Soak seed in warm water a few hours before sowing.

Champion Moss Curled. A very select stock, finely crimped and curled. Price: oz., 10c; ¼ lb., 25c; 1 lb., 75c.

Hamburg. Turnip-rooted variety; used for flavoring soups.

Rhubarb

Easily raised from seed.

Large Victoria. The standard variety. Price: oz., 10c; ¼ lb., 30c; 1 lb., 85c; postpaid. For Rhubarb Roots see page 31.

Salsify

Mammoth Sandwich Island. By far the largest and best for market. Roots of superior quality and double the size of the old variety. Price: oz., 25c.

Sweet Herbs

Large Victoria Rhubarb	
Anise Seeds, aromatic	½ oz. \$0.10
Caraway	.10
Catnip (Cat Mint)	.25
Coriander, for flavoring	.10
Dill (2 oz., 30c; ¼ lb., 50c)	.16
Lavender	.20
Marjoram, Sweet	.25
Saffron	.20
Sage, Broad Leaf	.15
Savory, Summer	.15
Thyme	.25

Mushroom Spawn

Mushroom Culture. Mushrooms may be grown any place where the conditions of temperature and moisture are favorable. A shed, cellar, cave or vacant space in greenhouse. Twelve page pamphlet telling how to prepare bed, plant and grow the crop, 25c each, free with order for \$1.00 worth of spawn.

We carry the American Spawn Co.'s Pure Mushroom Spawn, conceded to be the best spawn sold. Always fresh.

American Spawn, in bricks, each\$0.30
One brick, by mail, postpaid 40

Sweet Peas

Sweet Peas. Sweet Peas are among the most beautiful of all our hardy annuals. Select a sunny, open place several feet from any building and as far as possible from large trees. Sow as early in the spring as possible. Plant in rows and have the rows trenched for planting 4 to 6 inches deep. In dry weather water freely and keep the flowers picked closely. If allowed to go to seed the plants will stop blooming.

Spencer Standards Varieties

The **Spencer Types** are exceptionally large size, with long stems, the wings waved or frilled and the effect remarkably graceful and attractive. All Spencers are decidedly shy seeders. The price higher than for the older (Grandiflora) type. We offer in the different shades, what we consider to be the best varieties.

Spencer Type

Apple Blossom Spencer (Rose Spencer). Standard with primrose wings. Very large; true Spencer form. Per ½ oz., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.25.

Blanche Ferry (Pink Spencer) Usually a little darker than flowers show striping. It is one of the most attractive varieties ever introduced. Per ½ oz., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.25.

Etta Dyke (White Spencer) Standard and wings of pure white, beautifully waved and fluted. An especially attractive variety of very large size. Per ½ oz., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.25.

Mrs. Hugh Dickson (Salmon Pink Spencer) A light on cream background, strong growers; throws four flowers to a stem. Per ½ oz., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.25.

King Edward VII (Red Spencer) The best pure red Spencer; very large with especially immense wings. Per ½ oz., 10c; oz., 20c; ¼ lb., 60c.

The President A brilliant orange-scarlet flower, always of largest size. The blooms, usually in fours, are carried on strong stiff stems. Per ½ oz., 15c; oz., 25c; ¼ lb., 75c.

Spencer Mixed All the Spencer varieties included in making up this magnificent mixture. A splendid range of colors is thus assured in remarkably large size and wonderful attractive form. Michael's De Luxe Mixture. Per ½ oz. 10c; oz., 15c; ¼ lb. 50c; ½ lb. 90c; lb. \$1.50; 5 lbs. \$6.50.

Use Nitragin inoculation for larger, better and healthier Sweet Pea crop. Garden size 20c each.

Nasturtiums

Giant Flowering

Nasturtium. Few flowers equal the Nasturtium in richness and variety of colors, freedom of bloom and ease of culture. They are suitable for bedding and handsome climbers, grow quickly, thrive in the poorest soil and furnish the greatest abundance of long lasting, sweet scented flowers.

King Theodore (Tall Growing). Rich, deep, crimson flower; most striking and beautiful of all tall growing Nasturtiums. Foliage dark green and vigorous. ½ oz., 10c; 1 oz., 15c; ¼ lb., 25c.

Michael's Zulu Scarlet, dark leaved; darker than Brilliant or Fulgens and the nearest to Empress of India in the Talls. Per ½ oz., 10c; oz., 15c; 2 oz., 25c.

Nasturtiums Lobbianum (Lobb's Nasturtium). This is a distinct variety of remarkable brilliancy of flowers surpassing the old fashioned kind for size and rich colors with overlapping petals on each flower. All colors mixed. ½ oz., 10c; 1 oz. 15c; 2 oz. 25c; ¼ lb. 40c.

Tall Mixed (California Giants). In this mixture will be found the choicest of all colors and varieties. Michael DeLuxe Giant Mixture. Per oz., 10c; ¼ lb., 25c; lb., 75c.

King of Tom Thumb A dwarf variety with intense deep scarlet flowers, dark green foliage. 15c per oz., ¼ lb 35c.

Dwarf (Mixed). A special mixture of Dwarf Nasturtium of a great many colors in even proportions. Michael DeLuxe Dwarf Mixture. Per oz. 10c; ¼ lb. 25c; lb. 75c.

Dwarf King Theodore Velvety red flowers with dark green foliage. Price 10c per oz.; ¼ lb. 35c.

Dwarf Nasturtiums

Asters

In their many varieties and colors, are the grandest and most beautiful flowers that bloom in the home garden. Our Aster seed is grown by America's greatest Aster specialist.

Michael's New Creation Aster (Heart of France).

The richest red Aster ever developed. Color livid, or blood red with a sheenish tinge in the sunshine like burning coals. Second early bloomer. Plants grow about 2 feet with free branching habit. Flowers are double borne on stems about a foot long. Bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; 1 oz. \$1.50.

Extra Early Express or Early Wonder

These are the earliest blooming Asters, commencing to bloom with us in July. Flowers large and full, of the Comet type. Finest mixed. Bulk pkt. 5c; 1-16 oz. 15c; 1-8 oz. 25c; 1 oz. \$1.00.

Michael's Giant Branching This is a new Aster which we have developed after several seasons of Hybridizing and selection. It is a branched variety of true non-lateral stems. Has an immense flower of great beauty and substance of the Crego or Ostrich Feather type throwing no single flower. Michael's DeLuxe Mixture, bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; 1 oz. \$1.00.

MICHAEL'S GIANT BRANCHING, White Bulk pkt. 10c; 1-16 oz., 15c.

MICHAEL'S GIANT BRANCHING, Purple Bulk pkt. 10c; 1-16 oz., 15c.

MICHAEL'S GIANT BRANCHING, Shell Pink. (Mary Semple), daybreak pink. Bulk packet 10c; 1-16 oz. 15c.

American Beauty This new type of Aster of American origin is one of the most attractive of all large flowering branching sorts, vigorous grower and profuse bloomer

Michael's American Branching Aster

with whorled center as the flower unfolds. Michael's DeLuxe Mixture. Bulk pkt. 5c; 1-16 oz. 10c.

See Page 31 for Plants.

Zinnia

Showy plants with large, double flowers. Might be taken for dwarf dahlias. Few flowers are more easily grown or bloom more abundantly throughout the season. Like our Asters, our Zinnia seed are grown by a specialist who has brought to the attention of the American Public through his efforts as a propagator, all the giant flowering varieties of these profuse blooming annuals.

GIANT MAMMOTH TYPE ZINNIAS

These mammoth flowering Zinnias are a new improved strain of the giant type; the latest improved and the best. Petals are loosely placed imbricated (overlapping) with small center and from bud to bloom assuming a succession of beautiful form. Michael's De Luxe Giant Mammoth Mixture. Bulk Pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; 1 oz. \$1.00; ½ lb. \$7.50.

SCARLET (Mammoth Type) Bulk Pkt. 15c; 1-16 oz. 25c; 1-8 oz. 40c; oz. \$1.50.

PINK (Mammoth Type) Bulk pkt. 15c; 1-16 oz. 25c; 1-8 oz. 40c; oz. \$1.50.

ORANGE (Mammoth Type) Bulk. pkt. 15c; 1-16 oz. 25c; 1-8 oz. 40c; oz. \$1.50.

DAHLIA FLOWERED ZINNIAS

Exquisite This is by far one of the most pleasing colored Zinnias of any of the named varieties of the Dahlia flowering and is a true Dahlia type in regard to size and form. The color is light rose with a deep Tyrian Rose center. Bulk pkt. 25c; 1-16 oz. 50c.

Meteor A rich glowing spinel red and the darkest of all red shades. Fine form and good depth petal. Very large and more floriferous than any other of the reds. Price 1-16 oz. 25c; 1-8 oz. 35c.

Oriole The most beautiful Dahlia Zinnia of its class. An immense orange and gold bicolor, changing slightly as it ages, worthy of the beautiful bird for which it is named. Bulk pkt. 25c; 1-16 oz. 35c.

Crimson Monarch By far the largest and best of the red shades of Dahlia Zinnia. Flowers often 8 inches in diameter. Bulk pkt. 20c; 1-16 oz. 35c.

New Dahlia Flowered Zinnias The Dahlia Flowered Zinnia is similar in shape to the double Decorative Dahlia which is nicely shown in our accompanying picture, immense flowers with a range of colors not only including the usual shades, but many unusual tones, such as salmon, old rose, cerise, strawberry-red, etc. Michael's DeLuxe Mixture. Bulk pkt. 10c; 1-16 oz. 20c; 1-8 oz. 35c; 1 oz. \$1.00; ½ lb. \$12.50.

Jacqueminot Zinnia This splendid red flowering Zinnia is just covered with velvety, double red flowers throughout the summer until frost, with the effect of red American Beauty roses. Bulk pkt. 5c; 1-16 oz. 15c; 1-8 oz. 25c.

Plants Quoted on Page 31.

Dahlia Flowered Zinnia

Pansies and Petunias

Pansies

PANSIES are now produced in almost infinite colors and markings. After years of experimenting with the many varieties we have finally reached a climax of perfection in the Pansy proposition and what we offer in our De Luxe Mixture (Identical) is the latest word to be pronounced in Giant Pansy.

Pandora Pansy

Michael's Colossal Pansy The flowers of this new strain of Swiss origin are of enormous size, three inches in diameter, perfectly round, with overlapping petals, of surpassing quality and color combinations—never seen before in pansies. 100 seeds 10c; 300 seeds 25c; 1-16 oz. 50c; ¼ oz. \$1.00; 1 oz. \$3.00.

Michael's Giant DeLuxe Mixture This contains five special strains, too expensive to list in catalogs and can only be had in this DeLuxe combination. Immense flowers, expressive facings, brilliant colors, all in one glorious combination. Price: Small bulk pkt. 10c; medium sized pkt. 15c; 1-16 oz. 50c; 1-8 oz. 75c; 1 oz. \$4.00.

Masterpiece (New Giant Curled or Spencer Pansies). The petals are crimped, curled and fluted so that the flowers appear more or less double. Bulk packet 10c; 1-16 oz. 35c; 1-8 oz. 60c; 1 oz. \$4.00.

White Pansy Pure white Giant strains, without blotches and without eye. Bulk packet 15c; 1-16 oz. 25c; 1-8 oz. 40c.

Yellow Pansy Rich yellow Giant, without blotches and without eye. Bulk packet 15c; 1-16 oz. 25c; 1-8 oz. 40c.

Black Pansy Pure giant black, flowers without eye or blotches. Bulk pkt. 15c; 1-16 oz. 25c; 1-8 oz. 40c.

See page 31 for Plants.

Petunias

For freedom of bloom, variety of color and effectiveness Petunias have no equals. Petunias produce their handsome, sweet-scented flowers in their delicate and gorgeous colors continuously all throughout the whole summer. The single flowering **hybrida** type petunias of the different strains and forms are the most effective, greatest endurance, disease resistant and by far the most popular for massed beds and borders and all other purposes.

PETUNIA (HYBRIDA) SPRANGLED BRANCHING FOLIAGE

General Dodd (Hybrida) One of the most beautiful blood red velvet flowered Petunias among the dark and crimson colored varieties. Bulk packet 10c; 1-16 oz. 15c; 1-8 oz. 25c; oz. \$1.25.

Howard's Star (Hybrida) A beautiful crimson-maroon, with a clearly defined five-pointed star of bluish-white. Bulk packet 10c; 1-16 oz. 15c; 1-8 oz. 25c; oz. \$1.25.

Michael's improved strain **Howard Star**, velvet purple, pure white star. Bulk pkt. 10c; 1-16 oz. 20c; 1-8 oz. 35c.

CRIMSON (Hybrida) bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; oz. \$1.25.

PURPLE (Hybrida) bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; oz. \$1.25.

BLUE (Hybrida) bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; oz. \$1.25.

PETUNIA (HYBRIDA) NANA ERECTA DWARFISH ERECT FOLIAGE

Violacea Nana Erecta (Hybrida) Finest deep violet. Bk. pkt. 10c; 1-16 oz. 20c; 1-8 oz. 35c.

Rosy Morn (Hybrida.) Soft carmine-pink with white throat; Bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; ½ oz. \$1.25.

Inimitable Nana Erecta (Hybrida) Blotched, striped. Per pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c.

Mixed Nana Erecta (Hybrida) All colors. Per pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; oz. \$1.25.

Balcony Petunias A splendid free flowering variety of single Petunia; Especially valuable for windows, porch boxes. Mixed Colors: Bulk pkt. 10c; 1-16 oz. 25c.

PETUNIA HYBRIDA GRANDIFLORA

This strain of petunias is an extra large flowering **hybrida**, plain edged. Michael's De Luxe Mixture: bulk pkt. 25c; 1-16 oz. \$1.50.

FLUFFY RUFFLED AND DOUBLE PETUNIAS

RUFFLED AND FLUTED PETUNIAS

Fluted Petunia The large single flowers of this variety of fluted petunias are artistically waved and crinkled on the edges, giving an effect of almost being double and more beautiful than any of the doubles. Bulk pkt. 25c; 1-16 oz. \$2.00.

LARGE-FLOWERING DOUBLE PETUNIAS (Grandiflora floraplena Fimbriata. Saved from our own unrivaled collection; will produce a large percentage of double flowers of the largest fringed varieties in bright colors. Michael De Luxe Mixture. Per 100 seeds, 25c.

GENERAL LIST (in bulk)

Are better, cost less, more certain to grow than paper seeds.

One of the most cherished recollections that we have of our mother's or grandmother's home is that of the beautiful array of brilliantly colored flowers—marigolds, daisies, pansies, balsams, asters, pinks, poppies, nasturtiums and other flowers in great array.

Alyssum Procumbens (Carpet of Snow). This is a select strain of this sweet scented annual. It grows 2 inches high with the appearance of a flat pancake. The mass of blooms completely hide the foliage, giving the appearance of a covering of snow. Bulk pkt. 5c; 1-16 oz., 15c; 1-8 oz. 25c; ½ oz. 50c.

Balsam Known as Lady Slipper and Touch-Me-Not. The colors range from white to dark purple. Hardy Annual, one to two feet high. Mixed Double Sorts. Bulk pkt. 5c; 1-16 oz. 10c.

Calendula (Officinalis). This variety has large flowers resembling in size and form the finest Aster. It blooms profusely with a succession of bright deep orange flowers from July until frost. Bulk pkt. 5c; 1-16 oz., 15c.

Calliopsis Showy border plant, flowers bright yellow or rich brown, either self colored or with these colors and red contrasted. All sorts mixed. Bulk pkt., 5c; 1-16 oz., 15c.

Castor Bean (Ricinus). Tall, majestic plants for lawns, with leaves of green metallic blue; of very quick growth in rich soil. Zanzibariensis, very large green; and the Gibsonia, beautiful bronze foliage. Bulk pkt. 5c; ½ oz., 15c.

Candytuft Showy, branching plants six to twelve inches high; will bloom from July to September, or if planted in the fall from May to July. All sorts mixed. Bulk pkt. 5c; 1-16 oz., 15c.

Cardinal Climber A very attractive strong hardy growing vine. Fern-like foliage. Fiery cardinal red flowers until frost. Price: bulk pkt., 10c; 1-16 oz., 25c.

Carnation Margaret These are deservedly the most popular Carnations with the amateur. This strain is extra fine quality, producing an abundance of large, double, beautifully-fringed, highly scented flowers. All colors mixed. Bulk pkt., 5c; 1-16 oz., 10c. See page 20 for perennial carnation.

Celosia (Plumosa). Distinct variety bearing a profusion of beautiful ball-shaped woolly flower heads of intense scarlet. Sometimes called the Wool Flower. Blooms all summer until frost comes. Bulk packet 10c; 1-16 oz. 15c; 1-8 oz. 25c.

Celosia Cristata or Crested (Coxcomb) Very popular annuals of easy culture, producing large, ornamental, comb-like heads like ruffled chenille. Prized for pots or summer flower beds. Bulk pkt., 5c; 1-16 oz. 15c.

Centaurea Imperialis (Sweet Sultan) This beautiful sweet scented flower of artistic shape is borne on long strong stems and is undoubtedly the finest of all this class for cut flower purposes. Bulk pkt. 10c; 1-16 oz., 15c.

Centaurea-Cyanus (Bachelor Buttons, Corn Flower) in its improved forms is one of the most attractive of garden flowers. One to two feet high. Double mixed. Bulk pkt. 5c; 1-16 oz. 15c.

Clarkia An easily grown annual doing well in poor soil. Flowers in long sprays which need staking. Price: bulk pkt., 10c.

Coreopsis

See Perennials
Page 20

Cosmos A very effective autumn flower, bush-like plants 3 to 5 feet high, and covered with large, single, dahlia-like flowers. Early Flowering. Mixed Bulk pkt. 5c; 1-16 oz., 10c.

Cosmos—Double Flowering (Double crested or anemone flowered) A new creation in this beautiful late summer and autumn blooming plant, furnishing an abundance of blooms for decoration when other flowers are scarce. Bulk pkt. 10c; 1-16 oz. 25c.

Cosmos—Pink Beauty A new creation in the way of an early flowering Cosmos. Earliest of the early varieties far surpassing, in size of flowers and beauty, other extra early varieties in both earliness and effect of its double flowering blossoms. Price: Bulk pkt. 15c; 1-16 oz. 35c.

Double Flowering, White Bulk pkt. 15c; 1-16 oz., 25c.

Double Flowering, Crimson Bulk packet. 15c; 1-16 oz. 25c.

Cypress Vine A most beautiful climber with delicate, dark green, feathery foliage, scarlet blossoms. Tender, annual. Bulk pkt. 5c; 1-16 oz., 15c.

Dusty Miller (Cinerarias) Ornamental border plant with extremely showy silvery white leaves. Bulk pkt. 10c; 1-16 oz. 25c.

Forget-Me-Not (Myosotis). A favorite old-fashioned flower, bearing in profusion clusters of blue blossoms. It thrives well in the shade or open border. Hardy perennial. Bulk pkt. 10c; 1-16 oz. 15c.

Four-O'Clock (Marvel of Peru). The flowers are funnel-shaped and open about four o'clock in the afternoon and remain open all night. Will grow in any soil. Bulk pkt. 5c; 1-16 oz. 10c; 1-8 oz. 15c; 1 oz. 25c; ¼ lb. 60c.

Gaillardia (Blanket Flower) See Perennials
Page 20

Gypsophila A delicate free flowering plant with star shaped flowers of mist like effect. For trimming bouquets and as a edging for hanging baskets, a handsome effect. Will thrive in any well prepared ground. Also a handsome specimen of flowers dried. Mixed Colors. Bulk pkt. 10c; 1-16 oz. 25c.

Helichrysum (Straw Flower). An everlasting flower. It is an ornament to the garden and is prized for winter decorations as permanent bouquets. Bulk pkt. 10c; 1-16 oz., 15c; ¼ oz. 25c.

Heliotrope Highly valued for the fragrance of their flowers and duration of bloom. Bulk packet 10c; 1-16 oz. 25c.

Hollyhocks See Perennial Hollyhocks on page 20.

