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Our Seeds Grow

CATALOG
1919



*Red,
White,
and
Yellow
Globe
Onions*



Earliana Tomato



*Copenhagen
Market
Cabbage*



*Golden
Wax
Beans*

Barkemeyer Grain & Seed Co.
Great Falls, Montana

Office
523-525 Ford Building

Warehouse
15th St. and 11th Ave., North

Barkemeyer Grain and Seed Co.

Great Falls, Montana



Just a Word to Our Customers.

With considerable pride and pleasure we present you with this our fourth annual catalog.

The past year has been one of hard work and progress; just the way we like it.

The increase has been so great that we have been compelled to build a new seed warehouse and cleaning plant in order to take care of our customers. Pictures and descriptions of these you will find on the opposite page.

The war is over but the need of increased food production is as great as ever. Good seeds are the foundation of all food production.

Our past years of experience have enabled us to eliminate from our stock and catalog all varieties of seed which are not well adapted to our rigorous Northwest climate.

Great care is taken in selecting, cleaning and testing all of our seeds and in so far as it is possible to obtain them, we sell nothing but Northern Grown Seeds.

If you favored us with an order last year we thank you very much and hope it was entirely satisfactory. If it was not write us now. If you did not order, may we have the pleasure of numbering you among our list of friends and customers this year? We want to please you and give you full value for your money. Give us a trial.

What Our Glacier Brand Stands For

When you see the picture of the Glacier in our "Glacier Brand" trade mark you immediately think of this section of Montana where plants must be strong, vigorous and hardy in order to produce a crop. To produce such plants requires the very best of Northern grown seed. When you buy a packet of seed bearing this brand you may depend upon it being the best obtainable.

BARKEMEYER GRAIN & SEED CO.

General Suggestions

ERRORS. We exercise the utmost care in filling orders, but in the rush of our busy season, errors will sometimes occur, in which case we shall appreciate being advised of the fact at once and proper correction will be promptly made. Please keep copies of your orders for comparison.

SEEDS BY EXPRESS OR FREIGHT. At prices quoted, we deliver seeds to Express or Railroad Depot in Great Falls. On everything quoted by the ¼ bu., bu., or 100 lbs., purchaser in every instance is to pay the transportation charges. Please give full shipping instructions. In the absence of these particulars, we will use our best judgment.

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

DISCLAIMER. As seeds, plants and bulbs are subject to climatic and other conditions over which we have no control, after once being placed in the ground, therefore, Barkemeyer Grain & Seed Co. give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, plants or bulbs they send out, and they will not be in any way responsible for the crop, and every order for articles named in this catalog will be executed on these conditions only. If the purchaser does not accept same on these terms, they are at once to be returned.

ORDER EARLY. It will be a great convenience both to our customers and to ourselves if orders are placed early. The aim is to fill orders the same day received, but during the rush season this is not always possible—thus the advantage in ordering early.

SEEDS BY MAIL. Our prices include the prepayment of postage by us on all seeds ordered by the packet, ounce, ¼ lb., ½ lb., and lb., except pound lots or more of Peas, Beans and Sweet Corn, which are shipped at purchaser's expense for transportation.

PRICES. The prices named herein are those prevailing at the time this catalog goes to press at Great Falls and are subject to market fluctuations in value. For prices on Grass and Field Seeds, see the Price List enclosed in this Catalog, or a new one will be sent any time, upon request.

HOW TO SEND MONEY. Money can be sent safely either by P. O. order, bank draft, express draft, express order or registered letter. If your order amounts to \$1.00 or more, it is best to send by one of the above methods. Postage stamps taken in amounts less than one dollar. Never send coin in the mail unless in registered letter.

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

Parcel Post Rate

WEIGHT LIMIT. The weight limit within the first and second zones is now 70 lbs., and within all other zones 50 lbs.

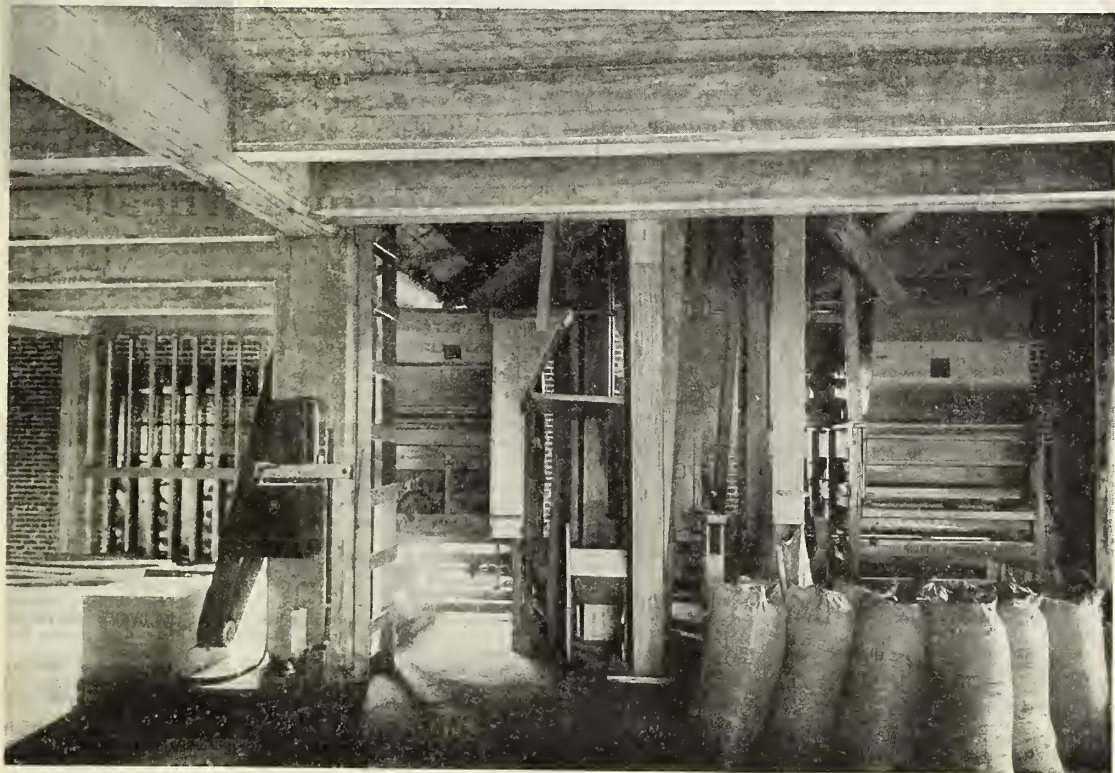
DOMESTIC PARCEL POST RATES WITHIN THE U. S. AND POSSESSIONS. RATES FROM GREAT FALLS, MONT.		First Pound or Fraction	Each Pound	Additional Pound or Fraction
First Zone, within 50 miles.....		5c		1c
Second Zone, within 50-150 miles.....		5c		1c
Third Zone, within 150-300 miles.....		6c		2c
Fourth Zone, within 300-600 miles.....		7c		4c
Fifth Zone, within 600-1,000 miles.....		8c		6c
Sixth Zone, within 1,000-1,400 miles.....		9c		8c
Seventh Zone, within 1,400-1,800 miles.....		11c		10c
Eighth Zone, all over 1,800 miles.....		12c		12c

OPENING PRICES OF FIELD SEEDS ARE GIVEN ON SPECIAL SHEET ENCLOSED IN THE FRONT OF THIS BOOK. THEY ARE SUBJECT TO LATER CHANGES.

Our New and Modern Plant



Warehouse, Where Seeds are Kept Ready to Fill orders of Customers.



Cleaning Plant, Equipped with Special Machinery for this Purpose.



Field of Swedish Select Oats.

Barkemeyer Grain and Seed Company's Northern Grown Selected Field Seeds

If you are interested in Field Seeds, please ask for our semi-monthly price list, which will be promptly mailed. On account of the great variation in prices during the season, no values are given on field or grass seeds. Ask for prices when you are ready to purchase. It will be to your interest to place your order early before prices advance or stocks become exhausted.

Montana Oats

Montana oats are noted for their large yield, quality and hardness, outranking and taking prices over oats from many other states. Besides being Montana grown, our oats are carefully selected, free from all foul seeds and the very best quality obtainable.

AMERICAN BANNER OATS are noted for their earliness, productiveness, and uniformity of ripening.

It will be noticed with most oats that when the great body of them is ripe there are many small immature oats which do not fill out and are lost in threshing. The American Banner are superior in this particular because practically all of them ripen at the same time. This feature adds approximately 10 per cent to the yield.

We have secured a very choice lot of these oats and after thoroughly reselecting them we feel free to recommend them to you to be as good as any seed oats you can secure.

THE SWEDISH SELECT oats were originally quite a late variety made early by growing in the high altitude in which they are developed. They are an improved strain of Swedish Oats, will mature early and in yield are far superior to Swedish.

We know of instances where 110 to 120 bushels per acre have been harvested under favorable conditions. Under ordinary growing conditions, however, a yield of 50 to 75 bushels is quite certain.

Quality of the grain is also superior to ordinary oats, the kernels being plump and very heavy.

The Swedish Select Oats which we are offering have been bred to such a high state of perfection that they usually test from 40 to 44 pounds to the measured bushel. We recommend these oats and feel sure they will give satisfaction.

Marquis Wheat

Pronounced by both farmers and millers the finest for the northwestern spring wheat territory. It is a week to ten days earlier than Blue Stem or Red Fife Wheat. These ten days mean much, avoiding rust, smut, hot winds and lodging.

Marquis is a beardless wheat, having smooth, yellow chaff. The kernel is flinty, very dark red and more plump than Red Fife. It weighs 64 to 66 pounds per bushel.

Considering the increased yield, finer quality and earliness of Marquis Wheat, the first cost of the seed is returned many times over in additional value which may be secured for the crop.

Marquis Wheat has out-yielded all other spring wheats grown under the same conditions of soil, cultivation and climate. The increased yield varies from 5 to 10 bushels per acre. Threshing reports from the three big, hard spring wheat states this past season indicate the same favorable increase in yield of Marquis over other varieties, as has been the case every year since Marquis was introduced.

Marquis Wheat has, by numerous milling tests, shown a higher percentage of gluten, a better color, greater absorption of heavy weight per bushel of grain. This question of quality is of great importance to the winter grower when he comes to dispose of his crop at the mill or elevator. Almost without exception, Marquis Wheat will grade No. 1, Hard.

The seed which we offer is Montana grown, having originally been brought to this section from Canada. It is pure, reselected stock selected from growers' crops who have paid special attention to getting pure seed.

Therefore, we feel free to say that it is fully equal, if not better, than any seed coming from Canada or other states.

Plant only the best seeds even if they cost a little more. One dollar invested in good seed will mean several dollars return at harvest time.

Durum Wheat

MACARONI OR DURUM WHEAT. The acreage of this variety is increasing every year as the milling demand grows. It out-yields by far any other variety of spring wheat and it has been demonstrated that it makes bread superior to that made from the best Fife Wheat flour, and has proved to be practically immune to the dreaded rust. In growing it resists extremes of weather, which no other wheat will endure.

In the field this wheat grows very strong and with surprising rapidity so rapidly as to get well ahead of the weeds. It does not shell or bleach; is almost hail-proof owing to the tightness of the hull. The straw is very strong.

There are many varieties of Durum Wheat, but after a careful study of the fields and yields in Montana we have arrived at the conclusion that the Black Bearded or Peilster is the very best variety.

It is a Black Bearded wheat with a large hard kernel and during the past season has produced the largest yields known in Montana.

The seed which we are offering is pure stock raised on new land in the vicinity of Great Falls. This wheat is very choice quality, having been thoroughly re-cleaned in our warehouse.

Winter Wheat

WINTER WHEAT. There are many varieties of winter wheat, but experience has taught us that Turkey Red is the very best for this country.

The seed for this wheat was originally brought from Russia, where it endured the severe winters which makes it admirably adapted to Montana.

Turkey is a medium hard, red, bearded variety, a heavy yielder which does not shatter out easily. Being hard and of good quality this wheat is always in demand for milling purposes. Wherever possible we recommend that you sow winter wheat as it yields on an average from 3 to 5 bushels more than spring wheat.

Seed Flax

Culture. Flax should not be sown on the same land oftener than once in seven years. It is a mistaken idea, however, that flax injures the land. It is no more injurious than wheat or oats during the first four or five years. Before sowing the ground should be thoroughly prepared and it is specially important to have the soil well packed, sowing 18 to 20 pounds per acre. Sow as early as possible and yet avoid the last killing spring frost. In most sections of Montana flax may be sown as late as June 15th, with excellent results.

RUSSIAN OR BROWN FLAX. This is the standard flax and the most popular and most extensively grown flax in the Northwest. It is brown in color, the grains are large and plump and it contains a large per cent of oil, for this reason the Experiment Stations especially recommend it.

Our supply of seed flax is all Montana grown, obtained from growers who have raised the seed on new land and pay especial attention to keeping their fields clean and raising pure varieties only.

Cleaning flax for seed is an expensive operation, requiring special machinery, involves considerable waste but we take great care to do this thoroughly. Send for samples and compare it with the ordinary flax secured from farmer or elevator and see if you do not think it is worth all its costs.

**There are a lot of
seed houses but only
one in Great Falls.**

Winter Rye

VALUE OF WINTER RYE.

Experience with drought and winter-killing during the past two years has lead Montana farmers to seek a crop which would be proof against these. Winter Rye is without doubt a crop which will endure the most punishment from extremes of heat, cold and drought of any grain crop now grown in Montana.

Thus far comparatively little Rye has been raised, chiefly for two reasons. First—the lack of knowledge of its qualities. Second—the discouragingly low prices paid by the elevators. This low price has not been due to a desire for extra profits on the part of the elevators, but rather on account of the limited production and consequent increased cost in handling.

Much can be said in favor of Rye as a forage crop. On account of its rapid growth it affords excellent pasture both fall and spring; it can be pastured very late in the spring and then produces a very good crop of grain.

Rye, when ground, makes an excellent and strong hog feed.

It is a good yielder, having shown an average yield of 22.4 bushels in 13 tests made. The yields range from 12 to 38 bushels per acre. It will do much better on heavy land than wheat.

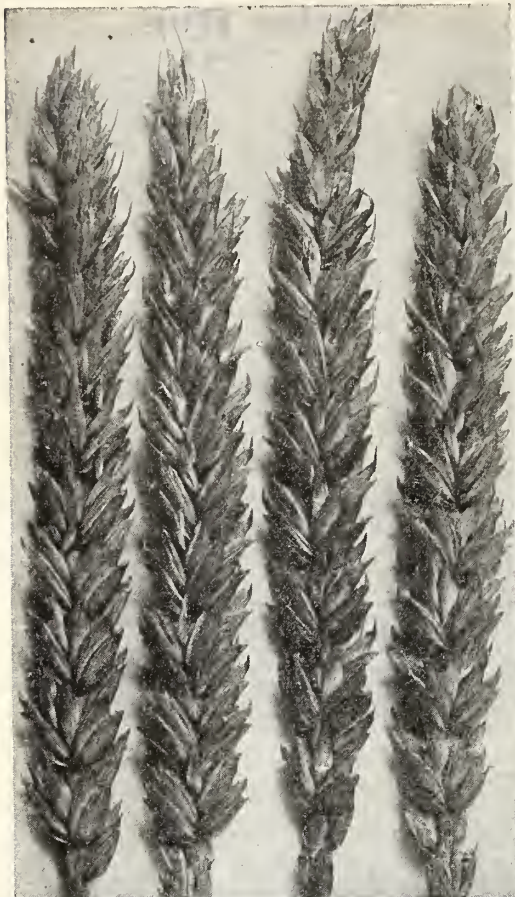
Seeding should be done at the same time and in about the same manner as wheat except at the rate of 1 bushel per acre instead of 45 pounds.

Spring Rye

SPRING RYE. True stock, Spring Rye makes an excellent crop where winter grain has been killed out, or for sowing where a fall crop has not been planted. If desired it can be turned under and made to answer a good purpose in adding to the fertility of the soil. Sow seed same time as other spring grain. Does not grow quite so large straw as Winter Rye, but usually yields as well and grain is of fine quality. Particular attention is called to the fact that genuine Spring Rye is offered. Many have been disappointed in receiving Winter Rye as a spring variety, and the fact is emphasized that we sell the genuine Spring Rye, sown in the spring and harvested the same season.



Money Making Winter Rye.



Hulless Barley.

valuable variety originated abroad and is a decided improvement on the old black or gray sort. It is early, remains longer in bloom than other sorts. A fine variety for honey bees. The grain is of a beautiful light gray color, and has a thin husk. Millers prefer Silver Hull, there being less waste and it makes whiter, better and more nutritious flour than other varieties. Silver Hull is more productive and the grain meets with a more ready sale, bringing higher prices than the Japanese. Under favorable conditions it will yield 40 to 50 bushels an acre.

Speltz or Emmer

Speltz has now been grown for several years and each succeeding season sees its production increasing to an enormous extent. It is found to be adapted to a wide range of soil and climate, to resist extremes of weather, to be of superior feeding value and to yield so much more heavily than oats and barley as to insure its increasing popularity.

Professor Shepard of South Dakota Experiment Station states:

"It is readily eaten by all kinds of stock and has shown itself to be especially adapted for feeding milch cows. It is better to mix it, however, with bran or shorts, as it is a pretty heavy feed when fed alone. As a swine feed, we think very well of it indeed, especially for brood sows."

"Horses do well on it, but I do not think it is equal to oats in that case. Its most striking value is found in the fact of its drought resisting qualities."

Vetch

SPRING. Used for the same purpose as the Sand or Winter Vetch. This variety requires a good soil, is frequently sown with oats or barley, with which it makes excellent feed.

SAND OR WINTER VETCH. A very valuable forage plant. It is very hardy, is valuable as a winter cover crop to prevent leaching, and for forage and fertilizing purposes. It is an annual, but re-sows itself and will come up year after year on the same ground. It succeeds well on nearly all soils and thrives surprisingly on poor, light land and will endure extremes of drought, heat and cold. It improves the soil. It may be sown either in the spring or fall with about half a bushel of rye or oats for support. It grows rapidly and is particularly valuable in sections where Clover does not thrive. When sown in April or May it can be cut in July, the second growth affording excellent pasture during the summer. The yield of green fodder is from twelve to twenty tons an acre. Ask for prices.

Barley.

SIX-ROWED MANSHURY. This is an especially fine six-rowed barley. It has been highly improved so that it will produce plump grains with the greatest protein content, as well as strong, stiff straw and long, well-filled heads. In quality, both as to feeding value and for malting purposes, no other barley excels it. It yields abundantly and is early and very vigorous in growth. Seldom does a field of this grain lodge.

TWO-ROWED WHITE SMYRNA. This is a two-rowed variety which is very popular with many farmers. The grain commands a high price on account of its fine appearance and superior malting qualities. The heads are a trifle longer than the six-rowed variety and the barley is larger. It is a good yielder and has exceptional feeding qualities.

IMPROVED WHITE HULLESS BARLEY. It is not a malting variety, but for feeding purposes there is no barley raised which can compare with it in earliness, yield and quality. While it has sufficient hull to hold it in the head, the hulls are readily separated in threshing. The absence of beards makes it safe to feed to all kinds of stock. Its earliness is a characteristic which is especially desirable. It will mature in from 60 to 90 days, according to soil and locality. Those seasons in which wheat failed, White Hulless Barley was sown in June and had ample opportunity to mature, provided there was sufficient moisture in the ground to start germination. The grain is exceedingly heavy, weighing from 60 to 63 pounds to the measured bushel. The yield varies from 35 to 80 bushels an acre. Its nutritive value is very great. It is very valuable for feeding poultry, hogs and all kinds of stock. It is often grown for hay, coming very early and providing rich feed. The straw is stiff and straight, and seldom, if ever, does it lodge.

