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MICHAEL SEED STORE

ANNUAL
CATALOG

1929

Sioux City, Iowa

Lawn Grass

Lawn Grass

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 spring-time 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. 40c; 10 lbs. \$3.50.

WHITE CLOVER SEED, Superfine quality, 60c per lb.; 5 lbs. \$2.50. **FERTILIZERS**. See page 45.

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 75c per lb.; 20 lb. quality, 50c per lb.; 5 lb. bags, \$2.25; 10 lb. bags, \$4.00.

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. 50c; 5 lbs. \$2.25; 10 lbs. \$4.00.

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. 50c; 5 lbs. \$2.50; 10 lbs. \$4.50.

THE MICHAEL SEED STORE

Auto Phone 2142

New Phone 935-M

J. S. MICHAEL, Manager

316 Pearl St., SIOUX CITY, IOWA.

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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.

The Michael Seed Store

J. S. MICHAEL, Manager

316 Pearl Street, Sioux City, Iowa

Auto Phone, 2142

Iowa Phone, 935-M

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: ¼ lb. 10c; ½ lb. 20c; 1 lb. 35c; 10 lbs. \$3.00.

American Black Wax The old standard Black Wax Bush Bean. The pods are round, brittle, yellow color. Prices: ¼ lb. 10c; ½ lb. 20c; 1 lb. 30c; 2 lbs. 55c; 10 lbs. \$2.75.

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: ¼ lb. 15c; ½ lb. 25c; 1 lb. 40c; 2 lbs. 75c; 10 lbs. \$3.50.

Davis White Wax A new, white, rustless, productive, wax-podded bean; pods flat, very long, white waxy color, and handsome; seeds clear white. Price: ½ lb. 25c; 1 lb. 40c; 10 lbs. \$3.75.

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: ¼ lb. 15c; ½ lb. 25c; 1 lb. 40c; 15 lbs. \$5.00.

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: ½ lb. 15c; 1 lb. 25c; 15 lbs. \$3.50.

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: ¼ lb. 10c; ½ lb. 20c; 1 lb. 35c; 10 lbs. \$3.50.

Large White Lima Vine, tall growing, requires poles or support, pods borne in clusters, long, broad, dark green; Price: ½ 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: ¼ lb. 15c; ½ lb. 20c; 1 lb. 35c; 10 lbs. \$3.25.

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: ¼ lb. 15c; ½ lb. 25c; 1 lb. 35c; 10 lbs. \$3.25.

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. 15c; per lb. 35c; 10 lbs. for \$2.50.

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. 20c; 1 lb. 35c; 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

Potlatch

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. 30c; 10 lbs. \$2.50; 25 lbs. \$5.00.

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. \$7.50. 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. \$1.75.

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. 15c; $\frac{1}{2}$ lb. 20c; 1 lb. 35c; 10 lbs. \$2.50.

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. 15c; 1 lb. 25c; 10 lbs. \$2.00; 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. \$3.50.

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: $\frac{1}{2}$ oz. 10c; oz. 15c; $\frac{1}{4}$ 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. \$4.00.

Mangel Wurzel

Mammoth Long Red This is the heaviest cropping and largest of 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; 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; lb., \$2.50.

Copenhagen An entirely new type of early cabbage. As early as Early Jersey Wakefield, as large as All Head, solid and better quality than either. Price: ½ oz., 15c; oz. 25c; ¼ lb., 75c; 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; lb. \$2.00.

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

Red Dutch Price: ½ oz. 50c; oz. 75c.

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; 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; 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; lb. 75c.

Chantenay Half-Long Resembling the Danvers, with larger shoulder. Medium early and heavy cropper. Price: oz. 10c; ½ lb. 25c; 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; 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; 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. 75c; lb. \$1.25.

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. 25c; 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. 75c; 1 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. 40c; lb. \$1.25.

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. 15c; 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. 15c; ¼ lb. 75c; 1 lb. \$2.25.

Golden Self Blanching The leading early variety. Stalks are broader 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., 40c; ½ lb., 75c; 1 lb., \$1.25.

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: oz. 15c; ¼ lb. 60c; 1 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. 70c; 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. 75c; 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: ½ 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: ½ 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, distinctly ribbed and attractive appearance. Flesh very firm, rich deep orange color, small seed cavity, sweet spicy flavor. Thickly netted rind. Price: oz. 10c; $\frac{1}{4}$ lb. 35c; lb. \$1.00; 5 lbs. \$4.00.

Honey Dew The skin is a very delicate yellow; surface almost perfectly smooth. The rind is thin, the flesh is very thick and in color blends from a near white at the rind to the faintest of emerald green at the seed cavity. The flesh is crisp and delicious, very sweet, juicy and possesses a honey flavor, very pleasing to the palate. Price: $\frac{1}{2}$ oz., 10c; oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50; 5 lbs. \$4.50.

"Hoodoo" Melon (Introducer's Strain). A new orange fleshed variety of the finest quality. Very vigorous, remarkably blight resisting and very productive. Fruits small and of uniform size. Netting exceptionally fine and dense. Flesh very thick. Price: oz., 15c; $\frac{1}{4}$ 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; $\frac{1}{2}$ lb. 75c; 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; $\frac{1}{2}$ 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: $\frac{1}{2}$ oz. 10c; oz. 15c; $\frac{1}{4}$ 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; $\frac{1}{2}$ lb. 60c; lb. \$1.00.

Banana Cucumber shape. Delicious odor. Rather late maturing. Price: oz., 10c; $\frac{1}{2}$ lb. 60c; lb. \$1.00.

WATERMELON SEED

McIvor's Wonderful Sugar

Ask or write for special price in large quantities.

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.

McIvor's Wonderful Sugar (90 days). This is becoming the most famous melon for sweetness and high quality. The melons are long, averaging about 35 lbs. each. Rather light colored, irregularly striped and mottled with dark green. The rind is thin, but tough, so that it is a good shipper. Flesh is delicate, light red, entirely stringless, very tender, juicy and luscious. Price: oz. 10c; ½ lb. 60c; lb. \$1.00; 5 lbs. \$3.50, postpaid.

Irish Gray The old ones go and the new ones come—sometimes the same old girl with a new dress, and then again something grander than ever appeared before—as for instance the Honey Dew in Muskmelons, we now have the IRISH GRAY in Watermelons. A superb new sort just out. 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 a half more. It's the thing to catch the market with. Price: oz. 10c; ¼ lb. 30c; lb. 75c; 5 lbs. \$3.00.

Monte Cristo or 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; lb. \$1.25; 5 lbs. \$4.00.

Tom Watson A large, oblong melon, the skin of which is dark green. The rind is thin but tough and flesh a bright, attractive red color, crisp, sweet and delicious. Price: oz. 10c; ½ lb. 40c; lb. 70c; 5 lbs. \$3.00.

Cole's Early The earliest watermelon in cultivation. Can be grown in all Northern states. Black seed, rich red flesh. Price: oz., 10c; ½ lb., 40c; lb., 75c.

Halbert Honey A variety somewhat similar to Kleckley Sweets. Price: oz. 10c; ½ lb. 40c; lb. 70c; 5 lbs. \$3.00.

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

Peerless or Ice Cream Very early; red flesh; good home melon.

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

Cuban Queen Early, solid and heavy; skin striped dark and light green.

Kolb Gem Very large; flesh red; a good shipping sort; popular in the South.

Green Citron (Red seed). Round and handsome; for preserving only.

Above varieties not priced we quote as follows: Price: oz., 10c; ½ lb., 40c; lb., 75c; in 5-lb. lots and over, 60c; per lb.; 10 lbs. \$5.00.

Tom Watson

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.

Yellow Globe Danvers The most extensively used yellow onions. Bulbs of medium size, uniformly globe shaped with small neck and ripen very evenly. Flesh white, crisp and of mild and excellent flavor. Price: $\frac{1}{2}$ oz. 15c; oz. 25c; $\frac{1}{2}$ lb. \$1.00; lb. \$1.75.

Ebenezer Onion Produces onion of unusual size, very heavy yielder and superior to almost any variety known for keeping qualities. In appearance it is slightly globular with a rich yellow straw color. Price: 35c per oz.; \$1.00 per $\frac{1}{4}$ lb.; \$1.75 per $\frac{1}{2}$ lb.; \$4.00 per lb.

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: $\frac{1}{2}$ oz. 15c; 1 oz. 30c; $\frac{1}{2}$ lb. \$1.60; 1 lb. \$2.50.

Red Wethersfield

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: $\frac{1}{2}$ oz. 10c; oz. 15c; $\frac{1}{2}$ lb. \$1.00; lb. \$1.50; 10 lbs. \$13.75.

Large Red Wethersfield The best known of all the onions. Good seller, great keeper, the best of all standard sorts. My stock of this onion seed is most select and sure to grow. Prices: $\frac{1}{2}$ oz. 10c; oz. 15c; $\frac{1}{2}$ lb. 75c; lb. \$1.25; 10 lbs. \$10.00.

Valencia Onion This onion is a very mild variety with a bronze colored thin tough skin. Well grown specimens will reach a weight of 2 lbs. and many growers have been able to produce 500 to 1000 bushels per acre. Price: $\frac{1}{2}$ oz., 20c; 1 oz., 35c; $\frac{1}{2}$ lb., \$2.00; 1 lb., \$3.50.

Prizetaker (the largest onion grown; very mild). Price: $\frac{1}{2}$ lb. \$1.00; lb. \$1.75.

White Silver Skin, round, white, medium. Price $\frac{1}{2}$ lb. \$1.50; lb. \$2.50.

Mammoth Silver Skin, a large, white onion. Price \$3.00 per lb.

New Queen, early, small white onion for pickling. Price, $\frac{1}{2}$ 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. Large quantities special price.

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.

(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.

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.

Iceicle 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.	½ 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.	½ 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

Ruby King

SEE PAGE 31 FOR PEPPER PLANTS.

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; 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; lb. 40c; 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.

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

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. 10c; 1 lb. 40c; 4 lbs. \$1.50; 10 lbs. \$3.50.

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. 35c; lb. \$1.00.

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

Hubbard Squash

True Warty

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: ¼ lb. 30c; lb. \$1.00; 5 lbs. \$4.00.

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; 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; lb., \$1.25.

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

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

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.

Oxheart Tomato Late introduction of Livingston, one of America's most renowned tomato growers. Because of its attractive different shape, large size, and excellent table qualities it is recommended as a variety that will become a general favorite. Specimens of this Oxheart variety weigh as much as 2 lbs. and it will on account of its shape and attractive pink color sell at sight. Almost seedless with meat frequently an inch thick without seed cavity. Price: $\frac{1}{4}$ oz. 50c; $\frac{1}{2}$ oz. 75c; 1 oz. \$1.25.

Oxheart Tomato

Bonny Best 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.

Dwarf Stone Plants grow dwarf and stocky, like those of Dwarf Champion, and can be set out close together. Price: $\frac{1}{2}$ oz. 20c; oz. 35c; $\frac{1}{4}$ lb. \$1.25.

Greater Baltimore

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.