Job's Tears (Coix) Hardy annual, 3 to 5 ft. Valuable in winter bouquets with everlasting flowers. Plant in early spring, hills 3 feet apart and 4 or 5 seeds to the hill, and cover half inch deep. Bulk pkt. 5c; 1-16 oz. 15c.

Kochia or Summer Cypress (Kochia Tricophylla). A highly ornamental annual, having a cypress-like appearance. "Mexican Fire Plant" and "Burning Bush." Bulk pkt. 5c; 1-16 oz. 10c.

Larkspur Quick growing, free blooming annual with erect spikes of beautiful flowers in great profusion. Strictly an annual distinctly different from Delphinium perennial. Bulk pkt. 5c; 1-16 oz. 15c.

La France Larkspur Something new in this beautiful flower, larger, fuller, double flowering, color pleasing salmon pink, long stems, fine and attractive. Price: Bulk pkt. 20c; 1-16 oz. 40c.

Lace Flower (Didiscus Coeruleus) Beautiful Australian annual; the flower is like the Queen's lace handkerchief. Bulk pkt. 10c; 1-16 oz. 15c.

Linaria (Marroccana) This is a hardy annual with small dainty flowers and in addition each flower has a long spur. Height from 12 to 18 inches. Price: Hybrid mixed colors, bulk pkt. 10c; 1-16 oz. 25c.

Lobelia Very compact little border plant, sheeted with blue flowers. Bulk pkt. 15c; 1-16 oz. 25c.

Marigold Old-fashioned flower blooming in profusion; usually 2 feet high; blooms till frost comes. Bulk pkt. 5c; 1-16 oz. 10c.

Marigold Old-fashioned flower; usually 2 feet high; blooms till frost comes. Bulk pkt. 5c; 1-16 oz. 10c.

Mignonette. A hardy annual, producing exceedingly fragrant flowers. Seed sown in autumn will bloom early in the spring. 1 foot high. New Machet. Mixed sorts. Bulk pkt. 5c; 1-16 oz. 10c.

Mourning Bride (Scabiosa) A half hardy plant blooming in cool places. Flowers borne on tall, slender stiff stems with fine, round, full centered form of tubular petals with feathery effect. Michael's De Luxe Mixture. Bulk pkt. 5c; 1-16 oz. 10c.

Moonflower (Noctiflora) A wonderful climber, growing rapidly to the height of 20 feet in a single season. Flowers open at sundown and like all night bloomers, has a delicious fragrance. Bulk pkt. 5c; 1-16 oz. 10c; ¼ oz. 25c.

Morning Glory Handsome, showy climber, suitable for covering windows, trellis, old stumps, etc., if support be given the vines. Hardy annual. 10 feet high. Giant Japanese Mixed. Bulk pkt. 5c; 1-16 oz. 10c.

Nicotiana A handsome bedding plant of the tobacco family. Valuable for long season blooming and a very free bloomer. Hybrids mixed. Bulk pkt. 10c; 1-16 oz. 25c.

Pinks (Heddewigi). For beautiful and lasting cut flowers, ease of culture and freedom of bloom, the hardy garden pinks have no superior among annuals; 18 inches high. Michael's Chinese DeLuxe Mixture. Bulk pkt. double, 5c; 1-16 oz. 10c. Single, 5c; 1-16 oz., 10c.

Poppies Great advance has been made in recent years in the development of the Poppy. No other flower produces a more brilliant display of colors during the blooming period.

SHIRLEY POPPIES. Michael's DeLuxe Mixture. Bulk pkt. 5c; 1-16 oz. 10c.

AMERICAN LEGION. (Shirley type). Dazzling intense scarlet. Bulk pkt. 10c; 1-16 oz. 15c.

DOUBLE FLOWERED. Mixed. Bulk pkt. 5c; 1-16 oz. 10c.

Portulaca or Rose Moss There are but few flowers in cultivation that make such a dazzling display of color in the bright sunshine as a bed of Portulacas. The flowers close in shadow but are open in sunshine.

PORTELACA. Single Mixed. Bulk packet 5c; 1-16 oz. 15c; 1-8 oz. 25c.

PORTELACA. Double Mixed. Bulk packet 15c; 1-16 oz. 25c; 1-8 oz. 40c.

Phlox (Drummond). The Phlox is the earliest and hardest of all the annuals. It occupies a most prominent place in the flower garden and produces a variety of flowers of beautiful colors, which is varied with stripes, veins and points of contrasting shades. Michael's DeLuxe Mixture. Bulk pkt. 10c; 1-16 oz., 15c; 1-8 oz. 25c.

Salvia Among the most brilliant colored flowers and extremely useful for bedding. Blooms are of fiery red crimson color, continuing to flower for a long time. Height 2 to 3 ft. See page 31 for plants. Salvia Splendens. Bulk pkt. 10c; 1-16 oz. 25c; ¼ oz. 40c; oz. \$2.50.

Salpiglossis Very showy bedding or border plants, with richly colored, funnel-shaped flowers, which are purple, scarlet, crimson, yellow, buff, blue and almost black; height, 1 foot. Fine Mixed Sorts. Bulk pkt. 5c; 1-16 oz., 10c.

Stocks To such perfection has selection brought this flower that good seed will have a large proportion of exceedingly double flowers. Average height, 1½ feet. Double Mixed, Bulk pkt. 10c; 1-16 oz., 25c.

Sweet Williams For display in the garden, the Sweet William is unsurpassed. The seed can be planted in the spring in the open ground and will blossom in the fall. Hardy perennial; 1½ feet high. Fine mixed single. Michael's Double DeLuxe Mixture. Bulk pkt. 5c; 1-16 oz. 10c.

Snapdragon (Antirrhinum Medium). For gorgeous coloring effect, few flowers surpass the Snapdragon. Borne on long stems and very fragrant. Michael's DeLuxe Mixture. Bulk pkt. 5c; 1-16 oz., 10c.

DEFIANCE. Fiery Scarlet. Medium. Bulk packet 5c; 1-16 oz., 15c.

GRENADIER. Orange Scarlet. Bulk packet 10c; 1-16 oz., 15c.

PRIMA DONNA. Terracotta. Bulk packet 10c; 1-16 oz. 15c.

Verbena Sown in May, they will bloom in August, but if started in the house in pots in winter, they will bloom sooner. Seeds should be soaked in luke warm water before planting and care should be taken that the soil be very rich. Half hardy perennial trailer; 6 to 10 inches high. Michael's DeLuxe Mammoth Mixture Hybrid Giganta. Bulk pkt. 10c; 1-16 oz. 25c; 1-8 oz., 40c.

LUCIFER (Verbena). (New) Brilliant scarlet, no eye, an improved Defiance. Pkt. 10c; 1-16 oz. 25c; 1-8 oz. 40c.

FIREFLY (Verbena). Brilliant Scarlet with a white eye. Bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c.

Perennial Plant Flower Seed

The charm of Perennial Flower Plants is that these occupants become our truest friend,—once established the flower remains as long as they are wanted, and year after year we greet them at the same time and in the same place,—each flower has its season when it buds, blooms and blossoms and finally exhausts its glory and retires for a long winter's rest. There is no phase of ornamental gardening that deserves greater study. The economical way to obtain perennials is to grow them yourself from seed; they can be planted anytime from April to July,—the earlier sown the stronger the plants or clumps will be. Few of the perennials bloom before the second year but after that we are repaid each year for the care given them by the increasing wealth of bloom.

Aquilegia (Columbine). The Columbine is one of the most beautiful hardy perennials producing graceful spurred flowers on 2 ft. stems. Michael's select, long spurred DeLuxe Mixture. Bulk pkt. 15c; 1-16 oz. 50c.

Blue Mountain (Perennial).—Something new among perennials that we have never listed before. Rich scarlet flowers borne on stems about a foot high and blooms for a long season of time—June to September. Price: Bulk pkt. 25c.

Campanula (Canterbury Bells). A large flowering, beautiful and most important family for the flower garden ranging from 18 to 24 inches in height. Michael's DeLuxe Mixture. Bulk pkt. 10c; 1-16 oz. 25c.

Carnation (Hardy perennial variety). Some varieties of Carnation are quite hardy and with ordinary protection withstand our most severe winters. Large double flowery. Dwarf mixed. Bulk pkt. 15c; 1-16 oz. 25c. Hardy Grenadin Red. Bulk pkt. 15c; 1-16 oz. 35c.

Coreopsis Grandiflora Fl. Pl. (Double flowering coreopsis). This is a new variety of this well known perennial, double and semi-double forms, and is just as easy to grow as the single. The added petalage adds further charm to it and it is very valuable as a cut flower. Price: Bulk pkt. 15c; 1-16 oz. 25c.

Dianthus Barbatus (Sweet William). An improvement on the old fashioned kind, color and size of flower. Michael's DeLuxe. Bulk pkt. 15c; 1-16 oz. 25c.

Digitalis (Fox Glove). Stately old garden favorite. For garden shrubby borders and in suitable places, producing spikes of blossoms of 3 to 5 ft. high. Michael's DeLuxe Mixture. Bulk pkt. 15c; 1-16 oz. 25c.

Gaillardia (The Dazzler) Giant perennial Gaillardia. Flowers very large, dark rich red with bright orange tipped petals. The largest, most attractive giant red Gaillardia known. Price: bulk pkt. 20c; 1-16 oz. 40c.

Gypsophila Graceful plants of light fairy-like growth, bearing small white sprays. Much in demand for cutting and combining with other flowers for bouquets and vases. Bulk pkt. 10c; 1-16 oz. 25c.

Hibiscus (Rose Mallow)—A noble, hardy, shrub-like plant with handsome green foliage bearing throughout the summer large brilliant flowers of many shades from 3 to 5 inches in diameter. Price: Bulk pkt. 15c; 1-16 oz. 25c.

Linum (Ornamental Flax)—A graceful hardy perennial that grows about 2 feet high, with pearly blue flowers. Prices: Bulk pkt. 10c.

Lupinus Eukhuizen A new perennial variety with dainty white flowers suffused with creamy pink. Price: Bulk pkt. 25c.

Myosotis (Forget-Me-Not)—A lovely dwarf plant for damp places, spreading rapidly and carpeting the ground; the true perennial Forget-Me-Not. Mixed kinds. Prices: Bulk pkt. 10c; 1-16 oz. 25c.

Meconopsis Bailey A new beautiful Tibetan hardy perennial poppy. Cambridge blue pendant flowers 4 inches across. Bulk Pkt. 25c.

Papaver (Perennial Oriental Poppy). For gorgeous color the Oriental Poppy has few rivals among all hardy plants. Effective in shrubby and Herbaceous borders. Michael's DeLuxe Oriental Hybrid Mixture. Bulk pkt. 15c; 1-16 25c.

Phlox (Decussata). Hardy variety, with seed that is slow to germinate; should be well soaked before planting. Bulk pkt. 15c; 1-16 oz. 35c.

Physalis Franchetti (Chinese Lantern Plant). Grows 1½ ft. tall. Perennial. Flowers yellow with dark center. Produces balloon-like husks the second year from seed which turn bright red when ripe and resemble Chinese lanterns. Price: Bulk pkt. 10c; 1-16 oz. —

Pinks (Hardy Garden Flower)—A very desirable, sweet-scented, low growing, early blooming and free flowering hardy garden variety. Price: 1-16 oz. 25c.

Pyrethrum Single and semi-double flowers with rolled and twisted petals. A very hardy perennial. Price: Bulk pkt. 25c.

Platycodon (Chinese Bell Flower) Very handsome border plant of the Campanula family, the flowers of which when in bud have the appearance of an inflated balloon blooming from June to September; large handsome deep blue flowers. Bulk pkt. 10c; 1-16 oz. 15c.

Shasta Daisy, Alaska (Chrys. Leucanthemum). A hardy perennial Daisy with flowers of the purest glistening white, borne on long stems, a splendid cut flower, good for ten days. Bulk pkt. 10c; 1-16 oz. 25c.

Sweet Peas (Lathyrus Latifolius) — A hardy perennial of the Sweet Pea family. A showy, free flowering, blooming all summer, decorative vine. Fine for cut flowers. Select mixture. All colors. Bulk pkt. 10c; 1-8 oz. 25c; oz. \$1.25.

Viola Florariense This variety of violets produces a continuous profusion of bloom for a long period. Flowers pleasing shade of lavender. A rock garden perennial. Price: Bulk pkt. 25c.

Delphinium (Wrexham Type) Holloch strain. This new strain of delphiniums has stout strong spire shaped spikes of enormous size and beauty of form, making them in the front rank as the most popular flower for cutting. Our mixture contains all the colors in delphinium, including both double and single flowers, and is highly praised by all professional delphinium growers. Price: per bulk pkt. 25c; 1-16 oz. 60c; 1-8 oz. \$1.00.

Delphinium

Hollyhocks (Althea Rosea)

Sioux City's State Flower

The Garden Club of Sioux City has selected the Hollyhock as the representative flower of Sioux City. The city council has passed an ordinance approving the action of the Garden Club and it is suggested that a festival be held when the Hollyhock is in full bloom in honor of that flower.

This old fashioned flower of our grandparents, of which the improved strains of today of this grandpa's flower, the stately Hollyhock, makes a background of intense, glowing splendor and amphitheatre effect to the rest of the surroundings.

Hollyhock—Imperator and Triumph—New Types

New Hollyhock

Triumph Hollyhock

A new variety of late introduction. Flowers very waved and fringed, double, with lovely shades of yellow, chamois, flesh, pink, rose and art shades. **Price:** per bulk pkt. 15c; 1-16 oz. 35c. Three-in. potted plants 35c each.

Allegheny Hollyhock

Somewhat different variety of the Single Flowering, also semi-double with flowers 5 inches across and beautifully fringed on the edge of the petals. Tallest grower. **Price:** 100 seeds 10c; 1-16 oz. 15c; 1/8 oz. 25c; 1 oz. \$1.75. Roots 20c each; \$2.00 per dozen.

Double Type

The Double Flowering Hollyhocks are very beautiful and the flowers are large rosettes of paper like tissue and compactly layered. **Prices:** 100 seeds 15c; 1-16 oz. 25c; 1/8 oz. 40c; 1 oz. \$2.00. Roots 15c each; \$1.75 per dozen.

Single Type

The single Flowering Hollyhocks are more hardy and enduring under adverse circumstances. **Single Mixed Colors:** 100 seeds 5c; 1-16 oz. 10c; 1/8 oz. 15c; 1 oz. \$1.00. Roots 15c each; \$1.50 dozen.

New Hollyhock

Imperator Hollyhock

A strikingly new type of hollyhock. Something entirely original. Of greater splendor than anything yet known. The plant rises to a stately height with branches from the base forming a majestic clump with lateral stems for decorating purposes. Flowers are 6 inches across, wide outer petals, elegantly frilled and deeply fringed, with a double rosette center 2 inches in diameter. The coloring includes various tints of great beauty.

Imperator Seed — Various shades, tints and colors. **Price:** sealed packet 25c; 1-16 oz. 50c.

Hollyhock Plants— (New Imperator 3-in. potted plants). **Price:** 35c each; \$3.00 per dozen.

Annual Hollyhocks

(Annual), 5 feet. These Annual Hollyhocks bloom like all other annuals the first year they are planted. Everblooming double mixed, Everblooming single mixed; 100 seeds 15c; 1-16 oz. 25c; 1/8 oz. 40c; 1 oz. \$1.00.

Imperator
Hollyhock

ALFALFA AND CLOVER SEED

REMEMBER, all prices we are quoting on these seeds are subject to market changes without notice. On all quotations cotton grain bags extra, 25c each.

ALFALFA SEED

VERIFIED ORIGIN SEED U. S. GOVERNMENT TAG

See Prices below for Nitragin culture, inoculation for alfalfa, Sweet Clover and other legumes.

SWEET CLOVER IN ALFALFA

We furnish no guarantee either expressed or implied against sweet clover appearing in alfalfa fields, either the first or second year. Sweet clover is common everywhere. Besides being a cultivated crop it grows along the highways, and often by barnyard fertilizer. It is found growing on the highest hills and in the lowest valleys and when turned under it must lay in the ground for years. Our seed is analyzed so we know it is not in the seed, therefore finds its way into the field from some other source.

Common Alfalfa The native variety that has come down from early planting and not otherwise known which we find in Dakota, Montana and native Iowa seed. Price per bushel, \$8.00 to \$10.00. Fancy to Superfine.

DAKOTA GROWN ALFALFA

Dakota No. 12 is the Alfalfa of the common variety which has been grown in the state of South Dakota for at least twenty-five years continually, season after season. Constitutes what is known, according to the Dakota Agricultural College as Dakota No. 12 to distinguish it from that which has not this continual parentage. Verified Origin. Fancy to Superfine. Per bushel, \$9.00 to \$10.50.

Turkestan Alfalfa The seed of Turkestan alfalfa is imported from the high mountain region valleys of northern Turkestan, Russia. We have sold the seed of this variety for thirty years; have many patrons who claim that it has the greatest winter endurance of any variety they have ever used, surpassing Grimm, Cossack and Dakota Common. Seed not available last season but hope to have it this coming spring of 1932.

SWEET CLOVER SEED

Dwarf White (Grundy) Aside from having the good qualities of the Common, it branches out lower on the stalk, produces a denser foliage, does not grow so tall, matures earlier and more uniformly than the big Common, stems not so coarse either as that sort. Price per bu. \$3.00 to \$3.50. Fancy to Superfine.

Hubam Sweet (White Annual) This variety is much like the big biennial Common White except that it seeds the same year it is planted. Price \$12.50 per 100 lbs.

Alborea Sweet Clover This is a new yellow flowering biennial variety which originated in Canada and has been improved by the Wisconsin College of Agriculture under the direction of Prof. Moore who highly recommends it for its earliness and for its profuse and dense leafy foliage. It very closely resembles alfalfa until it blooms and grows to about the same height as a hay crop. Following that a seed crop as well the same season. Price per bu. on application.

Common White (Biennial) Preferred where taller growth of foliage is desired as humus matter in connection with fertilizing or heavy coarse forage. It makes a splendid pasture as well as hay crop when the latter is harvested at the right time. Price \$3.00 to \$4.00 per bu. Fancy to Superfine.

Common Yellow (Biennial) Preferred where denser foliage is desired as a hay proposition and is said to be equal to the Common White as a pasture proposition. Price \$2.50 to \$3.50 per bushel. Fancy to Superfine.

RED, ALSIKE AND WHITE CLOVER

Medium Red Clover This by far the most important of all the varieties for practical purposes. Sow in spring or fall, and if no other grasses are used, at the rate of 15 pounds per acre. More is used on old soil than on new. Per bu. \$10.00 to \$12.00. Fancy to Superfine.

Mammoth Red or Sapling Clover (*Trifolium pratense*). Similar to Red Clover, but coarser, taller and more hardy. Sow from 12 to 15 pounds per acre. Price \$11.00 to \$12.50. Fancy to Superfine.

Alsike or Swedish Clover The most hardy of all clover. On rich, moist soil it yields an enormous quantity of hay or pasture, but its greatest value is for sowing with other clover and grasses. Sow in spring or fall at the rate of 10 pounds per acre when used alone. Fancy seed, \$9.00 to \$10.00 per bushel.

White Clover A small perennial variety valuable for pasture and for lawns. It accommodates itself to a variety of soils and can be grown anywhere. Per lb. 50c; price per 100 lbs. \$30.00 to \$40.00.

Nitragin

Original soil inoculator. Restores and maintains fertility. Price: 1 bu. size pkg., \$1.00 each; 5 bushel size, each \$4.75.

Bromus Inermis

BROMUS INERMIS (Awnless Brome)

This is one of the hardiest varieties of cultivated grasses. The latest to lose the luscious green foliage as the winter comes on and first to carpet the ground with a coat of green when the breath of spring-time awakens plant life. Of Russian origin and has deep, dense roots that make a powerful sod. Stands extremes of heat and cold far better than most any other grass known. A protection against washing on terraces by streams or river banks. Highly recommended for our semi-arid region of the west as well as moisture climates. It grows with wonderful rapidity. Density of foliage at the base, making a luxuriant pasture grass and is used as a hay crop as well. Analysis of its feeding properties show it is rich in flesh forming ingredients. Seed is light and fluffy, weighing 14 lbs. to the bushel. Sown at the rate of 15 to 20 lbs. per acre, either in early springtime or late summer, early fall. Price: Superfine Seed (quack-free), per lb. postpaid 25c; per bu. of 14 lbs. \$2.00; \$10.00 per 100. Burlap bags free.