Buckwheat

JAPANESE BUCK-WHEAT. Entirely distinct from all other varieties. It has the advantage of remaining for some time in bloom and produces seed earlier. On this account it can be grown farther north. It resists drought and blight very well. The seed is rich dark brown in color and larger than Silver Hull. As much as 40 bushels to the acre have been harvested of this variety.

SILVER HULL BUCKWHEAT. The old black



Speltz.

Sudan Grass

The Wonderful New Forage
and Hay Crop.

SUDAN GRASS was introduced into this country by the Department of Agriculture in 1909. Since then it has been grown throughout the United States and has been a great success as a summer grass and forage crop. It has been found to be of the greatest value in localities where the rainfall is insufficient. Altitude does not affect it as it has given extremely good yields in altitudes up to 5,500 feet. While it is a good drought resister, the more it rains the larger the yield. Sudan is strictly an annual, dies each year and must be seeded again each spring, which makes it fit admirably into any system of rotation which might be considered. Experts are enthusiastic over the possibilities of Sudan Grass as a rotation crop. It can be treated like wheat or oats in rotation as it dies out in the winter and there is no danger of the plant yielding a volunteer crop. No plant can compare with it in productiveness and the quality of hay cannot be excelled except by Alfalfa, Clover or Cow Peas.

This grass should be sown after the soil has become warm, drilled from one-half to one inch deep in rows and cultivated for seed or sown broadcast for hay. For seed production sow 16 lbs. per acre in rows. For hay 16 to 24 lbs. broadcast.



Sudan Grass.

Canadian Field Peas

After grain has been grown year after year on a field a great deal of the life and fertility is taken from the soil and there is no crop which will do more to replenish and enrich the soil than Canadian Field Peas. Peas are second only to clover in their soil enriching properties and can be grown under almost any conditions of soil or climate. There is always a ready market for peas or they can be profitably ground and fed to stock. The vines make rich nutritious hay, which is especially good feed for cows. They can be planted in many ways, first when sown alone about two bushels per acre are required and they can be matured and threshed when dry. The yield will vary from thirty to sixty bushels per acre. For hay, peas and oats should be sown together, using one bushel of peas and one bushel of oats per acre. The peas should be sown first and covered to a depth of about four inches, then drill in the oats. The vines grow to a height of about 3 1/2 feet.

Dwarf Essex Rape

Is an annual, bearing a close resemblance in leaf and stalk to the Rutabaga, but both leaves and stalk are more numerous in the Rape plant, and of a taller habit of growth. It is a pasture plant which may be eaten off by any kind of live stock, but it is pre-eminently fitted to furnish pasture for sheep, cattle and swine.

A good crop will furnish at least 12 tons of green food an acre.

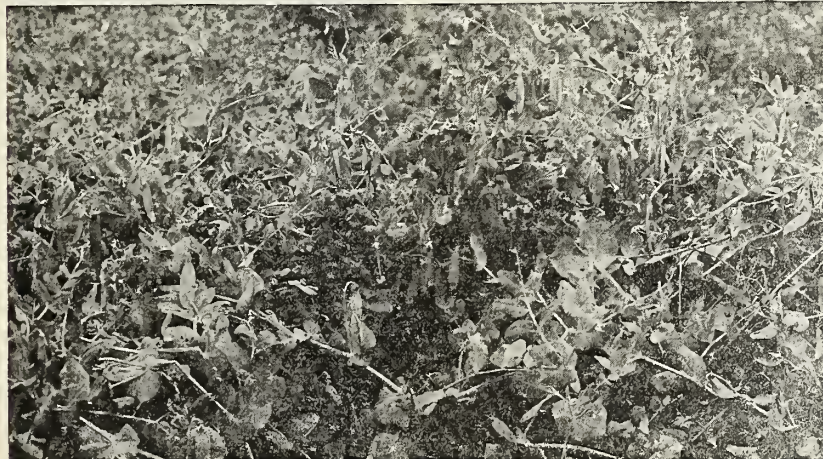
Dwarf Essex Rape thrives best on a good soil, rich in vegetable matter. Slough lands are excellent. This plant may be grown successfully in the following ways, viz.: 1. In the early spring, to provide pasture. 2. In June or July, to provide pasture. 3. Along with grain, using 2 lbs. of seed an acre to provide pasture for sheep after harvest. 4. Along with peas, oats, clover seed, to provide pasture and get a "catch" of clover. 5. As a cover in the orchard for winter protection to avoid root-killing. 6. In corn, sowing the seed with the last cultivation; the succulent feed produced may save the loss of cattle by corn stalk disease. 7. Along with Rye, sown in August, in sheep pasture. 8. On early plowed fields to shade the land and so that the soil will not leach, wash or drift. 9. To plow under as a screen crop, adding humus to the soil. When rape is sown broadcast, 5 lbs. of seed an acre will suffice. When sown in rows, say thirty inches apart, and cultivated, from 1 to 2 lbs. an acre will be enough. Ask for prices.

Mammoth Russian Sunflower

The Sunflower, which has long been known as a pest and a weed, during the past two or three years has proven by the Agricultural Experiment Stations of this state to be a most excellent crop for ensilage. It produces an enormous tonnage of from 20 to 30 tons per acre. This has been a wonderful discovery in itself and was first originated and tried at Bozeman, Montana. It was fed to dairy cattle and was found satisfactory in every way. The cows were just as anxious for it and produced as much milk as when fed with other ensilage. During the past year large tracts of land have been producing Sunflowers with good success, throughout various sections of Montana. The seed is also very valuable as a poultry and hog feed. It should be sown in rows far enough apart to admit of cultivation. Two to three pounds are sown per acre.

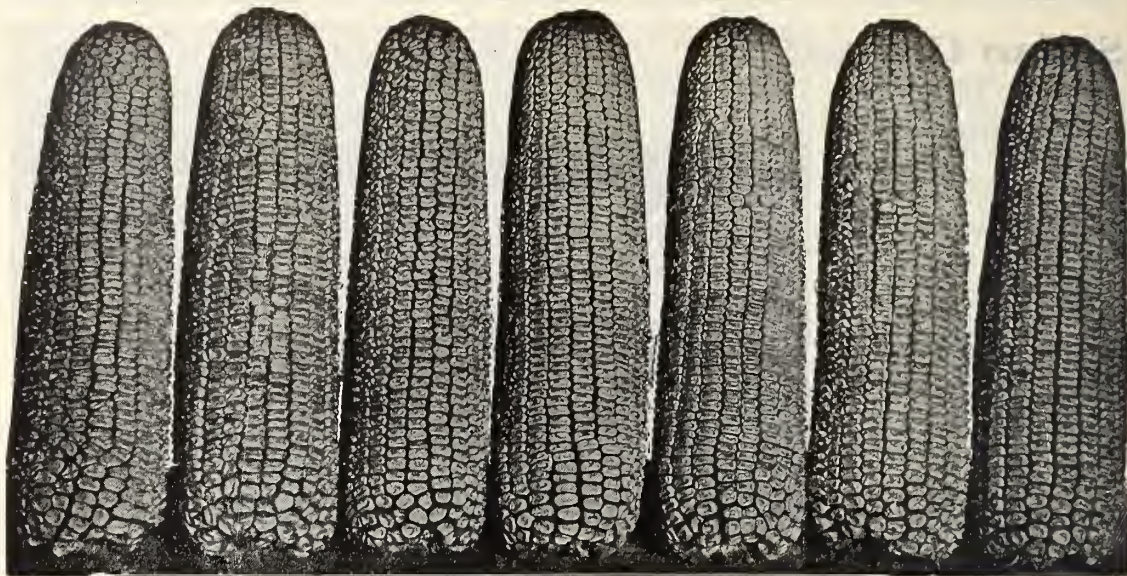
Southern Cane

This variety does not mature so early as the Minnesota Sorghum, but the yield is very much heavier. When Sorghum is grown for fodder only, the Southern Cane will give the greatest tonnage and is usually grown on that account by dairymen, to feed their milch cows. It is also desirable when grown as a pasture plant for hogs, sheep or cattle. All kinds of stock eat it readily. Southern Cane is not suitable for making syrup when grown in the North, but for feed it is splendid.



Canadian Field Peas.

Supplies are limited, order early,



Early Northwestern or Smoky Dent Corn.

Field Corn

Why Grow Corn? Many reasons can be given for growing it, but there are three which are of great importance in Montana. First, corn which has been thoroughly cultivated and kept free from weeds will produce a seed bed for small grain almost, if not quite, equal to summer-tilled land. Second, corn has a low moisture requirement and will produce a more profitable crop than small grain in a dry year. Third, the raising of corn leads to keeping live stock upon the dry farm, especially hogs and cattle.

Culture. Although it is of great importance, space will not permit of a discussion of the seed bed preparation, except to mention that when land is spring-plowed the harrow should immediately follow. A home-made plow-harrow does the work exceptionally well. Russian thistle has ruined more corn fields in Montana than all other causes put together. This very troublesome weed, however, may prove a blessing in disguise, for it is controlled only by checking the corn and giving thorough cultivation both ways. Checking by means of a check wire or hand planter is recommended for all conditions. It permits thorough cultivation, which is necessary for the eradication of the Russian thistle and the conservation of the soil moisture.

Homesteaders, or those who are just starting and cannot afford a corn-planter, can get along very nicely by marking out their land with the old-fashioned marker and planting with a hand dropper. Strange as it may seem, corn should be planted in Montana almost as early as in Iowa, providing the seed is strong. The Montana air is normally dry, therefore the late frosts are not so killing as those in more humid sections. Experience in Montana has taught that corn is seldom injured by planting too early, providing the seed is strong and it does

not rot in the soil. The chances for frost injury are much less in the spring than in the fall. On the dry-land demonstration farms, corn which was 4 inches high has been frosted without serious injury.

Corn is recommended above all other crops for sod. It always produces a lot of seed and leaves the soil in good condition for small grains. The sod should be broken about 4 inches deep and rolled flat immediately. The corn should be planted between the furrows. After the 10th of May it is well to plant corn every evening upon land which is broken during the day. Such corn absorbs the moisture from the sod and comes up very quickly. The sod should be double-disked and harrowed immediately after the corn is planted. Sod corn is seldom cultivated except with a disk cultivator, on account of the unrotted turf, which will not permit of other cultivation. Any Russian thistle which starts should be cut out with a hoe.

Cultivation. Corn cultivation in Montana will not differ very greatly from that of other states. The corn field should be harrowed after planting and it may be harrowed after the corn is up. The Russian thistle, however, will compel the cultivation to be frequent and thorough.

Early Northwestern or Smoky Dent Corn

The Earliest Dent Corn for the Northwest.

This corn is in a class by itself, having red kernels with a yellowish cap, being a cross between a red flint and a yellow dent, but the type has become well established. To some the color is objectionable, but it must be taken into consideration that in most parts of Montana, North Dakota, Northern Minnesota, and even Canada, this is the only variety upon which the grower may depend to ripen, and it is far better to have corn, even though it is red in color, than to have no corn at all. In Montana, North Dakota, Northern Minnesota and in high altitudes this variety can be relied upon to mature before any other dent corn, and, in fact, is the only sort to ripen in some seasons. No other one variety is as extensively grown in North Dakota as our Early Northwestern Dent, for the reason that season after season it successfully yields a good crop. Not only is it known in the localities named but for late planting or replants it is especially desirable. It is extremely early and quickly adapts itself to new soil and climatic conditions. Growers have harvested 75 bushels to the acre and gathered seed from the crop in as many days, a strong tribute to its earliness and pro-

ductiveness. Under ordinary corn growing conditions, Northwestern Dent will mature in eighty-five to ninety days, and under more favorable soil, cultivation and weather will mature much earlier. The ears are of good size, from seven to ten inches long, and bear 10 to 14 rows of corn. Under ordinary conditions the average height of stalk is 7 ft., 0 in.; average distance base of ear from ground, 3 ft., 5 in., thus admitting the use of a corn harvester. Early Northwestern Dent may be sown in check rows or in drills. The latter method is in favor in many localities. The stalks, being smaller and shorter than some of the later sorts, may stand loose in row, thus contributing to a heavy yield. Notwithstanding the small ear, yields of seventy to eighty bushels per acre are not uncommon. This sort is also much grown for fodder and silo purposes on account of its earliness and adaptability. It will, of course, give best yields on a fairly rich soil. We have a very fine stock of seed on hand at present, but we wish to remind our customers of conditions which frequently develop during the season. Write for prices.

See Our Special Price List for All Kinds of Corn.

Minnesota No. 13 Corn

Extra Early Yellow Dent.

The commanding points of excellence which place Minnesota No. 13 Corn at the head of all yellow dent varieties for Northern planting are:

Its earliness.

Its enormous productiveness.

Its adaptability to a great variety of soils and climates.

The ears are of handsome appearance bearing 16 to 20 rows of bright, rich yellow, smooth, wedge-shaped kernels packed closely on the cob from butt to tip. The ears average eight inches in length and are borne usually two on a stalk. No corn excels in quality the Minnesota No. 13; the cobs are well filled and the individual kernels plump and of good color.

Minnesota No. 13 thoroughly matures in ninety days when planted on favorable soil and in a good location, but ninety-five to one hundred days places it out of danger under average conditions. A variety of corn which will show such valuable characteristics is an acquisition on any farm, especially for planting in the Northwest where early frosts are common. It may be planted as late as the second week in June and yet safely mature a crop.

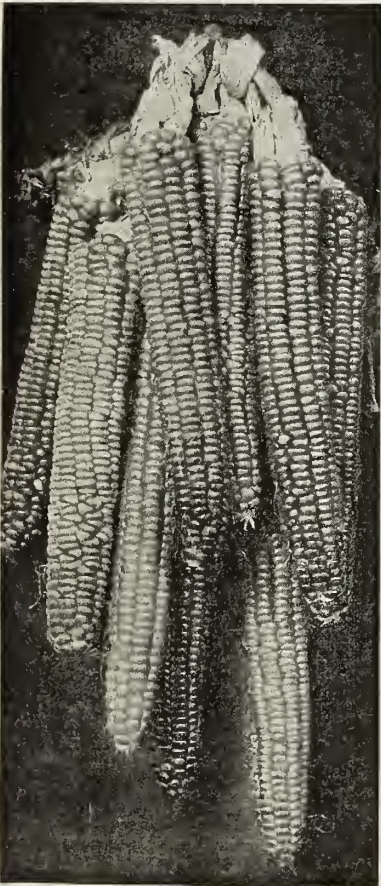
Another point to which particular attention should be directed is its adaptability to changes in soil and climate. Many varieties fail to do well when subjected to new conditions or require several years to become acclimated. Minnesota No. 13 Corn, however, will thrive and produce abundantly on most any soil and will do remarkably well under adverse conditions when other varieties would fail entirely.

The stalks grow to a height of seven feet and being leafy make excellent and very nutritious fodder.

We especially wish to impress upon the intending purchaser one fact, and that is the importance of ordering early. When the supply is gone it will be impossible to fill further orders for this variety, as we will not send out anything but genuine Minnesota grown seed corn of high germination.

Squaw

Extremely early and of very dwarf habit. We still grow this corn for those who want it, but we urge the planting of North Dakota White Flint, or North Dakota Yellow Flint in its place, as both of these varieties are fully as early, more productive, and make a much more vigorous growth. Average length of ears, 7½ inches.



North Dakota White Flint Corn.



Minnesota No. 13 Corn.

North Dakota Yellow Flint (Gehu)

Resembles White Flint in earliness, habit of growth, etc., but the grain is yellow. Under normal conditions this variety will mature in 70 to 75 days. In localities where seasons are short and nights are cool it may be depended upon to give a crop. The yield must, of course, vary with conditions of soil, cultivation and season, but it has been no uncommon occurrence to secure a yield up to 75 bushels per acre. Gives an abundance of fodder of splendid quality. Average height of stalk 5 ft., average distance base of ear from ground, 1½ ft.; average length of ear, 8 inches.

North Dakota White Flint

Resulting from a careful selection of Squaw Corn for many years. Very much better than the Squaw. Average height of stalk, 5 ft.; average distance base of ear from ground, 1½ ft.; average length of ear, 8 inches. Ask for prices.

Yellow Fodder Corn

A tall growing Southern variety which is very popular all over the country. In Canada it seems to have the preference over any other sort, perhaps because it has been very widely grown and will produce a large tonnage in a short space of time. It grows very tall and very leafy. Drill 1½ bu. to the acre in rows 3½ feet apart.

You may think you cannot raise corn in Montana. North Dakota farmers once thought this too and now they raise millions of bushels. A twenty acre field of Squaw Corn pastured off with hogs has lifted the mortgage on many a farm. In addition to this it rests and enriches the land better than summer fallow. One of the gravest dangers confronting Montana today is that of "Wheat-ing" the land to death. Why not try a few acres of corn. One bushel of seed will plant ten acres.



Alfalfa.

Alfalfa or Lucerne

The Best of all Plants for Hay and Pasture

Alfalfa Growing in Montana

Alfalfa, the most valuable forage plant ever discovered, was first found in Asia. On account of originating in a warm climate it was thought for many years that

it would be impossible to successfully raise Alfalfa in the cooler climates of the North, but its present wide distribution throughout the world indicates a

remarkable adaptability to various soils and climates.

It is now the principal leguminous forage crop of all continents of the world and is one of the staple crops in the Western half of our country. By experimenting varieties have been produced which do well in the coolest climates of the North. The soils of Montana have been found to be well adapted to Alfalfa growing and on account of its high feeding value its production should be encouraged throughout the entire State of Montana.

Alfalfa is a soil builder and not a soil destroyer, like most grain crops now grown in Montana. The roots often reach the length of fifteen feet. This penetration not only loosens the soil for the roots of the next crop, but brings to the surface the phosphorus and potash stored below. The plant itself absorbs nitrogen from the air and stores it up in the ground, thus rendering a valuable service to the farmer and greatly enriching and increasing the productiveness of the soil for crops which follow.

A few general rules can be laid down for Alfalfa culture, as different conditions require different methods. It is advisable, therefore, to do a great deal of experimenting in untried districts. Small tracts should first be planted in order to ascertain the correct method.

In selecting the field which is to be seeded the following conditions should be carefully considered: (1) depth and texture of the soil; (2) drainage; (3) fertility; (4) the need of inoculation; (5) the need of lime; (6) freedom from weeds. These are so vastly important that if any are neglected the growing of Alfalfa may be rendered impossible.

Soil: Alfalfa gives best results on deep, loose, open, friable soils. **Drainage:** Alfalfa does not do well where the water is nearer than six feet to the surface. Drained bottom lands are good but land slightly rolling or level and well drained are best. **Fertility:** Alfalfa being a legume is able to add nitrates to the soil through the nodules in forming bacteria within its roots. Since large yields of Alfalfa draw heavily on the other elements of soil fertility, it naturally requires the richest and best drained soil on the farm. **Inoculation:** Inoculation means putting into the soil the nitrogen-fixing germs or bacteria without which the Alfalfa will not flourish. On soils which do not naturally contain these germs, it is essential that they be artificially introduced. A small area may be seeded and inoculated the first year from which soil may be secured for larger areas in following seasons. There are two methods of securing this inoculation. First by procur-

ing soil from a nearby Alfalfa field where the plants are vigorous and have an abundance of tubercles on their roots. 300 to 500 lbs. or more of soil should be used per acre, distributing as evenly as possible. The soil should be taken in a moist condition and dried in the shade, then distributed over the field with a drill or broadcast, either in the evening or on a cloudy day, as the rays of the sun will kill the bacteria. A thorough harrowing of the field will so bury the inoculated soil that the germs will live.