New Stone One of the heaviest and most solid fruited of the large tomatoes. Vines vigorous and productive. Fruit round, slightly flattened, very large, very rich scarlet. Price: $\frac{1}{2}$ oz. 10c; oz. 15c; $\frac{1}{4}$ lb. 60c; 1 lb. \$2.00.

Greater Baltimore Mid-season or main crop variety. Similar to Stone, but fruits ripen earlier. Price: $\frac{1}{2}$ oz. 15c; oz. 25c; $\frac{1}{4}$ lb. \$1.00; 1 lb. \$2.50.

Golden Colossal A very handsome yellow tomato of large size. Price: $\frac{1}{2}$ oz. 10c; oz. 20c; $\frac{1}{4}$ lb. \$1.00.

Yellow Pear and Yellow Plum A small yellow tomato; is grown for preserves. Price: $\frac{1}{2}$ oz. 25c; oz. 40c.

Other Varieties We can supply any of the standard sorts, whether listed here or not. For Tomato Plants see page 29.

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; 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; lb., 85c; postpaid. For Rhubarb Roots see page 29.

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

	½ oz.
Anise Seeds, aromatic	\$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, postpaid40

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 Blanche Ferry and some of the 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.

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 cut 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, ox 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. \$1.50.

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

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

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

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. 50c.

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. 50c.

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. 40c.

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.

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 last word to be pronounced in Giant Pansy.

Pandora Pansy

Pandora Pansy

Pandora, an ancient goddess, had a box of wonders. Ours is an age of wonders. Byrd flew over the pole. Lindbergh flew over the ocean. Enthusiasm knew no bounds. The same goes on in plant life but with less press notice. The Pandora Pansy is one of them. 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—all flowers blotched in salmon, pink, red and other shades, borne on strong stems showing well above a remarkable luxuriant foliage. No self colors. The attention of all pansy fans and others is called to this "Flying Cloud" in pansies. 100 seeds 25c; 300 seeds, 50c; 1-16 oz. \$1.50; 1-8 oz. \$2.75; 1-4 oz. \$5.00; 1 oz. \$18.00. Plants growing in baskets of 12, per basket, \$1.00.

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 which besides, includes the richest reds, copper and bronzes together with the most delicate rose pink shadings and the Master Piece strain with its delicate veinings and ruffled petals. Immense flower, expressive facings, brilliant colors, all in one glorious combination. Price: Small bulk pkt. 10c; medium sized pkt. 15c; 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.

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.

See page 31 for Plants.

Petunias

For freedom of bloom, variety of color and effectiveness these have no equals. If only a little care is bestowed upon them. Petunias will produce their handsome, sweet-scented flowers in their delicate and gorgeous colors throughout the whole summer.

BALCONY PETUNIAS

Balcony Petunias

A splendid free flowering variety of single Petunia; about 12 inches high; flowers average 3 inches across. Especially valuable for windows, porch boxes, vases, among rock work, terraces and equally as effective in beds and borders.

BALCONY BLUE—Bulk pkt. 15c; 1-16 oz. 50c.

BALCONY ROSE—Bulk pkt. 10c; 1-16 oz. 35c.

BALCONY WHITE—Bulk pkt. 10c; 1-16 oz. 35c.

BALCONY MIXED—Bulk pkt. 10c; 1-16 oz. 25c.

SINGLE BEDDING HYBRIDA PETUNIAS

General Dodd (Hybrida)

One of the most beautiful blood red Velvety flowered Petunias among the dark and crimson colored varieties. A flower of great substance. Blooming continuously all season. Bulk packet 10c; 1-16 oz., 20c.

SINGLE GIANT FLOWERING PETUNIAS

The flowers of this strain average from 5 to 7 inches across and are wonderful.

Howard's Star

A beautiful, free flowering strain, color crimson-maroon, with a clearly defined five-pointed star of bluish-white. For bedding, baskets, vases, etc., this is exceptionally fine. Bulk packet 10c; 1-16 oz. 20c.

Rosy Morn

Soft carmine-pink with white throat; makes a very dainty and at the same time effective border plant. Bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; ½ oz. \$1.25.

Bedding Mixture

Michael's DeLuxe, large flowering Hybrida, varieties all colors. Bulk pkt. 10c; 1-16 oz. 15c; 1-8 oz. 25c; 1 oz. \$2.00.

Fluffy Ruffles Petunias

Fluffy Ruffles

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 floraplana 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.

MICHAEL'S DE LUXE MIXTURE—Giant flowering—all colors. Bulk pkt. 15c; 1-16 oz. 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.

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.

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.

Celosia (Plumosa). Distinct variety bearing a profusion of beautiful ball-shaped woolly flower heads of intense scarlet. Sometimes called the Wool Flower. Surpassing the Red Geranium in blooming effect and 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 and will last several days in good condition. 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.

Coreopsis Very showy, free flowering plants, native of this country, fine for borders and beds. Yellow Flowering. Bulk pkt. 5c; 1-16 oz. 15c.

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 and generally perish before noon next day; will grow in any soil. Hardy annual, 2 feet high. Bulk pkt. 5c; 1-16 oz. 10c; 1-8 oz. 15c; 1 oz. 25c; ¼ lb. 60c.

Gaillardia (Blanket Flower) Borne on strong stems; blooming quite early; bright gay colored flowers which continue to bloom until frost. Lorenziana Double Mixed. Bulk pkt. 5c; 1-16 oz. 15c.

Gypsophila A delicate free flowering plant with star shaped flowers of mist like effect. For trimming bouquets and as an 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). A great demand for this everlasting flower has induced us to list it. It is an ornament to the garden and is everywhere prized for winter decorations in vases as permanent bouquets. Bulk pkt. 10c; 1-16 oz. 15c; 1-8 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) Ornamental plant with curious corn-like leaves and slate colored seeds often used for beads. Valuable in winter bouquets with everlasting flowers. Plant out of doors in early spring, hills 3 feet apart and 4 or 5 seeds to the hill, and cover half inch deep. Hardy annual. 3 to 5 ft. Bulk pkt. 5c; 1-16 oz. 15c.

Kochia or Summer Cypress (*Kochia Tricocphylla*). A highly ornamental annual, having a cypress-like appearance. Its bright autumn coloring has given it two other names: "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 annual; well-known flower of our grand parents with a blossom like the Queen's lace handkerchief. Bulk pkt. 10c; 1-16 oz. 15c.

Lobelia Dwarf sort. Mixed colors. 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 (*Tagetes*)—A dwarf *Signata* *Pumila* variety, bright orange, ideal for border planting. Bulk pkt. 10c; 1-16 oz. 25c.

Mignonette A well-known hardy annual, producing exceedingly fragrant flowers. Seed sown in autumn will bloom early in the spring; thrives best in cool temperature; 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 ft. in a single season. Foliage large, dense and luxuriant. Splendid shade for porches. 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 (Heddwigi). 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.

Everblooming (Pink) Single mixed. Bulk pkt. 10c; 1-16 oz. 25c.

Everblooming (Pink) Double mixed. Bulk pkt. 10c; 1-16 oz. 25c.

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

DOUBLE CARNATION 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.

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

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

Phlox (*Drummondii*). The Phlox is the earliest and hardiest 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. Tender perennial blooms until frost; height 2 to 3 feet. See page 19 for plants. *Salvia Splendens*. Bulk pkt. 10c; 1-16 oz., 25c; 1-8 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 *Hybrida 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 year 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.

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.

Gaillardia (Blanket Flower). An easily grown plant in ordinary garden soil; long stems and bright colors make these one of the most valuable perennials. Michael's DeLuxe new hybrids. Bulk pkt. 15c; 1-16 oz. 25c.

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. Price: Bulk pkt. 10c.

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. Price: Bulk pkt. 10c; 1-16 oz. 25c.

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

Pinks (Hardy Garden Flower).—A very desirable, sweet-scented, low growing, early blooming and free flowering hardy garden variety. Price: 1-16 oz. 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. Lanthemum) A hardy perennial Daisy with flowers of the purest glistening white, borne on long stems, a splendid cut flower, good for ten days. Bulk packet, 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; ¼ oz. 25c; oz. \$1.25.

Delphinium (Perennial Larkspur). Few plants are so handsome in the garden as perennial Larkspur. The most important varieties are the tall hybrids with a wonderful range of color. Michael's DeLuxe Mixture of gold medal hybrid. Bulk pkt. 15c; 1-16 oz. 35c.

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

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

Campanula
Canterbury Bells

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.

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.

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. Price: 100 seeds, 10c; 1-16 oz. 15c; 1-8 oz. 25c; 1 oz. \$1.75. Plant, 3 in pot, 15c each; \$1.50 per dozen.

Annual Hollyhocks

Hollyhocks (Annual), 5 feet. These Annual Hollyhocks bloom like all other annuals the first year they are planted when sown in the springtime and will be in flower in August; but if started indoors and set out in May, will bloom in July. These annuals are also perennial if left in the ground. Everblooming single mixed, 100 seeds, 15c; 1-16 oz. 25c; 1-8 oz. 40c; 1 oz. \$1.00. Everblooming double mixed, 100 seeds, 15c; 1-16 oz. 25c; 1-8 oz. 40c; 1 oz. \$1.00.

Hollyhock Roots

Double in colors—15c each; per dozen, \$1.50.

Single in colors—15c each; per dozen \$1.50.

Allegheny, single fringed—25c each; per dozen \$2.50.

Mixed Sorts—10c each; per dozen \$1.00.

Potted Hollyhock plants, in 3 to 4 inch pots, growing and in foliage—20c each; per doz. \$2.00.

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.

Novelties

"New and Rare Flowers"

We don't usually list many novelties but now and then there is a new creation in some of the well known kinds of flowering plants that is superior to anything yet in use and which we like to call the attention of our customers to in the way of a novelty.

Bedding Dahlia This new dwarf strain of dahlias grows to about 2 ft. in height and makes an ideal plant for bedding purposes. The flowers are held on long stiff stems that literally break away from the ground. The flowers are single blooms furnishing most excellent material for cut flowers and in many instances will take the place of geraniums for its grace and beauty of flower. It can be raised from the seed and be in full bloom in a little less than three months after planting and blooms interruptedly until frost. Price: Bulk pkt. 25c; Potted in full foliage at time of planting, 25c each; \$2.50 per dozen.

Delphinium Hollyhock type. Result of several years painstaking work in re-selecting and hybridizing. Flowers large, truly double, well placed on spikes of sturdy growth, suggesting the hollyhock from which it takes its name. Price: Bulk pkt. 20c; 1-16 oz. 40c.

Perennial Scabiosa Columbaria There is a decided place for this new perennial in the home flower garden as well as among the florists. Foliage light green. Flowers $2\frac{1}{2}$ inch, compact petals on long slender strong stems. Color of flowers pink. Price: Bulk pkt. 25c; 1-16 oz. 75c.

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.

Hibiscus (Mallow Marvel). An improved strain with very large blooms measuring as much as 10 inches in diameter and more gorgeous than the hollyhock, blooming in July and August. In separate colors, labeled, crimson eye, pink red and white. Each, 25c; 5 for \$1.00; \$2.00 per dozen.