Timothy

TIMOTHY. This well-known grass is the best of all grasses for hay. Succeeds very well on all kinds of soil, but is well adapted to moderately moist land. Should be cut just when the blossoms begin to fall. Can be sown in spring or fall. One bushel sows 3 acres. Is used in mixture with clover and other grasses to good advantage. Price Superfine Quality, \$2.50 per bu.; 10 bushel lots \$2.25 per bushel.

Reed's Canary Grass

A variety of agricultural grass not much known, splendid for moist low land, superior to red top, yielding nearly double the hay. Ames Experiment Station recommends Reed's Canary Grass as well suited to poorly drained soils in the Iowa corn belt and the north west. This grass is a perennial, has a very dense leafy growth and stands 5 to 6 ft. high when done growing. Its feeding value is greater than that of timothy as a hay proposition. It should stand before cutting about two weeks after the seed ripens. Horses eat the hay in preference to timothy. Sometimes called Horse Grass. Supply limited. Price: per lb. \$1.00; 10 lbs. \$9.00.

Creeping Bent Grass

ASTORIA BENT (Agrostis Astoriana) (Vulgaris)—Guaranteed to contain no mixture. Oregon crop, grown under strict state supervision and put up in sealed fifty pound bags. A perennial brand for putting greens and lawns. The hardest and best of all varieties of creeping bent. Waste no time on other so-called bent grass, get this. Price: ¼ lb. 50c; ½ lb. 75c; 1 lb. \$1.25; 5 lbs. \$6.00.

Kentucky Blue Grass

Poa Pratensis The universal pasture grass of America and the finest lawn grasses known is our own **Kentucky Blue Grass.**

The seed we offer is fresh, clean and pure. Sold at rate of 14 lbs. per bushel, which we quote subject to market changes. 21 lbs. quality \$2.50 per bu.; \$20.00 per 100 lbs. For lawn culture, double weight our Super-fine Brand, 30 lb. quality; 100 per cent pure, highest germination, 35c per lb.; \$30.00 per 100 lbs. All prices subject to market changes.

Poa Trivialis (Blue Grass) An ideal grass for the lawn well suited for our northern climate. This is a variety of perennial grass closely related to the Kentucky Blue Grass but somewhat finer and softer. One lb. to 300 square ft. Price: per lb. 50c; 5 lbs. \$2.00.

English Blue Grass

It is a success everywhere, on all kinds of land and never freezes out. It comes early in the spring, is green all summer and lasts until late autumn. It's an early quick crop and a nutritious pasture grass. About 15 lbs. per acre. Best seed, per lb. postpaid, 25c; per 100 lbs. \$10.00. Burlap bags free.

Red Top

Red Top. This grass is especially suited to low, wet, spouty lands. Stands our northern winters, can be sown on wet land without cultivation. Sow 10 pounds per acre. Fancy solid seed, per lb. 25c, postpaid; per 100 lbs., \$15.00. Cotton bags extra, 25c each. Can be returned.

Orchard Grass

ORCHARD GRASS. This grass does well everywhere, and for hay can be cut much earlier than timothy. Succeeds the best of grasses in timbered lands or orchards. Sow one to two bushels per acre. Per lb. postpaid, 25c; bu. of 14 lbs. \$2.00; per 100 lbs. \$12.50.

Perennial Rye Grass

This grass, though but an annual in this climate, in a very short time after the seed is sown it makes as fine pasture as other grasses of long standing. The leaves are very dark green with a rich tint to the blade. It makes a pasture quick as oats or rye would, and being a grass is of far greater value. It makes a splendid winter pasture if left to cure on the ground. Lb. postpaid 25c; per 10 lbs. \$2.00; per 100 lbs., \$12.00; 300 lb. lots \$10.00 per 100; 500 lb. lots, \$9.00 per 100. Burlap bags free.

PACY'S IRISH RYE GRASS—A shorter growing variety that sprouts and grows quicker than most any other variety of grass, much better suited for lawn work than the perennial or native rye grasses. A very dark beautiful grass with a sheen-like effect. Per lb. 25c; 10 lbs., \$2.00.

Pasture Mixtures

HIGHLAND PASTURE MIXTURE—Price: Per 100 lbs. \$12.50; 25 lbs. at 100 lb. rates. Burlap bags gross for net, no charge for bags.

LOWLAND PASTURE MIXTURE—Price: Per 100 lbs. \$10.00; 25 lbs. at 100 lb. rates. Burlap bags gross for net, no charge for bags.

Field Seed Department

All Prices Quoted on this Page Subject to Stocks on Hand and Market Changes.
American Cotton Bags, extra 25c each, which can be returned and cost price refunded. Burlap bags free gross for net.

Grohoma Kafir Cane

GROHOMA KAFIR CANE. A new lately introduced grain and fodder feed combined. Originated in Oklahoma. Produced by grafting Kafir Corn onto Seeded Ribbon Cane (a southern sugar cane). The stalks of this new grain contain a high per cent of sugar and makes a wonderful milk producer. The fodder can be used for fattening cattle as well. It is remarkable for its root growth, roots going down to a depth of 6 to 9 ft. Its powerful root system makes it one of the most drought resisting plants known. The foliage of other grains may wither and fall but Grohoma remains green. As a silo proposition it is the equal of anything that is used for that purpose. The plant stools from three to half a dozen or more stalks from each kernel of seed. It is planted, usually, in rows like corn, one kernel about every 12 inches in the row, or can be sown broadcast, yields in fodder, immense tonnage and as a seed proposition from 75 to 100 bushels per acre. Descriptive circular furnished on application. **Price:** lb., 25c postpaid; 10 lbs. \$1.00; per 100 lbs. \$7.50.

Velvet Barley

Smooth bearded variety.

VELVET—This barley is a smooth bearded variety, the result of a cross between the smooth awned barley and the Manchurian six rowed type of bearded barley. In the velvet barley are combined the very desirable smooth bearded character and the good characters of the Manchuria which latter has been one of the highest yielding varieties in cultivation. Experimental results with this variety show it to be resistant to attacks of "spot blotch" (*helminthosporium satovum*). **Price on application.**

Seed Oats

IOWA NO. 103. Seed oats. This is a very prolific variety of white oats, bred from a sport of the Kherson oats, discovered in a plant of that variety on the Iowa Agricultural College ground at Ames. Attention to this sport developed what is now known as the Pedigree Iowa No. 103 Oats. **Price on application.**

GOPHER OATS (Minnesota No. 674)—One of the very earliest maturing varieties. Introduced by the Minnesota experimental station. Highly recommended. The grain is white, straw stiff and strong. Especially recommended for bottom land. **Price on application.**

Buckwheat

This is very valuable for use on ground that cannot be seeded until late in the summer, as it can be sown as late as July 1st and still makes a good crop. **Price on application.**

Winter Rye

ROSEN RYE. This is a variety of recent introduction by the Michigan Agricultural College. It is a stiff-strawed, hardy, white winter variety of wide adaptation. Has large, white kernels. **Price on application.**

Common Barley

SIX ROWED. There are many who want to obtain or change their seed of barley, but who do not want to pay the price necessary to ask for the newer sorts. This is a good standard sort. **Price on application.**

Flax Seed

A wilt resisting Flax which is a selection made by the Minnesota Experiment station from stock received from the department of agriculture at Washington. Fine seed re-cleaned for seeding rate of half bu. per acre. **Price on application.**

Ruby Spring Wheat

A new variety of wheat introduced recently which has given unqualified satisfaction wherever it has been grown. It is somewhat similar to the type of Marquis; in fact quite so. Equal to it in milling qualities but far superior to it in earliness, being ten days to two weeks earlier. It misses the hot winds that affect later varieties and often ruin the crop and the rust too that often happens to catch the late varieties. It yields a third more to the acre than most of the other varieties of spring wheat. Earliness and yield are highly recommendable virtues. **Price on application.**

"Speltz"

SPRING EMMER. Emmer grows best in the dry prairie regions with hot summers, and even does well in poor or stony ground. It is a better drought and rust resister than either Oats or Barley. Sow $1\frac{1}{2}$ bu. to acre. **Price bu. (40 lbs.) on application.**

Canadian Field Peas

This is the variety of peas grown so extensively in the North and Northwest as a field crop. They are somewhat similar to the ordinary garden pea, but make longer vines and more pods. They should be sown very early in the spring, either alone or with oats or barley at the rate of from one to two bushels per acre. **Price subject to change per lb. 10c; per 100 lbs. \$6.00.**

White Kaffir Corn

Makes the best kind of fodder for cattle or horses, and is easily grown. The seed is splendid for poultry.

Sow in rows $2\frac{1}{2}$ to $3\frac{1}{2}$ feet apart and cultivate the same as corn. Five to ten lbs. will seed an acre in rows, or half bushel broadcast. **Price per 100 lbs. for seed, \$3.00; for food, \$2.00.**

Milo Maize

Grows from 5 to 7 feet high, stooling from the ground, sending out heads of great size, often weighing three-quarters of a pound, sometimes a full pound after ripe. Cattle, horses and hogs will eat it readily. Tests show that during the severe drouth corn dried up within a few feet of it. Five to ten pounds will plant an acre. **Lb. 15c; 100 lbs. \$3.00.**

Feterita

A Variety of Kaffir Corn, the New Drouth Resisting Plant

Feterita was introduced recently and has already in one year made a great name for itself in the drouth stricken southwest country. It is 25 days earlier than Kaffir Corn, out-yield Kaffir by far and is little affected by drouth. **Per bu. \$3.00.**

Prices subject to market change.

Soy Beans

Northern Grown. Valuable for hay or soiling food for cows, hogs and sheep pasture, also green manure. They resemble the navy bean in general appearance. Like clover they are great soil enrichers, gathering in nitrogen from the air and storing it in the soil. Many tests show that they may be grown wherever corn will ripen. When planted after corn in rows $2\frac{1}{2}$ feet apart with 6 to 8 plants to the foot of row if grown for the beans, requiring about one-half bushel of seed per acre when planted from planter attachment with corn 1 bushel plants about 8 acres. When grown for hay, it is preferable to plant the rows closer together or sow broadcast, at the rate of 40 lbs. per acre.

MANCHU. Iowa grown, per bu. \$1.00. Burlap bags free. American cotton grain bags extra, 25c each, holding $2\frac{1}{2}$ bushels.

Sudan Grass

What U. S. Department of Agriculture thinks about Sudan Grass. That it is a tall annual grass growing when sown broadcast, to height of 4 to 6 feet. It stools abundantly, as many as 100 stalks coming from a single root. Yields two cuttings in one season. It is a marked success, especially in semi-arid sections of the West. Drilling Northern grown Certified Seed or broadcast, 15 to 20 pounds per acre. 100 lbs. for \$3.00. Bags extra, 25c each, holding $2\frac{1}{2}$ bushels.

SEED POTATOES

Red River Early Ohio

Red River Early Ohio The stock of Early Ohio we offer is grown in the Red River Valley of the North. They are from ten days to two weeks earlier than common stock; are pure bred and free from scab, and were raised especially for seed. If you want something earlier than anything else, don't fail to get a few bushels of these choice earliest. Price per bu. \$1.00.

Carman No. 3 This potato is of large and uniform size, yielding immense crops. It is of perfect form. It has but a few eyes, and they are shallow; the skin and flesh are extremely white, and its cooking qualities are very fine. It is a remarkably handsome potato, enormously prolific. Per bu. \$1.00.

SEED SWEET POTATOES

The potatoes should be planted in a well prepared hot-bed. We can offer Yellow Jersey (the most popular Northern sort). Pound 15c; 15 pounds \$1.25; per measured bushel, \$2.50. Write for special prices on quantity. We grow sweet potato plants. Price per 100, 75c; 500, \$3.75; per 1000, \$6.00.

Dwarf Essex Rape

An annual plant of the cabbage family, grows very quickly in any weather and makes a big, loose bunch of leaves, somewhat like cabbage leaves, but long and narrow; grows all summer without going to seed. When eaten off it sprouts up from near the ground. All kinds of stock eat it readily and thrive on it, but most valuable for hogs, especially young stock. Broadcast, 5 lbs. per acre on well-prepared land, early in the spring, and after it gets started it will keep a dozen shoats to the acre all summer without other feed. Price subject to change. Per lb., 15c; per 100 lbs., \$6.00 in original heavy burlap bags of 220 lbs. each; \$12.00 per sack; bag free.

Sugar Cane and Fodder Cane

The greatest of all forage and fodder plants. It will yield two crops of fodder and a good fall pasture in one season. Roots deep into the sub-soil and stands the drouths that often destroy other crops. As a rough provender it is unsurpassed. Sow 1 to 2 bushels per acre. Subject to market change, Early Amber at \$1.00 per bu., bags extra, 25c. Special prices in quantity on application.

German Millet

Pure German Millet of all the well-known kinds, is by far the most valuable. This well known sort reaches the acme of perfection in the more southern states, and it is a fact that when the southern grown seed is planted in the north, it produces a taller stalk, and heavier growth of foliage than can possibly be raised from our own northern grown seed. Plant three-fourths bushel per acre. Price: \$1.00 per bushel. Bags extra, 25c each, holding $2\frac{1}{2}$ bushels.

MERCURIAL DISINFECTANTS

For seed potatoes and vegetable seed.

The lack of a practical method of seed treatment has long been a weak spot in efficient potato growing.

With the development of the Semesan Bel instantaneous dip there is now available to the potato grower a new, rapid and effective potato disinfectant which eliminates many of the disadvantages of old-fashioned methods.

SEMESAN BEL

Instantaneous Potato Dip

Dip Dust Seed disinfectant for potatoes, vegetables and flowers. Add it to the required quantity of water, dip the potatoes in, then out and then plant. Not more than two hours soaking is required. No danger to cut or sprouted seed. One lb. treats 15 bushels of seed potatoes. Full directions on every package. Four ozs. 50c; 1 lb. \$1.75; 5 lbs. \$8.00; 25 lbs. \$37.50.

Red River Triumph The Triumph is the earliest of all varieties. The tubers are nearly round, smooth, medium in size, reddish pink in color. Price: per bu. \$1.25.

Irish Cobbler Potato One of the most valuable first early potatoes. Very productive, globular in form, uniform in size, pure white. Per bu. \$1.00.

**TIPPED
SELECTED**

Our seed corn is grown here in the North, acclimated, selected and tested. We give no guarantee of crop, either expressed or implied, or guarantee of any kind, but if anyone wishes to test our seed corn before planting and is not satisfied with the test, he can return the seed and get his money back. American Cotton grain bags extra, 50c each. Burlap bags free.

SEED CORN DEPARTMENT**TESTED AND
GRADED**

ALL PRICES SUBJECT TO MARKET CHANGES. Write, phone or call for price on quantity.

**Champion Ear
Improved Reid's
Yellow Dent
Farmers Short
Course**

Reid's Improved Early Yellow Dent

This particular strain of Reid's Yellow Dent corn is known in this locality as the Forb strain. It was bred up by selection for some 8 or 10 years for earliness until the early feature for this climate was thoroughly established and has taken the first prize for Reid's corn for well matured earliness, at the Nebraska State Fair for some 4 or 5 years and the best strain without question of that well known sort for the climatic condition of northwestern Iowa and surrounding country, that has ever been developed. It has a rich golden color.

The ears are 9 to 11 inches long, 18 to 24 rows of kernels, each containing 50 to 60 grains. The cob is small completely covered from end to end with solid, deep kernels of corn. The kernels are rather narrow, medium in thickness, knit very closely together on the cob with no lost space between the rows and of all corn grown in this part of the country, it is the easiest to shuck. Price per bushel, shelled, \$2.00; 5 bushels, \$9.00; 10 bu., \$17.50; select ears, on ear, \$2.50.

**Prize Ear of Reids
Yellow Dent at a
State Fair
Exhibit**

SEMESAN, JR.**Seed Corn Treatment**

4 ozs., 50c; 1 lb., \$1.75; 5 lbs., \$8.00;
25 lbs., \$37.50

Silver King (Wis. No. 7)

This variety of white corn is the largest early white corn grown and the deepest kernelled of all the early varieties, more valuable than the yellow varieties on high rolling land and on account of its increased yield over those varieties. It is generally known as the king of white corn. Price: per shelled bushel, tipped and butted ears, \$2.00.

Wimples Yellow Dent

A variety of yellow dent that originated in Union County, South Dakota, really a strain of what was formerly known as Iowa Gold Mine but somewhat earlier. It has a very deep, broad, rough kernel. Highly suitable for northwestern Iowa and adjacent states. Price: per bu. \$2.00; in 10 bushel lots, \$1.75 per bushel.

Yellow Hammer Early Dent Corn

Our selected corn of this variety is an improved strain of that formerly well known variety, Minn. 13, the ears somewhat larger than Silver King, in season somewhat later. Price: \$2.00 per bushel.

Iowa Silver Mine

This variety is early as 90 days or less, yellow field corn, is one of the most surprising varieties of that kind that we have ever come in touch with. The ears are not large, nor are the kernels as deep as later varieties, but the ear is fair sized for an early sort and the kernels are deeper than the kernels of Flint corn. The stalks are not large but stout and stocky and can be planted closer in the row than other sorts. Price: per bu. shelled \$2.00; 5 bu. \$9.00; select ears, on ear, \$2.50 per bu.

We have other varieties of field corn and shall be pleased to quote prices on application for any other variety suited to our climate. All prices subject to market changes.

DEPARTMENT OF BULBS, ROOTS AND FLOWERING PLANTS

Peonies

PEONIES—Peonies will grow and do well anywhere pie plant will grow. Give them a deep, rich soil, plenty of barnyard manure, or better still, manure from the hen house. The Peony, once planted, lasts a generation and grows better every year.

Edulis Superba Exceedingly fine, vivid rose-colored flowers, full center very compact, very early. The best fragrant rose-colored peony. 3 to 5 eye roots. **Prices: 35c each; 3 for \$1.00.**

Felix Crousse. The ideal self-colored red Peony; large, globular and compact, a strong, vigorous grower. 3 to 5 eye roots. **Price: 50c each; 3 for \$1.40.**

Karl Rosenfeldt Brilliant dark crimson. Strong heavy foliage with stiff stems. One of the best of all the red varieties and has all the points of perfection. **Price each, 60c.**

Rubra Superba Rich brilliant, deep crimson without center. Fragrant, large clump flowers. Good bloomer and choice cut flower; tall and graceful. Very late, June 12th. 36 inches high. Three to 5 eye roots, 75c each; 2 for \$1.35; \$6.00 per dozen.

Festiva Maxima The plant has every point of perfection. Most healthy and powerful grower of any variety. The pure white flower is flecked with crimson in the center. 3 to 5 eye roots, 35c each; 3 for \$1.00; \$4.00 per doz.

Officialis Rubra The earliest of all peonies. In bloom for Memorial Day. The red "Piney" of our grandmother's garden. **Price, 75c each.**

Lord Kitchener Single flowering with finest rich red color. Brilliant crimson and glossy texture. Very hardy, immense size. Early flowering. **Price: \$1.00 each.**

Pink Unnamed Mixed Mixed pink varieties made up of good strong growing roots, 3 to 5 eye. **Price: 25c each; \$2.50 per dozen.**

Red Unnamed Mixed Mixed red varieties made up of good strong growing roots, 3 to 5 eye. **Price: 25c each; \$2.50 per dozen.**

White Unnamed Mixed Mixed white varieties made up of good strong growing roots, 3 to 5 eye. **Price: 20c each; \$2.25 per dozen.**

Mixed Colors All kinds. Made up of good strong growing roots, 3 to 5 eye. **Price: 15c each; \$1.50 per doz.**

Dahlias

As a home flower nothing equals the Dahlia. Plant the roots 2 feet apart, about 4 inches deep, lay them flat on side.