Some of the state experiment stations will now supply soil, charging only the cost of handling. Artificial cultures or colonies of germs grown in laboratories and distributed in bottles or cans are now available. This method is the simplest as the inoculating liquid can be sprinkled over the seed just before planting. Use Alphano Inoculant.

Lime: Acid soil will not permit Alfalfa to grow. This is often the case where Corn or Wheat have been raised for many years. A simple test for determining acidity in soil is to make a deep cut in the ground with a knife, pushing the earth apart, then place a piece of litmus paper (procurable at any drug store) into the opening and press the earth together. Leave the paper a few hours. If it changes from blue to red it is proof of acidity. Lime is then needed to sweeten the acid soil. If agricultural lime can be bought at \$3.00 per ton it will pay to sprinkle from 1 to 2 tons per acre on the land before planting Alfalfa.

Weeds: Young Alfalfa plants are very tender and are apt to be killed by weeds during their earlier stages of growth. For this reason the land should be as free from weeds as possible. If a weedy soil must be used it should be plowed several months before seeding and several crops of germinating weeds destroyed by frequent harrowing.

Preparing the seed bed: The seed bed should be fine on top but thoroughly settled. The young taproot of the plant strikes down immediately and is apt to be injured if it strikes a layer of loose dry soil. The ground should be plowed at least six weeks before seeding, harrowed and disked immediately after plowing, then it should be worked after ten days or two weeks or at least after every rain until the seed is sown. In Montana summer fallowing is a splendid way to prepare ground for Alfalfa seeding.

Time of seeding: Alfalfa should be sown in Montana between the 15th of May and the 15th of June, depending on the warmth of the weather. The seed should be covered and not sown on the surface as is sometimes done with grasses and clover. It may be sown either with a drill or broadcast. It is best to sow half the seed one way across the field and the other half the other way at right angles to the line of the first sowing.

Depth of planting depends upon soil conditions; covering from three-quarters to one inch deep is usually sufficient on clay soils, but an inch and a half is necessary on the sandy soils or in semi-arid sections. From 8 to 12 lbs. of seed should be used per acre, depending on the evenness of the seed bed and preparation of soil.

If a nurse crop is used, Barley, Wheat or Rye are much better than Oats, as Oats require too much water and give too much shade. In using a nurse crop the Alfalfa seed and the grain should be sown separately and not mixed before seeding.

Grimm Alfalfa

Many years ago a man named Grimm came from Germany and settled near Minneapolis. He brought with him seed of an alfalfa which, according to neighborhood statement, he called Norwegian Alfalfa. It became known, however, as Grimm's Alfalfa and obtained a more than local reputation on account of its productiveness and extra hardiness, for it survived winters that killed out many fields of other varieties. This was before the Montana or Northern grown alfalfa seed was procurable.

From the appearance of the seed Grimm cannot be distinguished from other varieties. A field of Grimm in blossom often shows a color variation in which shades of blue predominate, but occasionally yellow, brown and greenish blossoms appear. Neither the presence of variable blossoms nor a uniformity of color proves or disproves the genuineness of Grimm Alfalfa. Some fields of Grimm show all purplish blossoms, while other varieties than Grimm sometimes show a decided range of color.

Several large tracts of Grimm Alfalfa are now being cultivated both in the Yellowstone and Milk River Valleys of Montana, but the production of seed is very limited each year and the demand has always been greater than the supply.

Our seed is obtained direct from growers and we have their certificates as to the variety. Write for samples and prices and further information if desired.

Liscomb Alfalfa

In many characteristics this variety is similar to Grimm. The first seed which came from central Europe about thirty years ago, was sown in Montana where the original field is still growing and bearing good crops each year. Similar to Grimm, Liscomb has a variegated flower and the roots are frequently branching. Our seed was obtained direct from the grower, whose field is about 30 years old and is especially adapted for sowing in the Northwest. It comes from plants that have withstood both extremes of temperature, 40° below zero, without any covering of snow and 114° above. It is probably as hardy as any alfalfa available, seldom winter-kills and is a great drought resister. Liscomb Alfalfa produces large crops and is more reasonable than Grimm in price.

Dry Land Alfalfa

The extension of Alfalfa growing in the regions of Montana and the Northwest, where the rainfall is limited, has created a large demand for alfalfa seed especially adapted to these conditions. Seed which has been produced from alfalfa grown on dry land and without irrigation is of course preferable for dry land sowing to the seed raised under irrigation. We have taken special pains to secure good supplies of exactly this kind of seed, which we distribute to our customers under our GLACIER BRAND. The results from all the seed of this class which we have been selling have been most excellent and you may depend upon it when you buy this brand of seed you are getting the hardiest and most adaptable variety of any of the ordinary alfalfa seeds sold.

Sweet Clover

Alfalfa's Twin Sister.

WHITE BLOSSOM SWEET CLOVER is becoming more popular each year as its value as a forage crop and also in enriching the soil is being discovered. It is no longer treated as a weed and gives promise of becoming a rival of alfalfa on many soils. It is a biennial plant and bears close resemblance, but is larger and closer in growth. It will grow in soils on which alfalfa cannot thrive and will make excellent growth on lands so hard and barren that they will sustain scarcely any other vegetation. Some claim that stock will not eat it but as soon as they acquire a taste for it they frequently consume it in preference to alfalfa or other pasturage.

When grown for hay one crop and sometimes two may be cut the first season. The second year two or three crops may be cut. It should be mowed just before it commences to blossom and before the stems become hard and woody.

Sweet Clover is a biennial, that is, it lives but two years. At the end of the second season the tops and roots dry. If the plants are not allowed to go to seed its growth may be easily controlled. If a permanent sweet clover field is desired the second crop may be allowed to go to seed and there will be a splendid stand the following year.

The advantages of sweet clover are many. Rich in protein, will not bloat cattle or sheep, makes excellent pasture starting in the early spring, fits well into crop rotation, valuable for honey bees, enriches the soil greatly, its roots give no trouble in plowing, seeds freely, will grow under conditions where alfalfa and other crops fail, on low, wet, alkaline soil, on hills and rocky soil and on hard pasture lands. We recommend the cultivation of sweet clover for pastures, for hay and for renewing worn-out lands.

YELLOW BLOSSOM SWEET CLOVER. This variety belongs to the same family as White Blossom Sweet Clover, but it is not so prolific in growth, will not produce so large a tonnage, does not grow quite so tall, but is from ten days to three weeks earlier. The flowers are yellow instead of white. For bee pasture and fertilizing purposes we believe it to be equally valuable, but for hay or pasture it is not so desirable.

See our price lists and send for samples.

Alsike Clover

ALSIKE OR SWEDISH CLOVER. This is one of the hardiest varieties known. It is perennial and does not winter-kill. It will do better on moist land than any other variety of clover, and is suitable for either hay or



Alsike Clover.

The Clovers

pasture. When sown with other grasses, it forms a thick undergrowth and greatly increases the yield. It is frequently sown both with Medium Red Clover and with Timothy, and the quality of hay thus produced is excellent. Finer and more leafy than Medium Red Clover and cattle prefer it.

Red Clover

MEDIUM RED CLOVER. This is regarded as the most valuable of the Clover family. It is sometimes called June Clover and is a dependable all-around variety for farmers and stockmen. It makes two crops each year. The first is usually cut when it is in blossom for hay; the last crop may be harvested for seed, cut for hay, or plowed under to add fertility to the soil. It may be sown either in the spring or fall, and if no other grasses are used, at the rate of from 8 to 12 pounds to the acre, according to quality of seed used and condition of the soil. Clover adds greatly to the fertility of the land on which it is grown. It does not exhaust the soil, but enriches it. It pays always to buy the best clover seed which can be obtained. Even though the first cost is twice as much as cheaper seed, it will be found in the long run that inferior seed is the most expensive, not only on account of less hay or seed being produced from it, but from the fact that one's land becomes infested with weeds.

MAMMOTH RED CLOVER. This is grown largely for pasture and to restore fertility to depleted soils. Being a rank grower, it is very valuable for fertilizing purposes. The foliage, flower and stem are darker in color than the Medium Red Clover. It ripens later, and makes only one crop. Especially valuable on light, sandy soils. 8 pounds of Sterling Brand Seed are sufficient to sow an acre on good soil. Ask for prices.

Scarifying

We have installed a new, up-to-the-minute Ames Scarifying machine. Add \$1.00 per 100 lbs. if you desire your Sweet Clover or Alfalfa Seed scarified. We advise you to have your seed scarified as it will pay you many times over.

In all Alfalfa and Clover seeds and especially in Sweet Clover, there are a certain per cent of very hard seeds, although containing the usual vitality. On account of the hardness a longer period of time is required to germinate than the other seeds. To overcome this slowness of germination the scarifying machine has been devised, which by a process of swiftly forcing the seeds over a course of sand paper the hulls of the seeds are scratched, thereby insuring a quick germination after the seeds are deposited in the moist soil.

Timothy

As a crop for hay, Timothy is probably unsurpassed by any other grass. It is greatly relished by all kinds of stock, especially horses. It yields more nutritive matter than any other grass or forage plant. It is not suited for a permanent pasture as it will in the course of a few years run out. It is, however, well adapted to early spring grazing as it starts up quickly in the spring, and in favorable fall weather can be pastured in the autumn as well.

Red Top

SOLID SEED. A valuable grass for moist rich soils where it thrives very luxuriantly. It is a good variety to sow with Timothy and Clover for meadow or pasture, and is more permanent than either of the other two. It should be fed close, as if it is allowed to grow up to seed, the cattle dislike it. On good soil it grows about two feet high; on poor, gravelly land about half that height. It has been grown successfully even on alkali land where other grasses failed. Red Top is commonly known as Herd's Grass and should be more extensively grown, especially in combination with other grasses. Solid Seed Red Top is free from chaff and weigh 14 pounds to the bushel. Only ten pounds of "Glacier" Brand required to the acre

Bromus Inermis

Drought defying, frost resisting. Yields enormous crops of splendid hay and affords early and abundant pasturage. It adapts itself to almost every condition of soil and climate and to any use to which grass may be put, equaling in quality and rivaling in yield almost any other grass. It starts from two to three weeks earlier in the spring than native prairie grass and it keeps green in the autumn longer than any of the useful grasses grown in the West. No amount of cold seems to be able to kill it. It bears up well under conditions that are very dry, and it can also stand being covered with water, not deep, of course, for one or two weeks in the early spring.

It does best on rich soil and lasts longer when Clover or Alfalfa is sown with it. The Clover or Alfalfa will then keep supplying nitrogen to the soil and thus help to nourish the Bromus Grass, which would otherwise soon exhaust the soil's nitrogen. If sown with a nurse crop that crop should be sown thinly. It grows slowly for a time, hence the farmer should not be hasty in concluding that he has failed to get a stand of the grass.

Sow the seed as deep as oats, since shallow seeding often causes failure. If plenty of moisture is present in the soil it should be sown in the fall, otherwise spring is better. It is sometimes sown with Winter Wheat.

This grass may be sown at any time of the year when the ground is bare, but the best season is in the spring, and with or without a nurse crop. 15 pounds of good Bromus Inermis an acre is sufficient. Ask for prices.

Western Rye Grass

(*Agropyrum Tenerum*). Sometimes called Slender Wheat Grass. It affords excellent pasturage and provides large quantities of hay. It thrives on all soils, but is peculiarly adapted to prairie soils. It gives good returns on land quite strongly impregnated with alkali and fits it so that grain may be grown successfully.

When sown alone as is the common practice, the seed should be put in from 1 to 3 inches deep according to soil and season, 15 pounds to the acre. If with Bromus Inermis, 7½ lbs. of each. Ask for prices.

Millet

GOLDEN MILLET. Formerly called German Millet. True Southern grown seed. In the North, Millet is sown almost altogether for hay, and for that purpose Southern grown seed is much the best. It grows taller than does that from Northern seed and that means more hay. It is finer than that from Northern seed, and that means better hay. Millet seed produced in the North, even from Southern seed, becomes what we call Common Millet. Not only does the plant change in character, becoming coarser and much more dwarf, but the seed itself shows a change, and is readily distinguished by those experienced in handling it.

Golden Millet is very sweet, palatable, and when fed to dairy cows, produces a large amount of milk. On good rich soil it grows four to five feet high. It is very tender if cut at the right stage, which is when it is in full bloom. About three-fourths of a bushel of seed is sown to the acre. A good yield is from three to five tons of hay to the acre. Ask for prices.

JAPANESE MILLET. Improperly called "Billon Dollar Grass." Entirely distinct from all other Millets. It grows from 6 to 9 feet high, stands up remarkably and yields enormous crops. When cured it makes good hay and in quality is superior to corn fodder. It is relished by all kinds of stock. It may be sown broadcast at the rate of 15 lbs. an acre, but it is better to sow in drills 12 to 18 inches apart, using 10 to 12 lbs. to the acre. It does best on low moist ground.

HOG OR BROOM CORN MILLET. This makes an inferior hay unless cut very young. It yields enormously of seed, even 60 to 70 bushels to the acre, and this is very advantageously used for fattening swine and other stock. Seed also makes very fine feed for poultry and young chicks. It will mature in about two months from sowing seed. Ask for prices.

Opening prices of Field Seeds are given on special sheet enclosed in the front of this book. They are subject to later changes.

Orchard Grass

(*Dactylis Glomerata*). A valuable grass for pasture or hay land, and on account of its earliness is very valuable for a permanent pasture. It furnishes the first green grass in the spring and until late in the fall. When closely cropped it grows up very quickly and is ready for grazing again in 10 to 12 days. It will stand drought and is hardy. It grows in tufts, and is therefore best sown with Red Clovers, Rye Grass, etc. It is well suited for shady places, such as orchards and groves. Grows on all kinds of land but does best on deep, rich sandy loam or clay soils. Sow 22 lbs. to the acre.

Meadow Mixture For Both Hay and Permanent Pasture.

It affords enormous crops of hay of the finest quality and highest feeding value, and after this has been cut, furnishes continuous and abundant pasturage of the richest and most nutritious character until winter sets in. It will stand for years and may be used either for pasturage exclusively or hay and pasturage, as varying conditions may suggest.

We stake our reputation on this mixture, not only as to the purity and germination of the seeds used, but as to the satisfaction it will give to those who purchase.

Contains Mammoth Red, Medium Red, Alsike and White Clover, Alfalfa, Timothy, Kentucky Blue Grass, Meadow Fescue and Perennial Rye Grass.

Owing to the deep rooting and spreading character of many of the varieties employed, fields sown with this mixture, will, during periods of drought, look fresh and green while other meadows and pastures are dry and burned.

Quantity—We recommend at least 30 lbs. to the acre.

White Lawn Clover

WHITE OR DUTCH CLOVER. This is a low, close growing clover, round with white heads and very fragrant, excellent for pasture and when mixed with Kentucky Blue Grass makes the finest kind of a lawn and is universally used for this purpose in the United States. It also makes excellent pasture and is very nutritious for sheep and cattle. It does well on most any soil.

Sow 5 to 8 lbs. per acre alone for pasture; for lawn, 1 lb. to 400 square feet. See our price list for prices.

KENTUCKY BLUE GRASS. This makes the best, sweetest and most nutritious pasture for all kinds of stock. It is very hardy and is uninjured by cold or dry weather, hot sun or trampling of hoofs. The roots are so thick and stout that they form a tough sod. Blue Grass requires two years to get well started and for that reason it is often sown in mixture with other grasses. Sometimes called "June Grass." From 20 to 25 pounds of "Glacier" Brand seed required to the acre when sown alone.

Glacier Brand Lawn Grass Seed

The smooth velvety lawn surrounding a house adds not only to its value, but enhances the enjoyment of every home. When properly made a lawn is as satisfactory as any investment a home owner can make. After careful experiments for several years we have discovered the proper mixture of grass seeds for making the best lawn in Montana. Our Glacier Brand Lawn Seed contains 20 per cent of white clover and 80 per cent Kentucky Blue Grass and is free from all foul seeds. The ground should be reduced to a firm well pulverized seed bed, then the seed should be sown at the rate of one pound per 350 square feet and covered to a depth of about one-quarter inch. For the first month or six weeks a thin covering of light manure or straw should be kept on the lawn, keeping this well watered.



Golden Millet.

BEST VEGETABLE SEEDS for Northern Planting



A Good Vegetable Garden will Reduce the High Cost of Living.

You will find the number of varieties considerably less than previous years for the reason that we have eliminated all that are not positively good producers in Montana. We have been able to do this after careful tests, experiments and gathering of information from a wide number of sources. When we sell you seed we want you to raise a garden. We will do the experimenting, which is costly and unproductive. Our garden seeds are all Northern-grown, in so far as it is possible to procure them.

Asparagus

Culture. Sow early in spring in rows one foot apart; when one year old the roots may be taken up and transplanted in permanent beds, which should be made by taking out the soil to a depth of about 16 inches; fill in with six inches of well rotted stable manure, then six inches of soil somewhat firmed and place the roots on the same about 10 inches apart with the roots well spread out and cover so that the crown will be about four inches below the surface. Keep the surface well raked to keep down the weeds until the shoots appear.

CONOVER'S COLOSSAL. A standard sort, color deep green, quality first-class; spreads less than other sorts. Yields from 15 to 30 sprouts from a single plant.

PALMETTO. Mammoth in size, light green, strong and quick in growth, producing large thick shoots with a distinctly pointed head on tip.

Beans

Culture. Beans should not be planted until the ground is warm, as cold and wet weather will cause the seed to rot. For garden culture plant four or five seeds in hills one foot apart, and the rows 13 inches apart. For field culture make the rows three or three and one-half feet apart, and cover with two inches mellow soil. Do not hoe or cultivate while the plants are wet with dew or rain, as getting the leaves bespattered with earth causes rust, which injures the crop. Note that we are listing beans by weight instead of measure. One pound of beans is a little less than one pint.

CURRIE'S RUST PROOF BLACK WAX. A very early, beautiful wax bean, bearing an abundance of crisp, tender, stringless pods, free from rust. Of excellent quality, delicious flavor. Seed kidney-shaped.

DAVIS WHITE WAX. A very productive sort, pods long, straight and thick, beans white, kidney-shaped.

IMPROVED GERMAN BLACK WAX. Vines medium sized, very vigorous and hardy. Buds medium length, curved, cylindrical, fleshy and of a clear yellowish-white. Seed small and black.

IMPROVED GOLDEN WAX. The plants are hardy and bear an abundance of straight, broad flat pods. Seed white, with brown or black markings near the eye.

LONG YELLOW SIX WEEKS. Early, productive and of excellent quality; pods green often eight inches long.



Conover's Colossal.

FOR PRICES ON ALL VARIETIES OF BEANS AND ASPARAGUS,
SEE PAGE 28.

BEANS—Continued

STRINGLESS GREEN POD. The finest green pod, stringless bean. The earliest and hardest of all green-podded sorts and produce large, handsome pods, some of which measure fully six inches in length. The plants bear profusely the beautiful green pods, which are perfectly round, straight, broad, tender, brittle, finest flavor, very fleshy and entirely stringless.