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, 40c each.

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. The seed is carried by the winds, by the birds and often by barnyard fertilizer. It is found growing on the highest hills and in the lowest valleys and when turned under it may lay in the ground for years. Our seed is analyzed so we know it is not in the seed and therefore finds its way into the field from some other source.

ALFALFA SEED

VERIFIED ORIGIN SEED U. S. GOVERNMENT TAG

See page 46 for Nitragin cultures, inoculation for Alfalfa, Sweet Clover and other legumes

Common Alfalfa The native variety that has come down from early planting and not otherwise known which we find in Dakota, Montana and the inter-mountain country. Price per bushel, \$12.50 to \$15.00. 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 \$18.00 to \$20.00.

Turkestan Alfalfa

Seed of this variety is produced in Russia and imported only from that country. Owing to Soviet complications the past few years it has been difficult to obtain but now we have this year a good supply of it. We have sold this seed for thirty years or more and have many patrons who claim that it is the hardest of any variety of alfalfa they have ever planted. Mr. Martin Uhl, well known farmer near here, claims he had a field of Turkestan Alfalfa that lasted for fifteen years from which he got three to four crops of hay annually and that it had a greater winter endurance than our wellknown Dakota grown seed. Verified origin superfine seed. Price: per hundred lbs. \$23.50.

SWEET CLOVER SEED

There are several varieties of this once much despised, but now popular forage plant and land fertilizer. All the varieties we handle are well suited to our section of the country, most of which are biennial but there is an annual sort known as Hubam, but little used.

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 100 lbs. \$9.50; per bu. \$5.00 to \$6.00. 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 25c per lb.

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. \$20.00 to \$24.00. 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 \$20.00 to \$24.00. Fancy to Superfine.

Grimm Alfalfa A very hardy, acclimated strain developed in Minnesota. The roots are more or less of lateral tendency, and do not consist entirely of one straight tap root. For this reason it is desirable for land having a hard sub-soil, which is difficult for the roots to penetrate.

AFFIDAVIT GRIMM—U. S. Verified Origin—Fancy to superfine quality. Price: \$37.50 to \$40.00 per hundred.

STATE REGISTERED GRIMM—U. S. Verified Origin—Fancy to superfine quality. Price: \$40.00 to \$42.50 per hundred.

Canadian Variegated Alfalfa This is a variety of hardy alfalfa that has developed, it seems, in the Canadian province of Ontario of lost origin, but doubtless from its peculiar features, is of Grimm parentage. At the Iowa Agricultural College, experimental plats for hardness and durability, tests equal to Grimm if not superior in this respect. Price: U. S. Verified Origin, \$40.00 per 100 lbs.

Cossack Alfalfa This a variety introduced by the Dakota Agricultural College, discovered by Prof. Hanson, growing in Northern Siberia, and having endured that climate for ages, is an arctic variety which he highly recommends as the most hardy Alfalfa in the world.

AFFIDAVIT COSSACK—U. S. Verified Origin. Fancy to Superfine Quality. Price: \$40 to \$42.50 per hundred.

STATE REGISTERED COSSACK—U. S. Verified Origin—Fancy to superfine quality. Price: \$44.00 to \$45.00 per hundred.

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 \$5.00 to \$6.00 per bu. Fancy to Superfine.

Common Yellow (Biennial) Preferred where finer, softer, denser foliage is desired as a hay proposition and is said to be equal to the Common White as a pasture proposition. If left to seed a greater yield than the Common White as a seed crop. Price, \$4.50 to \$5.25 per bu. 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, \$18.00 to \$22.50 per bu.

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.

Bromus Inermis

BROMUS INERMIS (Awnless Brome)

This is one of the hardest 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 springtime 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 for Superfine Seed (quack-free), per lb. postpaid 25c; per bu. of 14 lbs. \$2.00; \$12.50 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. We quote subject to market change, super-fine quality, per bushel, \$3.50; 10 bushel lots \$3.00 per bu. Cotton Am. Bags extra, 40c each.

Kentucky Blue Grass

Poa Pratensis The universal pasture grass of America and the finest lawn grass in the world is our own Kentucky Blue Grass.

It starts like magic with the first smile of spring and is a velvet green until winter comes. It can be grown on the wild prairie and will catch, but the best results are to be had by getting the seed well mixed with the soil. 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, \$4.50 per bu.; \$32.00 per 100 lbs. For lawn culture, double weight, our Super-fine Brand, 30 lb. quality; 100 per cent pure, highest germination, 60c per lb.; \$50.00 per 100 lbs. All prices subject to market changes.

Poa Trivialis (Blue Grass) An ideal shade grass for shady nooks in the lawn well suited for the northern half of the United States. This is a variety of perennial grass closely related to the Kentucky Blue Grass but somewhat finer and softer. It has a splendid apple green color and is a creeper somewhat like creeping bent. It does well most anywhere but best in moist places. Sow in either the springtime or in the autumn. 1 lb. to every 300 square feet. Price: per lb. 65c; by mail, 75c; 5 lbs. \$3.00; 10 lbs. \$5.00.

Bent Grass (Called Creeping Bent) A variety of perennial grass that stands in high favor as a golf putting green grass and also for lawns. The important advantage of bent grass on lawns is that they like acid soil and can feed well with acid re-acting fertilizers such as ammonia sulphate, the constant use of which will destroy weeds on the lawn. Sow at the rate of 1 lb. to 300 square feet. It makes a fine close turf of excellent color and adapts itself readily to any soil, particularly acid. Price: per lb. \$1.50; 5 lbs. \$7.00.

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, 35c; bu. of 14 lbs. \$3.00.

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. \$15.00. 300 lb. lots, \$12.50 per 100; 500 lb. lots, \$12.00 per 100. Burlap bags free.

Kentucky Blue Grass

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. It's a perennial, 2 to 3 feet high, and heads out in June. About 15 lbs. per acre. Best seed, per lb. postpaid, 35c; per 100 lbs. \$20.00. Burlap bags free.

Red Top

Red Top. This grass is especially suited to low, wet, spouty lands; is in fact, the only grass which is a real success on such soil. Stands our northern winters, can be sown on wet land without cultivation, and will catch. Into the wet soil it spreads its network of roots, tames the land, and in a few years makes a deep, substantial sod. The seed often comes in the chaff, but the only thing to plant is the solid seed, clean from chaff. Sow 10 pounds per acre. We quote best solid seed, very best, per lb. 25c, postpaid; per 100 lbs. \$20.00. Our cotton bags extra, 50c each.

Field Seed Department

All prices quoted on this page subject to market changes.

American Cotton Bags, extra 40c each. Burlaps free gross for net.

Seed Oats

Iowa No. 103. Seed oats. This is a very prolific new 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. It is an immense cropper, great yielder, outyielding the parent stock by almost double. Has a good, strong stock, and stands well under adverse conditions. Every farmer interested in these crops should get at least enough to get his seed stock started from this valuable sort. Price: Per bu. \$1.00. Special price on quantity.

Russian Green Seed Oats

The Russian Green is a medium early Oat which ripens a few days after Barley. It has a good sized berry with a very thin shell full of meat. Color a rather yellowish gray cast with a greenish tinge to the end of the kernel. It is rust resistant. Strong stalk that stands up well in adverse weather conditions and as a market variety grades No. 2 White. Price per bu. \$1.00; 5 bu. \$4.00; 25 to 50 bu. 60c per bu. f. o. b. loading station. In greater quantities write for prices.

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. \$2.50. Regular White or Red Kaffir Corn at \$1.75 per bu.

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. Per bu. \$1.50.

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. It is developed from Russian parentage. Has large, white kernels, yielding in abundance. \$1.35 per bu.

SPRING RYE

SPRING RYE. A good catch crop, as it may be sown later than most grains. Not so good a yielder as Winter Rye but matures a crop of grain like Spring Wheat the same year it is sown. Sow about 1½ bu. per acre. Crop is very short. Price, peck 65c; bu. \$2.00; 10 bu. \$17.50.

Velvet Barley

This is a lately introduced variety of barley that has made a great hit with every farmer who has used it. The beards are soft and pliable when it is ripe. It is a good yielder and does away with the roughness of the common kind. 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 recleaned for seeding rate of half bu. per acre. Subject stocks unsold. We quote \$3.00 per bu.; 10 to 25 bu. lots \$2.75 per bu.

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. \$1.50.

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 \$2.50 per bu.; 10 bu. at \$2.25 per bu.

"Speltz"

SPRING EMMER. A grain especially suited to dry lands. Being semi-hardy, it can be sown very early in the spring like oats. 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, and it also yields considerably better. The feeding value is high. Sow 1½ bu. to acre. Price bu. (40 lbs.) \$1.00. Subject stocks unsold we quote 20 to 25 bu. lots 75c per.

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. They may be cut and cured for hay or let ripen and threshed like small grain. Price subject to change per lb. 10c; per 100 lbs. \$8.00.

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 2½ to 3½ 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. \$3.50.

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 2½ 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, half peck, 55c; peck \$1.25; bu. \$2.50. Burlap bags free. American cotton grain bags extra, 50c each, holding 2½ bushels.

MANCHURIA — Week earlier than Manchu which we offer at the same prices as the Manchu.

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 \$7.50. Bags extra, 50c each, holding 2½ bushels.

SEED POTATOES

All These Prices Subject to Market Changes

POTATO BASKET

This basket affords an easy and effective way of applying Dip Dust by filling the basket with potatoes and immersing them in the preparation. In addition to playing a necessary part for dipping seed potatoes, it is a handy basket for gathering potatoes in the field and general purposes around the farm. Made of heavy wire which is woven and reinforced by a heavy frame. Price: per ½ bushel basket, \$1.00.

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., \$1.25.

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., \$10.00 in original heavy burlap bags of 220 lbs. each; \$18.00 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 subsoil 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 \$2.50, and Mixed Fodder at \$1.50 per bu., bags extra, 50c. 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: \$1.75 per bushel; 5 bushel, \$7.50. Bags extra, 50c each, holding 2½ bushels.

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: ½ bu. 75c; per bu. \$1.00.

Irish Cobbler Potato One of the most valuable first early potatoes. Very productive, globular in form, uniform in size, pure white. Per bu. \$1.25.

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.

Grown Especially for Seed

**TIPPED
SELECTED**

SEED CORN DEPARTMENT

**TESTED AND
GRADED**

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. Today's prices, Dec. 1, 1926

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

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, \$3.50; 5 bushels, \$16.00; 10 bu. \$30.00, select ears, on ear \$4.00. Today's prices, December 1, 1927.

Yellow Hammer Early Dent Corn

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. It is an immense yielder for another variety of field corn. 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 color is a rich attractive yellow and makes a most popular sort. The stalks are not large but stout and stocky and can be planted closer in the row than other sorts and has been known to yield in favorable seasons, as much as the rate of 75 bushels to the acre. Can be planted the latest in the season of any variety we know of and yet matured before the frost comes in early September. Price per bu. shelled, \$3.50; 5 bu. \$15.00; select ears, on ear, \$4.00 per bu. Dec. 1, 1927, price.