Kiwanian A sensational new variety of peony type. Distinctive long wiry stems, Strong plants and vigorous growers with numerous side branches. Flowers large and perfect in form. Color: American Beauty red with a shading of purple. **Each, 50c.**

Mrs. Carl Salbach (Dec.) — Extra large and full to the center. Stems are exceptionally long, holding the flower erect. Color, soft lavender-pink. **Each, 50c.**

Mrs. I. De Ver Warner (Decorative) — Very large perfect flower, deep mauve pink on stout stems. Strong grower and free bloomer. One of the best Dahlias in cultivation. **Each, 35c.**

Jersey Beauty Beautiful large pink flower of perfect form. Early and free flowering, continuing to the end of the season. **Each, 50c.**

J. D. Long Flowers full and well formed. Stems long and rigid. Color, autumn tints; salmon pink, amber and bronze. **Price: Each, 50c.**

Oregon (Cactus)—Flower American Beauty red, borne on long stems. **Each, 50c.**

The Grizzly (Dec.)—One of the very best novelties. A great dark velvety maroon beauty. Flowers of immense size on extra strong stems. This is a wonderful prize winning dahlia. **Each, 50c.**

Washington City (Hybrid Cactus) — An immense white flower that has few, if any, equals. Flowers from 8 to 9 inches and of purest white. **Each, 40c.**

Mrs. Thos. Burch (Dec.)—Flowers old gold with pink markings. Best of the tinted variety.

Delice (Dec.)—Flowers rich rose pink. Perfect shape. On stout stiff stems.

Von Heemstede (Dec.)—Flowers large rich yellow. Excellent keeper.

Manitou (Dec.)—Extra large flower. Clear purple. One of the best purples.

Moonbeam (Dec.)—Flowers clear canary yellow. One of the best of the kind. Good keeper.

Moore (Dec.)—Mammoth flowers in profusion, deep velvety maroon.

Perkins (Show)—Large pure white flowers. Free bloomer. Excellent for cutting.

Perle De Lyon Large Cactus. Cleft petals. Pure white.

Rawson (Dec.)—Exceptional flower, white overlaid with lavender.

Souv. Douzon (Dec.)—Immense red flower, flat petals, full to center.

Stradella (Dec.)—Large purple flower, rounded and full.

Above mentioned varieties not priced: 25c each; \$2.50 per dozen; \$15.00 per 100.

Mixed Dahlias Specialist Stock. Various colors and kinds. **Each, 15c; per dozen \$1.25. Native stock, 10c each; 75c per doz.**

Canna Roots and Plants

The king of bedders. The plant requires deeply dug, well enriched soil. Plant when ground is warm. Set the taller kinds for the center and dwarf kinds for the outer edges. Canna plants ready about May 1st.

King Humbert (4 ft.) Bronze foliage. Velvety, orange scarlet, flecked carmine. heartshaped ears of a deep purple. Price: per root, 15c each; doz. \$1.00.

Beacon (4 to 4½ ft.) Heavy, lateral growing rich green foliage. Flowers of very rich cardinal. Per root, 12½c each; 3 for 30c; dozen, \$1.00.

Wyoming (7 ft.) Purple foliage. One of the most majestic Cannas. Blossoms orange colored, true Orchid shape, with large, rounded petals. Per root, 10c; doz., \$1.00.

Queen Helen (Yellow Humbert) 4 ft. Identical with bronze King Humbert in growth. Flowers pure yellow, sometimes dotted with red. The foliage rich green. Per root, 15c each; \$1.00 per dozen.

The President The best new Canna yet introduced, flowers a glowing scarlet, foliage rich green, broad leaf of lateral growing habit, 4 ft. high. Roots 15c each; \$1.00 per dozen.

Musafolia (8 ft.) Green foliage with Bronze border. Grown for foliage only, used for screens and backgrounds. Per root, 5c; dozen, 50c; 100 \$3.00.

CANNA PLANTS (Potted)

The Canna is a tender, subtropical plant; roots easily affected by severe weather changes, and often rot in the ground by being planted too early. The most effective way of planting them is to use plants which are started in a greenhouse early in the season and 4 in. pots having 2 to 5 leaves on them by the 10th, when they can be planted outdoors.

	Per Doz.
Wyoming, Tall bronze, orange orchid flower grown in 4 inch pot.....	2.75
Beacon, Dwarf Green, red orchid flower, grown in 4 in. pot	3.00
Humbert, Dwarf bronze orange scarlet flower grown in 4 in. pot	3.00
President, Dwarf green, scarlet orchid flower grown in 4 in. pot. Each, 35c.....	3.00
Queen Helen, Medium size green yellow flower grown in 4 in. pot. Each, 25c	3.00
Musafolia, Tall, green foliage, small red flower grown in 4 inch pot, foliage effect only	2.50

Gladiolus Bulbs

Gladiolus. Planted every two weeks from time soil can be cultivated until July; will give a lot of bloom from June until cut down by frost. Plant 6 inches apart in rows. We quote only first size, first quality bulbs.

America Soft lavender pink, very light. Large, spreading blooms, immense flowers, first size bulb. 5c each; doz., 35c; per 100, \$2.50.

Baron Hulot The leading purple variety. First size bulbs. Each, 10c; doz., 60c; 100, \$4.50.

Herada New and elegant. The blooms are pure mauve, glistening and clear. First size bulbs 10c each; 35c per dozen; \$2.75 per 100.

Le Marechal Foch Very delicate pink. A seedling of "America," flowers twice the size of parent. First size bulbs 5c each; 50c per dozen; \$2.50 per 100.

L'Immaculee Pure white. One of the very good whites. Large flower. First size bulbs. Each, 10c; dozen, 60c; per 100, \$4.00.

Mrs. Frances King Effective flower spike with buds continually opening. Flower 4½ in., vermilion scarlet. Each, 5c; doz., 35c; 100, \$2.50.

Mrs. Frank Pendleton One of the most exquisitely colored. The color is a delicately flushed salmon pink, first size bulb. Each, 5c; dozen, 40c; per 100, \$2.50.

Mrs. Watt Glowing American Beauty shade of wine-red. Well open flowers on an erect spike. First size bulbs, 10c each; 60c per dozen.

Niagara Color flower canary yellow. The throat is splashed with carmine, first size bulb. Each, 5c; dozen, 50c; \$4.00 per 100.

Panama A new seedling of America, a much deeper pink. Spike long, flowers are large, first size bulb. Each, 5c; dozen, 50c; per 100, \$3.00.

Princesps The color is brilliant scarlet crimson, white blotches on the lower petals, first size bulb. Each, 10c; dozen, \$1.00.

Purple Glory Ruffled petals, velvety maroon-red, black blotches. First size bulbs. Each, 10c; dozen, 75c.

Ruffled Glory Salmon pink with crimson stripes in the center of each lower petal. First size bulbs. Each, 10c; dozen, 60c; per 100, \$5.00.

Scarlet Princesps Massive princesps-like blossoms, throat a little deeper red. Very fine variety. First size bulbs. Each, 5c; dozen, 35c; per 100, \$3.00.

Schwaben Clear canary yellow with a touch of dark red in the throat, a popular Glad. First size bulbs 5c each; 40c per dozen; \$3.00 per 100.

Ruffled Mixture All colors and shades of the ruffled varieties. First size bulbs. Each, 15c; dozen, \$1.50.

Jumbo Mixture Largest size bulbs of the best large bulb varieties. Attractive bulbs. Each 5c; doz. 50c; 100, \$3.00.

NATIVE MIXTURES. All kinds home-raised bulbs. Dozen 25c; \$1.50 per 100.

PERENNIAL PLANTS

For a continuous season of flowering from early springtime until late into the autumn the various perennials furnish a continual blooming season, reappearing year after year, blooming freely and requiring very little attention and protection.

Bleeding Heart An old-fashioned favorite, Price: Clumps, each, 40c.

Campanula (Bell Flower). Bell-shaped flowers. Each, 20c; doz. \$2.25.

Columbine Flowers large; each root forms a large clump. Each, 25c; doz. \$2.50.

Coreopsis Large, handsome orange yellow flowers. Each, 20c; doz. \$2.00.

Delphinium (Hardy Larkspur). Few plants are so handsome as perennial Larkspurs. Each, 25c; doz. \$2.75.

Dianthus (Hardy Garden Pinks). Charming fragrant flower. Two-year, 15c.

Digitalis (Foxglove). Stately old garden favorite. Field Clumps, each, 25c; doz. clumps, each, 20c; dozen, \$2.25.

Gaillardia A showy flower. Petals scarlet-orange to crimson. Field Clumps, each, 25c; dozen, \$2.75.

Gypsophila (Baby's Breath)—Paniculata, Double pinkish white flower. Price: 75c each; 3 for \$2.00.

Hardy Ferns Outdoor culture. Shaded places. Price: 15c each; \$1.50 per doz.

Heliopsis Hardy Zinnia. Yellow flowers. August bloomer. Price: 20c each; \$2.00 per dozen.

Oriental Poppy No flower is more attractive in full bloom than the perennial poppy. Price: 25c each; \$2.50 per dozen.

Perennial Sweet Pea An everlasting bloomer. Price: 20c ea., doz. \$2.

Pyrethrum (Painted Daisy)—Hybridum Roseum. Earliest and latest flower. Price: 20c each; \$2.00 per dozen.

Shasta Daisies Immense white flowers; best daisy. Each, 25c; dozen, \$2.75.

Yucca Evergreen foliage. Useful in landscape work. Price: 2 yr. plants, 25c each; \$2.50 per dozen. Large plants 50c to \$1.50 each.

HARDY PHLOX

Hardy Phlox, with its range of bright colors, is one of the most attractive flowers for summer decoration. Exceedingly hardy and once planted requires no further attention for years.

Commander Beautiful crimson red with darker eye. Price: 35c each; doz. \$3.00.

Lassburg Splendid white. Very large flowers. Price: 20c each; \$2.00 per dozen.

Miss Lingard Pure white. Earliest of all. Blooms all summer. Price, 25c each; \$2.50 per dozen.

Enchantress Bright salmon pink with dark eye. Price: 25c each; \$2.50 per dozen.

Rijnstroom Paul Neyron Rose pink. Vigorous foliage. Price: 15c each; doz., \$1.65.

Thor Deep salmon pink with scarlet glow. Price: 20c each; \$2.00 per dozen.

Dwarf Phlox (Subulata) — Creeping variety. Moss like foliage. White, pink and lavender. First of April bloomer. Price: 15c each; \$1.75 per dozen.

Mixed Phlox All colors. Price: 10c each; \$1.00 per dozen.

HARDY LILY BULBS

Planted in spring. Bloom mid-summer several weeks later than when planted in the autumn. They are voracious feeders and need good rich soil enriched with bone meal.

Album Most popular of all the pure white. Lilies. Each, 35c; per dozen, \$3.50.

Auratum (Gold Banded Lily). The grandest of all hardy lilies. Each, 40c; doz. \$4.

Candidum (Madonna Lily). Snow white, delightful fragrance. Each, 25c; doz. \$2.50.

Elegans (Fire Lily)—A showy Japanese lily flowering in June. Cup - shaped red flowers. Price: Each, 25c; dozen, \$2.00.

Funkia (Subcordata) Fragrant white flower. Each 35c; six for \$2.00; per doz. \$3.50.

Lily of the Valley Charming spring perennials. Pips, each, 5c; doz., 50c; large clumps, each, 25c.

Regale Immense blooms, white shaded with pink. 6-8 in., 35c each; 5-6 in., 25c.

Rubrum Enormous flowers; pure white crimson stripe. Each, 35c; dozen, \$4.00.

Superbum Turk's-Cap, bright orange, dark purple spots. Each, 20c; doz. \$2.25.

Tigrinum (Tiger Lily). Single and hardy native Lily. Each, 15c; per doz. \$1.50.

Tigrinum (Double Tiger Lily). Rich orange blossom. Each, 25c; per doz. \$2.50.

Umbellatum The Erectum of this class, only one desirable. Price: 50c each.

Not Hardy

Begonias For brilliancy of color few plants compare with the tuberous-rooted Begonias. Single or double. 25c each; doz. \$2.50

Elephant's Ear Grand tropic-looking plant, will produce enormous leaves. Ht. 4 to 5 feet. Fair sized bulbs, each, 15c; medium sized bulbs, 25c; monster giant bulbs, 50c each.

Tuberoses This is one of the bulbs all should have. Synonym of sweetness and purity. Price: Each, 5c; 12 for 50c.

Chrysanthemums HARDY OUTDOOR VARIETIES

Carrie (Glory of Seven Oaks)—A beautiful deep yellow flower. Last half of August bloomer. Potted plants in full foliage, 25c each; \$2.50 per dozen.

Champaign A bright ruby red flower, wonderfully colored. Medium early. September bloomer. Potted plants in full foliage, 25c each; \$2.50 per dozen.

Mayellen Cerise pink flower with yellow center. Continuous bloomer. First half of September flowering. Potted plants in full foliage, 25c each; \$2.50 per dozen.

Winnetka A pure white flower. One of the earliest and best white flowering. Potted plants in full foliage, 25c each; \$2.50 per dozen.

Wolverine A very early bloomer. Last half of August flowering. Bright yellow color. Potted plants in full foliage, 25c each; \$2.50 per dozen.

September Queen Begins flowering last of August. Pure white flower 3½ ins. in diameter. Potted plants in full foliage, 25c each; \$2.75 per dozen.

Golden Glow A large, showy plant, six feet tall resembling yellow Chrysanthemums. Roots, each 15c; dozen, \$1.50.

Hardy Irises

There is a peculiar charm about the IRIS that appeals to all lovers of the beautiful in flowers. The blossoms are of rich and varied colors, quaint forms and some varieties are very fragrant. Iris can be transplanted all during the summer and autumn as well as in the spring.

S. is for standard petals—F. for the falling petals.

Alcazar 3 feet. S. violet; F. purple. Throat veined. Each, 25c; per dozen, \$2.00.

Ambassadeur 3 feet. S. purple; F. deep maroon. Beards yellow. Each, 50c; per dozen, \$5.00.

Archeveque 2 feet. S. purple; F. velvet violet. Each, 25c; per dozen, \$2.00.

Darwin 2 feet. Pure white. Best of all whites. Each, 10c; per dozen, \$1.00.

Dream 3 feet. Even color. Charming pink. Each, 20c; per dozen, \$2.25.

Juniata 4 feet. S. and F. deep blue. Tallest bearded. Fragrant. Each, 25c; doz. \$2.

Kochi 2½ feet. Rich dark purple (nearly black). Each, 15c; per dozen, \$1.50.

Lohengrin 2½ feet. S. and F. uniform lilac rose. Each, 10c; per dozen, \$1.00.

Mamie 3 feet. S. violet. F. white with markings. Each, 25c; per dozen, \$2.00.

Mother Pearl 3 feet S. and F. bluish lavender. Each, 35c; per dozen, \$3.75.

P. Beatrice Bluish violet. Veined yellow. Very scarce. Each, 50c; per doz. \$5.00.

Prospero S. lavender. F. deep purple. Very handsome. Each, 50c; per doz. \$5.00.

Seminole 2 feet. S. violet. F. velvet crimson. Each, 25c; per dozen, \$2.50.

Dwarf Iris (Pumila), 8 inch. Rich purple. Earliest. Border purpose. Each, 10c; per dozen, 75c.

Mixed Iris All kinds and colors of good varieties. Each, 10c; per dozen, 75c.

Special prices on all kinds in hundred lots or more.

Water Lilies and Aquatics

One of the most interesting things we can cultivate in the yard is a pond of water lilies or a small pool, or yet even in a tub, with aquatic plants and fish for an added attraction. Especially is this true with the immense leaves and beautiful flowers of the gorgeous Nymphaeas and Nelumbium Hardy Water Lilies.

The depth of the water varies from a few inches to four feet. The Hardy Nymphaeas, however, will give the best results if only covered by 12 inches of water during the summer months.

All quotations are based on delivery not sooner than the first of May, from that until the first of June.

Hardy Nymphaeas Water Lilies

Water Lily, White (*Castalia odorata*)—A well known white flowering variety with fragrant, sweet scented blossoms. Four inch tubers, spring and early summer delivery. Each 50c; 6 for \$2.50; per dozen \$4.50.

Water Lily, Yellow (*Nuphar advena*)—A well known variety of water lilies with yellow flowers that is common in most of the waters where yellow water lilies grow. A great deer and moose food. Seed is eaten by ducks. Spring and early summer delivery. Tubers, 50c each; 6 for \$3.00; per dozen, \$5.00.

Seed for fall planting only—per oz. 75c; 3 oz. \$2.00; per lb. \$6.00.

Water Lily, Helen Fowler A natural cross of Nymphae Tuberosa; strong vigorous growth, flowers borne on stout stems making it useful for cut flower purposes. Deep pink and very fragrant. Tubers, \$1.75 each.

Lotus or Nelumbium Water Lily

Water Lily American Lotus, (*Nelumbo lutea*). A rare and beautiful plant. Creamy yellow flowers 8 to 10 inches across. Adapted to lakes, ponds and sloughs and grown as well in tubs. Tubers, \$2.00 each. Potted plants, \$3.00 each. Seed per oz. 25c; ½ lb. 75c; per lb. \$1.50.

Wild Rice Giant, attractive clumps and back ground for water gardens, sure growing, large grain variety seed. Per oz. 20c; ½ lb. \$1.00; \$1.25 per lb. 25 lbs., \$1.00 per lb.; 50 lb. lots, 90c per lb.

Wild Celery Unfailing attraction for wild ducks. Best fishing where it grows. Provides food and shelter and keeps the water fresh and clear. Submerge plant. Water buds

Water Lily, Aurora (Hardy Water Lily) Most satisfactory of all lilies. Has a large flower, color dull bronze changing to reddish on third day, one of the most unique colors of any lily. Very free flowering. Tubers, \$2.00 each; 2 for \$3.50.

Water Lily, White Odorata Gigantea A most natural pond lily. Pure white flower, large, 5 to 7 in. Blooms very freely. \$1.00 each; 3 for \$2.50.

Water Lily, Laydekeri Purpurata Pleasing carmine rose flowers borne in constant succession. The plant is modern in growth and suitable for medium-sized pools. The leaves are oval and prettily spotted; a well tried variety. Tubers, \$2.00 each; 2 for \$3.75.

Water Lily, Richardsoni Tuberosa Flowers Pure white and quite double. No variety in our Water Garden is admired more than this immense snowball-like flower. 8 inches in diameter. Each, \$1.50.

Water Lily Speciosum (Egyptian Lotus). The best known variety and the easiest to grow, desirable for naturalizing in ponds where the magnificent foliage and flowers produce a splendid subtropical effect. Flowers deep rose color, creamy-white at base of petals. Tubers each, \$2.50.

Aquatic Duck Food

or plants—25c each; 12 for \$1.50; \$5.00 per 100. Seed of same—per lb., \$1.50; 25 lbs. \$1.25 per lb. September and October delivery on seed.

Duck Potato (*Sagittaria latifolia*). Ornamental arrow-shaped leaves. White and yellow flowers. Grows rapidly and attracts water fowls. Tubers: 25c each; \$1.50 per dozen; \$6.00 per 100.

Miscellaneous Aquatics

Water Hyacinth (*Eichhornia crassipes major*). Shiny dark green leaves, the stems of which are expanded, which serve as air chambers. Orchid-like flowers of lavender. Hyacinths are merely floatings, and do not need to touch the bottom soil. Just set the plants on top of the water in protected places. Price each, 10c; 3 for 25c.

Floating Heart (*Nymphoides peltatum*)—Has leaves like the nymphaeas and produces brilliant flowers quite freely. Well adapted to shallow water. Price: each, 15c; per dozen, \$1.50.

Banana Lily (*Castalia mexicana*)— Handsome, lemon colored flowers. Very attractive as a duck food. Tubers, each, 50c; 6 for \$2.50; per dozen, \$4.50.