SCARLET RUNNER. Ornamental and useful. The vine is graceful; flowers are of a brilliant scarlet, and the beans are of excellent quality.

BURPEE'S BUSH LIMA. The bushes are 18 to 20 inches high, of stout, erect growth, branch freely, forming large circular plants from two to three feet in diameter. Very prolific, bearing large, beautiful pods well filled with large beans of the same size and delicious flavor as the pole variety.

CHOICE NAVY. Our stock of this well known variety has been carefully selected and cleaned and will be found far superior to beans commonly offered as "Navy Stock."

FOR PRICES ON ALL VARIETIES OF BEANS SEE PAGE 28.

Beets

One ounce of seed will sow fifty feet of drill; six pounds per acre.

Culture.—Sow in drills 15 to 18 inches apart as early as the ground can be worked in the spring. When the plants are large enough to handle, thin to four or five inches apart in the row. The soil best suited for the Beet is that which is rather light, provided it is thoroughly mixed with light manure. If wanted very early sow in hot beds and transplant; but for main crop sow in the spring, as soon as the ground is fit to work, in drills 18 inches apart, one inch deep. When the plants are three or four inches in height, thin out so that they stand three or four inches apart. Keep free from weeds by frequent hoeing and hand weeding.

MARKET GARDENER'S. This is the ideal beet for market gardeners and the home garden. It is very symmetrical, with small tap root; color outside is deep blood red; inside layers of blood red and light red alternately. When cooked they are a beautiful dark red throughout, fine grained and unsurpassed in quality. One sowing only is necessary to produce early beets for market and main crop for winter use.

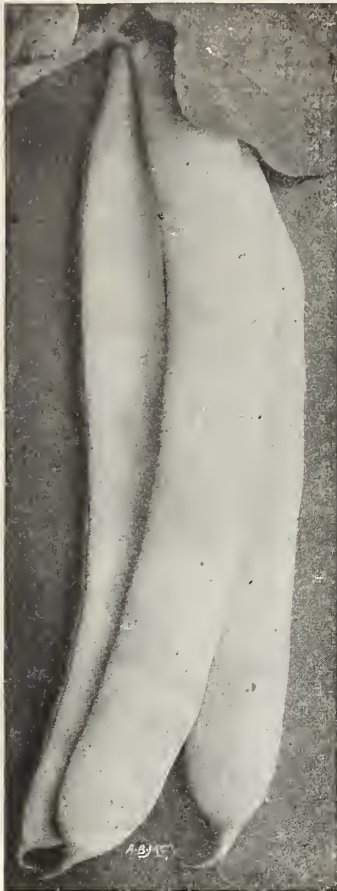
DETROIT DARK RED. Roots globular; smooth with small tops, skin blood red; flesh dark red, zoned with a lighter shade; tender and sweet.

EARLY BLOOD TURNIP. Roots turnip-shaped, deep crimson, tender and sweet.

EDMUND'S IMPROVED BLOOD TURNIP. A handsome, clean, turnip-shaped blood beet. Skin and flesh are of a deep blood red, sweet and tender in quality, and unsurpassed for solidity and keeping purposes. Tops are small, allowing them to be grown close together. They mature early and give satisfaction as a bunching sort.

EXTRA EARLY EGYPTIAN. The earliest, turnip-shaped, small, symmetrical, deep blood color.

SWISS CHARD OR SPINACH BEET. This variety does not produce an edible root like the regular garden beet, but is highly esteemed for the broad, white leaf stalks and midribs which are cooked and served in the same manner as asparagus, making a most delicious vegetable. The leaves are also cooked like spinach and considered equally as palatable.



Improved Golden Wax Beans.

Sugar Beets

GIANT FEEDING SUGAR BEET OR HALF SUGAR WHITE MANGEL. This magnificent sugar Beet, while giving nearly as large a yield of easily grown and harvested roots as a crop of Mangels, supplies a food of very much higher nutritive value, the roots for feeding purposes being really more valuable, pound for pound, than those of the very best strains of Sugar Beets, and the yield under equally favorable conditions being more than double. The roots grow partly out of the ground and because of this and their shape the crop can be harvested and stored at less expense than any other root crop. We are certain that everyone who plants this variety and grows it with care will be much pleased with the crop.

WANZLEBENER. This variety at the present time has probably a wider cultivation than any other Sugar Beet. It may be distinguished by its brighter color and its lighter colored leaves, which are beautifully undulating and scalloped about the edges. While not, as a rule, equal in saccharine richness, it is considerably more productive.

Mangel Wurzel

Every farmer knows the value of the Mangels for stock-feed, and every year an increasing number of farmers are raising an acre or more of the roots. The roots may be stored for winter use, and they make a desirable change in the feed for dairy cattle, improving their condition and increasing the milk-flow.

IMPROVED MAMMOTH LONG RED. The roots are very large, uniformly straight and well formed. Color deep red, roots solid, tops small. Roots attain a large size. Produces an immense bulk and tonnage.

IMPROVED GOLDEN TANKARD. We recommend it as the best Mangel by far for dairy farmers. It combines apparently all the fine points possible to condense into a mangel. The color is a deep rich yellow. The flesh is firm and solid and a rich golden yellow in color. On account of its shape enormous crops are grown and it is easily lifted from the ground.

GIANT RED ECKENDORF. Very popular in Europe and America. Roots are smooth, long and cylindrical in shape. Very heavy, weighing up to 15 or 20 pounds each. Flesh is firm, crisp and solid; white in color and of high feeding value.



Market Gardener's Beets.

FOR PRICES ON ALL BEETS AND MANGELS SEE PAGE 28.

Cabbage

Cabbage will do well in any deep, rich, well-drained and abundantly manured soil. Sow seed of the early varieties in hot beds about February first, and prick out into other hot beds as soon as the plants are strong enough, or set in cold frames in March. When danger of frost is past, transplant to open ground. The late or winter crop seed can be sown in seed beds in May and plants set in the field in July. Late varieties are usually planted in rows 30 inches apart with 2 feet between plants; early sorts may be set 15 to 24 inches, or even closer. One ounce of seed will produce about 2,500 plants.

Extra Early

WASHINGTON WAKEFIELD. No other Cabbage of which we have knowledge has aroused such enthusiasm among cabbage growers as has Washington Wakefield. It has the same general characteristics of other Wakefield cabbages, the heads being conical with a rounded or blunt point. It is, however, far superior to other strains of Wakefield cabbage, being nearly double the size and of better quality, and at the same time is fully as early. It has fewer outer leaves, permitting close planting, so that more heads can be grown to the acre than with other sorts.

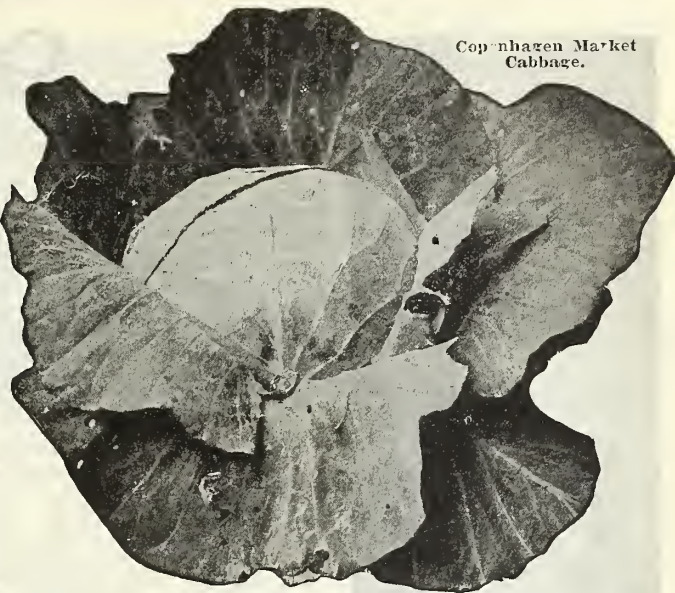
EARLY WINNIGSTADT. Very early. The leaves are dark green and tightly folded, making it the hardest of early varieties. It seems to suffer less from cabbage worm than most sorts. Heads are regular, conical, and keep well.

COPENHAGEN MARKET. The finest, large, round-headed, early cabbage. It is desirable because of the uniform maturity, permitting the grower to gather and market the crop at least expense. Heads average about ten pounds each, are hard and solid with small core. The quality is extra fine and sweet.

Second Early

EARLY SUMMER. Deservedly popular with market gardeners throughout the country. It forms large, solid, round, flattened, compact heads of excellent quality, tender and sweet. The heads average over double the size of the Jersey Wakefield, weighing eight to ten pounds each, while it matures only ten or twelve days later.

ALLHEAD EARLY. Earlier than any other large cabbage, larger than any other early cabbage. Heads deep, flat, solid, uniform and very tender. An all-the-year-round cabbage.



Copenhagen Market Cabbage.

WE HAVE MADE A THOROUGH STUDY OF CABBAGE FOR OUR NORTHERN CLIMATE AND YOU WILL NOT MAKE A MISTAKE IF YOU PLANT THE VARIETIES LISTED ON THIS PAGE.

Late or Winter

SUREHEAD. Heads are large, round, flattened, uniform, very hard, firm and sweet, and average from ten to fifteen pounds each. Certain to head, a good shipper and a fine keeper.

PREMIUM LATE FLAT DUTCH. A low-growing variety, head large, bluish-green, round, solid, broad and flat on top; an excellent fall and winter variety, and a good keeper. It is a sure header. Our stock has been grown from carefully selected heads, and we consider it superior to any other strain of Flat Dutch Cabbage on the market.

IMPROVED AMERICAN DRUM-HEAD SAVOY. Plant is vigorous with short stem, has densely crumpled leaves and when touched by frost is sweet, delicate and delicious. The head is large and very solid.

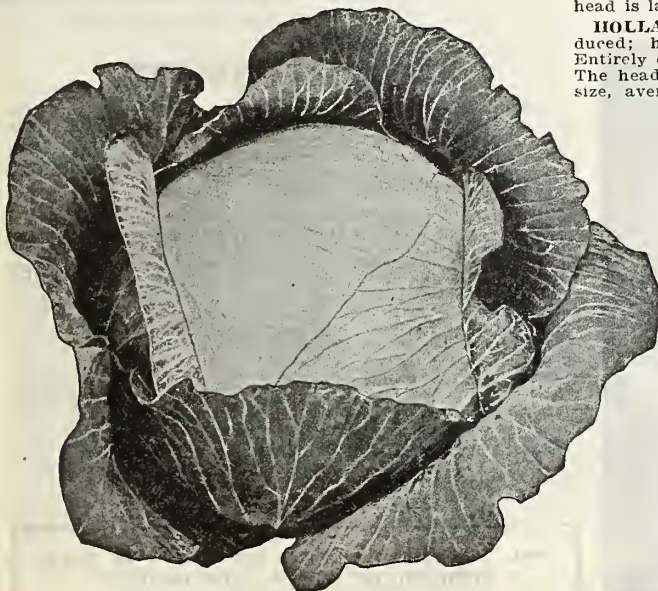
HOLLAND. Most remarkable late cabbage yet produced; head hard and solid—fine grained and tender. Entirely distinct in color. Very finest short-stemmed type. The heads, which are very solid and deep, are of medium size, averaging about 8 pounds in weight; in color they are entirely distinct; in point of quality they have no superior and they keep better than any other sort, head being as solid and perfect when taken up in the spring as when put away in the fall.

DANISH SHORT STEM. An earlier, shorter stemmed improved strain of the Danish Ballhead Cabbage. The heads are hard and very solid and mature about two weeks in advance of the Ballhead. They also average a little larger and heavier. The inner leaves are blanched almost pure white, are of sweet flavor, crisp and tender. It is less liable to blight and shows vigorous growth even in the hot summer.

PRICES ON CABBAGE GIVEN ON PAGE 28.



Early Winnigstadt.



Premium Late Flat Dutch.

Watch Us Grow

We are selling seeds which bring results. That's the answer.

Carrots

One ounce will sow 100 feet of drill; 3 to 4 pounds per acre.

Culture.—Carrots to grow to perfection require a deeply cultivated, rich and well pulverized soil. Sow early in the spring as soon as the soil is fit to work, in drills 15 to 18 inches apart, covering one inch deep and press the soil firmly over the seed. If desired to cultivate with horse, make rows three feet apart.

CHANTENAY. The flesh is of a beautiful, rich orange color and of the finest quality; it is medium early, with small tops. Roots taper slightly, but are uniformly stump-rooted. Gives great satisfaction in both market and private garden.

EARLY SCARLET OR SHORT HORN. Color deep orange; flesh fine grained and of agreeable flavor; tops small; has a short, stump-shaped root. Grows well in shallow soil; one of the best for early out-door planting and for table use.

OXHEART OR GUERANDE. This Carrot is intermediate as to length between the half-long varieties (such as Danvers) and the Scarlet Horn Carrots, but is much thicker than the latter, being at the top from four to five inches in diameter. Flesh bright orange, fine grained and sweet.

MASTODON CARROT. (For feeding stock.) Mastodon Carrot is not a table carrot, although the flesh is remarkably firm and sweet. It is not a carrot for the market gardener, but it is emphatically the carrot for the farmer, and once used, nothing else will take its place.

Mastodon Carrot is the heaviest cropping carrot grown. The flesh is white, crisp and solid and very sweet in flavor. The roots are short and very heavy at the shoulder, rendering them easily harvested. Too much can scarcely be said of their size and great productiveness. The roots frequently measure 15 to 20 inches in circumference, and 18 to 40 tons per acre is not an extravagant statement.

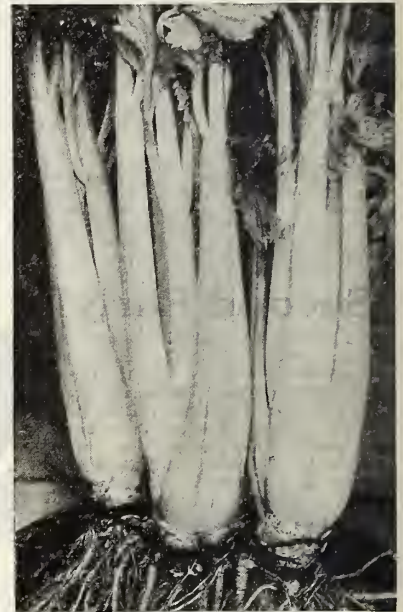
LARGE WHITE BELGIAN. Grows one-third out of the ground. Root pure white, green above ground, with small top. Flesh rather coarse. The roots on light, rich ground grow to a large size; fine for stock feeding.

HALF LONG SCARLET NANTES, STUMP ROOTED. Tops of medium size; roots cylindrical, smooth, bright orange; flesh orange, becoming yellow in center, but with no distinct core. Of the finest quality and one of the most symmetrical and handsome of the medium sized sorts; excellent for the market or home garden.

SEE PAGE 28 FOR PRICES.



Chantenay Carrot.



Golden Self-Blanching Celery.

Celery

Culture.—Celery does well in any deep, richly manured soil. Make the rows about 4 feet apart, and leave 5 or 6 inches between plants in the row. Cultivate frequently. One ounce of seed will produce about 3,000 plants.

GOLDEN SELF-BLANCHING. This splendid variety is without doubt the most popular celery grown. It is a self-blanching sort, for with a little banking or covering, even the outer ribs assume a beautiful golden-yellow. While the heart or vine stalks are deliciously tender, brittle and sweet. This variety is being extensively grown, not only on account of its ease of culture, but for its superior quality. It is not quite so early as the White Plume but is of heavier and more compact growth, the stalks being thick, crisp and brittle. The hearts are large and solid, blanching a beautiful waxen yellow. It is tender and sweet and free from stringiness. Its flavor is rich and delightful.

WHITE PLUME. The earliest celery. This is a well known variety. Popular on account of its earliness and the ease of its culture.

SEE PAGE 28 FOR PRICES.



Model Cauliflower.

Cauliflower

Culture.—Same as Cabbage. Sometimes in the South the seed is sown in September and the young plants wintered over to save time in the spring. Pin or tie the leaves together after the head or flower has begun to form. This will preserve the snowy whiteness. An ounce of seed will produce about 3,500 plants if carefully managed.

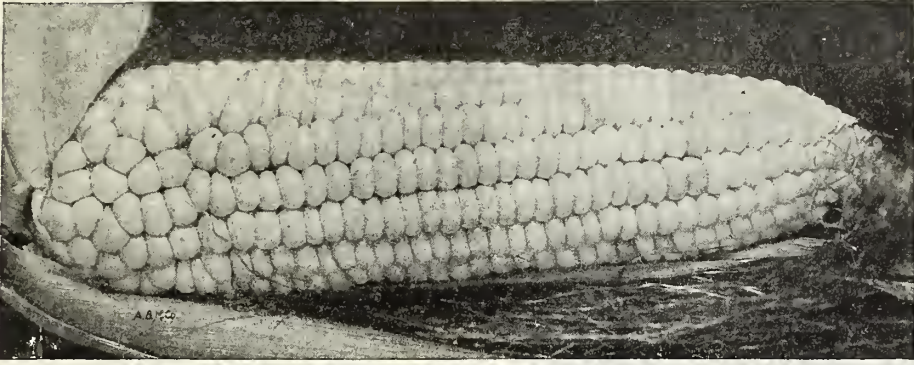
MODEL. In competition with all other strains the Model Cauliflower has won the approval of critical gardeners; being the earliest and best sort grown. It is suitable not only for early use, but is superior for late planting. The heads are hard and solid and do not spread. No other equals it in purity of color, it being clear snow white. The heads are large—from 9 to 12 inches in diameter, and weigh from 4 to 8 pounds. On account of its close growing, compact habit, many more plants may be grown on a given area than of the late spreading sorts.

SNOWBALL. Forms snow-white heads six to ten inches in diameter, of good quality. Its close-growing habit permits more heads to a given area than the later maturing sorts. Excellent for both early and late planting.

EXTRA EARLY DWARF ERFURT. The finest strain procurable. Plants dwarf and compact, forming good sized heads; very fine stock.

FOR PRICES SEE PAGE 28.

THE "GLACIER BRAND" ON SEEDS IS LIKE
STERLING ON SILVER. THE QUALITY
IS ASSURED.



Extra Early White Cory.

Celeriac

Turnip-rooted Celery.

LARGE ERFURT. Large, smooth, excellent flavor. Grown for its roots for salads, soups, stews. No earthing is required for this celery, as the roots are the edible portion of the vegetable. Sow the seed the same as celery, and transplant into rows two feet apart, 6 to 8 inches in the row.



Golden Bantam Sweet Corn.

Corn Salad, or Fetticus

LARGE-LEAVED. Sow very early in spring in shallow drills 1 foot apart. For an early spring crop, sow in September and winter over in cold frames, or cover with litter. One ounce of seed will sow 100 feet of drill.

Chervil

CURLED. An aromatic sweet herb that resembles parsley. The young leaves are used in soups and salads. Sow evenly in May, in drills $\frac{1}{2}$ inch deep, 1 foot apart.

TUBEROUS-ROOTED. Sow in May or June, after treatment same as for carrots.

Pop Corn

WHITE RICE. Everybody knows the old variety named the White Rice. The grains are sharply pointed and the ear is a handsome one.

Sweet Corn

While Sweet Corn is often grown in hills, experienced gardeners prefer drills. Make the first planting the latter part of May in a rich, warm soil; successive sowings should be made at intervals of about ten days until July. Sow in drills from $2\frac{1}{2}$ to $3\frac{1}{2}$ feet apart, according to the height of the variety, and thin out the plants to 10 or 12 inches apart in the row. If grown in hills, 3 or 4 feet apart each way gives ample space; never allow more than four plants to remain in one hill.