Krug Corn

This variety of corn is a late introduction originated in Illinois, propagated and first bred by a man by the name of Krug. It is similar to Reid's Yellow Dent, though not so dented but of a more solid kernel with a slight dent. In the state wide corn yield contests, both Iowa and Illinois, this variety seems to be the outstanding type. Over a period of several years it has consistently out yielded other varieties of yellow corn. In middle and northern Iowa it matures in 90 to 100 days. Price: per bushel, \$4.00.

Iowa Silver Mine

Iowa Silver Mine. Per bu. shelled, \$3.50.

Wimples' Yellow Dent

Wimples' Yellow Dent. Price per bu. \$3.50; 5 bushels. \$16.00.

Improved Murdock Corn

Michael's Early Murdock. Price per bu. \$3.50.

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.

Festiva Maxima Globular large white flowers, combining enormous size with wonderful beauty. Often 8 inches across. 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. Forty inches high; 3 to 5 eye roots, 40c each; 3 for \$1.00; \$4.00 per dozen. Undivided clumps,

Edulis Superba Exceedingly fine, vivid rose-colored flowers, high, full center, very compact, very early and free blooming, highly perfumed. The best fragrant rose-colored peony. 3 to 5 eye roots. Price: 35c each. 3 for \$1.00.

Felix Crousse. The ideal self-colored red Peony; large, globular and compact, an even shade of bright red without trace of any other color; a strong, vigorous grower. 3 to 5 eye roots. Price: 75c each; 3 for \$2.00.

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, \$1.00.

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 in full bloom

Golden Harvest Flower creamy yellow with carmine markings and blush guards. 3 to 5 eyes, 50c each.

Mixed Peonies Our Mixed Peonies are made up of broken lots of our very best named varieties, some of which are worth five times the price we ask for them. Price: 25c each; 6 for \$1.35; per dozen \$2.50.

Dahlias

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

Purple Manitou Immense flower; often solid purple in color, sometimes mottled with crimson; very attractive. Price, 25c each.

Grizzly (Decorative)—A great dark velvety maroon flower of immense size on a stem high above the foliage. Prize winning variety. Each, 75c.

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, 75c.

Kiwanian A sensational new variety of peony type. Distinctive long wiry stems, yet holding the flower in perfect poise. Strong plants and vigorous growers with numerous side branches. Flowers large and perfect in form. Color: Rich American Beauty red with a shading of purple. Very scarce. Order early. Each, \$1.50.

Merry Widow (Decorative)—Flower clear yellow suffused with red. \$1.00 ea

Jersey Beauty Beautiful large pink flower of perfect form. Early and free flowering, continuing to the end of the season. It has been awarded many medals, certificates and prizes. Each, \$1.00.

Judge Marean (Decorative) — Flowers large and perfect shaped. Color is a combination of glowing salmon pink and red iridescent orange. Early and continuous bloomer. Each, 75c.

AMERICAN BEAUTY—Brilliant crimson red.

MASTERPIECE—Early. Color rich tango.

DELICE—Beautiful lively rose, soft pink.

MOONBEAM—Large, clear, canary yellow.

WINTERS—Early bloomer. Snow white flower.

MOORE—Deep velvety maroon. Large flower.

LISZT—(Peony flower)—White and purple veined.

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

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., \$1.75.

Beacon (4 to 4½ ft.) Heavy, lateral growing rich green foliage. Flowers of very rich cardinal, which are produced in great masses. Its immense flowers with handsome foliage are very striking. Per root, 15c each; 3 for 40c; doz., \$1.50.

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). Identical with bronze King Humbert in growth. Flower pure yellow, sometimes dotted with red and sometimes the petals are red and yellow mixed. The foliage rich green. Size about 4½ feet. Roots, 15c each; \$1.75 per doz.

The President The best new Canna yet introduced, flowers a glowing scarlet of immense size; foliage rich green, broad leaf of lateral growing habit, borne on a stout, heavy stock about 4 feet high. This combination of flower, foliage and stock are qualifications of special value in the enchanting effect in any bed of Cannas. Roots 25c each, \$2.50 per dozen.

Musafolia (8 ft.) Green foliage with Bronze border. Grown for foliage only, which on account of its enormous Mussa-like leaves is used for making screens and back-grounds. Per root, 5c; doz., 50c; 100, \$3.75.

CANNA PLANTS (Potted)

Canna Plants. 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 in 4 in. pots having 2 to 5 leaves on them by the first of May, at which time, weather permitting, 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, almost a tinted white. Large, spreading blooms, immense flowers, first size bulb. 5c each; doz., 40c; per 100, \$3.00.

Empress of India Dark, blackish-red, the darkest of all Gladioli; immense flower, and extremely rich, first size bulb. Each, 10c; doz., \$1.00, per 100 \$6.50.

Mrs. Frances King Effective Flower spike with a good line of reserve buds continually opening. Flower 4½ inches, a brilliant vermillion scarlet. Each, 5c; doz., 50c; per 100, \$3.00.

Panama A new seedling of America, which is a much deeper pink. Spike very long with flowers large and well arranged, first size bulb. Each, 8c; 2 for 15c; doz., 75c; per 100, \$6.00.

Mrs. Frank Pendleton In addition, the size of bloom is not exceeded by any other. One of the most exquisitely colored. The color is a delicately flushed salmon pink, first size bulb. Each, 10c; doz., \$1.00; per 100 \$7.00.

Princes The flowers are 5 to 6 inches broad. The color is brilliant scarlet crimson, carrying mostly three broad, white blotches on the lower petals, first size bulb. Each, 10c; per doz. \$1.00.

Niagara In color the flowers are a delightful cream shade with the two lower petals or segments blending to a canary yellow. The throat is splashed with carmine, first size bulb. Each, 8c; doz. \$1.00; \$6.50 per 100.

Le Marechal Foch A Holland introduction. Very delicate pink. A seedling of "America," producing flowers twice the size of its parent. A heavy propagator and an early forcer. First size bulbs 10c each; \$1.00 dozen.

Herada New and elegant. The blooms, which are of immense size, are pure mauve, glistening and clear. Tall, straight spikes. First size bulbs 10c each; \$1.00 per dozen.

Mrs. Watt Glowing American Beauty shade of wine-red. Well open flowers on an erect spike. First size bulbs 10c each; \$1.00 per dozen.

Schwaben (See also "Morning Glory.") Clear canary yellow with a touch of dark red in the throat. A strong grower and a popular Glad. First size bulbs 10c each; 75c per dozen.

IMPORTED BULBS MIXED. First size, first quality bulbs, beautiful blend of colors. Doz. 40c; \$2.75 per 100.

NATIVE MIXTURES. All kinds home-raised bulbs. Doz. 25c; \$2.00 per 100.

HERBACEOUS FLOWERING PLANTS, ROOTS AND BULBS

Lilies

Auratum (Gold Banded Lily). The grandest of all hardy Lilies; flowers white, spotted with maroon, having a bright yellow band through each petal. Each, 40c; doz. \$4.00.

Rubrum Enormous flowers; pure white with a deep crimson stripe. Each, 35c; doz. \$4.00.

Album Most popular of all the pure white Lilies. Each, 30c; per dozen, \$3.00.

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

Tigrinum (Double Tiger Lily). Well known variety of rich orange blossom. Each, 25c; per dozen \$2.50.

Candidum (Madonna or Annunciation Lily). The flowers are snow white, with the most delightful fragrance. Each, 25c; doz. \$2.50.

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

Umbellatum Early bloomer. Color, deep red through all shades of crimson, rose and yellow. Bulbs, 25c each; \$2.25 per dozen.

Regale (Royal Lily) — Four feet. Immense blooms, paper white shaded with pink. Very beautiful. Easily grown from seed. Bulbs, 75c each; potted plants from seed, 25c each.

Superbum Native Turk's-Cap Lily. Flowers bright orange, dark purple spots. Used among shrubbery. Height 4 to 6 feet. Profuse bloomer. Often a score or more flowers on one stalk. Select first size bulbs: Each, 20c; \$2.25 per dozen.

Trillium (Grandiflorum)—White flowers 2 to 3 inches across. One of the best early bloomers. Prefers shady location. Bulbs: 15c each; \$1.50 per dozen.

Funkia Sieboldiana A bell-shaped lilac colored flower, blooming in profusion. Each, 15c; six for 75c; per doz. \$1.25. forcing as for planting the open border. Clumps, each, 50c.

Hardy

Bleeding Heart An old-fashioned favorite, equally well adapted for forcing as for planting the open border. Price: Clumps, each, 50c.

Campanula (Bell Flower). Bell-shaped flowers, well known and most easily grown. Price: Field Clumps, each, 25c; doz., \$2.75.

Chrysanthemums

HARDY OUTDOOR VARIETIES

These hardy outdoor perennials are gaining in popularity among the lovers of flowers everywhere for the reason they are easy of cultivation and with the different varieties of long blooming season from mid-summer on and the last flower of its season, done blooming and gone. The best into single plants annually before transplanting and cover the bed with some litter for winter. Varieties described and not priced. Each, 25c; 5 for \$1.00; per dozen \$2.25.

Seven Oaks (Everblooming) — Hardy Mums—Earliest and longest season of any hardy field variety of Mums that is known. Begins blooming in July and lasts on through late autumn.

Eva An early July bloomer with a deep pink flower, dwarfier in its habit of growth than most other varieties.

Snow Clad A pure white flower variety that blooms in September. A strong grower and of easy cultivation.

Indian Brick red double flowering. Free blooming. September flowering. Three to four feet high.

Columbine Flowers very large; lavender and white; each root forms a large clump. Each, 25c; doz. \$2.50. Potted Plants, doz. \$2.00.

Coreopsis Grandiflora Large, handsome orange yellow flowers; blooms through the season. Each, 20c; doz. \$2.00.

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

Dianthus (Hardy Garden Pinks). Charming summer flowering border plants, more or less fragrant. Two-year clumps, each, 20c; doz., \$2.25.

Digitalis (Foxglove). 3 to 5 feet. Stately old garden favorites for garden and shrubby borders, and naturalizing in suitable places. Field Clumps, each, 25c; doz., \$2.75.

Gaillardia A showy flower, beginning to bloom in June and continuing through the season. Petals vary from scarlet-orange to crimson. Field Clumps, each, 25c; doz., \$2.75.

Hardy Phlox This is one of the most attractive flowers in summer decoration. Colors range from bright red to deep crimson. A hardy perennial, once planted they last for many years. Mixed colors, 10c each; \$1.00 per dozen. Named varieties described, 25c each; 6 for \$1.25; per dozen, \$2.25.

Rijnstroom—Rose-pink, strong grower.

Miss Lingard—Pure white, earliest of all.

Richard Wallace. White, with red eye.

Rosenberg. Reddish-purple, very large flower.

Shasta Daisies (Alaska). Immense snow white flowers. Bloom through the season. The best daisy in the list. Each 25c; doz., \$2.75.

Not Hardy

Begonias (Tuberous-Rooted). For brilliancy of color, duration and profusion of bloom, few plants can compare with the tuberous-rooted Begonias. Single or double. 25c each; dozen \$2.50.