Plant Department

Flowering and Foliage Plants

Hotkap Setter
50c each

Price: Per dozen, 25c; per 100, \$1.50; per 1000, \$12.00; 250 trial package with garden setter, \$4.00.

Germaco
Hotkaps
New Method of
Plant Protection

FOR BEDDING, WINDOWBOXES AND VASES

Aster Plants Potted plants, dozen, 50c; basket with earth, dozen 50c; in bulk 50 for \$1.50; per 100, \$2.50.

Coleus Plants For border work. Self colors or variegated foliage. Price: 2½ inch pots, dozen 75c.

Dusty Miller Plants Foliage only; border Plant. Price 2½ in. pots, dozen 85c; baskets, 12, 50c.

Lobelia Plants Vases and border work; blue flower. Price, 2½ inch pots, dozen, \$1.00.

Pansy Plants Mixed colors. Michael's Deluxe Strain. Price: Potted, 2½ inch pots, dozen, 75c. In basket of dozen, 50c in bulk 50 for \$2.00; per 100, \$3.00.

Petunia Plants Single fringed flowers. Price, 2½ inch pots, each, 15c; dozen \$1.00. Double flowering, each, 25c; dozen, \$2.50. Baskets, 50c; in bulk, 50 for \$2.00; per 100, \$3.50.

Verbena Plants Creeping annual, scores of fine flowers. Price: All colors, 2½ inch pots, dozen, 75c; growing in basket, dozen, 50c.

Hanging Baskets All filled with plants. Each, \$2.50 and \$3.00.

Wire Baskets Empty. Price 14 inch size, 50 cents.

Green Sheet Moss For lining. Price, per lb. 35 cents.

GERANIUMS

Prices do not include pots.

Geranium Plants The grandest of all bedding plants. Double flowering dark red, pink and white; potted plants only in full bloom. While grown in pots plants are taken out with ball of dirt and wrapped for shipping.

S. A. Nutt, dark red, 3 inch pots, per doz. \$2.40.

S. A. Nutt, dark red, 4 in. pots, per doz. \$3.00.

Rickert, light red, 4 in. pots, per doz. \$3.00.

Perkins, ideal pink, 4 in. pots, per doz. \$3.00.

Poittevine, salmon pink, 4 in. per doz., \$3.50.

Buchner, white, 4 in. pots, per doz. \$3.00.

Apple Blossom, 4 in. pots, per doz. \$3.50.

Madame Solleioi, variegated foliage, 3 in. pots. Border geranium. 15c each, per doz. \$1.00.

Salvia Plants Scarlet flower on long spikes lasting all summer. Price: 2½ inch pots, dozen, 75c; 4 inch pots, dozen, \$2.50; basket of dozen, 50c.

Sprengerii (Emerald Feather). Green foliage. For porch boxes and hanging baskets. Price: 3 inch pots, dozen \$2.50; 4 inch, 25c each; dozen, \$3.50.

Vinca Vines Variegated foliage hanging baskets and porch boxes. Price: 2½ inch pots, dozen \$1.75; 3 inch pots, dozen \$2.25; 4 inch 25c each; per dozen, \$3.00.

Vegetable Plants

Vegetable plants and roots in season, well grown and packed to carry by either express or parcel post for long distance. Frost proof cabbage plants ready for shipment last half of March. Frost proof tomato plants ready for shipment two weeks later. Home raised cabbage plants, grown in outdoor frames under glass ready for shipment April 15th. Home raised tomato plants about ten days to two weeks later. Prices quoted subject to stocks on hand and change without notice.

Cabbage Plants Frost proof, field grown; 60c per 100; \$5.00 per 1000; 5000 lots, direct, f. o. b. growing station, \$2.50 per 1000. Transplanted, home grown out-doors under glass, \$1.00 per 100; \$7.50 per 1000.

We grow large quantities of Vegetable plants and Roots, both at home and in the South. Well grown and packed to carry a long distance. All prices subject to season conditions, stocks on hand and change from time to time in season.

Cauliflower Plants Early Snowball. Transplanted. Dozen, 25c; 100 \$1.75.

Celery Plants Ready May 10th. Seedlings. Per 100, 75c; Transplanted; per 100, \$1.50.

Egg Plants Basket earth, 50c. Potted plants, dozen, 60c; in bulk, per 100, \$2.00.

Pepper Plants Bulk. Doz. 25c; basket, doz. 50c; in bulk, 100, \$2.00.

Sweet Potato Plants Ready about May 5th. Yellow Jersey plants. Price: 100 plants, 75c; 500, \$3.25; 1,000, \$6.00.

Write for prices in large quantities.

Tomato Plants Transplanted, home grown out doors under glass: \$1.00 per 100; \$8.00 per 1000. Frost proof, field grown, 75c per 100; \$5.00 per 1000; in 5000 lots, f. o. b. growing station, direct shipment, \$3.00 per 1000.

VEGETABLE PLANT ROOTS

Asparagus Roots

Martha Washington Developed by U. S. Department of Agriculture. Immune to rust; long, tender shoots of unexcelled table quality. 35c per doz.; \$2.00 per 100.

Rhubarb or Pie Plant Root division of 2 to 3 eyes. Each 15c; per dozen \$1.00.

Horseradish Large crown roots, each, 10c; doz., 75c. Special price in quantities.

NURSERY DEPARTMENT

Price quoted after the description of each variety, 50c each, is for hardy well adapted varieties, grafted trees, specimen stock, Iowa grown, 2 year old tops, 5 feet and up to 11-16 to 1 inch caliper size trees.

We further quote any variety in quantity except new apples as follows: 3 trees for \$1.35; 6 trees for \$2.50; 10 trees for \$4.00; 50 trees for \$18.00; \$35.00 per 100.

Smaller trees f. o. b. Iowa growing station only, 3 to 4 feet trees, 2 year roots, 1 year tops. Bales of 10 trees: \$2.50 per bale; 3 bales for \$6.00; 10 bales 100 trees for \$15.00. Buyers selection of varieties except new apples. Subject stocks unsold.

IMPORTANT TO Prospective Customers of Roots, Bulbs, Plants, Nursery Stock, Etc.

We handle only such kinds and varieties of trees, shrubs and plants as grow here and stand this climate. Stock strong, true to name, dug when wanted and roots carefully packed in wet moss for shipping. All prices subject to market change.

OUR NURSERY DEPARTMENT is in the basement of our concrete seed store building at 316 Pearl Street, well lighted with electricity as a salesroom and an ideal place for keeping nursery stock, bulbs and roots just as fresh and nice for two or three weeks as though they were dug out of the ground and where too, there can possibly be no effect from weather changes that are often severe, damaging shrubbery that is not well protected after it is dug in the spring time and before it is planted.

We can furnish other varieties of apple trees not described here—on application.

New Apples

SUMMER AND WINTER VARIETIES

Anoka The Anoka is the earliest and heaviest bearing apple in the world, beginning to bear the second year after the planting. An annual bearer which bears on one year wood. It was originated by Prof. Hansen of the South Dakota State College as an apple for the central northwest. Price: Each, 50c.

Haralson Many standard apple trees do not bear for a number of years after planting. The Haralson is up to date in that respect. It has been bred for early bearing, is a winter apple and will keep until spring. Free from blight and absolutely hardy. A big red apple and heavy cropper. Price: Each, 50c.

Summer Apples

Duchess of Oldenburg From Russia, extremely hardy, medium size, yellow with red stripes. Somewhat sour, fine for cooking. A couple of these trees should be in every orchard. Will not keep long when fully ripe. 5 to 6 ft. trees, 35c each.

Yellow Transparent One of the earliest apples. Tree is vigorous, good bearer. Two-year-old trees frequently produce fruit. Medium large, smooth transparent. Skin is pale yellow when ripe. Flesh white, and splendid quality. Does well most anywhere. Is perfectly hardy. 5 to 6 ft. 35c each.

Fall and Winter Apples

Delicious The Delicious originated 20 years ago at Peru, Madison Co., Iowa. The original tree still flourishes, bearing an annual crop of beautiful fruit. Fruit is large, with the surface almost covered with a most beautiful brilliant dark red, blending to golden yellow at the blossom end. In quality it is unsurpassed, flavor slightly acid, delightfully fragrant, flesh fine-grained, crisp, juicy, melting and delicious. Good keeper, coming out of storage in March or April in perfect condition. 5 to 6 ft. select trees, only specimen stock. 50c each.

McIntosh Red Canadian (Ontario) origin; extremely hardy and does well even in the exposed cold regions of Montana and Wyoming and very popular in the Northeastern states. It bears a big red apple above medium; a beautiful crimson; flesh snow white; slightly acid and a wonderful keeper. It is growing more popular wherever it is known. 5 to 6 ft. trees, 35c each.

Wealthy A seedling originated in Minnesota; very hardy; an abundant and early bearer; fruit large, dark crimson; flesh crisp subacid, white tinged with red; good quality. Tree a fine, upright grower, both in the nursery and orchard. Season. October to December. Budded stock specimen trees, 5 to 6 ft. 35c each.

Jonathan A brilliant dark red apple of excellent quality. Tender, spicy, rich and juicy. It is one of the most popular varieties for commercial planting. October to March. 5 to 6 feet trees. Specimen stock, 35c each.

Winesap Old favorite, vigorous grower, and hardy. Fruit bright red, long keeper. 5 to 6 ft. trees, 35c each.

Northwestern Greening Tree of Wisconsin origin and extremely fine shaped. Fruit large and greenish-yellow; good quality. It is claimed to keep well until June. 5 to 6 ft. trees, 35c each.

Dwarf Apples

Dwarf Fruit Trees Are Both Ornamental and Useful

The Dwarfed Apple trees we offer are any of the standard varieties, adaptable to this work, budded on a American DuRoi (Paradise) Apple stock, which has the effect to dwarf the growth of the standard varieties when budded on this ancient stock. This habit of growth makes it essentially a city tree for the reason that Dwarf trees bear when very young, beginning to bear the second year they are out. Varieties we offer: Wealthy, Jonathan and Delicious, 3 to 4 ft. trees, \$1.00 each.

We are often asked for fruit trees that will bear the same year planted. We cannot promise this to a certainty but the dwarf fruit tree will come as near to doing it as anything in existence.

SEE NEXT PAGE FOR CRAB APPLES.

CRAB APPLES

Florence Crab

Dolgo Ornamental flowering, fruit bearing crab. Red all over. An early and heavy bearer. Extremely hardy. Free from blight. Introduced by Prof. Hansen, South Dakota State College. Price: \$1.00 each.

Whitney No. 20 (Hybrid Crab). Fruit very large for a hybrid crab, apple striped red with yellow flesh; rather juicy and grained. Healthy and vigorous tree, upright, rather conical in growth and a beautiful tree. 50c each; 3 for \$1.25.

The Florence Crab The most valuable crab ever fruited here. Annual bearers, usually fruiting the second season after planting. Early, large, beautiful, excellent, youngest bearer, most prolific of all. Hardest and most ornamental fruit tree we grow. Exempt from blight. Each, 50c; 3 for \$1.25.

Red Siberian About an inch in diameter, grown in clusters; bears young and abundantly August to September. 50c each.

CHERRIES

The Cherry is the most valuable of all fruit trees for the Northwest; perfectly hardy, grows and thrives on any of our soil. An annual bearer; ornamental as well as valuable.

Early Richmond

Early Richmond An early red, acid cherry, very valuable for cooking. Tree a free grower, hardy, healthy and very productive. It is the leading market variety for this section. Ripens in June. See picture in colors outside back cover. 4½ to 5 ft. 50c each.

Large Montmorency Large, red, acid cherry; is larger than Early Richmond and about ten days later. A superior sort for home use. 4½ to 5 ft. 50c each.

Dwarf Montmorency Cherry Bearing much earlier than the prior sort for home use. 4½ to 5 ft. 50c each.

English Morello Trees very hardy and great bearer. Fruit large; skin dark red, becoming nearly black when fully ripe. 4½ to 5 ft. 50c each.

Black Tartarian Very large, fruit of purplish-black color, flesh is mild and sweet. Tree is vigorous, upright grower, and immense bearer. A sweet cherry of the Ox-heart type. Each, 50c.

Golden Glass A new Sweet Cherry immense size, Oxheart type, yellow color, almost transparent. Hardy as the Richmond and ripens a few days later. Each, 50c.

Compass Cherry Plum Absolutely hardy everywhere. Originated in Minnesota. A cross between the Sand Cherry, Morello Cherry, and the Miner Plum. Produces fruit next year after setting out. Each, 50c.

Rocky Mountain Bush Cherry (*Prunus Pennsylvanica*). This cherry is of Rocky Mountain origin. Dwarfish habit of growth. Fruit purple, nearly round. It comes to bearing the second year after planting and is a very prolific bearer. Price: 2 to 3 ft., 35c each; 3 for \$1.00.

PRICES: Cherry, standard varieties, very select, picked specimen trees. 10% discount in quantity.

PEACHES AND APRICOTS

Peaches and apricots have not been, in the past, considered very safe in this latitude and climatic conditions but of late years varieties have been developed that are more hardy than formerly. The varieties that we offer are known to be the very hardiest.

PEACHES

Champion Peach (freestone) This variety of peach tree is very hardy, vigorous and a great grower. Flesh white skin with brilliant red cheeks. Price: 5 ft. trees, 50c each.

Bokhara One of the very hardiest peaches known. Fruit greenish yellow low overspread with a reddish hue. 50c each.

Dwarf Peach Japanese Dream—Quickest to bear fruit after planting of any known fruit. A peach for all sections. Red fleshed variety. Price: Each, \$1.00.

APRICOTS

J. L. Budd Apricot This is an early variety of that kind of fruit. Golden yellow with a peach-like flavor. Price: 4 to 5 ft. trees, 60c each.

Hungarian Apricot Trees of this variety grow to be of immense size for fruit of this kind and are unusually hardy, the hardest of all apricots. Fruits large, deep yellow in color and delicious in flavor. Plant trees 25 ft. apart. Price: 5 ft. trees, \$1.00 each.

PLUMS

A LIST OF THOROUGHLY TESTED AMERICAN VARIETIES

The Plum tree attains its greatest perfection on our heavy soils, being entirely free from disease. Plums are very hardy and grow vigorously in all sections.

PROF. HANSEN'S HYBRID PLUMS

Hanska This is a cross between a wild north-western plum and the *Prunus Simoni*. The flat shape of this plum and its peculiar red color with its heavy blue bloom distinguishes it from all other hardy plums grown in the Northwest. Tree a very strong grower and very hardy. An early and profuse bearer; quality good. Per each, 50c; 3 for \$1.25.

Opata A cross between the Dak. Sand Cherry and the Japanese Gold Plum, a very large hybrid by Burbank. It possesses the sprightly acidity of the Sand Cherry and rich sweetness of the Gold Plum, the male parent. Season extremely early. Dark purplish-red fruit. Per each, 50c; 3 for \$1.25.

Waneta Plum

Waneta Plum This is the largest fruiting variety out of ten thousand hybrids of the Hansen Hybrid varieties. Size of fruit, two inches in diameter. The tree is a cross with the Japanese Apple Plum and our native Iowa variety (*Prunus Americana*) the Terry Plum, which bears the largest fruit of all the native or Chickasaw varieties. Color of the fruit is dark red, flavor delicious; possesses the hardiness of the native Chickasaw parent with the fruiting qualities of the famous Japanese variety; an early and profuse bearer. See picture outside back cover. Price: 5 to 6 ft., 2-year-old top growth, 60c each; 3 for \$1.75.

Sapa This is a cross between the Western Sand Cherry and a large purple-fleshed Japanese variety, dark purple skin and rich dark purple flesh Plum called Sultan. The fruit has the glossy skin and rich dark purple red flesh of its Japanese sire. The Sapa attracted great attention as a new departure in stone fruits for the prairies of the Northwest. Begins bearing second year out and yields so abundantly as to cause the whole tree to droop prostrate to the ground with fruit. Each 50c; 3 for \$1.25.

Minnesota Plums

PRODUCED AT THE UNIVERSITY OF MINNESOTA FRUIT BREEDING FARM

Monitor (Minn. No. 70) The tree of this new variety is large, upright, spreading, vigorous, very productive and hardy. The fruit is very large, slightly pointed toward the apex; stem rather thick, medium length, adheres well to the fruit; color a dull but rich bronze-red conspicuously covered with russet spots. The flesh is yellow, tender, very juicy but firm, sweet except for some acid taste around the pit. Ripening season medium late. 5 to 6 feet, 50c each

Goldenrod (Minn. No. 120) The pistillate parent of this plum was produced by Burbank, bred from four separate and distinct species of plums including a yellow fruited variety, *Prunus Americana*. The tree is vigorous, upright spreading in habit of growth. Fruit is large and rather round, slightly conic. Fruit stem long and slender. Skin thin but tough. Flesh yellow, fine grained, juicy, sub-acid. Stone small. Color rich golden yellow. Season medium late. As a yellow variety it is considered the very best. 5 to 6 feet, 50c each.

Native Plums

Chickasaw Varieties

Terry Plum The largest fruit of any of the Chickasaw or Native plums, fruit 2 inches in diameter. Tree strong, large, vigorous grower and perfectly hardy. Fruit bright, attractive color, and very firm. Price: 5 to 6 ft. trees, 50c each; 3 for \$1.25.

Burwood Tree is extremely hardy. It comes into bearing young and bears so heavily as to retard the growth of the tree. It is an annual bearer. Fruit good size and quality. Color red at full maturity. Ripens in August. 5 to 6 ft. select, 50c each per tree; 3 for \$1.25.

Wild Goose (Improved). Tree a very strong, vigorous grower. Fruit larger than the old variety this name, deep red and of good quality. A valuable variety to raise. 5 to 6 ft. 50c per tree; 3 for \$1.25.

PEARS

Flemish Beauty The hardiest of all the rich, juicy, delicious pears; hardy and productive and live to advantage the farthest north of any of the pears we know of. Bearing here in this city. 50c each.

Drawl Flemish Beauty Pear Bearing earlier than the standard. Price: \$1.00.

Keiffer This is the most popular pear grown: fruit of fine size, rich color and good quality; tree very vigorous and seldom blights; should be picked at maturity and ripened indoors. October and November, 5 to 6 ft. trees, 50c each.

Mulberry

Russian Mulberry or Bird Mulberry. Introduced to this country by Russian Mennonites and on account of its hardiness and rich foliage, makes a beautiful ornamental tree. The fruit is much inferior to the native, but is greatly prized by birds, keeping them away from other garden fruit. Trees 5 to 6 feet, 50c each.

See page 40 for Hedges.

Currants

Hardy, easily cultivated, standing neglect well, indispensable for table use, jellies, etc. Set four feet apart in rich ground. If the currant worm appears, dust with hellebore.

Diplomat Currant

bright red, and enormously productive. Very productive. Sweeter than the red varieties.

Black Currant Very productive. Strong grower.

Prices above: For 2-year, No. 1 standard varieties, 15c each; ½ dozen, \$1.00; dozen, \$1.75. Special prices per 100, not priced.

Gooseberries

The gooseberry is one of the hardiest and best bearing of the small fruits for the northwest and lasts longer in season than any other small fruit.

Should be planted in good, rich soil and well manured once a year. Even more rugged and easier to grow than Currants. Do not let bushes grow too thick; the fruit will be larger and more plentiful.

Downing Large; light green; soft, tender, good flavor; extremely vigorous, hardy and prolific. Per each, 25c; doz., \$2.50.

Houghton Gooseberry

Houghton Most productive. Best payer of all. Fruit excellent quality. 2-year, each 20c; ½ dozen, \$1.00; per dozen, \$1.75; per 50 \$5.00.

Poorman The Poorman is a new gooseberry of phenomenal characteristics which, where known, is sweeping all other sorts aside. The fruit of the Poorman is the largest of any of the American gooseberries. The berries are of a brilliant red color, splendid to eat from the hand. The bush is not as large as the Glendale but makes much better growth than the ordinary varieties. Price: Each, 25c; doz. \$2.50.

BLACKBERRIES

Snyder One of the best. Berries juicy and sweet. Large and productive. Per doz., 75c; \$4.50 per 100.