One quart of seed will plant 150 feet of drill, or about 200 hills.

PEEP O'DAY. Peep o'Day Sweet Corn is one of the best early varieties grown. It is ten days to two weeks earlier than most other varieties and is not only early, but sweet and luscious. It is especially desirable for planting in regions of early frosts and short summers.

EARLY MINNESOTA. A standard early sort of excellent quality, especially desirable where seasons are short. The ears bear 8 to 10 rows of large white grains. This variety is popular on account of its great productiveness. Excellent for market, home and canning use.

EXTRA EARLY WHITE CORY. One of the earliest varieties, well and favorably known in all parts of the country. It succeeds well where the seasons are short, and can be recommended for general planting. Ears six inches long, with eight rows of broad grains.

GOLDEN BANTAM. This variety is nearly as early as Peep o'Day, and is, we consider, the richest in flavor of all varieties. The kernels are large and creamy yellow. Those who try it will always demand "the yellow corn that was so sweet and rich in flavor." It is very hardy and productive. 5 to 10 cents per dozen premium may be obtained over the market price for other sorts. Include Golden Bantam in your order.



Glacier Cucumber.

Cucumbers

Four oz. of seed to 100 yards of row; 3 lbs. to the acre.

Culture.—For earliest use, sow the seed in the hothed or greenhouse in February or March, in warm loam where the temperature is about 50 degrees; cover $\frac{1}{2}$ inch deep, and when the plants are of fair size, transplant in hills (made in greenhouse), 4 plants in a hill, so that when the weather permits the whole hill can be moved to the open ground. Plant for general use in the open ground about June 1st, in hills 6 feet apart each way, and thin to three plants to a hill. A sprinkling of Slug Shot will keep off the striped bug.

GLACIER. This cucumber has a great many points of superiority; it is the earliest white spine cucumber suitable for table and market purposes. It is one of the greatest producers, and at all stages is the handsomest and most attractive of all American sorts. The quality is fine, being brittle and crisp, with a delicate flavor, entirely devoid of the bitter taste so frequently noticed in other varieties.

COOL AND CRISP. A strain of white spine similar to the Arlington but larger. Fruit long, cylindrical, dark green. Fine for table use.

DAVIS PERFECT. A carefully selected strain of Extra Long White Spine, suitable for both greenhouse and outdoor culture. The fruits are of large size, splendid quality and fine color. The flesh is tender, brittle and of excellent flavor. A favorite for market use.

EARLY FRAME OR SHORT GREEN. Used for table and pickling. Very productive. Fruit straight, bright green.

WHITE SPINE EVERGREEN. A fine strain, bearing blue green fruit, often from ten to twelve inches in length, smooth, round, and of fine quality. Especially recommended for hothed culture. The seed offered has been taken from fruit selected for its ideal form, uniformity in size, shape and color, and general appearance. A very satisfactory variety in every way. One ounce sows 60 hills; 2 to 3 lbs. per acre.

SEE PRICES OF CUCUMBER SEED ON PAGE 28.

Egg Plant

Culture.—Egg plant seed germinates slowly and should be started in a hot bed. When transplanting, set thirty inches apart, and pinch off the larger leaves. Hoe frequently and hill up gradually until the plants begin to bloom.

IMPROVED NEW YORK SPINELESS. The handsomest type and most perfect strain of Egg Plant in existence. The plants are stocky and low branching, stalks entirely free from spines, and produce continually handsome, deep purple fruits of largest size and most perfect symmetry. The plants usually bear eight to ten immense fruits of the finest quality before being killed by frost. See page 28 for prices.

Endive

GREEN CURLED. Leaves finely cut; a most desirable sort for home use or market garden.

WHITE CURLED. Very beautiful; leaves need no blanching; plants are moderately dense; midrib is yellow and leaves white.

See Page 28 for Prices.

Kale or Borecole

DWARF GERMAN (Dwarf Curled Scotch Kale). This is more hardy than cabbage and makes excellent greens for winter and spring use. The leaves are curly, bright green, very tender and delicate in flavor.

TALL GREEN CURLED SCOTCH. Grows up to three feet high, bearing long, light green leaves, finely curled at the edges. Extremely hardy, being improved rather than injured by a moderately heavy frost.

Kohl Rabi

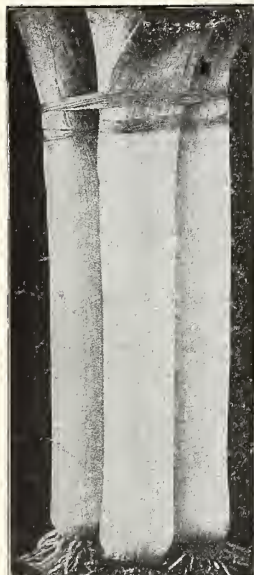
Culture.—Sow the seed in the spring in drills three-fourths of an inch deep and two feet apart, and when the plants are a few inches high thin to 15 inches. Cultivate same as beets. Two pounds of seed required per acre.

EARLY WHITE. For forcing. Very early, small, handsome, white bulb. Best early variety for the table. See page 28 for prices.

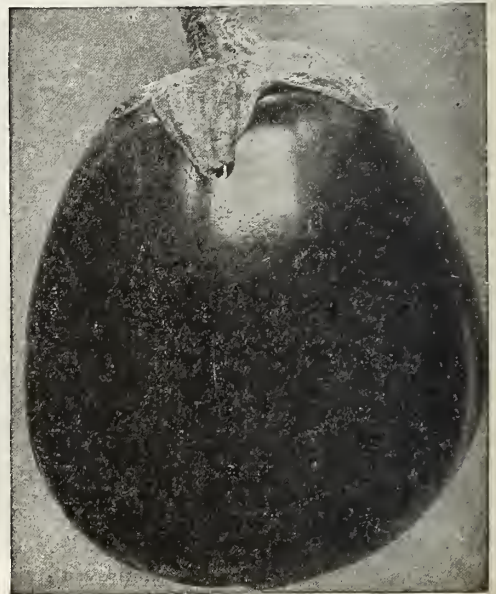
Leek

LARGE AMERICAN FLAG, or "BROAD LONDON." A large growing variety. Hardy and productive. A favorite both for market and home garden. See page 28 for prices.

NORTHERN GROWN SEEDS
COST MORE BUT THEY ARE
WORTH IT.



Leek.



Improved New York Spineless Egg Plant.

Lettuce

1 ounce will produce 3,000 plants;
3 lbs. to the acre.

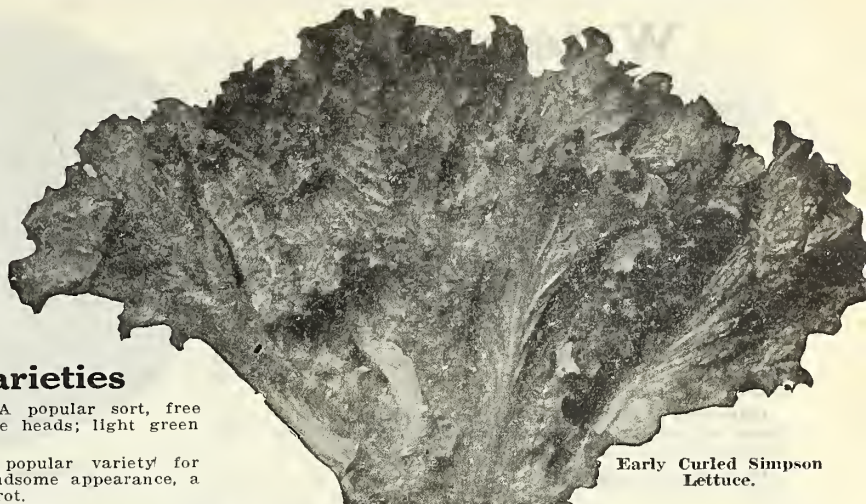
Culture.—To have fine lettuce early in the spring, sow in hotbed from commencement to middle of autumn. During winter, protect the plants by a box covered with a window or other sash, or with litter. Early in spring transplant some into rich ground; the others force under the sash. Or, in early spring, sow in hotbed and transplant. Later sow in drills when the cherry is in bloom; when up a few inches, thin out, leaving plants at proper distances.

Loose Leaved Varieties

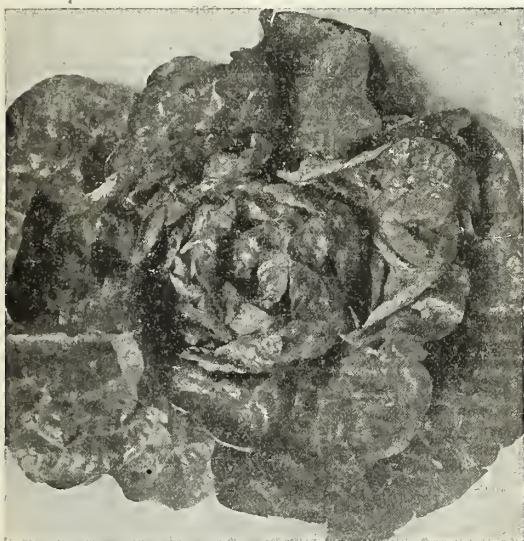
EARLY CURLED SIMPSON. A popular sort, free from bitterness; forms large, loose heads; light green in color.

GRAND RAPIDS. The most popular variety for greenhouse planting. It is of handsome appearance, a strong grower and not subject to rot.

PRIZEHEAD. A large, loose-headed, thin-leaved sort; the very large leaves are crimped, bright green, tinged on the edges with reddish-brown, and are crisp and sweet.



Early Curled Simpson Lettuce.



May King Lettuce.

branches to put forth sooner and strengthen the growth of the vines.

YELLOW MEATED JAPAN. This is by far the finest, most luscious and pleasing muskmelon grown. The vines are hardy, permitting earlier planting, very prolific, and produce very large fruits, nearly as early as the smaller varieties. The melons are nearly round, not deeply ribbed, and covered with patches of netting. The skin is yellowish-white when ripe. The crowning feature of this melon is found in the thick, melting and delicious salmon-colored flesh. It is extremely rich, sweet and highly flavored.

OSAGE, or MILLER'S CREAM. Fruit medium sized, oval, slightly ribbed, dark green in color, banded with lighter streaks, covered more or less with shallow netting. The flesh is deep salmon color and very thick, there being but a slight cavity in the center of even the largest fruit. Of exceptionally fine quality. The Osage is an excellent general purpose melon, as its crop is good on various soils, and the quality is satisfactory. Flesh ripens to the skin.

ROCKY FORD CANTALOUPE. No melon has ever been so popular in the large city markets and has sold so readily at such high prices as the Rocky Ford. The vines are exceedingly healthy and vigorous, bearing an abundant supply of fruit during the entire season. The melon when ripe should have a silver-colored lace-like veiling, making it very attractive in appearance. The green flesh is very deep, very solid, yet so sweet and melting as to be eaten close to the rind. The seed cavity is very small. The average weight is about one and a half pounds.

SEE PAGE 29 FOR PRICES OF MUSK-
MELON SEED.

Heading Varieties

IMPROVED HANSON HEAD. In all respects one of the very best out-door varieties. It is very hardy and will stand extremes of weather better, perhaps, than any other of the "crisp heading" sorts. In color it is of an attractive green. The head, which attains a large size, is hard, tender and crisp, with a blanched appearance in the center. It is of capital table quality, wholly free from bitterness.

MAY KING. An unequalled variety for early spring planting in the open ground. It is extremely hardy and very quick growing. The plants grow six to seven inches in diameter, with the outer leaves folded closely, forming the plant into a solid head. The outer leaves are light green, slightly tinged with brown; the inner leaves are bright yellow and of a fine, rich, buttery flavor. Each head will weigh nearly a pound, on the average.

SEE PAGE 28 FOR PRICES.

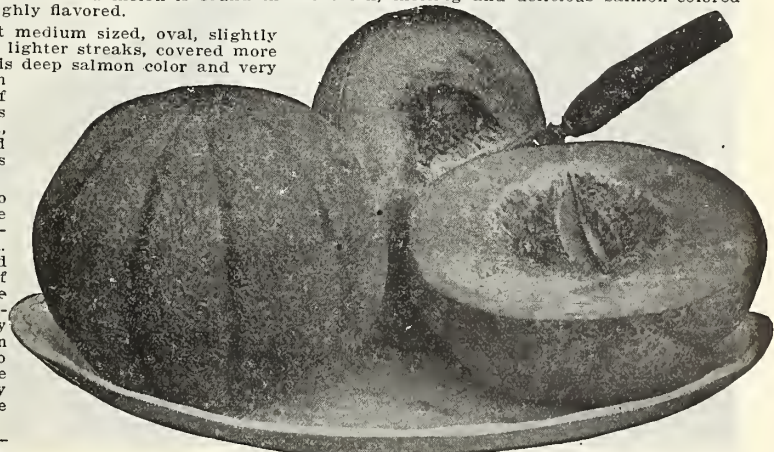
Mustard

SOUTHERN GIANT CURLED. Used largely for salad, especially in the South. The true curled-leaf variety. See page 28 for prices.

Muskmelon

One Ounce to 60 Hills; 3 Pounds to Acre.

Culture.—A rich, deep, sandy soil, well worked and highly manured, is of the utmost importance. Plant when all danger of frost is over, in hills 5 to 6 feet apart each way; scatter a dozen seeds to a hill and afterwards thin out to 3 or 4 plants. Canteloupes and cucumbers are often destroyed by lice and should be well sprinkled with slug shot when the plants appear. When they have 4 leaves, pinch off the end of the main shoot, which will cause lateral



Rocky Ford Cantaloupes.

Watermelon

Four Ounces to 60 Hills.

Culture. Watermelons are cultivated in hills, which should be 6 to 8 feet apart each way, and composed of light, moderately rich soil. The hill should be dug about 2 feet square, 18 inches deep, and half filled with well-rotted manure, which must be thoroughly mixed with the soil. Plant in May, ten seeds to a hill, and when the plants are well up, thin out to three. Cultivate until the vines cover the ground, and pinch the ends of the growing shoots to induce early fruiting.

CITRON FOR PRESERVES. Fruit round and smooth. Is not eaten raw, but is used for making a very clear, transparent preserve of peculiarly fine flavor. Flesh white and solid.

KLECKLEY'S SWEETS. The finest of all medium early watermelons for home use. The rind is too thin to stand long distance shipment. The fruits are uniform in size, oblong in form, the skin is rich dark green, the flesh bright scarlet, the seeds lie close to the rind, leaving a very large, solid, red core. The flesh is rich, sugary, and melting, being entirely free from stringiness.

PHINNEY'S EARLY. Very early, quality good; hardy. Bears abundantly, medium sized, oblong melons with thin, smooth rind; flesh pink and tender.

For prices, see page 28.



Phinney's Early Watermelon.

Onions

One ounce for 100 feet of drill, 4 to 5 pounds per acre. Sow as early in the spring as ground can be worked in drills 15 inches apart, covering one inch deep.

MINNESOTA RED GLOBE. This beautiful strain of red globe onion surpasses others in earliness, productiveness, perfection of shape, uniformity of size and richness in color and long keeping qualities. Careful breeding has resulted in a true globe-shaped onion of great solidity, with a small neck which not only prevents the water-logging, rot and shrinkage, but insures early maturity and perfect ripening. The color of the Minnesota Red Globe is a deep blood-red, extra dark, while the surface is smooth and glossy; the flesh is white, tinged with light purple, fine grained and unsurpassed in flavor.

LARGE RED WETHERSFIELD. Very popular, a sure and heavy yielder; the best keeper; grows to an immense size, solid, oval shaped, flattened on top; skin purplish-red, smooth and glossy; flesh white, slightly tinged with pink, strong flavored. The best variety for poor or dry soil.

EXTRA EARLY RED FLAT. A medium sized flat variety, good yielder. Ready for use about two weeks earlier than Large Red Wethersfield. Fine grained and mild in flavor. Good keeper.

YELLOW DANVERS FLAT, or ROUND. Very productive, medium size, round, flat, early. Very reliable, small neck; thin, pale, yellow skin. Flesh white, fine grained and mild.

YELLOW GLOBE DANVERS. The bulbs are large and globular, with very thin necks; rich orange-yellow color. An enormous yielder and a fine keeper. Flesh white and mild.

WHITE PORTUGAL, or AMERICAN SILVER SKIN. Bulbs medium size, ripening early and uniformly, with beautiful clear white skin; flat, good keeper, delicate and mild flavor. Used largely for pickles, also as a bunching onion.

SOUTHPORT RED GLOBE. This variety produces large, perfectly globe-shaped onions of the same size and handsome form as the two preceding varieties, but the color is an extra rich deep red. It brings the highest prices on the market, and is very profitable. It is also known as Globe Wethersfield, but is not so early nor quite so sure to ripen well in unfavorable seasons as the Extra Early Red and Large Red Wethersfield, which are of the flattened type. It should not be planted in heavy, wet soil.

AUSTRALIAN BROWN ONION. This remarkable onion is of medium size, wonderfully hard and solid and most attractive for market, both in form and appearance. They are extremely early in ripening and make no stiff-necks or scallions. Every seed seems to produce a good-sized onion, and the bulb begins to form very quickly when the plant is not over three inches high. Planted with the Red Wethersfield it will average nearly four weeks earlier, and ripen off more uniformly. It has the reputation of keeping indefinitely, and we think from the firmness and hardness that it will keep in good condition longer than any other onion known. The color of the skin is a clear amber-brown.

SOUTHPORT WHITE GLOBE. White Globe onions command the highest market prices when they are true globe-shaped and free from stain. Our Southport White Globe Onion meets these requirements, having a thin skin of purest whiteness. The flesh is crisp, fine grained, very white and mild. As soon as ripe, the bulbs should be stored in a cool dark shed or dry cellar.

Onion Sets

The Importance of Using Those Which are Northern Grown.

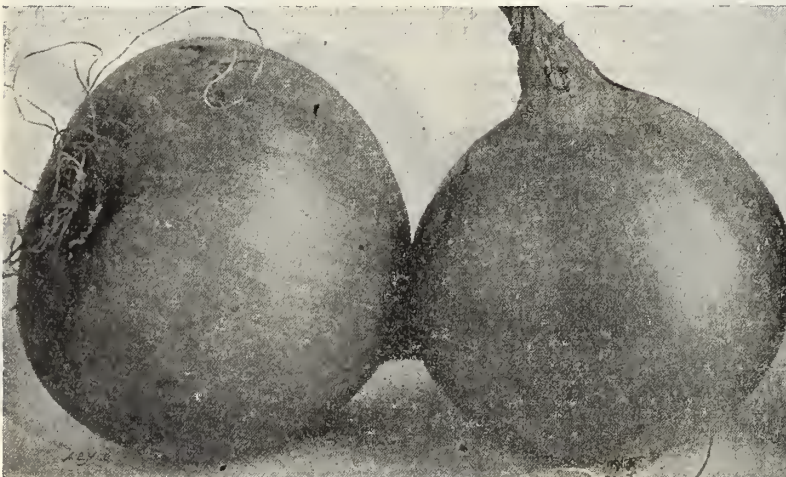
The planting of Onion Sets is increasing rapidly year after year. They are used in order to obtain onions earlier than they can be had from seed. It follows, therefore, that Northern Grown Onion Sets will produce onions earlier than Southern grown sets. In addition to this, Northern grown onion sets are incomparably superior to ordinary stock, being of small size, very hard and sound, and are cleaned so thoroughly as to be free from trash and rubbish.