Elephant's Ear (Caladium Esculentum). Grand tropic-looking plant. In rich soil, if freely watered, they will produce enormous leaves, frequently four feet long, three feet wide. Height, 4 to 5 feet. Fair sized bulbs, each, 15c; medium sized bulbs, 25c; monster giant bulbs, 50c each.

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

Montbretias One of the brightest and most winsome flowers. From July to October they are one mass of blooms. Each 12½c; 3 for 30c; \$1.25 per dozen.

Profusion Strong, thrifty foliage. Blooms in profusion. October bloomer. Hardest of all varieties. Three feet high. Dark pink. Price 15c each; \$1.60 per dozen.

Golden Glow (Chrysanthemum). A large, very showy plant, attaining a height of six feet, producing hundreds of flowers resembling yellow Chrysanthemums. Each, 15c; doz. \$1.50.

Can furnish many other varieties not mentioned.

See page 20 for perennial flower seed.

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.

Mother of Pearl

This is reputed to be one of the world's best Irises and has a strong, vigorous, healthy root. A beautiful pearl colored flower with a slight tint of lavender in it, which will appeal to all lovers of flowers and is remarkable for its increase of root habit. Price each, \$1.00; 3 for \$2.75.

Black Prince

A very striking dark flower. One of the largest flowering, dark purple varieties with an attractive flower of great substance. Ea. 15c; 6 for 75c; \$1.25 per dozen.

Mixed Iris Mixture. Each, 10c; 75c per dozen.

Ambassadeur (Vilmorin). This iris is a late introduction and is considered one of the greatest irises in the world. The standard petals are smoky lavender, the falling petals deep red-violet with a rich orange beard. Plant grows tall and well branched. It blooms in mid-season and has a large beautiful flower of great substance. The admiration of everybody. Price, \$1.00 each.

Seminole This American Iris is so excellent that 'tis said that it is being featured by the largest Iris growers in other countries. Color is a red violet rose velvety crimson; not exactly a red Iris but a very pleasing shade; prolific bloomer. Each, \$1.00.

Juniata A flower of sweet scented fragrance, blue, and the tallest growing of all varieties of Iris. It is especially attractive on account of its fragrance. Each, 40c; 2 for 45c. \$3.50 per dozen.

Dalmatica A clear lavender blue and one of the largest flowered varieties of the lavenderers. The finest of this shade. Each, 15c; 6 for 75c; \$1.25 per dozen.

Pumila Hybrida (Border Iris). Dwarf form of the regular Iris, growing about 8 inches high; very free bloomer; sweet scented, and is the earliest blooming of all Iris. Each, 10c; dozen, 75c.

Aquatic Plants

HARDY WATER LILIES

When one cannot have any other kind of a garden they can have a water garden even if it is only a wash tub of water full of aquatic plants set in the ground out in the back yard.

Water Lily, White (*Castalia odorata*)—A well known white flowering variety with fragrant, sweet scented blossoms. Four inch tubers, 40c each; 6 for \$2.00; per doz. \$3.50.

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. Tubers, 50c each; 6 for \$2.00; per dozen, \$3.00.

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

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

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.

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

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; 3 for \$4.50. Potted plants, \$3.00 each. Seed, per oz. 25c; ¼ lb. 75c; per lb. \$1.50.

Water Lily (*Gloriosa*)—A beautiful new red *Nymphaea* which makes an exceptionally fine nucleus for any collection of aquatic plants. It is thoroughly at home in a tub, a pool or a lake and will thrive under extreme conditions. The fragrant floating blossoms, 6 to 8 inches across, are perfect form and rather double. This is a lily that blooms and blooms and the color deepens as time passes from a bright carmine to a dark currant red later on in the season. Tubers, \$5.00 each.

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.

Helen Fowler A natural cross of *Nymphaea tuberosa*; strong vigorous growth, flowers borne on stout stems making it useful for cut flower purposes. Deep pink and very fragrant. Tubers, \$1.25 each.

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 form with a stem like that of the true garden hyacinth. Price each, 25c; 3 for 60c; per dozen, \$1.75.

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

Water Lily

Plant Department

Flowering Plants — Hanging Baskets

We grow large quantities of all these popular varieties of flowering plants.

Hanging Baskets All filled with plants. Each, \$2.50 and \$3.00, according to size and plants used.

Wire Baskets Empty wire baskets for holding plants as a hanging basket proposition. Price per 12-inch size, 40c; 14-inch size, 50c each.

Green Sheet Moss For lining hanging baskets. Price: Per lb., 35c.

FOR BEDDING, WINDOWBOXES AND VASES

Aster Plants American Beauty. Giant Branching. Potted plants, doz. 50c; mixed in baskets of 1 doz. 40c; in bulk 50 for \$1.25; per 100, \$2.00.

Coleus Plants For border work. Either golden, green, red, black and variegated foliage. Price: 2½ inch pots, doz., 75c.

Dusty Miller Plants For foliage only; border plant of the finest sort. Price 2½ inch pots, doz. 85c; baskets, 12, 50c.

Lobelia Plants Easy culture, used in vases and border work; blue flower. Price, 2½ inch pots, doz., \$1.00.

Pansy Plants Mixed colors. Michael's Deluxe Strain. Price: Potted, 2½ inch pots, each, 8c; dozen, 75c. In baskets, earth, basket of dozen, 50c; in bulk 50 for \$1.75; per 100, \$3.00.

Pandora Pansy Plants, \$1.00 per dozen.

Petunia Plants Single large fringed flowering Price 2½-inch pots, each, 15c; doz. \$1.00. Double flowering sorts, each, 25c; doz. \$2.50. Balcony 2½-in. pots, 75c per doz., in baskets, 50c; in bulk, 50 for \$2.00; per 100, \$3.50.

Verbena Plants Single plants of this pretty annual creeper will carpet a space 8 to 10 inches in diameter with neat foliage and scores of fine flowers. Price: All colors, 2½-inch pots, doz., 75c; growing in basket of earth, basket of doz., 50c.

Vegetable Plants

Cabbage and tomato, cold frame grown plants, field grown, revived frost-proof plants.

We grow large quantities of Vegetable plants and Roots, and can supply all the varieties listed below in their proper season. Well grown and packed to carry a long distance, they can be shipped from the beds on a day's notice. All prices subject to season conditions, stocks on hand and change at time of purchase. Write for spring prices—current quotations.

Cabbage Plants Transplanted plants, early sorts, ready April 15th; late sorts ready May 10th. Doz., 15c; 100, \$1.00.

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

Celery Plants Ready May 10th. Seedling stock. Easy blanching. Per 100, 75c; Transplanted stock, per 100, \$1.50.

Egg Plants In pots or growing in basket of earth only. Basket earth, 50c; Potted plants, doz., 60c; in bulk, per 100, \$1.50.

Pepper Plants Bull Nose and Chinese Giant in bulk. Doz., 25c; in basket earth, growing, doz., 50c; in bulk, 100, \$1.50.

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

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. Best of the dark crimson-scarlet bedders. Perfectly double and a remarkably free bloomer; blooms all summer.

S. A. Nutt. dark red, double flower, 3 in. pots, per doz. \$2.40.

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

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

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

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

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

Apple Blossom, single flower, 4 in. pots, per doz. \$3.00.

Ivy Geranium, vining variety, 4 in. pots, each, 30c; \$3.00 per dozen.

Madame Solleiol, variegated foliage, 3 in. pots, Border geranium, each, \$1.00.

Salvia Plants Richest scarlet flower; finest of all bedding plants; long spikes of dazzling red, lasting all summer until frost. Price: 2½-inch pots, doz., 75c; 4 in. pots, doz., \$2.50; growing in baskets, earth, basket of doz., 50c.

Sprengerij (Emerald Feather). For foliage only; for porch boxes and hanging baskets. Price: 3-inch pots, doz., \$2.50; 4-inch, 25c each \$3.00.

Vinca Vines For foliage only; variegated and green; hanging baskets and porch boxes. Price: 2½-inch pots, doz., \$1.50; 3-inch pots, doz., \$2.25; 4-inch, 25c each, \$3.00.

Tomato Plants Dwarf Champion (Tree). Ready about May 1st. —Bonny Best Greater Baltimore and other leading sorts. Per doz. growing in basket earth, basket, 25c; potted, plants, 2-inch pots. Fancy plants, doz., 50c; Transplanted Plants. Loose in bulk. Doz., 15c; per 100, \$1.00; 1,000, \$9.00.

Asparagus Roots Crowns should be set early in spring or late in fall. Mammoth White or Green Palmetto. Doz. 25c; 100, \$1.25.

Martha Washington Developed by U. S. Department of Agriculture. Immune to rust; long, tender shoots of unexcelled table quality. 35c per dozen; \$1.50 per 100.

Rhubarb or Pie Plant Pink meated. Root division of 2 to 3 eyes. Each, 15c; 4 for 50c; per dozen \$1.00.

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

Write for special price list of plants in spring before planting.

NURSERY

DEPARTMENT

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.

Summer Apples

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. 50c each.

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, 50c each.

Fall and Winter Apples

Wealthy A seedling originated in Minnesota; very hardy; an abundant and early bearer; fruit large, dark crimson; flesh crisp sub-acid, 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. 75c each; 3 for \$1.75; 6 for \$3.50.

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 ft. trees. Specimen stock. 75c each; 6 for \$3.50.

Arkansas Black This is an apple that has lately come to the attention of fruit growers on account of its value as a commercial variety and its remarkable attractive appearance. The tree is vigorous, upright growth. Fruit large, fine flavored, beautiful dark color—almost black; flesh yellow; taste sub-acid; and very crisp and one of the greatest keepers retaining its crispness to the end of the season. Fine for eating in its natural form and at the same time one of the best for cooking purposes. 5 to 6 ft. trees, 75c 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, 50c each; 3 for \$1.40.

Malinda A very hardy yellow winter apple; good keeper, skin rich yellow with pinkish blush on the cheek of the apple. Rich flavored, juicy, with a mild sub-acid taste. Root grafted stock, 5 to 6 ft. trees, 75c each; 4 for \$2.50.

Iowa Blush Originated in Iowa. Tree very fruitful, strong grower. Fruit rather conical, surface smooth, yellow, with bright mottled red blush, white flesh, juicy and rather sub-acid. November to January is the season it is good to eat. 5 to 6 ft. trees, 75c each; 2 for \$1.25.

THE "TRUE DELICIOUS" APPLE

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. 75c each; 2 for \$1.25; 5 for \$3.00.

Winesap Old favorite, vigorous grower, and hardy. Fruit bright red, long keeper. 5 to 6 ft. trees, 60c each; 4 for \$2.00.

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, 75c each; 4 for \$2.50.

Prices quoted are for select, hardy trees, IOWA GROWN, adapted to this climate, 5 to 6 ft specimen stock. SEE NEXT PAGE FOR DWARF APPLES AND CRAB APPLES.

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. $4\frac{1}{2}$ to 5 ft. 75c each.