RASPBERRIES

Latham

Latham (Minn. No. 4) This variety of raspberry originated from a cross of some other varieties a few years ago by the Minnesota Fruit Breeding Farm and for its good qualities has quickly become very popular over a wide-spread section of the northwest. Plants are hardy, vigorous and productive; canes tall, nearly thornless, reddish with a heavy bloom; fruit very large, berries often double and frequently an inch in diameter, color bright attractive red; season medium, ripening over a long period. Two-year transplants. Each, 10c; 75c per dozen; 3 dozen, \$2.00; per 100, \$5.00.

St. Regis Everbearing Red Raspberries for four months! That is what you get when you plant the St. Regis, the everbearing variety. A brilliant crimson berry. Two-year stock. 10c each; 75c per dozen; \$3.75 per 100.

Columbian (Royal Purple) Greatest Raspberry of the age. Enormously productive. The color, dark reddish purple fruit. Does not sucker. Has stood 28 degrees below zero without killing; large size berry. Two-year transplanted stock. Per dozen, \$1.00; per 100, \$6.00.

Cumberland

Cumberland Largest of all Black Caps; healthy vigorous grower, stout, stalky, well branched canes that produce immense crops. Two-year transplanted stock. Per dozen, 75c; per 100, \$5.50.

GRAPE VINES

One of the best, healthiest and longest cultivated fruits we have. Easy to grow in most any kind of soil that is not too wet, even a stony hill brings good results. Yet they are great feeders and pays to manure them well when planting, rich, well-rotted manure mixed in the soil.

INSTRUCTION—Grape vines should be planted so that the first bud next to the stem will come on a level with the surface of the ground. Grape vines have two layers of roots, from 6 to 8 inches apart, and in planting spread the lower layer of roots in their natural position; fill in the earth and press down in the soil firmly, then spread the second layer of roots and fill in the balance of the hole. After planting trim the vines back to two buds.

Care and Training of Young Vines

During the first season after planting, no pruning or training is necessary. The first pruning after planting may be done at any time during the winter when the vines are dormant and not frozen. The extent of the pruning will depend on the growth made. If the growth has been small all the canes except the strongest should be removed, and this one cut back to two eyes. If a strong growth has been made and there is one straight well-ripened cane, all other growth should be removed and this cane cut back to the height at which it is intended to head the vine; this one should be tied securely to the support, as it is to become and remain the trunk or main body of the vine, and should be kept as nearly erect and straight as possible. In summer pruning, the shoots except the main stalk should be removed when young. This concentrates all the force and growth of the plant into the trunk vine. For more detailed instructions write U. S. Department of Agriculture, Washington, D. C., for Farmers' Bulletin 471, "Grape Propagation, Pruning and Bearing."

Niagara White. This is the most valuable of all white grapes. Its clusters are large and handsome, compactly filled with large berries. When fully ripe, they are a pale yellow with a thin white bloom. Price: 2-year-old roots, 25c each; \$2.50 per doz.

Caco Grape

Caco (Red Grape) A variety of recent origin and widely heralded as the very best red grape known. It is hardy with a winter endurance for this latitude. The vines are especially strong and vigorous with a powerful root system that makes it easy to start growing when first planted. It has not yet been affected by disease of any kind. The fruit is very large in handsome, complete bunches. The color is a rich fine red over amber. It comes to bearing early in life and ripens the last half of August. Its flavor is very delicious, sweet, delightful and distinctive. Price: 35c each; \$3.50 per dozen.

Agawam Large red grape of rich, sweet, aromatic flavor. A vigorous, hardy vine. A splendid keeper and very prolific bearer. Price: Each, 25c; dozen, \$2.50.

Concord The most popular grape in America. Bunch large shouldered, compact; berries large, covered with a rich, dark bloom. No. 1 2-year-roots, 15c each; \$1.50 per doz., 25 for \$2.50; 50 for \$4.50; 100 for \$7.50. Special price f. o. b. growing station. \$5.00 per 100.

Beta Grape

Beta Grape

North Dakota Grown

This is the greatest of all the arbor grapes, a cross with the cultivated black variety and the common wild grape. Vines in great profusion. Unpruned, it runs in every direction, as one man says: "Over the woodshed and down the alley fence in its mad flight to cover everything unsightly in sight." Fruit is medium in size; black in color, rather acid in taste, a splendid wine maker. Bears in great abundance, always bearing every season and is absolutely as hardy as its wild parent. Needs no protection. Price: 2 year-old No. 1 star stock, 25c each; per 6, \$1.25; per doz., \$2.25.

STRAWBERRY PLANTS

Strawberries will succeed in any soil that is thoroughly prepared to a good depth. For field cultivation set in rows 3 to 3½ feet apart, 15 to 18 in. each way. To produce fine, large fruit, keep in hills, pinching runners off as soon as they appear. All are put up in bunches. 25 plants to bunches.

MASTODON EVERBEARING STRAWBERRY PLANTS

This is the largest and greatest achievement in the production of new Everbearing varieties of Strawberries. It is difficult to describe it and do justice. In size it fully out-classes all the other kinds of Everbearing. Three berries will fill an ordinary glass tumbler. Mastodon is sweeter than the other varieties, also firmer. Its unusual size is carried throughout the entire season, the last pickings being fully as large as those of the first. Price per dozen, 20c; per 25, 35c; per 100, \$1.00. per 1,000, \$12.50.

Originators plants direct, 25c per dozen; 25 for 50c; \$1.50 per 100; per 1000 direct from originator plant, \$12.50. It pays to buy Originator Stock.

PROGRESSIVE EVERBEARING

One of the first of the Everbearing Strawberries introduced. Vigorous and healthy plants. It begins to bear with the June bearing varieties and will bear with favorable weather off and on all summer winding up with a good crop of berries in the fall. To insure good crop in the fall, cultivate during the summer and keep the runners off. Price Iowa grown plants in bunches of 25, 50c per bunch; per 100, \$1.00.

JUNE BEARING STRAWBERRY PLANTS

Premier This variety of strawberries is the greatest early variety ever introduced, ripens about seven days ahead of the ordinary sort. Of the very best quality and color. Is practically frost proof from the fact that the leaves have a tendency to cover each blossom in case of late spring frosts so that it makes a full crop when other varieties get frozen. It holds the record for heavy production, producing as much as 6000 to 7000 quarts of high grade fruit per acre. The merits of this plant for earliness, frost proof and producing qualities have been developed by plant selection until there has been developed a strain of this kind that will make a picking row that is worth dollars to any grower by increasing the fruit crop. Price: 25 for 50c; per 100, \$1.00; \$7.50 per 1000.

Pearl The latest June bearing strawberry that is yet come to the notice of strawberry growers. It does not bud or bloom until the danger of frost is past and this fact accounts for its heavy yield and can always be counted on to make a crop. It has a perfect flower, fruits alone, and does not ripen until the last of June or early part of July after all other varieties are harvested and gone. Plants per 25, 50c; per 100 \$1.50; per 1000, \$12.00.

Cooper This is a berry of enormous size, beautiful color, delicious, and of an unusually sweet flavor which makes a leading standard variety of June bearing Strawberries that is now growing anywhere. Plants are very productive with every berry ripening in full and complete and last pickings are as real as the first. Price per 25, 50c; per 100, \$1.50; per 1000, \$7.00.

Warfield (P). Early. One of the most popular varieties of strawberries grown; large, top shaped berry, with a glossy red exterior that does not fade or become dull after picking; exceedingly juicy, just tart enough to make it delicious. Plant with two rows of Warfields, one of Dunlaps. Per bunch 25, 25c; per 100, 75c; per 500, \$2.50; per 1000, \$4.50.

Senator Dunlap (B). Perfect blossom. Medium to late. One of the most popular varieties known to the strawberry world. Dunlap is a large, handsome fruit, rich, dark red, with a glossy finish, shaded to deep scarlet on the under side, and prominent, bright yellow seeds that look like gold bronze. Per bunch of 25, 25c; per 100, 75c; per 500, \$2.50; per 1000, \$4.50.

ORNAMENTAL FLOWERING SHRUBS

Nothing adds more to the beauty of a place than to have the sides and background well filled with groups of shrubbery. Whether you have a lawn of many acres, or an humble dooryard, we recommend this class of plants as indispensable to the real beauty of your home.

Acacia (Locust)—A variety of ornamental locust with drooping foliage which bears graceful clusters of pea shaped, rose colored flowers, that bloom in June. Price each, 50c.

Almond Double Flowering Pink. One of the earliest and finest of shrubs. Loaded down with double pink flowers which attract attention. 3 to 4 feet, 75c each.

Almond Double Flowering White. Like above but with snowy white flowers. 3 to 4 feet, 75c each.

Barberry Red Leaf (*Atropurpurea*)—This variety of Barberry Red Leaf is an exact reproduction of the green leaf but instead of a deep green foliage from spring to fall the foliage of this particular variety is a bronzy red from the beginning with the summer intensifying its brilliancy and autumn adding other effects as the season advances. 18 to 24 in. size, 50c each; 3 for \$1.25.

Barberry Thunbergi ($2\frac{1}{2}$ to 3 ft. (3 yr. heavy) Specimen stock. 50c each; 10 for \$3.00. See page 40 for hedging size.

Beauty Bush (*Kolkwitzia amabilis*). A valuable hardy shrub from the high mountains of China related to the weigelas and the bush honeysuckle but far exceeds them in hardiness and beauty. Of compact habit. The flowers are a bluish pink borne in profusion on spray-like branches transforming the plant into a fountain of pink loveliness. Price: Each, 60c.

Butterfly Bush (*Alternifolia*). The newest of Buddleias, a hardy variety that does not freeze back in winter. Purple flowers from mid-summer to late fall. Single plants first year will grow out as many as fifty flowering spikes. Specimen plants, 50c each; 3 for \$1.00.

Cherry (Flowering) Japanese Weeping Ornamental Flowering Cherry. A weeping form of shrub with pendulous willow limbs drooping to the ground. Prices: 2 to 3 ft., \$3.00 each. Sieboldi upright 3 ft., \$1.00 each.

Cotoneaster Acutifolia A handsome shrub of recent introduction with brilliant autumn foliage, pointed leaves and white flowers, slightly pink; bearing conspicuous berries which brighten in the fall and early winter; very hardy; used extensively for hedges in the north as well as for ornamental shrub purposes. 2 to 3 feet, 30c each; 18 to 24 in., \$20.00 per 100.

Crab (*Beechtel's Flowering*). Makes a medium sized tree; perfectly hardy, succeeds well in all soils. When in bloom appears to be covered with delicate pink, perfectly double small roses of delicious fragrance. Price: 2 to 3 ft., each, 60c.

Dogwood (*Cornus Siberica*). A very hardy, small handsome bush which has a dark red bark, making an effective and showy winter display among other shrubs with handsome white flowers in early summer which are distinctly dainty. Per each, 2 to 3 ft., 35c. Blood Twig, 2 to 3 ft., 50c.

Elder, Golden (*Sambucus Aurea*). A variety with golden yellow foliage. Grows to a height of about 8 feet and is useful for contrast effect. The berries are edible. Should have full sun to give best effect; can be pruned into a neat, compact little bush. 3 to 4 ft., 50c each.

Forsythia, Spectabilis These splendid old shrubs light up the lawn with masses of yellow, very early in spring before the leaves appear, the Spectabilis most profuse of all. 2 to 3 ft., 35c each.

Honeysuckle (*Red Tartarian, bush form*). Grows to a height of 8 feet with upright, somewhat spreading branches and bright green foliage. The flowers are borne freely in May and June, are of a bright pink color. 3 to 4 feet, select, each, 50c; 3 for \$1.35; large clump, 5 year old, \$1.00. Hedge size, page 40.

Hydrangea (*Paniculata Grandiflora*). Large, flowering Hydrangea, hardy. A fine shrub, growing from 4 to 6 feet high. Flowers white, in large pyramidal panicles, produced in August and September. Each, 2 to 3 feet, 50c; 6 for \$2.50.

Hydrangea Arborescens Everblooming. Sometimes called Everblooming Snowball. This American variety begins blooming in June and continues all season. Very easy of culture and hardy. Blooms best if flowers are clipped before ripening. 3 feet, each 50c; 6 for \$2.50.

Hydrangea Arborescens

High Bush Cranberry This plant has a handsome broad foliage of a shiny green color, turning to a rich, coppery tint as the season advances. Flowers are white and conspicuous. The berries are a brilliant scarlet and remain on nearly all winter. Per each, 2 to 3 ft., 50c; 3 for \$1.35.

Peach (Flowering) Double red and white blended flower. At blooming time in May every twig and branch is bright with these beautiful flowers. One of the most attractive ornamentals among the blooming shrubs. Price: 3 to 4 feet, 75c each.

Prunus Triloba (*Double Flowering Plum*). A very desirable hardy shrub. Blooms in May. Flowers double delicate pink which are thickly set on long slender branches. Per each, 3 to 4 ft., 60c each.

Quince (Cydonia Japonica) This shrub is an ornamental flowering variety of quince of Japanese origin. It blooms in this latitude in May, flowers lasting several weeks and of a dazzling scarlet color. Shrub is bushy with protecting thorns making a very desirable shrub for hedge purposes or mixed among other foliage for brilliant effect. 2 to 3 ft. Each, 30c.

Rhodotyphus (*Kerrioides*). A distinct decorative shrub. Foliage very large and handsome; branches clustered with delicate white pendulous flowers in spring followed with black berries that last through the winter. Per each, 2 to 3 feet size 35c; 3 for \$1.00.

Snowball (*Viburnum Opulus Flora Plena*). One of the favorites of old-time gardens. It grows into a magnificent high bush with upright branches and handsome foliage. It forms one of the most impressive sights of early summer, when its pure white four-petaled flowers, borne in showy balls are in bloom. **Hardy everywhere, 3 to 4 feet, 50c each.**

Snowberry (*Symphoricarpos*)—A dwarf shrub. 3 to 4 ft., highly valued in densely shaded places. Foliage is round, green and fresh looking; with pink flowers and white berries on the same twig which gives it a charming effect. **2 to 3 feet. Each, 25c; 6 for \$1.25.**

Sumac (Stag horn) Foliage of this variety is cut leaved and fern-like, picturesque. Blooms in June. Limbs angled first one way then the other. Grows to a height of 6 or 8 feet. If pruned, makes lots of bottom growth mingling the angled fronds in a delightful way with a ferny effect among other shrubbery. **Price: 2 to 3 ft. 50c each; 3 for \$1.25.**

Syringa, Golden Leaved A handsome dwarf variety with golden-yellow foliage; keeps its color the entire season; is splendid for grouping with other varieties for pleasing effects. Never over 3 feet high. **2 ft., 50c each.**

Syringa Lemoine (*Mock Orange*). Flowers of this variety are large, semi-double, very fine. The bush is of more dwarfish habit and will not get over four feet high. **2 ft., each 25c.**

Mme. Casimir Perier The finest double white lilac yet introduced. The individual flowers as well as the truss are of immense size, deliciously scented; very fragrant. **Price: 3 to 4 feet, 75c each.**

Charles 10th A strong, rapid growing variety of budded French Lilac with large shining leaves. Flowering trusses are large, rather loose with a deep reddish purple flower, 2 to 3 feet. **Per each, 75c.**

Syringa Virginal This is a new variety of Syringa, lately introduced. of a dwarfish growth as compared with the taller growing varieties and the very compact flowers are semi-double, white and very fragrant. It is almost a perpetual bloomer, most magnificent and handsome of all the syringa, something new and different and quite distinct from any other variety. **3 to 4 feet. Each, 50c; 3 for \$1.25; 18 to 24 inches, 25c each; 5 for \$1.00.**

Syringa Philadelphia (*Coronarius*). (*Mock Orange*). Is one of the strongest-growing varieties with very fragrant flowers. **Price: 3 to 4 ft., 50c each; 3 for \$1.00.**

Tamarix Hispida Has, like all Tamarix, very pretty, feathery leaves of a bright green color, and pink flowers. Generally gets to be 6 to 8 feet high by fall, and makes a fine shrub and with plenty of flowers. **Prices: 3 to 4 feet, 50c each.**

Weigelia (*Eva Rathke*). The finest Weigelia in cultivation; flowering continuously throughout the summer and autumn; of rich ruby carmine, **3 to 4 feet, 50c each.**

Yucca Filamentosa (*Spanish Bayonet*) — The broad sword-like foliage of this plant is evergreen giving it a sub-tropical effect highly desirable for its effect about the home dwelling landscaping. In mid-summer it throws up a great erect branching stem bearing a showy display of pendant creamy white bell-shaped flowers. **Price: 2 yr. plants, 35c each; 3 for 75c; dozen, \$2.50. Extra large plants, 3 to 5 year old, select specimens, \$1.00 each; 4 for \$3.00.**

Lilacs

Souvenir de Ludwig Spaeth A choice variety with long panicles of single flowers; darkest of the deep purple blue shades. **Price: 2 to 3 feet, each, 75c.**

Persian Lilac Blooms a good deal more than the common and has smaller leaves. Does not sprout as much from the roots. **Persian white, 3 to 4 ft., 75c. Persian purple, 3 to 4 ft. 50c; 18 to 24 inch, 35c; 3 for \$1.00.**

Lilac Common or the old-fashioned lilac, which grows into a very high bush. **Common purple, 3 to 4 ft., 50c; 2 to 3 ft., 35c; 3 for \$1.00.**

Spirea

Korean Spirea This new spirea lately introduced is a first class shrub and one of the best spires ever introduced, growing about 6 ft. high. The snow white flowers are borne on the ends of short lateral shoots in dome-shaped clusters. It comes into blooming when the flowers of the Van Houttei (bridal wreath) spirea has passed and is worthy of a place in the yard of every home. **Price: 18 to 24 inch, \$1.00 each.**

Anthony Waterer The grand ornamental hedge shrub; grows about 2½ ft. high; dwarf, compact bush; deep crimson flowers from June until frost. **Price: 18 to 24 inches, each; 35c; 6 for \$1.50; per dozen, \$2.50.**

Billardi Rich pink colored flowers in large spikes; blooms nearly all summer. Very pretty and showy and splendid for cut flowers. **Grows 6 ft. high. Price: each, 3 to 4 ft. 50c.**

Fröebeli Another quite dwarf spirea like A. Waterer but a trifle taller with broader leaves. Bright crimson flowers during July and August. **Price: 18 to 24 inches, 30c each; 6 for \$1.25; \$2.00 per dozen.**

Aurea A beautiful variety with golden foliage and double white flowers in June. **Per each, 3 to 4 feet, 40c.**

Spirea Van Houttei (Bridal Wreath)

Van Houttei (*Bridal Wreath*). We can say positively this shrub is the most attractive lawn shrub known. Has white flowers, astonishingly profuse in blooming; very fine for cemeteries, **3 to 4 feet, fair clumps, 50c each; 12 for \$4.50; large clumps, many canes, 4 to 5 feet, each, \$1.00. Pair \$1.50. See page 41 for hedge sizes.**

HEDGE SHRUBS

Barberry Thunbergi Of dwarf graceful habit; foliage small, changing to beautiful red early in fall. 15 to 18 inch size, per dozen, \$1.00; per 100, \$7.50. 18 to 24 inch, per dozen, \$1.50; per 100, \$10.00. See page 38 for larger size.

Barberry Hedge, (Thunbergi)

Buckthorn (*Rhamnus Catharticus*). A dense twiggy bush, with dark foliage, relieved by masses of attractive white flowers in June and July. Most ornamental of all hedge plants. Makes a good prunable hedge. Price: 18 to 24 inch size, 50 for \$4.50; \$8.00 per 100.

Lilac Common purple—Old fashioned, dense foliage and purple flowers. Hedging size, 12 to 18 inches, \$2.00 per doz; \$15.00 per 100.

Russian Olive Makes a medium sized hedge; very hardy and beautiful. Foliage growth is silvery white. The most popular hedge plant of the North. Price 18 to 24 inches, \$1.00 per dozen; \$7.50 per 100.