WHITE BOTTOM. Small, solid and a beautiful silvery-white. Favorite sort in all gardens.

RED BOTTOM. Bright, dark red in color, even and dry.

YELLOW BOTTOM. Produced from seed which makes the finest yellow sets. Fine, dry, medium in size and unsprouted.

YELLOW MULTIPLIER. Preferred on account of their earliness. Late in June they are fully ripe.



Minnesota Red Globe Onions.

FOR PRICES OF ONIONS AND ONION SETS SEE PAGE 29



Sweet Marrow Parsnip.

Parsley

One oz. to 100 feet of drill; 7 lbs. to acre.

Culture.—Soak the seeds a few hours and sow early in spring and continue until early autumn. If for horse culture, the rows should be 3 feet apart; if for hand culture, 18 inches. Thin out the plants to 4 inches. To preserve during winter, transplant to light cellar or cold frame.

DARK MOSS CURLED. The leaves are of an extra dark green color. It is very productive, and on account of the densely curled character of its leaves a quantity can be gathered in a short time.

TURNIP ROOTED, or HAMBURG PARSLEY. The edible portion is the fleshy root, which resembles a small parsnip, and is esteemed for flavoring soups, stews, etc. The flesh is white, a little dry, with the flavor of Celeriac. The foliage is the same as the plain parsley.

SEE PAGE 28 FOR PRICES.



Early Sugar or Pie Pumpkin.

Pumpkin

One ounce to 30 hills; three to four pounds per acre.

Culture.—Plant in hills six to eight feet apart, with 5 or 6 seeds in the hill, when the ground has become warm and the weather favorable, giving the same cultivation as for melons.

EARLY SUGAR, or PIE. Small, round, flattened, prolific, deep orange yellow. Flesh fine grained, sweet and of finest quality. A good keeper. One of the best for pies.

CONNECTICUT FIELD. An immensely productive, large, orange colored field pumpkin, usually grown for stock feeding, but it also makes good pies.

LARGE CHEESE, or KENTUCKY FIELD. Large, round, flattened, hardy and productive. About two feet in diameter. A fine keeper. Thick flesh of extra fine quality. Fine for family and market use. Grown quite extensively for stock feeding.

MAMMOTH PRIZE. The largest pumpkin grown. Has weighed as high as 225 pounds. A prize winner. The flesh is fine grained and the quality is excellent. The flesh and skin are of a bright golden-yellow color. Notwithstanding its large size it is a fine variety for pies and is a splendid keeper. If you wish to see how large a pumpkin you can grow, try this variety.

SEE PAGE 29 FOR PRICES.

Parsnips

One oz. to 100 feet of drill; 5 to 6 lbs. to acre.

Culture.—This vegetable is easily raised and very productive. Sow early in spring in shallow drills, 18 inches apart. The ground should be well and deeply dug. Thin out plants to six inches in rows. Hoe often.

SWEET MARROW PARSNIP. This fine Parsnip is offered with full confidence that it will be a prime favorite with all who use it. It is very fine grained and exceedingly sweet, while the peculiar "parsnip" flavor is fully preserved. The roots are unusually smooth and attractive in appearance. The best of all parsnips for the private or market garden.

GUERNSEY. (Improved Half Long). The roots do not grow so long as the Hollow Crown, but are of greater diameter and more easily gathered. It is a very heavy cropper. The roots are very smooth; the flesh is fine grained and of most excellent quality.

IMPROVED HOLLOW CROWN PARSNIP. Our stock of this old time favorite is very smooth and fine. None better anywhere at any price.

Peppers

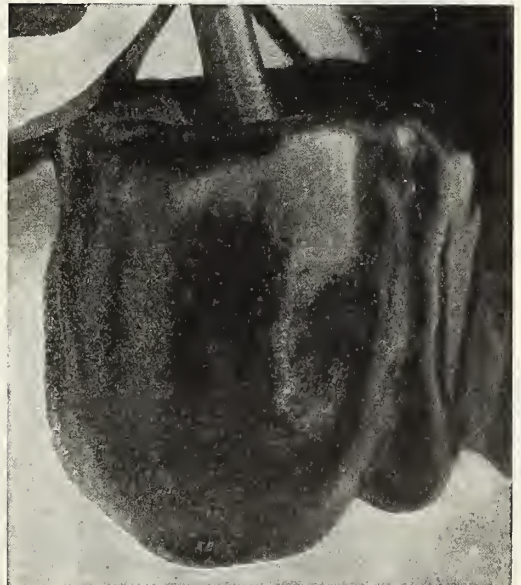
One ounce will produce 1,500 plants.

Culture.—Sow in hotbeds in March; outside when the apple is in bloom, against a board fence or a garden wall. Transplant in rows 3 feet, and 2 feet in the row.

LARGE BELL OR BULL NOSE. A large, early, bright red variety, mild in flavor. Desirable for pickling and mangoes when green.

LONG RED CAYENNE. A late variety. Pods are small, bright scarlet, cone shaped and pungent. Are as much used for pickling when green as when ripe.

Our Garden and Field Seeds are the very best obtainable for Montana Planting. They have been carefully tested and proven best for good yields of good quality in this section.



Large Bell Pepper.

Peas

One quart will plant 60 ft. of drill; 2 bushels to acre.

Culture.—Peas are among the first seeds that are planted in spring, and need rich, well-manured soil. Sow in drills three feet apart and repeat until first of July, with the exception of our Extra Early, which can be sown as late as August, on account of its early ripening and mildew resistance. The number of peas may vary from 10 to the foot for the dwarf varieties to 8 to the foot of the medium tall and 6 to the foot of the very tall kinds.

Extra Early Dwarf Wrinkled Varieties

These require no brushing and are in large demand for family use. All of the following sorts are early, being but a few days later than the Round Seeded sorts.

AMERICAN WONDER. Height 10 inches. The vines bear a great abundance of good sized pods containing five to eight large, exceedingly sweet, tender and well flavored peas. This is the earliest of the dwarf wrinkled varieties. The seed is medium sized, wrinkled and pale green. Especially adapted for family use as they require no brush.

LITTLE GEM. Height 16 to 18 inches. The vines are of dwarf growth and produce an abundance of round, well-filled pods $2\frac{1}{2}$ to 3 inches long, only three days after the American Wonder. The peas are green, wrinkled, of sweet, delicious flavor and excellent quality.

NOTT'S EXCELSIOR. Height 14 inches. It is of compact, dwarf growth and is nearly as early as the American Wonder. The pods average three inches in length and are well filled to the square ends with green, wrinkled peas of fine quality.

SEE PAGE 28 FOR PRICES ON PEAS.



American Wonder Peas.

Extra Early Round Seeded Varieties

They ripen more uniformly than any other Peas and where the stocks have been properly bred and kept rogued, from 75 to 80 per cent of the pods can be stripped from the vine at the first picking, enabling the grower to secure the highest prices. Round seeded varieties are not as sweet as the wrinkled sorts.

ALASKA. Height $2\frac{1}{2}$ feet. Very early and exceedingly uniform in maturing its crop. The vines are very productive, bearing four to seven pods which are filled with medium sized, bright bluish-green peas of good flavor.

Early Wrinkled Varieties

Most of the following sorts are nearly or quite as early as the round seeded extra earlys, but they do not mature so uniformly. This, while making them less desirable for early market purposes, makes them better for family use as they will stand longer in fit condition for the table. They are much sweeter than the round seeded sorts.

ADVANCER. Height 2 to $2\frac{1}{2}$ feet. Seeds green, wrinkled. The pods are broad and long and well filled to the ends. It is a very productive and satisfactory variety.

CARTER'S DAISY PEAS. Dwarf, large podded pea, needs no brush. The pods are nearly double the size of American Wonder, and are always well filled with large peas of most excellent quality. The vines are 16 to 18 inches high, and require no support.

GRADUS (Prosperity). The earliest wrinkled variety. This grand, large podded, early, prolific variety has won the hearts of market gardeners in every market. The vines are very vigorous and robust, growing to a height of about 3 feet. The pods are very large and are invariably well filled with from six to nine sweet, luscious, tender, wrinkled peas of large size and delicious flavor.

Main Crop Varieties

Planted at the same time as the extra earlys or dwarf varieties, these come into bearing when other sorts are gone. For the most part they stand a long time fit for table use, and as a rule they are, except when noted, sweeter than the early sorts. The pods are large and they will stand longer in fit condition for use.

TELEPHONE. This is in all particulars a market garden variety. It comes into bearing fairly early, yields abundant crops of large, fine appearing pods and peas are sweet and luscious. It is a great cropper, continues long in bearing, and fills the basket quickly. The vines grow about $3\frac{1}{2}$ feet in height, are very vigorous and strong. Each vine bears on an average seven to ten pods, which are ready for picking in about 65 days. The immense pods are straight, and of fine appearance, and contain eight to nine large wrinkled peas, closely packed, tender, sweet and of exquisite flavor.

CHAMPION OF ENGLAND. 4 to 5 feet in height. The standard main crop or late pea for summer use. The vines are very vigorous and productive, bearing an abundance of large, well filled pods. The peas are light green, wrinkled, of fine quality and delicious flavor.

WHITE MARROWFAT. Height $3\frac{1}{2}$ feet. Grown on account of the great quantities of pods which it bears and for canning purposes. The vines are of strong, sturdy growth but mature pods quite late.

BLACK-EYED MARROWFAT. Height of vines, 3 feet. (Hand-picked). An excellent variety. A very prolific bearer of large pods. One of the very best Marrowfat sorts.



Telephone Peas.

Radishes

One ounce to 50 feet of drill. 8 pounds to acre.

Culture.—The soil for radishes should be very rich, light and mellow, well broken by digging, as their tender and mild qualities depend much upon their rapid growth. For very early use, sow in gentle hotbeds in February, and in the open air as soon as the ground can be worked, at intervals of ten to twelve days, for a succession as long they may be wanted. The winter varieties should be sown in August, lifted before severe frost and stored in the cellar.

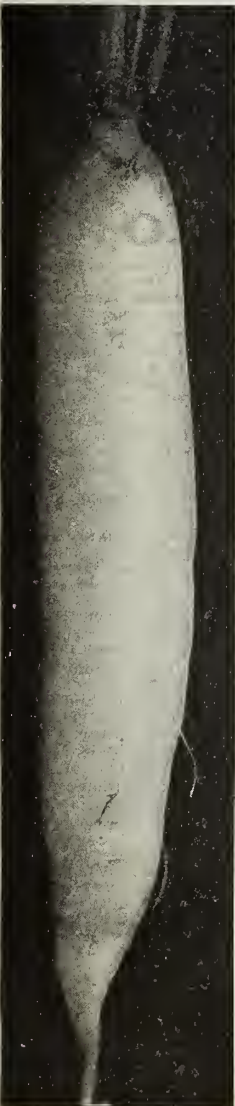
Sow in drills one foot apart and cover lightly; thin out while small to three inches apart. Hoe often.

EARLY DEEP SCARLET or NON PLUS ULTRA FORCING. This variety has as small a top and is as early as any in cultivation, making it one of the best for forcing under glass. Roots ready to pull may be had in three weeks and they remain long fit for use. They are small, globular, smooth, very deep red in color; flesh is white, crisp, tender and mild in flavor.

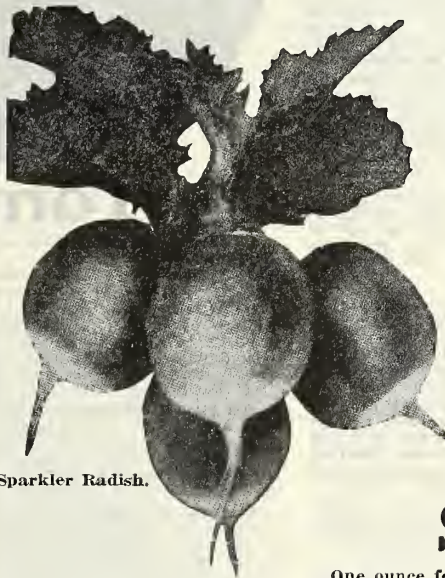
EARLY SCARLET GLOBE. The shape is a little longer than the round, and the color, which it holds long after pulling, is very brilliant and attractive. Has a small top and is very early, being fit to pull as soon as the Non Plus Ultra, but is much larger when matured. The flesh is white and tender.

SPARKLER. This quite distinct variety is exceedingly attractive, the color being a rich carmine scarlet with a very pronounced tip of purest white. The roots even when fully developed are solid, crisp and sweet, and remain fit for use as long as the coarser kinds. It is equally well adapted for forcing in frames or growing in the open ground.

FRENCH BREAKFAST. Beautiful, bright scarlet, with pure white tip. Oblong in shape, medium size, makes rapid growth. It is a fine table variety on account of its excellent quality and attractive appearance. Fine for open ground or forcing.



White Icicle Radish.



Sparkler Radish.

A pleasant way to Hooverize: Choose, plant and eat wholesome radishes.

Salsify or Vegetable Oyster

Sow as early as the ground can be worked, in drills 12 to 13 inches apart, one inch deep.

SANDWICH ISLAND. Grows uniformly extra large, averaging fully double the size and weight of the roots of the old variety. Of very superior quality and delicate flavor.

LOOK AT PAGE 29 FOR PRICES OF RADISH SEED.



French Breakfast Radish.

WHITE ICICLE. The finest of the early, pure white varieties. Planted in the spring the radishes are ready for pulling in about three weeks from sowing the seed. They are long and slender and clear pure white, making them very attractive. It is crisp and tender both when young and until it attains larger size.

WHITE STRASBURG. A large medium long sort, with heavy shoulders tapering gradually to base. Flesh and skin pure white. Solid, fine quality. Resists drought.

CHINA ROSE WINTER. Bright rose color, flesh firm and piquant, cylindrical, or largest at the bottom, tapering abruptly to small top. One of the best for winter use.

LONG BLACK SPANISH WINTER. One of the largest, latest, as well as the hardest of radishes. Roots of medium size, oblong, black, and flesh is of firm texture.

Spinach

One ounce for 100 feet of drill. Sow in early spring, in drills 12 to 15 inches apart, covering not more than one inch deep. Sow every two weeks for succession.

LONG STANDING. This excellent variety comes quickly to maturity and remains in condition for use much longer than other sorts. The leaves are smooth and very dark rich green. One ounce will sow a 100 foot row.

ROUND THICK LEAVED. A rapid growing variety, forming clusters of large, very thick, slightly wrinkled leaves. A favorite with market gardeners.



Round Thick-Leaved Spinach.



Ruta Baga

PRIZE WINNER. Short neck, small top, firm flesh, symmetrical shape, united with high feeding value, great productiveness, hardness and long keeping qualities, describes the perfect Ruta Baga. Every root of Prize Winner more nearly approaches this ideal than any other strain of Ruta Baga. Prize Winner Ruta Baga is a purple top, yellow flesh variety. The roots reach a good size and are exceedingly uniform in appearance. The Prize Winner is an all around Ruta Baga, suited to every purpose and every soil. The Prize Winner is the handsomest and most productive stock of purple top Ruta Baga.

AMERICAN PURPLE TOP. This strain is of American origin and is a purple top, yellow variety. It has been selected to produce a smaller top and shorter neck than is usually found; the roots grow to a large size and are of the finest quality and excellent both for the table and for stock feeding.

SWEET GERMAN. One of the very best sorts on account of its productiveness and quality. This consideration should count strongly with stock growers, all of whom understand that the quality of the feed regulates the quality of the product. Both flesh and skin are white.

Turnip

Culture.—Sow any time from early spring until July, either broadcast or in drills two and one-half feet apart, thinning out to about 5 or 6 inches apart in the row.

PURPLE TOP STRAP-LEAVED. A general favorite with all, and more largely grown than any other turnip; will do well to sow either broadcast or in drills, and will form good sized bulbs in seven or eight weeks. Rather flat and of medium size. Color purple above ground, white below; flesh white, fine grained, tender.

PURPLE TOP WHITE GLOBE. Of perfect globe shape, about six inches in diameter, with smooth, white skin; flesh pure white, firm and crisp, and of quick growth. A good keeper and is fine for market.



White Globe Turnip.

Squash

One oz. to 25 hills, Summer, and 1 oz. to 10 hills, Winter.

Plant the hills in the same manner and the same time as melons and cucumbers, the bush varieties three to four feet apart and the running kind seven to eight feet apart.

IMPROVED HUBBARD. The vines are of strong, running growth and bear a good number of large, pear-shaped fruit. The shell is hard, strong and dark green in color, thickly covered with a rough, warty growth. The flesh is bright orange-yellow, fine-grained, very dry, sweet, rich.

GREGORY'S DELICIOUS. In dryness, sweetness and richness of flavor, surpasses all other squashes. Shell green in color, flesh rich orange. Excellent winter keeper.



Tomato

Culture.—Sow in hotbed or shallow boxes in the house in early spring; when plants are large enough, transplant in hotbed or boxes and when all danger from frost is past, transplant in open ground about four feet apart.

GLACIER. This is an early, large and perfectly smooth tomato of perfect flavor, very solid, and strikingly attractive in appearance. In color it is a glossy crimson, tinged with pinkish purple. It is enormously productive. In addition to its earliness it continues to produce ripe fruit until frost.

DWARF CHAMPION. Dwarf and compact in habit; stands up well even when loaded with fruit, having a stiff, bushy stem; can be planted close together; very desirable in small gardens; early. It is always smooth and attractive; the skin is tough and flesh solid, but has no hard core and is of good flavor.

EARLY MINNESOTA. This splendid tomato remains today, as it was when first offered, the earliest of all the good varieties, very hardy and succeeding everywhere. Early Minnesota is superior to other varieties in shapeliness, color, size, smoothness, solidity, and flavor, as well as being earlier. When we say the earliest tomato, we of course mean the earliest good tomato. Those wishing the earliest good tomato must have Early Minnesota.

PONDEROSA. This is the largest fruited tomato and is of fine quality for slicing. The vines are of strong growth; fruits oblong in form, deep through, and generally ridged or ribbed; deep purple in color. They are solidly fleshy with small seed cells; of fine flavor. Planted in good soil, fruits frequently attain a weight of 1 lb. or more.

SPARK'S EARLIANA. A perfect early tomato, large in size and beautiful in color, nearly seedless and very solid; a vigorous grower and prodigious bearer, yielding its splendid fruit until frost.

HUSK TOMATO. Makes fine preserves. This useful fruit, which is also called Strawberry and Ground Cherry Tomato, is greatly valued for use as a preserve, it also makes delicious pies either when ripe or dried with sugar. When ripe the fruits are half an inch in diameter and of very sweet and agreeable flavor. The vines cover the ground and yield enormously of the fruit which is enclosed in a husk or fruit calyx.

Herbs

CARAWAY. Grown for seeds; used for flavoring.
DILL. Seeds have an aromatic odor and pungent taste.
MARJORAM, SWEET. Leaves used for seasoning.
SAGE. An indispensable herb for seasoning.
SUMMER SAVORY. Used for flavoring soups.

SEE PAGE 29 FOR PRICES.



Asters.

FLOWER SEEDS

No garden is complete without its spot devoted to flowers, and a careful selection and proper planting and care will be rewarded by a succession of bloom the whole season. Our list of flower seeds is made up with a view to listing those sorts suitable to this section. The soil best suited to flowers is a light, rich loam, which should be as fine and smooth as possible. Should the soil be heavy, mix with sand to lighten it. Sow the seed either broadcast or in rows, and cover in proportion to the size of the seed—a good general rule is to cover two or three times the size of the seed—and press the soil firmly. Small seeds cannot come up if covered too deep. Water with a fine spray and do not allow the soil to dry out.