Large Montmorency Large, red, acid cherry; is larger than Early Richmond and about ten days later. A superior sort for home use. $4\frac{1}{2}$ to 5 ft. 75c each.

English Morello Trees very hardy and great bearer, the most valuable of the late varieties. Fruit large, round; skin dark red, becoming nearly black when fully ripe; pleasant sub-acid flavor when fully ripe. Season, July and August. $4\frac{1}{2}$ to 5 ft. 75c each.

Wragg Originated in Iowa. Large, dark red fruit, dwarfish growth. Very hardy, vigorous growth. Very heavy bearer, fine commercial variety. 75c each.

SWEET CHERRIES

Terry Cherry A hardy production in sweet cherries introduced by the late Mr. Terry, well-known Iowa nurseryman. Not fully equal to the California Black in its fruit but a sweet cherry that is hardier and more lasting and a good fruiter. Very productive, rapid grower, earlier in season than the Richmond, bearing a dark red sweet delicious cherry. Every lover of cherries should have at least one of these trees growing on their place. Price: each, \$1.00; 2 for \$1.75.

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, \$1.00.

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, \$1.00.

PRICES: Cherry, standard varieties, very select, picked trees. $4\frac{1}{2}$ to 5 ft. 75c each; 6 for \$1.00; 12 for \$7.50. Price SWEET Cherries \$1.00 each.

Compass Cherry

Compass Cherry Plum

Absolutely hardy everywhere. Originated in Minnesota. A cross between the Sand Cherry, Morello Cherry, and the Miner Plum. Produces fruit the next year after setting out. Each 75c.

Dwarf Apples

The Dwarfed Apple trees we offer are any of the standard varieties, adaptable to this work, budded on a American Ducine (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 and Delicious, 3 to 4 ft. trees, \$1.00 each.

CRAB APPLES

Florence Crab

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. 75c each; 2 for \$1.25; 3 for \$1.75.

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, 75c; 2 for \$1.25; 3 for \$1.75.

Red Siberian About an inch in diameter, grown in clusters; bears young and abundantly August to September. 75c 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, 75c; 3 for \$2.00.

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, 75c; 3 for \$2.00.

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, \$1.00 each; 3 for \$2.50.

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 flesh. Each, 75c; 3 for \$2.00.

ple 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, 75c; 3 for \$2.00.

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, 75c 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. 75c 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 \$1.40.

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, 75c each per tree; 3 for \$2.00.

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. 75c per tree; 3 for \$1.75.

PEARS

Flemish Beauty The hardest 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. Handsome and surpassing in quality. 75c each.

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, 75c 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.

For hedge size, see page 46.

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 This is the largest known variety of Red Currants in existence. Won the Pan-American Medal at the Buffalo Exhibition on account of its size and excellence. It is a strong, upright grower, prolific bearer, beautiful red berries of finest quality. 35c each; ½ dozen, \$1.75; doz. \$3.00.

Perfection A new Currant, more popular now than Fay's. A heavy berry and very attractive fruit of an unusual bright red color. 35c each; ½ doz. \$2.00; 1 doz. \$3.00.

Fay's Prolific

Diplomat Currant Fruit very large, bright red, and enormously productive.

White Currant Very productive. Sweeter than the red varieties.

Black Currant Very productive. Strong grower.

Prices above: For 2-year, No. 1 standard varieties, 25c each; ½ dozen \$1.25; dozen \$2.25. 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. Berries do not drop off of the bush but remain there until they are dead ripe and dried up, some six to eight weeks from the time they are fit to use until they are all gone.

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. \$3.50.

Carrie Originated in Minnesota. Fruit red. Very heavy bearer. Medium size berry. After the third year the bush loses its thorns. Price: each, 25c; per dozen, \$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.

BLACKBERRIES

LaGrange

This blackberry is of Russian origin, is the hardiest berry yet produced. Splendid transplanted plants, strong roots. Price: 15c each; 6 for 60c; \$1.00 per dozen.

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

Bartel's Dewberry

Is hardier than any blackberry in any dry or cold climate—a grand delicious fruit. Each, 10c; doz. 75c; per 100 \$4.00.

La Grange Blackberry

RASPBERRIES

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. Each, 10c; 75c per dozen; 3 dozen \$2.00; per 100, \$5.00.

Sunbeam Originated by Professor Hansen of Brookings Agricultural College. It is a powerful grower with very heavy foliage. Price each, 10c; per dozen, 75c; \$5.00 per 100.

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. 10c each; 75c per dozen; \$3.75 per 100.

Columbian Raspberry

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. Per dozen, \$1.00.

Cumberland Largest of all Black Caps; healthy vigorous grower, stout, stalky, well branched canes that produce immense crops. Per doz. 75c; per 100, \$3.50.

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.; \$15.00 per 100.

Caco Grape

Caco (Red Grape)—A variety of recent origin and widely heralded as the very best red grape known. We have been handling it for some three or four years and find it to be hardy and of safe winter endurance for this latitude. The unique name has its derivation from a combination of the first syllable of the Catawba grape and the first two letters of the Concord as the second syllable of the name Caco. 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 diseases 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 often showing several good sized bunches of fruit the second year after planting and ripens the last half of August. Its flavor is very delicious, sweet, delightful and distinctive. We highly recommend it for a home garden variety as well as for commercial use. **Price:** 75c each; \$5.00 per dozen. Special price in large quantities.

Concord The most popular grape in America. Bunch large shouldered, compact; berries large, covered with a rich, dark bloom. No. 1 2-year-roots, 25c each; \$2.00 per doz., 25 for \$3.50; 50 for \$7.50; 100 for \$12.50. Special prices in large quantities.

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 unobtrusively 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, 35c each; per 6, \$2.00; per doz. \$3.50. See picture outside back cover.

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 50c; per 25, 75c; per 100, \$2.50.

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 in bunches of 25, 50c per bunch; per 100, \$1.50; per 1000, \$10.00.

JUNE BEARING STRAWBERRY PLANTS

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. Nine berries make a layer in full quart boxes. 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, \$8.00.

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. Like the early Warlap it is the last word in late bearing. With these two varieties one can lengthen out the season of strawberries at both ends. Plants per 25, 50c; per 100, \$1.50; per 1000, \$12.00.

Michael's Warlap This strawberry comes to us with recommendation that it is the earliest strawberry known. The out-

standing feature of this strawberry is its earliness; it is the last word in earliness. The plants are extra hardy, medium size and free from disease. A perfect flower, fruits alone, immensely productive and ripens ten days ahead of the early Premier. The plants resemble both the Warlap and the Dunlap and as we understand it, it is a bud of the Warfield. Plants per 25, \$1.00.

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; \$1.00 per 100; per 500, \$4.50; per 1000, \$7.50.

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. The foliage is tall, bright green, upright with a long leaf. Plant with Warfield. Per bunch of 25, 25c; 80c per 100; per 500, \$3.50; per 1000, \$6.00.

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 blooms 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. 2 to 3 feet, 75c each.

Almond Double Flowering White. Like above but with snowy white flowers. 2 to 3 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. 15 to 18 in. size, 75c each.

Barberry Thunbergi 2 to 2½ ft. 30c each. See page No.—for hedging size.

Butterfly Bush (*Veitchiana*) This is a very attractive shrub that matures full size the first season making a handsome bush. Blooms beautiful lilac colored flowers. Single plants first year will grow out as many as fifty flowering spikes. Specimen plants, 35c each; 3 for 75c.

Cherry (Flowering) Japanese Weeping Ornamental Flowering Cherry. A weeping form of shrub with pendulous willow limbs drooping to the ground. A beautiful shrub when covered with a rosy mass of blossoms in early springtime. Price: \$3.50 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, 50c each.

Crab (*Bechtel'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: 3 to 4 ft., each, \$1.00.

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, 3 to 4 ft., 40c; 5 for \$1.50.

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, Suspensa (*Golden Bell*). These splendid old shrubs light up the lawn with masses of yellow, very early in spring before the leaves appear. 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 35c; 3 for \$1.00; 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. 60c; 6 for \$3.50; 3 to 4 feet. 75c each; 3 for \$2.00.

Hydrangea Arborescens Everblooming. Sometimes called Everblooming Snowball. This new American variety begins blooming in June and continues all season. Very easy of culture and hardy. Blooms best if flowers are clipped before ripening. 2 to 3 feet, each 60c; 6 for \$3.50; 3 to 4 ft. 75c each.

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, 3 to 4 ft., 75c; large clumps, 5 to 6 ft., 5-year-old, \$2.50 each.

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, \$2.00 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., \$1.50.

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. 3 to 4 ft. Each, 75c.

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 50c. Large clumps, 5 to 6 years old, 3 ft., \$2.00 each.

Snowball (*Virburnum 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. 75c 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, 30c; 6 for \$1.50.

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.

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., 75c 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, 50c.

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. 2 to 3 feet. Each, 75c; 3 for \$2.00.

Syringa Philadelphus (*Coronarius*). (*Mock Orange*). Is one of the strongest-growing varieties with very fragrant flowers. Price: 3 to 4 ft., 50c each; large 5-yr. clumps, \$2.50 each.

Tamarix Africana 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 ft., 35c each.

Weigelia (*Eva Rathke*). The finest *Weigelia* in cultivation; flowering continuously throughout the summer and autumn; of rich ruby carmine, 2 to 3 feet, 75c each.

Lilacs

Do you love the lilac? If so we have something rare and beautiful. Best beloved of the old time flowering shrubs which grows into a high bush with bright green, heart-shaped leaves, whose flowers never fail to charm with their delicate beauty or refresh with their tender fragrance. Can be used to good advantage in making an effective background for smaller shrubs. Hardy everywhere. New varieties are occasionally produced with a deeper coloring and larger form. Our list comprises some of these magnificent sorts.

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, \$1.00 each; tree form, 3 to 4 feet, \$1.50.

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. Per each, 75c.

Souvenir de Ludwig Spaeth A choice variety with long panicles of single flowers; darkest of the deep purple blue shades. Price: 3 to 4 feet, each, \$1.00; tree form, 3 to 4 feet., \$1.50.

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., \$1.00. Persian purple, 3 to 4 ft. 75c.

Lilac Common or the old-fashioned lilac, which grows into a very high bush. Common purple, each, 3 to 4 ft. 50c; common white, each, 3 to 4 ft. 50c.

Spirea

Spirea 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. \$2.00. See page 41 for hedge sizes.

Spirea (*Anthony Waterer*). The grand ornamental hedge shrub; grows about 2½ feet high; dwarf, compact bush; deep crimson flowers from June until frost. Price: 18 to 24 inches, each, 50c; 6 for \$2.75.

Spirea Billardi Rich pink colored flowers in large spikes; blooms nearly all summer. Very pretty and showy and splendid for cut flowers. Grows 6 feet high. Price: 2

Froebeli 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; 4 for \$1.00; \$2.75 per dozen.

Spirea Van Houttei (Bridal Wreath)

Spirea Aurea A beautiful variety with golden foliage and double white flowers in June. Per each, 3 to 4 feet, 40c; large clumps, \$1.50 each.