Privet, Amoor River Is of vigorous growth, has glossy dark green foliage, keeping its color. Price: 18 to 24 inch, 2 to 4 canes, per doz., \$1.00; per 100, \$7.50. Ibolium Privet, much like above but richer foliage. 18 to 24 inch, same price.

Russian Mulberry Where a strong, tall growing hedge is needed the Russian Mulberry is one of the ideal bushes for that purpose. Price: 18 to 24 inch seedlings, \$2.50 per 100.

Spirea Van Houttei (*Bridal Wreath*). This is one of the best ornamental flowering shrubs for hedge purposes that we know of. Plant same about 15 to 18 inches apart in rows. 18 to 24 inch size, 50 for \$6.00; per hundred \$10.00.

Syringa Hedge One of the most attractive ornamental hedges can be obtained by using, alternately in the row, planting them 3 feet apart, the green foliage, white blooming, *Lemoine Syringa* and the golden foliage white blooming variety (*Aurora*); which, with the green and golden effect alternately, when they bloom is one of the most beautiful of all hedges. Hedge Aristocrat. Price in alternating varieties per doz. \$5.00.

CLIMBING VINES

Ampelopsis (*Engelmanni*). This is one that clings firmly to the smoothest surface, covering it closely with over-lapping foliage. 2-year, 25c each; 5 for \$1.00.

Ampelopsis (*Veitchii*). Boston Ivy. It is a splendid plant for covering any object, as it clings perfectly to the smoothest surfaces. Price: 50c each; 3 for \$1.00.

Dutchman's Pipe (*Aristolochia*) *Siph.* Grafted 3 yr. old. A plant of climbing habit and rapid growth, with magnificent light green foliage, curious, pipe-shaped, yellowish brown flowers. Prices: 60c each.

Clematis (New). Sweet

Scented Paniculata. Flowers pure white in large clusters. Bright green foliage and fragrant flowers. Price: 2-year roots, 35c each; 3 for \$1.00.

Clematis Jackmanii.

A beautiful, hardy, climbing vine bearing great wreaths and clusters of splendid purple flowers. Price: Potted plants growing condition in foliage, sure to live, each, 75c.

Clematis Mme. Edward Andre

Clematis Paniculata

—It is one of the very best red, large flowering varieties. The red of the Andre is a rich red, a warm and pleasing tone against its own foliage and a flower that harmonizes with everything else. Price: Potted, in foliage, 75c each.

Cinnamon Vine Well known hardy climber; quick grower, with beautiful glossy heart-shaped leaves and sweet-scented flowers. Vines will run 25 to 40 feet in a season. Large roots, Jumbo size, each, 15c; doz. \$1.50.

Blue Morning Glory Sky blue flower. The largest blooming morning glory of any variety known and a very free bloomer. A great viner. Price: Seed originator's sealed packet, 15c each; plants, 4 in pot size, 40c each; 3 for \$1.00.

Honeysuckle Scarlet Trumpet. Blossoms freely entire season; bright red flowers. 35c each, 3 for \$1.00.

Honeysuckle Hall's Japan. The finest climber, trumpet shaped flowers, sweet scented; extremely hardy. 35c each.

Lace Vine (*Polygonum Auberti*)—This particular vine, also known by the name of Hoarfrost, is becoming one of the most desirable quick climbers that has yet been introduced. The plants are strong and vigorous, powerful growers. Each, 75c.

Madeira Vine One of the best and most popular climbers for foliage effect. Large bulbs, Jumbo size, each 15c; per doz. \$1.25.

Chinese Lycium (*Matrimony Vine*). A hardy climbing vine that grows and flourishes anywhere, bearing a handsome purple flower followed by scarlet berries. An efficient bank retainer. Price: 2 yr., 50c each; 3 for \$1.25.

Moon Flower (*Noctiflora*). A wonderful climbing vine which grows rapidly to the height of 20 feet in a single season. Flowers open at sundown and bloom all night. 4 inch pot size, 35c each; 3 for \$1.

Trumpet Vine *Bignonia Radicans*. Dark red orange throat, free blooming. Very hardy and rapid grower. Useful for covering unsightly places, stumps, or wherever a showy flowering vine is desired. Each 35c; 3 for \$1.

Wisteria Purple flowering. Rapid grower. Flowers pale blue borne in long pendulous clusters, blooming in May and June. Chinese grafted. Price: 50c each.

Wild Grape Vine Besides being fruit-bearing a great viner and very hardy. Cultivated vines. Price: 50c each.

Native Shade Trees

Below we give a list of shade trees that are hardy and can endure the dry weather of the West and the frigid winters of the Northwest.

Special Price on any and all varieties of shade trees in quantity.

Chinese Elm

Elm Chinese (Pumila). A splendid tree of rapid growth with slender branches and small, attractive leaves, especially adapted to dry climates. Under cultivation it grows exceedingly rapid and makes a neat and shapely tree. Price: 8 to 10 ft. size, \$1.50 each; 3 to 4 ft., 25c each; \$10.00 per 100; 18 to 24 in., \$6.00 per 100.

Elm (Vase shaped) Native White American. A native of South Dakota and the entire Northwest. One of the best trees for street use. 8 to 10 feet, \$1.00; 10 for \$9.00.

Weeping Ornamental Deciduous Trees

Weeping Mulberry (Tea's)—This is the common Russian variety of mulberry grafted on another stem which makes an umbrella shaped top, without pruning, with the long slender, willowy branches drooping to the ground in light airy gracefulness. It is absolutely hardy, safe and easy to transplant. Its beautiful foliage makes it well adapted for small or large grounds or for cemetery planting. Price, \$2.00 each.

Birch (Cut leaved weeping)—This birch is a tall, slender vigorous tree with silvery white bark, gracefully drooping limbs and delicately cut foliage which presents a combination of attractiveness rarely seen in a single tree. It is very popular for a single lawn specimen. The white bark of the trunk and twigs gleaming conspicuously among the darker colors gives it a most striking effect. 6 to 8 ft. trees, \$2.25 each.

Catalpa Bungeii Top grafted on a tall stem which forms an umbrella shaped head and makes a very ornamental tree for gardens, driveways and parking. Price: 4 ft. size, 2 year head, \$1.00 each; 6 ft. size 2 year old head, each, \$1.50.

Schwedler's Purple Maple Med. The young shoots and leaves are of bright purplish and crimson color. They change to a purplish green in the older leaves. A most desirable ornamental tree for the contrast of its foliage. 4 to 5 ft. whips, \$1.50 each; 6 to 8 ft. branched, \$2.50 each.

Globe Locust is a new ornamental tree of the honey locust family that is grafted on a stem body 5 to 6 ft. high, producing a round head similar to the Bungeii catalpa but has the leaves and wood of the black locust family. Price: Each, \$2.00.

Niobe (Weeping Willow). A very pretty golden bark tree with long drooping slender branches growing in a short time to the ground. Vigorous grower and perfectly hardy. Price: 6 to 8 ft. size, 75c.

Hackberry A very desirable street tree of stately appearance and graceful foliage. 8 to 10 ft., \$1.50 each.

Linden A handsome lawn or shade tree. The blossom is very fragrant and sweet. Price: 8 to 10 ft., \$2.50 each.

Maple, Soft or White A native tree. A very desirable tree if trimmed to keep down suckers and avoid forks. 8 to 10 ft., \$1.00 each; 1½ to 2 inch caliper, \$2.00 each.

Sugar Maple (Acer Saccharum). A popular American tree of pyramidal form. The foliage is large and handsome and of rich, pleasing green. 8 to 10 feet, \$3.00 each.

Mountain Ash (European). A fine hardy tree; head dense and regular. 6 to 8 feet, \$1.00 each; 2 for \$1.50.

Poplar Bolleana A tall columnar tree of picturesque and very formal aspect. A very rapid growing and hardy tree, long lived, leaf bicolored, surface light green under side silvery gray with pleasing most stately tree. 8 to 10 feet, \$1.00 each; 5 for \$4.50.

Poplar, Carolina A very rapid-growing tree resembling the Cottonwood, but has a larger leaf, thicker and more spreading top. 8 to 10 foot, 75c each; 3 for \$2.00; 10 for \$5.00. Special price per 100.

Poplar, Silver-Leaved Rapid growth and wide spreading habit of form. Leaves glossy silvery green above and white underneath. Very hardy and a splendid shade tree that will grow anywhere. 8 to 10 ft., \$1.00 each; 5 for \$4.50; 4 to 5 ft. whips, \$25 per 100.

Volga Poplar A Russian variety, hardy and vigorous growers. A tall, columnar type, like the Lombardy, but more durable. 8 to 10 ft. 75c each; 3 for \$2.00.

Black Walnut This is a common and stately forest tree. Has an open and spreading form and of rapid growth. 5 to 6 feet, \$1.00 each.

Weeping Mulberry

ROSES

All roses come wrapped in moss, each individually

We handle nothing but the very hardiest varieties and the very finest bloomers. Our roses are 2 year old strong roots and field grown, more easily transplanted, and hardier. Hothouse roses are worthless. Before planting roses cut them back severely.

Mildew. Use Bordeaux Mixture as long as the disease continues. For Slugs, use Hellebore or Arsenic till destroyed. Lice. Use Kerosene Emulsion, apply until destroyed.

Hardy Perpetual Roses

These are hybrids or crosses between June and Monthly roses, partaking of the hardiness of one parent and the perpetual blooming habit of the other.

General Jacqueminot This might be called the rose for the million, for it is still a universal favorite. Bright crimson scarlet, exceedingly rich and velvety. Price: 2 year No. 1, 50c each; 3 for \$1.25.

Gruss an Teplitz

Gruss an Teplitz One of the brightest colored roses grown. When first opened, it is a dark, rich crimson, changing to a bright scarlet. Blooms continually; flowers good size and delightfully fragrant. 2-year No. 1 stock, 50c; 6 for \$2.40.

Paul Neyron

(World's Most Glorious Pink)

Paul Neyron The largest rose in cultivation, sometimes called the Paony Rose. Color bright, fresh, cerise pink. Flowers are very double and full, delightfully fragrant. The plant makes a strong, healthy growth and has clear, glossy foliage. Blooms almost without intermission from June until late October. Per each, 2 year No. 1, 50c; 3 for \$1.35.

American Beauty The world famous rose. Rich, rosy-crimson, exquisitely shaded. A universal favorite. Not hardy. Price: 2 year No. 1 stock, 50c each.

Los Angeles

Los Angeles This is one of the grandest all-round roses of American origin ever put on the market. The stems are as long as American Beauty; the flowers are large as Paul Neyron; its freedom and continuance of bloom are remarkable; its color a "flame pink, toned with coral and shaded with translucent gold at the base of the petals" 50c each.

Frau Karl Druschki

White American Beauty. (Lambert, 1900). This grand rose has become renowned as the very highest type of its class and the best snow-white rose ever introduced. It is an extraordinary grower, and has the vigor and hardiness of an oak. 2-year No. 1 stock, 50c each.

Druschki, White American Beauty

Ulrich Brunner A superb rose. Extra large bold flowers; full and globular; petals large and of good substance. Color rich, glowing cherry scarlet, very fragrant, blooms freely. One of the finest hardy roses. Price: 2 year No. 1 stock. Each 50c; 3 for \$1.25.

HYBRID TEA ROSES

The Hybrid Tea Rose is perfectly hardy but needs a little protection in this latitude to winter through. Some varieties even don't need that but it makes a better next year result if winter protected. Hybrid Tea Roses are among the most beautiful of all varieties and blooms from June time on throughout the entire season. We can furnish from our growing station other varieties than those named in our list.

BARGAIN—Special Assortment Hybrid Tea Roses

We offer 12 of these Hybrid Tea Roses (buyer's choice), that will bloom perpetually the first season from May until November, for \$5.00; 6 for \$2.75.

Columbia (H. T.) This is one of the big roses. The color is a true pink deepening as it opens to a glowing pink. Price: Each 50c; 3 for \$1.50.

Frances Scott Key A heavy double red rose of great substance. American seedling. Strong grower. Price, each, 50c; 3 for \$1.50.

Hoosier Beauty Dark red flower. Long slender buds. Full size, fine and velvety texture. Perpetual bloomer. Price each, 75c; 3 for \$2.00.

Madam Butterfly A Hybrid Tea Rose with a strong growth and large flowers. Color: bright pink suffused with apricot and gold. Profuse and continuous bloomer. Price, each 50c; for 3 for \$1.50.

Premier (Red H. T.)—Large double red flower, full high center, borne singly on strong stems. Very fragrant. Disease resistant. Price: Each, 50c; 3 for \$1.50.

Talisman This is a brilliant orange-red rose, fragrant high pointed bloom. The magnificent color arouses admiration everywhere. Price: 75c each.

Ramblers and Climbing Roses

Climbing American Beauty This variety retains the deep pink to crimson color and the same delightful fragrance of the bush American Beauty. 2-year, 40c each.

Rambler Roses

(C. P. These grand old climbers hardly need description. The magnificent trusses of bright crimson flowers are freely produced and admired by everyone. Very hardy and a strong growers 2-year-old. No. 1 stock, each variety. Crimson Rambler, 40c. White Rambler, 40c. Yellow Rambler, 50c. 3 of either for \$1.25.

Dorothy Perkins

The most popular climbing rose of today and harder than the Ramblers. Most beautiful shell pink and holds a long time without fading. 2-year, 35c each, 3 for \$1.00.

Rugosa Roses

Rugosa Roses (Ramanas). The hardiest rose in existence. Ideal for the Northwest. These lovely roses form sturdy bushes 3 to 5 feet in height, covered with handsome glossy, green foliage and clusters of beautiful fragrant flowers. Single red and single white, 35c each; 3 for \$1.00; per doz., \$3.00.

Hugonis The golden rose of China. Single yellow fragrant flowers. A natural species. Foliage small with red tipped twigs. Blooms early and profusely. Price: Each, 50c; 3 for \$1.25.

Potted Roses

These are such varieties as Hybrid Perpetuals and Tea Roses 2 year old No. 1 Field Grown Stock, potted in February and started growing in the greenhouse. They are in full foliage and ready to plant out in the Spring—the 1st to 10th of May at earliest.

American Beauty, Paul Neyron, Gruss an Teplitz, Ophelia, Los Angeles and others. Price: grown in 5 inch pots, \$1.50 each; 6 inch potted size, \$2.00 each. Special price in dozen lots.

Paul's Scarlet A wonderful new variety of climbing roses. The flowers are a vivid scarlet, shaded crimson, making a brilliant display over a long period of time. Received the gold medal for the best new climber at the National Rose Society show. Price, each, 50c; 2 for 90c.

Excelsa (New). (Red Dorothy). The color is an intense clear crimson, with tips of the petals tinged with scarlet. Grows 10 feet in a season. Flowers are large and double and almost every eye produces a cluster of bright blossoms. 2-year No. 1 stock, 40c each; 3 for \$1.00.

White Dorothy A beautiful white flowered cluster Rose, as free and expressive as its pink rival, the Dorothy Perkins. The vines are a sheet of white during their blooming season. 2-year No. 1 stock, 35c each.

American Pillar A single-flowering variety of great beauty which appeals to everyone. The flowers are of large size, 3 to 4 inches across, of a lovely shade of pink, with a clear white eye and cluster of yellow stamens. 2 year No. 1 stock, 50c each; 2 for 90c.

Gardenia (Hardy Marechal Nell). The finest hardy yellow climbing rose yet produced. Deep, rich golden yellow; flowers borne in great profusion on strong, vigorous bushes as hardy as oaks. 3-year Star stock, hardy field grown, each, 50c; 3 for \$1.25.

Cemetery Roses

Memorial White Rose, Mandy's Triumph. This rose makes a beautiful and enduring covering for graves and plots in cemeteries. It creeps along the ground as closely as Ivy. Flowers are produced in lavish profusion. They are single pure white, with a golden-yellow disc, etc. 2-yr. No. 1, each 50c; 3 for \$1.25.

Baby Roses

Dwarf Polyantha Roses

Baby Ramblers The flowers are borne in clusters to 30 or 40, and the foliage is dark, glossy and profuse.

Crimson Baby Rambler, 50c each; 3 for \$1.25.
Pink Baby Rambler, 50c each; 3 for \$1.25.

HARDY EVERGREENS

Evergreens give a cheerful appearance to a home. If properly handled, taken up with ball of earth are as sure to live and grow as deciduous trees. We list only such varieties as are found to do the best here in this soil and climate. See special prices in large quantities seedlings and transplanted stock given below.

The term "B & B" used in these descriptions means dug up with "ball of dirt" and "burlapped."

NATIVE BLACK HILLS SPRUCE

Forest Grown direct from the hills, taken up with ball of dirt and burlapped. Not so compact and uniform as nursery grown but as easily grown when set out and soon take on the same form and compact foliage. Balled in dirt and burlapped (B. and B.) 2 to 3 ft. \$2.00 each; 6 for \$10.00; 3 to 4 ft. \$3.00 each.

Black Hills Spruce (Picea Alba). This quotation is on nursery grown twice transplanted stock. Easily transplanted. Specimen trees dug with ball dirt burlapped, nursery grown—1½ to 2 ft. \$1.50; 2 to 2½ ft. \$2.50; 3 to 3½ ft. \$5.00 each.

Arbor Vitae Pyramidalis. This beautiful Arbor Vitae is the most compact and erect of the entire species. Specimen trees, 2 to 2½ ft. B. & B., \$3.75 each; 3 to 3½ ft. \$5.00.

Blue Cedar (Juniper Glauca)—This is conical in form with a beautiful blue foliage that makes it distinct among evergreens. Price: 2½ ft. size, \$4.00 each.

ORNAMENTAL STOCK

Specimen Trees

Colorado Blue Spruce (Picea Pungens). It is extremely hardy and endures well the sun and driving winds. Specimen trees, select blue, B. & B. 1½ to 2 ft. 2½ to 3 ft., and larger at \$4.00 per foot, ground measure up; select green 2½ to 3 ft. \$3.50 each.

Red Cedar (Juniper Virginiana). The well known American Red Cedar. Sheared conical form. Specimen trees, 2 to 2½ ft. B. & B., \$2.50 each; 4 feet, each, \$5.00.

Dwarf Evergreens

Balled & Burlapped (B. & B.)

Juniper, Pfitzeriana Best hardy spreading evergreen. Easiest of all to grow. Price: B. & B., 9 to 12 in. spread, \$1.50; 18 to 24 in., \$2.50.

Juniper, Sabina Similar to Pfitzeriana, deeper green and rapid grower. Price: B. & B., 9 to 12 in. spread, \$1.50; 18 to 24 in., \$2.50.

Juniper, Horizontalis True creeper. "Marine Blue." Ground cover effect. For terrace planting. Price: B. & B., 15 in. spread, \$2.50; 18 to 24 in., \$3.00.

Mugho Pine A very distinct dwarf pine of a dense spreading form. For foundation planting. Price: B. & B., 18 in. spread, \$3.00; 2 ft. spread, \$4.00.

Evergreen Seedlings

Transplanted Nursery grown stock and Forest Grown Stock.

Black Hills Spruce This variety of (Picea Alba), has come to stay. It is easiest and safest to transplant of all Evergreens. Most certain to live. Native Forest grown from the Black Hills. 18 to 24 inch (shipping weight about 40 lbs.) \$8.00 per 100, f. o. b. Black Hills points in South Dakota. Sold only in 100 lots.

Norway Spruce (Picea Excelsa) Very popular and one of the best evergreens for hedges and effective also in Evergreen groups. Color dark green. Seedlings, 6 to 8 in., \$2.50 per 100; once transplanted, 8 to 12 inches, \$6.00 per 100. Special Bargain, transplanted 12 to 18 inches 25 for \$2.50; 100 for \$6.00; f. o. b. growing station.

Colorado Blue Spruce (Picea Pungens). The glory of the Colorado Blue Spruce surpasses all other Evergreens. In winter as well as summer, it is a halo of azure. Price: 2 year 4 to 6 inches \$5.00 per 100; 6 to 9 inches, transplanted, \$10.00 per 100; 9 to 12 inch size, \$22.50 per 100.