ALYSSUM, Sweet. A very neat and pretty plant for edging, rock work, beds or vases. Sweet scented and blooms profusely all summer. **Pkt., 10c.**

ASTER, Many Sorts Mixed. This very fine mixture embraces all varieties and colors. The Aster is one of the most charming of all flowers, sure to give pleasure and satisfaction under generous treatment. **Pkt., 10c.**

ASTER, Ostrich Plume. Flowers large with very long, loosely curved petals. Very fine as cut flowers; height, 15 inches. The colors are exquisite. Asters are especially popular for their beauty and lasting qualities. All colors mixed. **Pkt., 10c.**

BALSAM or Lady Slipper. Double Camellia Flowered. An old favorite garden flower, producing its gorgeous masses of beautiful, brilliant colored double flowers in the greatest profusion; of easy culture; succeeds in a good, rich soil. Unrivaled for great variety and size of flowers. 2 feet. Many colors and combinations. **Pkt., 10c.**



Coreopsis.

BACHELOR'S BUTTON. Also known as Centaurea, Cornflower, Blue Bottle, Ragged Sailor, Sweet Sultan, etc. These are among the most attractive of all hardy annuals and one of the most popular flowers. Mixed colors. **Pkt., 10c.**

CALLIOPSIS, or COREOPSIS. Showy and beautiful free-flowering annuals, blooming all summer and excellent for cutting and massing. Mixed. All colors. **Pkt., 10 cents.**

CANDYTUFT. Universally known and cultivated. When sown in April, flowers from July until frost. Very hardy and easy to cultivate. Height, 1 foot. All colors mixed. **Pkt., 10c.**

CARNATIONS, Marguerite. This new class of Carnations blooms in about five months after sowing the seed. The flowers are of brilliant colors, ranging through many beautiful shades of red, pink, white, variegated, etc., exquisitely sweet and fully eighty per cent perfectly double. The plants succeed alike in the open garden or in pots. Seeds sown early in the year will give an abundance of flowers in July. Sown in May and kept pinched back, plants will bloom late in the fall until checked by hard frosts. Mixed colors. **Pkt., 10c.**

COSMOS, Extra Early. Cosmos is the showiest of our late summer and autumn blooming annuals. Its graceful flowers borne on long stems, rising above the feathery foliage are very desirable for home or church decoration, lasting a week or more in water. It is a very prolific bloomer and if the plants are given enough space to develop well, will branch freely, every shoot being covered with a mass of lovely flowers. Crimson, white and rose. Mixed colors. **Pkt., 10c.**

CYPRESS VINE. One of the most popular vines, with delicate, fern-like foliage and masses of beautiful, small, star-shaped flowers. Suitable for porches, window boxes and baskets. All colors mixed. **Pkt., 10c.**

ESCHSCHOLTZIA, or California Poppy. A very attractive annual for massing, beds or edgings, profuse flowering, with fine-cut foliage. All colors mixed. **Pkt., 10c.**

FOUR O'CLOCKS, or Marvel of Peru. A handsome, free-flowering garden favorite, which succeeds everywhere. Give each plant 12 to 18 inches of room. Fine mixed colors. **Pkt., 10c.**



Cosmos.



Larkspur.

KOCHIA. Summer Cypress or Mexican Fire Bush. An easily grown annual, which sown thinly in spring soon forms a cypress-like hedge of lively green and of perfect symmetry; it attains a height of about 3 feet, and on the approach of autumn the whole plant becomes a deep red. Pkt., 10c.

LARKSPURS. This is one of the best known garden flowers. A vast improvement has been effected, by careful selection and attentive cultivation, in size and color of the blossoms and general habit of the plant. Hardy annuals. Mixed colors. Pkt., 10c.

MARIGOLD, African. Plants grow 2½ feet high, producing large, double flowers, about 3 inches in diameter, orange and lemon shade predominating. Pkt., 10c.

MARIGOLD, French. Very free flowering annual of easiest culture. Dwarf in growth and very effective for bedding purposes. Covered with hundreds of small, bright flowers. Pkt., 10c.

MIGNONETTE, Sweet Scented. A well known fragrant garden favorite. Sowings made from May to July will give a succession of blooms from early midsummer until frost. Pkt., 10c.

MORNING GLORY. One of the most free-flowering and rapid growing climbers in cultivation, thriving in almost any situation. Pkt., 10c.

NASTURTIUM, Glacier Dwarf Mixed. This popular flower is so well known as to require no comment. In this mixture are included the finest colors and combinations obtainable in the dwarf varieties. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.00.



Kochia.

NASTURTIUM, Glacier Tall or Climbing, Mixed. Many prefer the climbing or running type for porches, trellis or rockwork. They grow very rapidly and give an abundance of showy blossoms and foliage. Nothing finer in a mixture can be found than this. All the finest and rarest varieties are included. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.00.

PETUNIA. The Petunia is peerless among annuals for effective summer bedding or window boxes. It is of easy culture, early to blossom and continues all the summer until frost. No other flower produces a greater diversity of color, or retains its freshness for so long a period. The doubles may be perpetuated by cuttings in late summer, for winter house plants. All colors mixed. Pkt., 10c.

PANSY, Glacier Mixture. A mixture of Pansies unrivaled for diversity of coloring and marking. This mixture is made up from the finest named varieties grown by Pansy specialists of the Old and New World. Pkt., 50c; 2 pkts., 75c.

PANSY, Bugnot's Superb Blotched. Extra large flowers, charming brown-red and bronze shades. An exceedingly beautiful strain. Pkt., 25c.

PANSY, Giant Fancy Mixed. Great improvement has taken place within the last two or three years in the character of the largest Pansies. Giant Fancy is the finest mixture of the large varieties. For this is used only the seed from the very choicest blossoms. It includes many of the newest productions of famous growers. Pkt., 25c; ¼ oz., 75c.

PANSY, Bedding Mixed. Composed of many standard sorts; admirably suited for beds or borders; strong growing plants, very free blooming. Pkt., 10c; ¼ oz., 50c.

PHLOX DRUMMONDI. Of all summer-flowering annuals the varieties of Phlox Drummondii are unquestionably some of the most brilliant and satisfactory. Seed may be sown in the open ground any time after danger of frost is past, and in a few weeks the beds or borders are aglow with their brilliant coloring and remain so until cut down by frost. For early flowering they should be started indoors or in a hotbed. Mixed colors. Pkt., 10c.

PINKS or Dianthus. One of the most popular and magnificent flowers in cultivation, producing a great variety of brilliant colors and profusion of bloom. The annual varieties may be sown out of doors when danger from frost is past and in a few weeks time they are a mass of bloom, continuing so until frost. 1 foot. All colors mixed. Pkt., 10c.

POPPIES, Glacier Single Mixture. Embraces all the leading best single varieties. As is always the case with Glacier Mixture, it has been the aim to include in this mixture every good variety. Pkt., 10c; oz., 35c.

POPPIES, Glacier Double Mixture. Includes all of the best double varieties of large-flowering Poppies of all colors; also many varied tints and combinations of color. Many of the blossoms are 6 to 7 inches in diameter and as double as Peonies. 30 to 36 inches high. They are fine for cut flowers or garden display. Oz., 35c; Pkt., 10c.

POPPY. The most popular of all annuals, producing a gorgeous display of bloom, unequaled by any other annual. Single and double in choicest mixture. Pkt., 10c.

PORTULACA, or Moss Rose. One of the finest hardy annuals, of easy culture, but thrives best in exposed sunny situation. The flowers are of the richest colors and are produced freely throughout summer. All colors mixed. Pkt., 10c.



Nasturtium.



Phlox Drummondii.

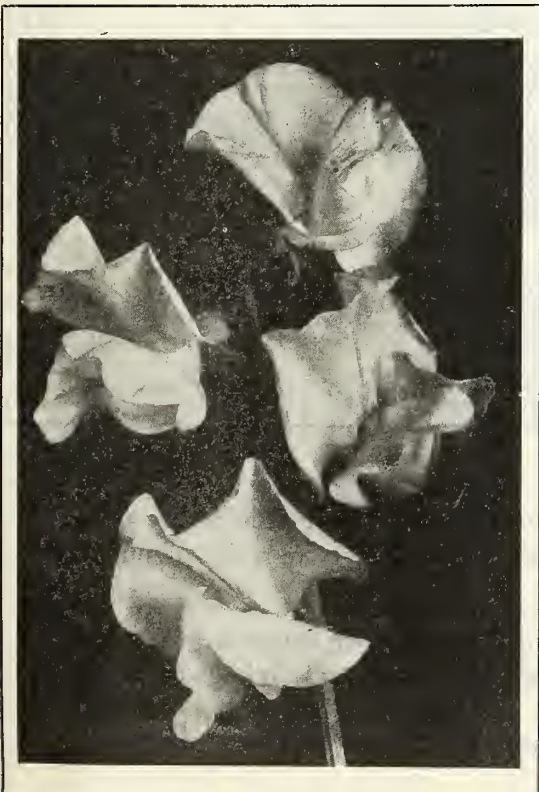
RICINUS, Castor Oil Bean. Ornamental plants of stately growth and picturesque foliage, with brilliant colored fruit, producing a sub-tropical effect; fine for lawns, massing or center plants for beds. Mixed. Pkt., 10 cents.

SALPIGLOSSIS, Painted Tongue. Very beautiful, hardy annual plants, flowering freely from July to early autumn. Rich soil should be provided, with plenty of space for plants to develop. Large flowering, mixed. Pkt., 10c.

SCABIOSA, Mourning Bride. One of our handsome summer flowers. The beautiful, double flowers are produced in a great variety of colors. Excellent as cut flowers, lasting nearly a week after being cut. Pkt., 10c.

SNAPDRAGON. Readily grown from seed and is a constant source of pleasure, being in bloom all the time; excellent as cut flowers, lasting many days. All colors mixed. Pkt., 10c.

Beautify your garden with flowers.



Sweet Peas, Spencer Type.

Sweet Peas

MIXED SWEET PEAS IN ALL VARIETIES.

Eckford's Large Flowering Mixed. This elegant mixture embraces the introductions, including the recent novelties of Mr. Eckford, the celebrated Sweet Pea specialist. Pkt., 10c; oz., 20c; ¼ lb., 50c; lb., \$1.50, postpaid.

Choice Mixed. This is a most excellent mixture, embracing all the standard varieties and many colors. Pkt., 10c; ¼ lb., 50c; lb., \$1.50, postpaid.

Spencer Mixture. The Spencers are the latest development in Sweet Peas, with large blossoms and frilled petals. The vines are strong, healthy and vigorous in growth and produce in wonderful profusion, long and strong-stemmed flowers of great beauty, perfect form and coloring. Pkt., 10c; oz., 25c; ¼ lb., 70c; lb., \$2.25, postpaid.

Grandiflora Mixed. Per pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.00.

STRAIGHT VARIETIES AND COLORS.

Giant Orchid-Flowering or Spencers. The characteristics of the Spencer Sweet Peas grown under favorable conditions are strong, healthy growth, plants attaining height of from six to nine feet, requiring for full development a space at least six inches apart. The blossoms are of immense size, measuring 2 to 2½ inches across. They are beautifully formed with huge standards, open and upright and immense wings gracefully poised. Both standards and wings are delicately waved; the undulations reflecting lights and casting shadows in the depths, thus showing varied harmony of tones which greatly enhances the coloring. Three and often four of these handsome blossoms are borne on long, strong stems, rendering them available as cut flowers for vases, bouquets and other decorations.

Blanche Ferry. A giant type of Spencer form, with rose standard and wings white, suffused and tinted with light pink. Per pkt., 10c; oz., 35c.

Captain of the Blues, or Waverly Spencer. Pure purple. The margin of the petals is marbled. Very large and distinct. Per pkt., 10c; oz., 35c.

Florence Nightingale. A very large, finely waved bluish lavender. Per pkt., 10c; oz., 35c.

King Edward. The best pure red Spencer, very large, with especially immense wings. Everyone should grow this variety. Our strain is quite sun-proof. Per pkt., 10c; oz., 35c.

Mrs. Hugh Dickson. The best cream pink Sweet Pea. The color is light salmon pink on cream ground. This variety has exceptional vigor and produces large flowers, four on each stem. Per pkt., 10c; oz., 35c.

Othello. Of immense size, with large, drooping wings, rich maroon, very dark and adapted for many attractive combinations. One of the best dark Sweet Peas. Per pkt., 10c; oz., 35c.

White Spencer, Morse's Re-selected. The best Spencer white. Flowers very large and magnificent Spencer waved form. Stems as a rule carry four blossoms. Per pkt., 10c; oz., 40c.

Select or Grandiflora Sweet Peas. This is the well-known type which has been grown for many years. It comprises two forms, "hooded or shell-shape" and "open." The grandifloras usually seed freely, are always the most easily grown and will always be the most largely used. We can furnish the following:

Blue	Yellow	White	Red
Variegated	Pink	Lavender	Purple

Per pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.00.

Annual Seed Catalogue for 1919

Booklets

For those desiring complete information, we offer valuable booklets on the following subjects.

- "Alfalfa." Seeding, harvesting, feeding.
- "Cabbage Growing." Very complete.
- "Clover and How to Grow It."
- "Field Corn."
- "Hand Book for the Garden." Vegetables and flowers.
- "Insects and Diseases." General spraying information.
- "Lawns." Building and care.
- "Meadows, Pastures and Soiling Crops."
- "More Pork Profits." Care and feeding.
- "Onion Culture." Covers whole subject.
- "Potato Culture." Valuable to farmers and gardeners.

- "Profitable Poultry." General care of chicks and hens.
- "Quack Grass and Other Weeds."
- "Root Crops." Carrots, mangels, etc.
- "Silage and Silos." Handling and Feeding.
- "Vine Crops." Tomatoes, cucumbers, etc.

The regular price of these booklets is ten cents each. We will, however, send, if requested, a booklet free with each of the articles on which the booklets treat. We will send anyone booklet, postpaid, for five cents; any seven booklets for 25 cents, or the entire set of sixteen will be mailed, postpaid, for only 50 cents.

Please write all inquiries on a separate sheet from your orders.

Vegetable Seeds Required to Plant an Acre, also for Smaller Areas

Per Acre

Asparagus	.....1 oz. to 50 ft. drill.....	4 to 5 lbs.
Beans, Dwarf	.....1 qt. to 100 ft. drill.....	1 to 1½ bu.
Beans, Pole	.....1 qt. to 100 hills.....	12 qts.
Beets, Garden	.....1 oz. to 50 ft. drill.....	5 to 6 lbs.
Beets, Mangel	.....1 oz. to 100 ft. drill.....	5 to 6 lbs.
Cabbage	.....1 oz. to 1,500 plants.....	½ lb.
Carrot	.....1 oz. to 100 ft. drill.....	4 lbs.
Cauliflower	.....1 oz. to 1,000 plants.....	12 oz.
Celery	.....1 oz. to 3,000 plants.....	1 lb.
Celeryiac	.....1 oz. to 3,000 plants.....	1 lb.
Corn, Sweet	.....1 lb. to 50 hills.....	6 to 8 lbs.
Corn Salad, or Fetticus	.....3 oz. to 100 ft. drill.....	
Cucumber	.....1 oz. to 60 hills.....	2 to 3 lbs.
Egg Plant	.....1 oz. to 1,000 plants.....	4 oz.
Endive	.....1 oz. to 100 ft. drill.....	4½ lbs.
Kale or Borecole	.....1 oz. to 150 ft. drill.....	4 oz.
Kohl Rabi	.....½ oz. to 100 ft. drill.....	2 lbs.
Leek	.....1 oz. to 100 ft. drill.....	4 lbs.
Lettuce	.....2 oz. to 150 ft. drill.....	4 to 5 lbs.
Melon, Musk	.....1 oz. to 60 hills.....	2 to 3 lbs.
Melon, Water	.....4 oz. to 100 hills.....	4 to 5 lbs.
Mustard	.....1 oz. to 100 ft. drill.....	
Onions	.....1 oz. to 100 ft. drill.....	5 to 6 lbs.
Onions for Sets.....In drills	.....	60 to 90 lbs.
Onion Sets	.....1 qt. to 20 ft. drill.....	12 to 15 bu.
Parsley	.....1 oz. to 150 ft. drill.....	6 lbs.
Parsnips	.....1 oz. to 200 ft. drill.....	5 lbs.
Peas	.....1 lb. to 60 ft. drill.....	2 to 2½ bu.
Pepper	.....1 oz. to 1,500 plants.....	3 oz.
Pumpkin	.....¼ lb. to 100 hills.....	4 to 6 lbs.
Radish	.....1 oz. to 100 ft. drill.....	8 to 10 lbs.
Ruta Baga	.....1 oz. to 250 ft. drill.....	1½ to 2 lbs.
Salsify, or Vege- table Oyster	.....1 oz. to 60 ft. drill.....	10 lbs.
Spinach	.....1 oz. to 100 ft. drill.....	10 to 12 lbs.
Squash	.....4 oz. to 100 hills.....	3 to 4 lbs.
Tomato	.....1 oz. to 1,500 plants.....	¼ lb.
Turnip	.....1 oz. to 150 ft. drill.....	1 to 2 lbs.
Dill	.....1-3 oz. to 100 ft. drill.....	5 oz.
Marjoram	.....1 oz. to 1,500 plants.....	
Sage	.....1 oz. to 1,000 plants.....	4 oz.

Table of Weights and Quantities of Seeds Usually Sown per Acre

FIELD SEEDS AND GRASSES.

	Lbs. per bu.	Quantity per acre
Clover—		
Alfalfa	.....60.....	8 to 10 lbs.
Grimm Alfalfa	.....60.....	5 to 8 lbs.
Alsike	.....60.....	6 to 8 lbs.
Medium Red	.....60.....	8 to 12 lbs.
Mammoth Red	.....60.....	8 to 12 lbs.
Scarlet or Crimson	.....60.....	15 to 20 lbs.
Sanfoin or Esparcette	.....60.....	30 to 40 lbs.
Sweet or Mellilotus	.....60.....	10 to 15 lbs.
Sweet, unhulled	.....18.....	15 to 20 lbs.
White	.....60.....	5 to 8 lbs.
Grasses—		
Bromus Inermis	.....14.....	18 to 20 lbs.
Kentucky Blue Grass (solid seed)	.....14.....	20 to 30 lbs.
Orchard Grass	.....14.....	20 to 25 lbs.
Red Top (solid seed)	.....14.....	10 to 12 lbs.
Timothy	.....15.....	10 to 12 lbs.
Lawn Grass	.....14 to 20.....	100 lbs.
Western Rye or Slender Wheat		
Grass	.....14.....	20 to 25 lbs.
Tall Meadow Oat Grass	.....14.....	25 to 35 lbs.
Field Seeds—		
Barley	.....48.....	96 to 120 lbs.
Buckwheat	.....50.....	50 to 60 lbs.
Corn, in hills	.....56.....	8 to 10 lbs.
Corn in drills for silo	.....56.....	15 to 20 lbs.
Corn in drills for fodder	.....56.....	25 to 30 bu.
Flax, broadcast	.....56.....	18 to 20 lbs.
Millet, broadcast	.....48.....	30 to 40 lbs.
Oats, in drills	.....32.....	64 to 80 lbs.
Peas, in drills	.....60.....	1 to 2 bu.
Peas, broadcast	.....60.....	2 to 3 bu.
Rape, Dwarf Essex—		
Alone, broadcast	.....60.....	5 lbs.
Alone, in drills	.....60.....	2 lbs.
With grain	.....60.....	1 to 2 lbs.
Rye, broadcast	.....56.....	56 lbs.
Sorghum, broadcast	.....57.....	50 to 60 lbs.
Speltz, in drills	.....40.....	2 bu.
Sudan Grass, broadcast	.....60.....	15 to 20 lbs.
Vetch, broadcast	.....60.....	50 to 60 lbs.
Wheat, in drills	.....60.....	50 to 60 lbs.
Savoy	.....1 oz. to 2,000 plants.....	
Sunflower	.....60.....	2 to 3 lbs.