HEDGE SHRUBS

Barberry Thunbergi Of dwarf graceful habit; foliage small, changing to beautiful red early in fall. 15 to 18 inch size, per dozen \$2.00; per 100, \$15.00. See page 39 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, \$12.50 per 100.

Cotoneaster This ornamental shrub, used extensively for hedges in the north, we quote as follows. 18 to 24 inches, per dozen \$2.50; per hundred, \$20.00. See page 39 for larger sizes.

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 \$1.00 per dozen; 18 to 24 inches, \$6.00 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 100, \$12.50. **Ibodium Privet**, much like above but richer foliage. 18 to 24 inch, same price.

Spirea Van Houtti (*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. Price in quantity on application.

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; 4 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: 75c each; 3 for \$2.00.

Dutchman's Pipe *Sipho*. A plant of climbing habit and rapid growth, with magnificent light green foliage, curious, pipe-shaped, yellowish brown flowers. Price: \$1.00 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; 3 for \$2.00.

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; 3 for \$2.00.

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.

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. 50c 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. Planted in the springtime they soon grow to cover up the lattice or whatever they may be trained to grow on and grow to a height of as much as twenty-five feet or more; producing during the later summer and fall great foamy sprays of creamy white flowers suggesting, when in full bloom, a frost effect. 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.

Matrimony Vine (*Lycium Vulgare*) A very neat half climbing plant with a drooping effect which makes it especially useful for covering terrace walls when planted on the terrace at the top of the wall. It bears small light pink flowers in summer with berries which turn to be a beautiful scarlet in the autumn, producing a very ornamental effect. Price per each, 25c; per doz. \$2.50.

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 with a delightful fragrance. Potted plants in full foliage, 4 inch pot size 35c each, 3 for \$1. See page 19 for seed.

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. Price: 40c each; 2 for 75c.

Wild Grape Vine Besides being fruit-bearing a great viner and very hardy. Cultivated vines. Price: 35c 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.

Moline Elm

Elm Moline. A columnar type of our native Elm developed at Moline, Illinois. Tree grows compact with upright limbs like unto Lombardy Poplar. This is a new thing in Elms; hardy and enduring and as rapid a grower as our native variety. 8 to 10 ft. size per each \$2.50.

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 \$1.50; 10 for \$12.50; 1½ to 2 inch caliper, \$3.00 each; 8 to 10 ft. f.o.b. Iowa growing stations, \$1.00.

Hackberry A very desirable street tree of stately appearance and graceful foliage. 8 to 10 ft., \$1.50 each.

Horse Chestnut (Castanea). White flowering. A fine large tree of compact outline, dense dark green foliage. In June covered with white flowers. 5 to 8 ft., \$1.75 each.

Linden A handsome lawn or shade tree. The blossom is very fragrant and sweet. Price: 8 to 10 ft., \$2.00 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, \$2.00 each; 2 for \$3.50.

Poplar Bolleana A tall columnar tree of picturesque and very formal aspect. A very rapid growing and hardy tree, long lived, leaf bicolor, surface light green under side silvery gray with pleasing most stately tree. 8 to 10 feet, \$2.00 each; 5 for \$7.50.

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., \$1.25 ea.; 5 for \$6.00; 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. \$1.25 each; 3 for \$3.00; 10 for \$9.

Sycamore A lofty, wide-spreading tree, heart-shaped leaves. Makes a fine street tree. 8 to 10 ft., \$1.25 each.

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 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, \$3.00 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, \$3.50 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, \$1.25 each; 6 ft. size 2 year old head, each, \$2.00.

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, \$4.00 each.

Wisconsin (Weeping Willow). A tree with beautiful weeping branches, making a fine lawn tree for a background. It grows very rapidly. Similar to Babylonica but much hardier. Price: 6 to 8 ft. 50c each; 3 for \$1.25.

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 50c; 3 for \$1.25.

Weeping Mulberry

ROSES

Our Rose Department Is a Dream

We handle nothing but the very hardiest varieties and the very finest bloomers. Many varieties are too tender for the Northwest. Hothouse roses are worthless for outdoor planting—ours are field grown, are more easily transplanted, and hardier. Before planting roses cut them back severely. Our stocks of roses are all 2-year No. 1 powerful roots.

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, 60c each; 3 for \$1.60.

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, 75c; 2 for \$1.35; 6 for \$3.50.

Paul Neyron

(World's Most Glorious Pink)

Paul Neyron The largest rose in cultivation, sometimes called the Paeony 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 stock, 60c; 3 for \$2.00.

American Beauty The world famous rose. Rich, rosy-crimson, exquisitely shaded. A universal favorite. Not hardy. Price: 2-year No. 1 stock, 75c 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." \$1.00 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, 60c 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: each, 2-year No. 1 stock, 60c; 3 for \$2.00.

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, 60c each.

Rambler Roses

(C. P.) This grand old climber hardly needs description. The magnificent trusses of bright crimson flowers are freely produced and admired by everyone. Very hardy and a strong grower. 2-year-old. No. 1 stock, each variety.

Crimson Rambler, 50c
White Rambler, 40c.
Yellow Rambler, 50c
Blue 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.

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, 75c.

Rugosa Roses

Groostendorst (A new Hybrid Rugosa). Rosa Rugosa Rubra, a cross on Crimson Baby Rambler; regular Rugosa foliage, blooming character that of the Baby Rambler. Blooms bright crimson flowers in clusters, beginning in May and continuing to bloom all summer until autumn frosts. An all summer rose. Price 75c ea.

Conrad F. Meyer (Hybrid Rugosa). Flowers large, perfectly double, cup-shaped. Color, deep, bright, vivid, intense pink, with a penetrating fragrance. 2-year No. 1, each 75c.

Sir Thomas Lipton (Hybrid Rugosa). The best pure white Rugosa Rose. Strong and vigorous; grows four feet high. Flowers perfectly double, pure snow white, with a penetrating fragrance. Price, 2-year-old No. 1, each, 75c.

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. Rugosa, single red; Rugosa, single white. 2-year No. 1 field grown, 35c each, 3 for \$1.00; per doz. \$3.00.

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 when weather conditions are such that they can be planted outdoors from about the 1st to 10th of May at earliest. They will then continue to bloom all through the Summer and Fall.

Would also include in these Potted Roses in foliage the well known Crimson Rambler, one of the best and most popular climbers, and among the others is the well known 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.

Hugonis This is a distinct variety of yellow flowering roses, native of China. Flowers, pale yellow, with delicate fragrance, about 2½ inches across. Foliage, small, pale green and distinct on red-tipped twigs. It is a vigorous grower, blooms early and very profusely. One of the best shrubs for general garden use and reaches a height, when matured, of 4 to 6 feet. 2-year field grown stock. Price 65c each; 2 for \$1.25.

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, 50c each; 3 for \$1.25.

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 Neil). 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.

HYBRID TEA ROSES

Madam Butterfly A Hybrid Tea Rose with a strong growth and large flowers. Color: bright pink suffused with apricot and gold. Foliage: abundant, very vigorous, upright and bushy. Profuse and continuous bloomer. Price each, 75c.

Hoosier Beauty Dark red flower. Long slender buds. Full size, fine and velvety texture. Perpetual bloomer. Price each, 75c.

Baby Roses

Dwarf Polyantha Roses

Baby Rambler The flowers are borne in clusters to 30 or 40, and the foliage is dark, glossy and profuse.

Crimson Baby Rambler, 60c each.

Pink Baby Rambler, 3 for \$1.50.

White Baby Rambler, 3 for \$1.50.

Cemetery Roses

Memorial White Rose, Mandy's Triumph. (Wichuraina). This rose makes a beautiful and enduring covering for graves and plots in cemeteries. A very hardy Memorial Rose. 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, five to six inches in circumference. It is also immensely valuable as a climbing rose, covering arches, fences, etc. 2-year No. 1, each 50c; 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."

Black Hills Spruce

(Picea Alba). This has grown in the Black Hills for many generations. It is admirably equipped for the western prairies, easily transplanted and altogether it is very desirable for the general planter. Specimen trees dug with ball dirt burlapped, nursery grown.—1½ to 2 ft. \$1.50; pair for \$2.15; 2 to 2½ ft. \$2.75; per pair, \$5.00; 3 to 3½ ft., \$5.00. Native forest grown Black Hills Spruce direct from the Black Hills forests taken up with ball dirt and burlapped; nice stock, per tree 2 to 3 feet, \$1.50 each; 3 to 4 feet, \$2.00 each.

Black Hills
Spruce

Blue Cedar (Juniper Glauca)—This variety of the cedar is the same in form, growth and shape, largely, as the ordinary Red Cedar. It is broadly conical in form with a beautiful glaucous blue foliage that makes it distinctly different in appearance of foliage from the common Red and one of the choicest of all the Junipers for ornamental effect. Price: 2 ft. size, \$2.50 each.

ORNAMENTAL STOCK

Specimen Trees

Colorado Blue Spruce (Picea Pungens). It is extremely hardy and endures well the sun and drying winds. The needle is very sharp pointed and varies in color from a delightful green to a deep blue. Specimen trees, select blue, B. & B. 1½ to 2 ft. each, \$5.00; per pair, matched, \$9.00; 2½ to 3 ft. \$9.00; select green 2½ to 3 ft. \$3.50 each.

Mugho Pine (Dwarf). Very distinct and does not grow tall but has a dense spreading form. Per each, diameter measure 1½ feet spread, B. & B. \$3.00 each; 2½ to 3 ft. spread, \$8.00, each.

Arbor Vitae (Pyramidalis). This beautiful Arbor Vitae is the most compact and erect of the entire species. Specimen trees, 2 to 3 ft. B. & B., \$3.50 each; 3 to 3½ ft. \$5.00. Siberian 1½ to 2 ft. \$2.50 each. Chinese 2 to 3 ft. \$3.00 each.

Red Cedar (Juniper Virginiana). The well known American Red Cedar. Sheared conical form. Specimen trees, 2 to 3 ft. B. & B. \$3.00 each; 3 feet, each \$4.00.

Evergreen Seedlings

Transplanted Nursery grown stock and Forest Grown Stock.

Black Hills Spruce This variety of (Picea Alba), has come to stay as a great wind-break Evergreen for the North and all exposed locations. Easiest and safest to transplant of all Evergreens. Most certain to live. Native Forest grown from the Black Hills. 12 to 18 in. size (Shipping weight about 25 lbs.) \$8.00 per 100. 18 to 24 inch (shipping wt. about 40 lbs.) \$12.00 per 100. f. o. b. Black Hills points in South Dakota. Sold only in 100 lots. Nursery grown stock seedlings, 6 to 8 inch, \$7.50 per 100.

Balsam Fir (Abies) (American Silver Fir)—A very regular symmetrical tree assuming a most attractive conical form. Even when yet young it takes on this manner of growing and grows to a height of 50 to 75 feet and makes one of the most attractive evergreens that there is among the fir family. The foliage is, of course, the fir type with dark green needles on the upper side and silvery grey on the underneath side. When transplanted once or twice before being planted out where it is to be permanently grown it is a very easy evergreen to get started to grow. Price: For seedlings, nursery grown, once transplanted, 6 to 10 inches high, 35c each; 10 for \$3.00; \$25.00 per hundred. Nursery grown, twice transplanted, 12 to 15 inches, \$2.50 each.