Balsam Fir (Abies) (American Silver Fir)—A very regular symmetrical tree assuming a most attractive conical form. Grows to a height of 50 to 75 feet. The foliage is the type with dark green needles. Price: for seedlings, 8 to 10 inches high, \$12.00 per 100.

Norway Pine This pine is strictly hardy and immune to diseases of Evergreens. It grows to be a tree from 75 to 150 feet high. It is a very rapid grower. A powerful windbreak and shelter protection. Price: Seedlings, 9 to 12 inches, \$10.00 per 100.

Jack Pine (Pinus Banksiana). Foliage bright green. Nursery grown seedlings, 9 to 12 inch, \$4.00 per 100. Nursery grown root pruned stock 18 to 24 inch, \$9.00 per 100.

Forest Tree Seedlings

All orders for River Forest Grown Tree Seedlings booked subject to unavoidable Providential happenings such as forest fires, floods, strikes and weather conditions over which we have no control.

FOREST GROWN	18 to 24 ft.	Per 100	Per 1000
Ash, Elm and Maple.....	\$2.00	\$ 7.50	
Cottonwood and Willow	1.00	5.00	

NURSERY GROWN	18 to 24 inch	Per 100	Per 1000
Mulberry (Russian)	\$2.50	\$15.00	
Black Walnut	5.00	40.00	
Catalpa	2.50	15.00	
Chinese Elm Seedlings	5.00		

NOTICE—All prices subject to conditions and market changes. Forest trees in five and ten thousand lots, special prices on application.

Fertilizers

For the intensive cultivation of plants in the home garden or grounds, fertilizers play a very important part. The following fertilizers represent the best for the home garden and the lawn. All prices subject to market changes.

All of the scientific plant foods and especially prepared plant foods contain, some of them, up to 80 per cent of acid phosphate.

Prices F. O. B. depot or delivered in city within delivery distance.

Sheep Manure A pure, natural manure that gives immediate effect. Planted directly in the hills or drills with the seed. It promotes a rapid and steady growth until maturity. On lawns well raked in either spring-time or fall adds wonderfully to the growth of the grass, 100 lbs. to about 2500 sq. ft. It makes the richest, safest and best liquid manure. For use in liquid form, 1 lb. of the material to 5 gallons of water will make a liquid that can be used daily with safety. 5 lbs., 25c; 25 lb. bags, \$1.00; 50 lb. bag, \$1.50; 100 lbs., \$2.50; 500 lbs., \$12.00; ton \$35.00.

Bone (Fine Ground). For use by the vegetable gardener it is superior to anything on the market. It has been steamed to soften same and is quick to act. For trees or vines use 2 to 4 lbs. About 10 lbs. for 100 square feet for starting a new lawn. Per lb., 10c; 3 lbs., 25c; 100 lbs., \$4.50; 500 lbs., \$17.50.

Stim-U-Plant Comes in tablet form and contains highly concentrated plant food in immediately available form. Trial size, 10 tablets, 15c; medium size, 30 tablets, 25c; 100 tablets, 75c; 1,000 tablets, \$3.50.

Nitrate of Soda Not a substitute for other manures, but is the best form in which to apply nitrogen to the plants. In pulverized form can be used as a top dressing at the rate of 1 lb. for 500 square feet, or 100 lbs. per acre when plants are well established. Per lb., 15c; special prices in quantity.

Wood Ashes From hardwood. Price: 5 lbs. 25c; 50 lbs. \$2.00; 100 lbs. \$4.00.

Hydrated Lime Price—5 lb. pkg. 35c; 50 lb. bags \$1.25 per bag; per 100 pounds, \$2.25.

Sulphate of Ammonia Desirable for its nitrogen as a fertilizer for all plants in which large leaf development or rapid growth is desired. Approximately 25% ammonia and comes in fine crystals. Easily applied broadcast. 1 lb. 15c; 2 lbs. 25c; 10 lbs. \$1.00; per 100 lbs. \$6.00.

Acid Phosphate This fertilizer is the most readily available form of phosphorus. It is very soluble and more quickly taken up by the plant life than bone meal. Phosphorus promotes root growth in young plants and is the active element in the formation of seed or grain. Per 100 lbs. \$2.50; 500 lbs. \$12.00.

Vigoro A scientific plant food furnishing necessary elements for greatest growth, beauty and productiveness. Produces a thick, velvety lawn of a deep green color plants and shrubs. Use 2 to 4 pounds per hundred square feet. Instructions on each bag. Price: 25 lb. bag, \$1.75; 50 lbs. bag, \$3.00; 100 lbs. \$5.00.

Sacco is a specially prepared plant food that supplies the necessary elements in just the right proportions for healthy plant growth 5 lb. bag 50c; 10 lbs. 85c; 25 lbs. \$1.75; 100 lbs. \$5.00.

ANIMAL MANURE AND BLACK EARTH

We have completed arrangements for handling animal manure and black earth for the lawn and the garden by the truck load. The prices are so reasonable, for the quality we furnish, that those who are interested in better flower gardens, vegetable gardens or improving the lawn can not well afford to be without it. Unbleached animal manure is not only a fertilizer but it furnishes humus matter that conserves the moisture in the soil. It is saved in a way that its fertility is preserved and contains no straws or trash but is pure manure. Price: per truck load of about 1½ yards, \$3.00 per load; rich black earth, same quantity, \$2.00 per truck load.

PEAT MOSS

(Fertilizer)—Granulated Peat Moss has come to be very popular as a fertilizer in fancy gardening. By repeated testing it has proved a great stimulant to the growth of plants. It produces a strong acid reaction and leaves the soil porous, admitting air and affording good drainage as well as adding humus matter to the soil. It is especially suited to the growth of perennials as well as annual flowers and vegetable plants too. Prepare the soil carefully by spading to a depth of 12 to 15 inches. Then place a layer of Granulated Peat Moss 3 or 4 inches thick which should be worked thoroughly into the soil. A lighter spread of the moss would do. However, be governed by the condition of the soil. Price, Per lb., 10c; 10 lbs., 60c; 25 lbs., \$1.25 per 100 lbs., \$3.50; original imported bale of about 160 to 180 lbs., \$5.00 per bale.

RAW GROUND LIME

Raw ground lime is superior to the kiln-burnt hydrated article as a soil proposition. This lime is the lime stone in its natural state crushed and ground as fine as flour and just as applicable as the hydrated. And besides that it contains a higher percent of carbonate of lime and this particular ground lime that we are using contains more of the carbonate of lime than is generally used for kiln-burnt lime from which the hydrated is pulverized. Raw lime as compared with burnt lime is nearly 100 per cent more effective in its fertilizing effect. It sweetens sour soil and loosens up hard, sticky and compact soil in a manner so as to liberate the plant foods by aiding decomposition of organic matter in the earth, making it available and digestible to plant life. For use on lawns, 100 lbs. to 200 square ft.; for field work, about 2 tons to the acre. All our lawns would be benefited by using this raw ground lime as an Autumn fertilizer. It is less expensive than the hydrated form. Put up in 100 lb. burlap bags. Price, per 100 lbs. \$1.00; in lots of 500 lbs. \$3.50; per ton, \$12.50. These prices are at our store at 316 Pearl Street. When delivered, delivery added.

INSECTICIDES, FUNGICIDES AND SEED DISINFECTANTS

The control of insects and fungi is imperative in every garden. Plants must be protected from their enemies, if they are to produce most luxuriantly in flower and fruit. There are three kinds of these enemies—**fungous diseases or blights**, insects which eat the foliage, and insects which suck the sap of the plants.

Dry Lime Sulphur Best remedy for San Jose Scale and bark lice for use early in the season before the foliage puts out on fruit trees and berry bushes; mix one part to ten parts water. Also one of the best summer sprays as an excellent fungicide. When used in summer dilute with twenty to thirty parts water. Price: 1b. pkg., 35c each; 5 lbs., \$1.50; 10 lbs., \$2.75; 20 lbs., \$4.50.

Arsenate of Lead Dried powder Arsenate of Lead will destroy leaf eating or leaf chewing insects such as the **Coddling Moth, Plum Curculio, Canker Worm, Tussock Moth, Gypsy and Brown Tail Moths**, and similar insects that feed on the foliage of fruit trees, shade trees and ornamental shrubbery. Price: 1 lb. pkg., 25c each; 4 for 75c.

All Round Latest up-to-date spray. Destroys sucking insects, chewing insects, blight and fungus diseases. $\frac{1}{4}$ lb. pkg. 35c; 1 lb. package, 85c.

Cutworm Bait

Effective against cut worms, white grubs, snails and ground worms. Pound pkg., 35c; 3 for \$1.00.

Garden Guard "Guards Your Garden". Garden Guard is effective against many of the chewing insects that prey upon house and garden plants, shrubs, vines, melons, tomatoes, cabbages, currants, vegetables and flowers. Price per can, 25c; 5 cans, 90c.

Semesan Jr. Makes Early Planting Safer

FOR SEED CORN, POTATOES, VEGETABLES

Treat your seed corn with Semesan, Jr., before planting. It prevents costly diseases that lower germination, reduce yield and cut growing profits. Semesan Jr. treated seed corn permits of earlier planting, produces sturdier stalks, larger ears and a better quality of corn. Full directions on every package. Four ozs., 50c; 1 lb., \$1.75; 5 lbs., \$8.00; 25 lbs., \$31.50.

Semesan Bel Seed disinfectant for potatoes, vegetables and flowers. Add it to the required quantity of water, dip the potatoes in, then out and then plant. Not more than two hours soaking is required. No danger to cut or sprouted seed. Full directions on every package. Four ozs., 50c; 1 lb., \$1.75; 5 lbs., \$8.00; 25 lbs., \$31.50.

Ceresan A dust disinfectant for wheat, oats, barley and certain other cereals. 8-oz. tin, 50c; 1-lb. tin, 75c; 5-lb. tin, \$3.

Two-Way Spray "Insecticide and Fungicide." For chewing insects and fungus disease in one application. Can be applied as a dust or liquid spray. Price per can 25c.

Hammond Slugshot Guaranteed to destroy potato bugs feeding on potatoes, tomatoes, egg-plant, also currant worms, cabbage lice, and cabbage worms. 1 lb. package, 25c; 5 lbs., \$1.00.

Tobacco Dust One of the best remedies for green and black aphid, fleas, beetles, etc., also for insects in the ground. 1b. 10c; 5 lbs., 40c; 10 lbs., 75c; 100 lbs., \$6.00.

Bordeaux Mixture The best fungicide for curing and preventing black rot, mildew and blight. Price: 1b., 40c; 3 lbs \$1.

Paris Green Our Paris Green is absolutely pure and meets the requirements of State and National laws. Put up in sift-proof packages. $\frac{1}{4}$ lb., $\frac{1}{2}$ lb., 1 lb., 2 lb., and 5 lb. cartons. Prices on application.

Bug Death A non-poisonous chemical composition for use on currants, gooseberry, cucumbers, potatoes and garden truck, generally prevents blight. Price, 1b. 25c.

Nicotine Sulphate "Black Leaf 40" is a concentrated solution of nicotine sulphate, guaranteed to contain 40 per cent nicotine by weight. It is a contact insecticide. Mix 1-oz. bottle with 8 gallons of water. Price: Per oz. bottle, 35c; 5 oz. can, \$1.00; 1 lb., \$2.50; 2 lbs., \$3.75.

Shep's Plant Spray Try it. It is everything claimed for it. No risk. It is non poisonous to human beings, birds, animals or plants but death to insects. Use according to directions on the package. Price: 2 oz. bottle, 35c; 8 oz. bottle, 75c; 16 oz. bottle, \$1.25.

EFFECTIVE—Against all plant insects, both chewing and sucking type, including aphid, cut worms, currant worms, beetles, ants, black flies and many others. Non-poisonous and harmless to human beings, live stock and birds. Mailable. In liquid form. Price: 1 oz. bottle, 35c; 6 oz. bottle, \$1.00; 1 gal. bottle, \$13.00.

CARBOLA

CARBOLA is a white paint and powerful disinfectant combined in powder form. It paints and disinfects in one operation and it can be applied with a brush or spray pump over whitewash.

SATISFACTION OR MONEY BACK

5 pounds (5 gallons)	\$0.75	20 pounds (20 gallons)	2.50
10 pounds (10 gallons)	1.25	50 pounds (50 gallons)	5.00
200 pound bags	18.00

The New Way to Spray

The Standard Spray Pump

As used with bucket, knapsack, tank or barrel for spraying orchards, gardens, vineyards, whitewashing, disinfecting chicken houses, killing vermin on stock. It throws a spray 25 feet; throws a solid stream 50 to 60 feet high. With two solid brass valves.

Price \$4.00 each

Auto Spray—Is probably the most powerful bucket pump manufactured. **\$3.50 each.**

Warranted to Purchaser for Five Years

Hudson Midget—Best small Sprayer made. **Price 25 cents**

Little Wonder Duster

The Little Wonder is a hand duster for flowers, rose bushes and plants around the garden.

Price each, \$1.00.

Pruning Shears, \$1.00 each

De Luxe Bird Bath

This bird bath is made of heavy galvanized steel and will last indefinitely. It costs but little and is economical in operation and light enough to be lifted and carried to different parts of the lawn with ease. It is an attractive, colorful article that will beautify lawn. **Price: \$4.50 each.**

PLANT SUPPORTS

Stakes 2½ ft., 75c per doz.; 3 ft., \$1.15; 4 ft., \$2.00.

American Berry Boxes

For Cherries, Raspberries, Strawberries and other berries.
Price: Pint size, per 100 90c; per 500 \$4.00; per 1000 \$7.50.
Price: Quart size, per 100 \$1.00; per 500 \$4.50; per 1000 \$8.50.
Price: Crates, 24 qt. size, each 25c; per 10 \$2.25; per 100 \$20.00.
Price: Grape Baskets, 4 qt. per dozen 75c; per 100 \$5.00.
Price: Drop Handle Baskets, 8 qt. per dozen 75c; per 100 \$6.50.

HUDSON PERFECTION COM-PRESSED AIR SPRAYER

Used for potato spraying white - washing, spraying disinfectants, cold water, paints, etc. **Tank**—7½ in. diameter, 20 in. long, capacity, 4 gallons. Galvanized Steel Tank, No. 110-G, **Price \$5.00 each.**

Hudson Long Stroke Liquid Sprayer
Price 50 cents each

Planet Jr. Garden Planters

Special Cut Price. Subject to change without notice. No. 4D—Planet Jr. Combined Hill and Drill Seeder. As Seeder only, \$13.50, complete \$17.50 each.

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow, \$20.00 each. Weight packed, 61 pounds.

Germac Hotkaps

New Method of Plant Protection

Hotkaps are cheap insurance, easy to set over the young plant with the garden setter.

Price: Per doz., 25c; per 100, \$1.50; per 1,000, \$12.00; trial package, 250 Hotkaps and Hotkap garden setter, \$4.00; water proof garden setter, 50c.

Magic Hand Weeder
Handiest Tool on Earth, each 15c.

Cyclone Seeders

It is especially designed for distributing evenly all kinds of grain as well as every variety of grass seed. **Price: \$2.50.**

E-Z-Way Plant Marker

A practical metal plant marker that will last a lifetime. **Price, 4 for 25c; doz., 60c; per 100, \$4.00.**

Poultry Supplies

ALL PRICES ON POULTRY AND ANIMAL FOODS SUBJECT TO CHANGE
Our Poultry Foods Are All Foods—No Waste, Always the Same

Starter (For the Little Fellows.) Is a complete and properly balanced food for small chicks two days to two weeks old, adapted to their delicate digestive organs. 7 lbs., 25c; 50 lbs., \$1.25; 100 lbs., \$2.00.

Eureka This is a food intermediate between the Starter and the Acme Scratching Food. (For chicks from two weeks to two months old). 7 lbs. 25c; 50 lbs. \$1.25; 100 lbs. \$2.00.

Acme (Scratch Food). Combination of Wheat, Kaffir, Cracked Corn and various other rich cereals. All food and no waste. 8 lbs. 25c; 100 lbs. \$1.75.

ALFALFA MEAL furnishes the green food that is absolutely necessary for winter egg production. 5 lbs., 25c; 100-lb. bags, \$2.75.

CRUSHED OYSTER SHELLS. One of the most commonly used articles in poultry yards. Price: 15 lbs. 25c; 100 lbs. \$1.10.

CHARCOAL. Most successful poultry raisers feed this soft with food. 3 lbs. 25c; 10 lbs. 60c.

MICA GRIT. Fowls have no teeth, so it is essential that they should have grit. 100 lbs., \$1.10.

BLATCHFORD'S PRODUCTS

Calf Meal Price: 25 lb. bag, \$1.50; 50 lbs. \$2.75; 100 lbs. \$5.25.

Egg Mash This is a genuine Egg Food for laying hens. 25 lb. bag, \$1.35; 100 lbs. for \$5.00.

Pig Meal Milk substitute. 25 lb. bag, \$1.35; 50 lbs. \$2.50; 100 lbs. \$5.00.

Blatchford's Chick Mash The ideal food for bone and muscle, excellent for growing chickens. 25 lb. sacks, \$1.50; per 100 lbs. \$5.50.

BIRD SEED

Canary seed.....lb. 15c; 10 lbs. \$1.25; 100 lbs. \$12.00
Hemp Seed.....lb. 15c; 10 lbs. \$1.00; 100 lbs. \$ 9.00
Rape seed.....lb. 15c; 10 lbs. \$1.25; 100 lbs. \$11.00
Mxd. bird seed lb. 15c; 10 lbs. \$1.25; 100 lbs. \$11.50
Sunflower seed lb. 15c; 10 lbs. \$1.25; 100 lbs. \$ 9.00

ANIMAL POULTRY FOODS

Bone (Coarse ground for poultry). Lb. 10c; 5 lbs. 25c; 100 lbs. \$4.00.

Blood Meal It will make hens lay during winter months. Lb. 10c; 3 lbs. 25c; 10 lbs. 75c.

Beef Scraps (Granulated Protein 60 to 65 per cent). Lb. 10c; 4 lbs. 25c; 100 lbs. \$5.00.

Pigeon Food This compound or mixture of the seed of various cereals like Canada field peas, Kaffir corn, buckwheat, hemp seed, millet seed, etc., in a combination is proportioned for a balanced ration for the special purpose of feeding pigeons. Per hundred lbs. \$4.75. Ask for special price in large quantities.

MICHAEL'S MINERAL HOG FOOD

Hogs require mineral food and salts and why he is such a rooter of the soil is because its using nature's method of getting the necessary minerals but when fed a mineral food he seldom cares to root which takes his energy and meat, as well, which the feeder works so hard to put on Mr. Porker. When fed a mineral food one will readily see how much more contented he is and how little he cares to root. And besides that, it prevents goiter and when fed to brood sows is a preventive against hairless pigs. Mineral food is a self-feeder so that when your hog has free access to it, it will not eat more than nature requires. It will shorten the time required to fatten him for market. Put up in 100 lb. burlap sacks. Price: per 100 lbs. \$2.50; per 500 lbs. \$12.00, per ton, \$40.00.

Our formula for the mineral hog food is one recommended by the Ames Agricultural College.

GROWELL PEAT POTS

The Growell pot for growing plants in is a new product. The Growell pot will grow larger and sturdier plants, which results in greater yield. Price: 2½ inch pots \$2.00 per hundred; 250 for \$4.00; 500 for \$7.50; 1,000 for \$14.00.

NEPONSET PAPER POTS

2½ in. size, 75c per 100; \$6.00 per 1,000. 3 in. size, \$1.00 per 100; \$7.50 per 1,000.

BEFORE AND AFTER PLANTING

Beautify the home with a few shrubs and evergreens.

GIANT Mammoth Type Zinnias

New Improved
Latest and Best
Beautiful Colors

See Page 16 for
Description

WAUNETA PLUM
(Hanson Hybrid)
Iowa's Greatest Plum
See Page 34

MASTODON
(Everbearing
Strawberry)
See page 37

MICHAEL SEED STORE,
316 Pearl Street, SIOUX CITY, IOWA