Norway Spruce (Seedlings)—8 to 10 inches, \$6.00 per hundred.

Colorado Blue Spruce (Picea Pungens). The glory of the Colorado Blue Spruce surpasses all other evergreens. Its bewitching, fairy-like, intense, beautiful blue commands the admiration of all who behold it. In winter as well as summer its halo of azure is ever the same. They are well packed in moist mountain moss for express shipment. One hundred of these seedlings will soon make a nice block of evergreens and with fair treatment you will get at least 80 to 90% of them to grow. Price F. O. B., Colorado growing station, small 2 yr. 2 to 3 inch, \$5.00 per 100; 6 to 12 inch size, 25 for \$6.00; 50 for \$10.00 and \$18.00 per 100. 12 to 18 inch size, 25 for \$10.00; 50 for \$18.00 and \$30.00 per 100.

Jack Pine (Pinus Divaricata). The most northern of all American Pines. Extremely hardy and vigorous, withstanding long droughts and hot, dry winds. Foliage bright green, needles short and stiff. For a windbreak it should be planted closer than the Scotch Pine. Nursery grown seedlings, 8 to 10 inch, \$7.50 per 100. Nursery grown transplanted stock 18 to 24 inch, \$17.50 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

RIVER GROWN		2 to 3 ft. Per 100		Per 1000	NURSERY GROWN		2 to 3 feet	
							Per 100	Per 1000
Ash			\$2.00	\$10.00	Box Elder		\$2.00	\$15.00
Elm			2.00	10.00	Mulberry (Russian)		2.50	20.00
Maple			2.00	10.00	Black Walnut		5.00	40.00
Cottonwood			1.00	5.00	Catalpa		2.00	15.00
Willow			1.00	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 quoted are 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.

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 and vegetables that are crisp and delicious in flavor, leafy shrubs and trees. Use 2 to 4 lbs. per hundred square feet. Instructions on each bag. Price: 25 lb. bag, \$1.75; 50 lb. bag, \$3.00; 100 lb. bag, \$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 lb. bag 85c; 25 lb. bag \$1.75; 100 lb. bag \$5.00.

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 500 square ft.; for acid 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. Where delivery is required, expense of delivery added.

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: Small lots, 10c per lb.; 25 lb. lots, 7½c per lb.; 100 lbs. or over, \$6.50. Special price on bale lots.

Restores and Maintains Soil Fertility

Alfalfa, clovers, soy beans, vetches, peas, beans, cowpeas, peanuts, and other legumes, should always be inoculated with Nitragin. The lack of necessary bacteria in the soil is often the cause of a poor legume crop—a weak start—or a total failure.

Nitragin is an old, reliable inoculator. At the low price of 20 to 33 cents per acre you cannot afford to sow legumes without it. Nitragin is put up in the modern ventilated package; in a rich, soil-like packing medium. The contents are always fresh, living bacteria to feed your plants. Easy to use.

EVERY GARDEN NEEDS NITRAGIN

New Garden Culture for Peas and Beans—See Below

¼ Bushel size.....	40	Postage.....	4c
½ Bushel size.....	60	Postage.....	5c
5 Bushel size.....	4.75	Postage.....	7c
1 Bushel size.....	\$1.00	Postage.....	10c
Garden (peas, beans, sweet peas —three in one package).....	20	Postage.....	2c

\$6.50 Value for Only \$5.00 Our season's best offer is \$3.50 worth of garden seeds, plants and nursery stock and a \$3.00 magazine, all for only \$5.00. Garden and Home Builder is a large and handsome magazine devoted to gardening, home building, interior decorating, etc. This generous offer saves you \$1.50 and brings a welcome visitor to your home every month during the coming year. Order now while the bargain is in force.

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. Prices: 1b. pkg., 25c each; 5 lbs. \$1.00; 10 lbs. \$1.75; 20 lbs. \$3.00.

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. 35c each, 3 for \$1.00.

All Round Latest up-to-date spray. Destroys sucking insects, chewing insects, blight and fungous 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.

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 aphids, fleas, beetles, etc., also for insects in the ground. 1b. 15c; 5 lbs. 35c; 10 lbs. 60c; 100 lbs. \$5.00.

Bordeaux Mixture The best fungicide for curing and preventing black rot, mildew and blight. Price: 1b., 40c; 3 lbs \$1.

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; $\frac{1}{2}$ lb. can, \$1.25.

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.

Tree Tanglefoot A perfect safeguard for trees against the Caterpillar of the Gypsy, Brown Tail and Tussock Moth. Price: 1 lb. cans 50c each.

Bug Death A non-poisonous chemical composition for use on currants, gooseberry, cucumbers, potatoes and garden truck, generally prevents blight. Price, 1b. 25c.

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.

MERCURIAL DISINFECTANTS

BAYER DUST—Seed Disinfectant

FOR SEED CORN, POTATOES, VEGETABLES

Treat your seed corn with Bayer Dust before planting. It prevents costly diseases that lower germination, reduce yield and cut growing profits. Bayer Dust treated seed corn permits of earlier planting, produces sturdier stalks, larger ears and a better quality of corn. It is quickly and easily applied. Simply dust the seed with Bayer's Dust and plant. One pound treats 6 bushels of seed. Full directions on every package. Four ozs. 50c; 1 lb. \$1.75; 5 lbs. \$8.00; 25 lbs. \$37.50.

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.

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 to wood, brick, stone, cement, plaster board, etc., and 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		

White Wash A ready mixed white wash produced by a special process. It disinfects, whitens, brightens, purifies, sweetens and deodorizes. A 5 lb. package white washes 450 square feet. Price: 5 lbs. 50c. Ask for **LUCKY LIME AND WHITEWASH**.

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. 6 lbs., 25c; 50 lbs. \$1.75; 100 lbs. \$3.15.

Eureka This is a food intermediate between the Starter and the Acme Scratching Food. (For chicks from two weeks to two months old). 6 lbs. 25c; 50 lbs. \$1.75; 100 lbs. \$3.15.

Acme (Scratch Food). Combination of Wheat, Kaffir, Cracked Corn and various other rich cereals. All food and no waste. 6 lbs. 25c; 100 lbs. \$2.90.

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. \$1.25.

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., \$1.25.

PRATTS PRODUCTS

PRATTS BUTTERMILK BABY CHICK FOOD

Made of sweet, wholesome, purest ingredients in the most modern poultry feed mill in America and mechanically predigested, it is life insurance for chicks. Every ounce is full of bone, muscle, feather and health builders. You'll pay for the food in the chicks you'll save.

Equally good for young turkeys, guineas, ducks, pheasants and game birds. A perfect "baby food" for young fowls.

Sold at the following prices: 50c pkgs; 14 lbs. \$1.10; 25 lbs. \$1.75; 50 lbs. \$3.00; 100 lbs. \$5.50.

Pratt's Victory Laying Mash 50 lb. sacks, \$2.50; 100 lb. sacks, \$4.75.

Pratt's Growing Mash 50 lb. sacks, \$2.50; 100 lb. sacks, \$4.75.

Pratts Poultry Regulator 25c, 50c, \$1.10 packages; 12 lb. pail, \$1.65; 25 lb. pail, \$3.00; 100 lb. drum, \$10.00.

Pratts Powdered Lice Killer In sifter top cans at 25c and 50c.

Pratts Condition Tablets Keep them on hand always. 25c and 50c boxes

Pratts Roup Tablets 25c and 50c packages.

Pratts Poultry Disinfectant Qt. 55c; half gal., 90c; gallon, \$1.50.

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.

JUSTRITE FOODS AND REMEDIES

For song birds are recognized by all fanciers as the best on the market.

Justrite Bird Gravel	15c
Justrite Bird Tonic	35c
Justrite Color and Pepper Food	25c
Justrite No. 2 Cattlebone, 2 for	15c
Justrite Egg and Nesting Food	20c
Justrite Honey Roll	15c
Or 2 for	25c
Justrite Lice Powder	15c
Justrite Moulting Food	20c
Justrite Song Restorer (Cans)	25c

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.

BIRD SEED

Canary seed	1 lb. 15c; 10 lbs. \$1.25; 100 lbs. \$12.00
Hemp Seed	1 lb. 15c; 10 lbs. \$1.00; 100 lbs. \$ 9.00
Rape seed	1 lb. 15c; 10 lbs. \$1.25; 100 lbs. \$11.00
Mxd. bird seed	1 lb. 15c; 10 lbs. \$1.25; 100 lbs. \$11.50
Sunflower seed	1 lb. 15c; 10 lbs. \$1.25; 100 lbs. \$ 9.00

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 goller 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.

The New Way to Spray

The Standard Spray Pump

Auto Spray—Is probably the most powerful bucket pump manufactured. The ease with which this pump can be operated is very noticeable, \$3.50.

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. No leather washers or sockets. No castings to rust. No leaky joints. Nothing to get out of order.

Price \$5.00 each

Warranted to Purchaser for Five Years

Hudson Midget—Best small Sprayer made.
Price 35 cents

PLANT SUPPORT

For shrubbery, tomatoes, dahlias and other tall growing plants. Made in different sizes. Price on application.

Pruning Shears, \$1.00 each

down nozzle. Price each, \$2.00.

Handiest Tool on Earth. Per each, 30c.

Cyclone Seeders

It is especially designed for distributing evenly all kinds of grain as well as every variety of grass seed. Price: \$2.50.

PLANT MARKER

A practical metal plant marker that will last a lifetime. Formula for indelible metal ink furnished free. Price, 4 for 25c; doz. 75c; per 100, \$6.00.

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 each \$5.50.

Hudson Long Stroke Liquid Sprayer
Price 75 cents

HOME GARDEN PLANTER

This is a planter for the home garden. It plants the seed just as you want it so that thinning out is not necessary. It plants the rows so straight that it saves time in cultivating the crop. It will save you back breaking labor of planting your seeds. The cost is so low that you can not afford to be without it.
Price, each, \$6.50.

Planet Jr. Garden Planters

Special Cut Price. Subject to change without notice.

No. 4D Planet Jr. Combined Hill and Drill Seeder. As Seeder only, \$12.50, complete \$16.50 each.

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow. \$18.00 each. Weight, packed, 61 pounds.

Little Wonder Duster The Little Wonder is a hand duster for flowers, rose bushes and plants around the garden. It is also suitable for using roach powder or for dusting dry insect powder. It is made of heavy tin with up and

SEED CORN

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Iowa
Silvermine
White Dent

Improved
Reid Early
Yellow Dent

Northwest Dent

Krug Corn

WANETA PLUM
(Hanson Hybrid)
See page 34.

**BETA
GRAPE**
See page 36

**EARLY
RICHMOND
CHERRIES**
See page 33

MASTODON
(Everbearing
Strawberry)
See page 37

MICHAEL SEED STORE,
316 Pearl Street, SIOUX CITY, IOWA
Phone 88666

Campbell Printing Company, Des Moines, Iowa