If in addition to the above information you desire more definite directions in regard to some particular crop, please feel at liberty to write or phone us at any time.

Not only are we specialists in the seed line, but we devote a great deal of time to the study of the habits, growth, development, methods of planting and cultivating all kinds of crops, and shall be glad to give you full benefit of our knowledge free of charge.

ALPHANO INOCULANT

The All-In-One Nitrogen Gathering Inoculant for Over 28 Legumes



The top Alfalfa was grown on well limed soil, from inoculated seed. The lower one from uninoculated seed.

All farmers know that certain crops, such as alfalfa, clover, soy beans, cow peas, etc., make the ground richer instead of poorer. They do this because they extract air nitrogen, with the assistance of certain beneficial soil bacteria, instead of expensive nitrate or tankage. If the bacteria are not present in the soil, you do not get the enriching effect from these crops.

A great many failures with alfalfa, clover, and other legumes are due to lack of inoculation. For the small cost (only \$1.00 per acre) you cannot afford to run the risk of losing valuable seed and having your land bare for want of inoculation. Besides, the fertility which it will bring to the soil is worth many times its cost.

Formerly farmers used either soil from a field which had previously produced the particular crops, or they used a commercial jelly culture. The greater convenience and the assur-

ance of getting pure, strong bacterial cultures by the Alphano method has caused many farmers to forsake the old soil method. The inferior nature of the jelly cultures is apparent. They are good from one to six months only, hard to apply and uncertain. Alphano Inoculant is fully guaranteed for two years. Judge for yourself which should be the better material, or better still, write to Newark, Delaware, for Bulletin 115 of the Delaware Experiment Station. This gives full authentic information, after several years of experiment, regarding the merits of Alphano Inoculant.

With drainage and proper soil conditions, Alphano Inoculant is warranted to produce nodules on any and all the specified clovers and other legumes—if it does not we will return the money.

Your county agent has been advised of this guarantee and we suggest you get in touch with him. He will tell you how best to prepare your soil for the legume you wish to grow.

Important

Instead of one bacteria culture for each different plant, we put all the necessary bacteria into the one can. You simply rub the seed and moistened inoculant together and they are ready for planting. So much simpler and quicker than any other inoculating medium. In addition, Alphano Inoculant carries other beneficial forms of soil bacteria, which make its use advantageous on any soil for any crop.



Photographic reproduction of a group of Radicicola Bacteria, magnified a million times. It is one of the busiest of the air nitrogen gathering root knob or nodule forming kinds.

Prices: One Acre, \$1.00; Ten Acres, \$8.00

Cyclone Seed Sower

This unique and inexpensive little seed sower is a wonder, and after you have once used it you would not be without it for ten times the price. It will sow five acres per hour so evenly and correctly that three bushels will do the work of four.

This seeder will sow any seed that is sown broadcast, such as oats, wheat, rye, flax, millet, clover, timothy, grass seed, etc. It can be very readily adjusted to suit the seed being sown. The feed plate and agitating device are of heavy sheet steel and all adjustments of spring steel. The hopper is of heavy duck and holds about one-half bushel. This machine has also a patented interlock, double flange, non-solder-joint distributing wheel, which is itself worth the price of the sower. It will be found the strongest, neatest and most compact hand seed sower made. By freight or express, \$1.75; \$1.90 by mail, postpaid. Mailing weight, 6 pounds.



ALPHANO will increase the size of your crop many times.

The Cyclone Seed Sower will save seed and time.

Give us your entire seed order and we assure you of satisfaction.

Vegetable Seed Price List

	Page	Pkt.	Oz.	¼ lb.	1 lb.	5 lbs.	10 lbs.
ASPARAGUS							
Conover's Colossal	11	\$0.08	\$0.10	\$0.25	\$0.85		
Palmetto	11	.08	.10	.20	.75		
BEANS							
Currie's Rust Proof Black Wax.....	11	.08		.20	.45	\$2.00	
Davis White Wax	11	.08		.15	.40	1.90	
Improved Black Wax	11	.08		.20	.45	2.15	
Improved Golden Wax	11	.08		.20	.45	2.10	
Long Yellow Six Weeks	11	.08		.15	.40	1.75	
Stringless Green Pod	12	.08		.20	.40	1.90	
Scarlet Runner	12	.08		.15	.40	1.75	
Burpee's Lush Lima	12	.08		.20	.40	1.75	\$3.00
Choice Navy	12	.08		.15	.30	1.20	2.25
BEETS							
Market Gardeners	12	.08	.20	.55	1.60		
Detroit Dark Red	12	.08	.20	.60	1.75		
Early Blood Turnip	12	.08	.15	.45	1.60		
Edmand's Improved Blood Turnip.....	12	.08	.15	.45	1.60		
Extra Early Egyptian	12	.08	.20	.50	1.75		
Swiss Chard or Spinach Beet.....	12	.08	.20	.55	1.80		
SUGAR BEETS							
Giant Feeding or Half Sugar White Mangel.....	12	.08	.15	.30	1.00	4.75	
Wanzelbener	12	.08	.15	.35	1.15	5.25	
MANGEL WURZEL							
Improved Mammoth Long Red.....	12	.08	.15	.25	.90	4.25	
Improved Golden Tankard	12	.08	.15	.35	1.20	5.25	
Giant Red Eckendorf	12	.08	.15	.25	.90	4.25	
CABBAGE							
Washington Wakefield	13	.15	.75	2.50	8.00		
Early Winnigstadt	13	.15	.75	2.50	8.00		
Copenhagen Market	13	.15	.75	2.60	9.00		
Allhead Early	13	.10	.60	2.00	7.00		
Early Summer	13	.10	.60	2.00	7.00		
Surehead	13	.10	.60	2.00	7.00		
Premium Late Flat Dutch	13	.10	.60	2.00	7.00		
Improved American Drumhead Savoy.....	13	.15	.75	2.50	8.00		
Holland	13	.15	.75	2.50	8.00		
Danish Short Stem	13	.15	.75	2.50	8.00		
CARROTS							
Chantenay	14	.08	.25	.65	2.00		
Early Scarlet or Short Horn.....	14	.08	.25	.60	2.00		
Oxheart or Guerande	14	.08	.20	.60	2.00		
Mastodon Carrot	14	.08	.25	.65	2.10		
Large White Belgian	14	.08	.15	.45	1.50		
Half Long Scarlet Nantes, Stump Rooted.....	14	.08	.20	.65	2.10		
CELERY							
Golden Self-Blanching	14	.15	.75	2.25	7.50		
White Plume	14	.10	.40	1.15	4.00		
CAULIFLOWER							
Model	14	.25	3.50	10.00	35.00		
Snowball	14	.25	3.50	10.00	35.00		
Extra Early Dwarf Erfurt	14	.25	3.50	10.00	35.00		
CELERIAC							
Large Erfurt	15	.10	.30	.85	2.75		
CORN SALAD or FETTICUS							
	15	.08	.25	.75			
CHERVIL							
Curled	15	.08	.20	.60			
Tuberous Rooted	15	.08	.20	.65	1.80		
POP CORN							
White Rice	15	.08		.10	.25		2.00
SWEET CORN							
Peep O' Day	15	.08		.20	.35	1.50	2.75
Early Minnesota	15	.08		.20	.35	1.50	2.75
Extra Early White Cory.....	15	.08		.15	.35	1.50	2.50
Golden Bantam	15	.08		.20	.45	2.00	3.50
CUCUMBERS							
Glacier	16	.08	.20	.50	1.60		
Cool and Crisp	16	.08	.15	.45	1.25		
Davis Perfect	16	.08	.15	.45	1.60		
Early Frame or Short Green.....	16	.03	.15	.40	1.25		
White Spine Evergreen	16	.08	.15	.45	1.25		
EGG PLANT							
Improved New York Spineless	16	.15	.75	2.00			
ENDIVE							
Green Curled	16	.08	.20	.60	1.75		
White Curled	16	.08	.20	.50	1.75		
KALE or BORECOLE							
Dwarf German	16	.10	.25	.70	2.25		
Tall Green Curled	16	.10	.25	.70	2.25		
KOHL RABI							
Early White	16	.10	.25	.75	2.30		
LEEK							
Large American or Broad London.....	16	.08	.30	.80	2.75		

	Page	Pkt.	Oz.	¼ lb.	1 lb.	5 lbs.	10 lbs.
LETTUCE							
Loose Leaved Varieties							
Early Curled Simpson	17	.08	\$0.15	\$0.40	\$1.25		
Grand Rapids	17	.08	.15	.45	1.40		
Heading Varieties							
Prize Head	17	.08	.15	.40	1.25		
Improved Hanson Head	17	.08	.15	.45	1.50		
May King	17	.08	.15	.40	1.25		
MUSTARD							
Southern Giant Curled	17	.08	.15	.40	1.25		
MUSKMELON							
Yellow Meated Japan	17	.08	.20	.50	1.60		
Osage or Miller's Cream	17	.08	.20	.50	1.75		
Rocky Ford Cantaloupe	17	.08	.15	.40	1.40		
WATERMELON							
Citron for Preserves	18	.08	.15	.30	1.00		
Kleckley's Sweets	18	.08	.15	.40	1.25		
Phinney's Early	18	.08	.15	.35	1.00		
ONIONS							
Minnesota Red Globe	18	.10	.50	1.50	4.50		
Large Red Wethersfield	18	.10	.35	1.00	3.25		
Extra Early Red Flat	18	.10	.35	1.10	3.50		
Yellow Danvers, Flat or Round	18	.10	.35	.90	3.25		
Yellow Globe Danvers	18	.10	.45	1.30	4.50		
White Portugal or American Silver Skin	18	.15	.55	1.60	5.25		
Southport Red Globe	18	.15	.55	1.65	5.50		
Australian Brown	18	.10	.35	1.00	3.50		
Southport White Globe	18	.15	.50	1.50	5.00		
ONION SETS							
White Bottom Sets	18				.35	\$1.50	\$2.50
Red Bottom Sets	18				.30	1.15	2.20
Yellow Bottom Sets	18				.30	1.15	2.15
Yellow Multiplier	18				.30	1.15	2.15
PARSLEY							
Dark Moss Curled	19	.08	.15	.35	1.20		
Turnip Rooted or Hamburg Parsley	19	.08	.20	.45	1.25		
PARSNIPS							
Sweet Marrow	19	.08	.20	.55	1.85		
Guernsey	19	.08	.20	.50	1.75		
Improved Hollow Crown	19	.08	.20	.50	1.80		
PEPPERS							
Large Bell or Bull Nose	19	.15	.60	1.75			
Long Red Cayenne	19	.15	.55	1.60			
PUMPKIN							
Early Sugar or Pie	19	.08	.15	.40	1.30		
Connecticut Field	19	.08	.15	.40	1.25		
Large Cheese or Kentucky Field	19	.08	.15	.30	1.00		
Mammoth Prize	19	.08	.20	.60	2.20		
PEAS							
Extra Early Dwarf Wrinkled Varieties							
American Wonder	20	.08	.15	.35	1.50	2.75	
Little Gem	20	.08	.15	.35	1.50	2.75	
Nott's Excelsior	20	.08	.15	.35	1.50	2.75	
Extra Early Round Seed Variety							
Alaska	20	.08	.15	.35	1.50	2.75	
Early Wrinkled Varieties							
Advancer	20	.08	.15	.35	2.75		
Carter's Daisy	20	.08	.20	.50	2.25	4.00	
Gradus	20	.08	.15	.40	1.75	3.25	
Main Crop Varieties							
Telephone	20	.08	.15	.35	1.50	2.75	
Champion of England	20	.08	.15	.35	1.50	2.75	
White Marrowfat	20	.05	.10	.25	1.10	1.75	
Black Eyed Marrowfat	20	.05	.10	.25	1.10	1.75	
RADISHES							
Early Deep Scarlet or Non Plus Ultra Forcing	21	.08	.20	.50	1.75		
Early Scarlet Globe	21	.08	.20	.60	2.00		
Sparkler	21	.08	.20	.60	2.00		
French Breakfast	21	.08	.20	.50	1.75		
White Icicle	21	.08	.20	.50	1.75		
White Strasburg	21	.08	.20	.50	1.75		
China Rose Winter	21	.08	.20	.50	1.75		
Long Black Spanish Winter	21	.08	.20	.50	1.75		
SALSIFY or VEGETABLE OYSTER							
Sandwich Island	21	.08	.40	1.50	5.00		
SPINACH							
Long Standing	21	.08	.20	.50	1.75		
Round Thick Leaved	21	.08	.20	.60	2.00		
RUTABAGA							
Prize Winner	22	.08	.25	.75	2.70		
American Purple Top	22	.08	.25	.65	2.25		
Sweet German	22	.08	.25	.65	2.25		
SQUASH							
Improved Hubbard	22	.08	.20	.50	1.70		
Gregory's Delicious	22	.08	.20	.55	1.80		
TOMATO							
Glacier	22	.10	.50	1.50	5.00		
Early Minnesota	22	.10	.40	1.25	4.50		
Ponderosa	22	.15	.60	1.75	6.00		
Spark's Earliana	22	.10	.50	1.50	5.00		
Husk Tomato	22	.10	.35	1.00	3.50		
Dwarf Champion	22	.10	.50	1.50	5.00		
TURNIP							
Purple Top Strap-leaved	22	.08	.15	.50	1.80		
Purple Top White Globe	22	.10	.25	.75	2.70		
HERBS							
Caraway	22	.08	.25				
Dill	22	.08	.25				
Sweet Marjoram	22	.08	.25				
Sage	22	.08	.25				
Summer Savory	22	.08	.25				

Diseases and Insects

Stop the Cut Worm

CUT WORM FOOD. Drop a teaspoonful of this around each plant the day it is set out, or on each hill as the seedlings break through. The worm then eats the poison and not the plant. One pound will protect about 75 plants. Cut Worms work at night, usually cutting off the plant stem at the surface of the ground. They are dark colored, round caterpillars which hide in the soil in the daytime. Price, lb., 35c; 5 lbs., \$1.50; 10 lbs., \$2.25.

SMUT. A most destructive disease in wheat and oats, appears as black masses in place of grains at harvest time. The solution for treating the seed consists of one pint of Formaldehyde mixed with 40 gallons of water. Place the grain upon a clean floor and sprinkle with one gallon to the bushel, stir thoroughly and cover with a blanket for two hours or over night, then spread out to dry. Use one peck more seed per acre to allow for swelling of grain.

FLAX WILT. Germ disease introduced into the soil by seed, it will remain in the soil seven years or until the germs are starved out. For treatment of seed use Formaldehyde solution same as wheat and oats, apply to the flax seed with a spray, stir with a rake or shovel until the grain is so dry that it will not cake; two quarts per bushel sufficient.

For further information send for our book on diseases and insects, price 10c.

A Vicious Pest

Rats destroy nearly a billion dollars worth of food and property every year. Kill your rats and mice and stop your loss with

RAT CORN

It is safe to use. Deadly to rats but harmless to human beings. Rats simply dry up. No odor whatever. Valuable booklet in each can. "How to Destroy Rats." 25c, 50c and \$1.00. In Seed, Hardware, Drug and General Stores.



**RAT-CORN KILLS GOPHERS
SAME AS RATS**

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Asparagus	11	Fetticus	15	Phlox	24
Asters	23	Flax	3	Pinks	24
Bachelor's Button	23	Flower Seeds	23-24	Pop Corn	15
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Barley	4	Herbs	22	Portulaca	24
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Beets	12	Kentucky Blue Grass	10	Radishes	21
Blue Grass, Kentucky	10	Kochia	24	Rape, Dwarf Essex	5
Borecole	16	Kohl Rabi	16	Red Top	10
Bromus Inermis	10	Lady Slipper	23	Ricinus	25
Buckwheat	4	Larkspurs	24	Ruta Baga	22
Cabbage	13	Lawn Grass Seed	10	Rye	3
California Poppy	23	Leek	16	Rye Grass	10
Calliopsis	23	Lettuce	17	Sage	22
Canadian Field Peas	5	Lucerne	8-9	Salpiglossis	25
Candytuft	23	Mangel Wurzel	12	Salsify	21
Cane, Southern	5	Marigold	24	Savory, Summer	22
Caraway	22	Marvel of Peru	23	Scabiosa	25
Carnations	23	Marjoram, Sweet	22	Snapdragon	25
Carrots	14	Meadow Mixture	10	Speltz	4
Castor Oil Bean	25	Mignonette	24	Spinach	21
Cauliflower	14	Millet	10	Squash	22
Celery	15	Morning Glory	24	Sudan Grass	5
Celery	14	Mourning Bride	25	Sugar Beets	12
Chervil	15	Muskmelon	17	Sunflower, Mam. Russian	5
Clovers	9-10	Mustard	17	Sweet Corn	15
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Corn Salad	15	Orchard Grass	10	Turnip	22
Cosmos	23	Pansy	24	Vegetable Oyster	21
Cucumbers	16	Parsley	18	Vetch	4
Cypress Vine	23	Parsnips	19	Watermelon	18
Dianthus	24			Wheat	2-3
Dill	22				

Price List of Field and Grass Seeds



SEEDS

Barkemeyer Grain & Seed Co. Great Falls, Montana

We quote today subject to market changes. Bags weighed in free. Prices all F. O. B. Great Northern depot, Great Falls. Goods invoiced at lowest price on date of shipment. Samples and tests sent on application.

Disclaimer: We exercise great care to have all seeds true to description but give no warranty, expressed or implied, as to description, purity, productiveness or any other matter of any seeds sent out, and will not be responsible in any way for the crop.

Price Effective Jan. 15, 1919. **TERMS CASH** This List Cancels All Previous Lists

United States Food Administration License No. G 44360.

ALFALFA

	Per 100 lbs.
Montana "Glacier" Brand	\$26.00
Montana, Choice	25.00
Montana Prime	18.00
Montana Grimm, (Unregistered).....	45.00
Montana Grimm (Registered).....	60.00
Montana Liscom	30.00

CLOVERS

Medium Red "Glacier".....	45.00
Medium Red "Choice".....	42.00
Mammoth Red "Glacier"	45.00
Alsike "Glacier"	36.00
White "Glacier"	60.00
Sweet Clover, White Blossom "Glacier".....	27.00
Sweet Clover, White Blossom Scarified... ..	28.00
Sweet Clover, Yellow Blossom.....	27.00
Sweet Clover, Yellow Blossom Scarified..	28.00

GRASS SEEDS

Timothy, Montana "Glacier"	13.50
Red Top, Solid "Glacier"	19.00
Kentucky Blue Grass	30.00
Bromus Inermis "Glacier"	28.00
Sudan Grass "Glacier"	22.00
Lawn Grass Mixture	35.00
Meadow Mixture	40.00

MILLET

Common	6.00
Hog or Broom Corn.....	6.00

BUCKWHEAT

Silver Hull	6.50
Japanese	6.50

RAPE

Dwarf Essex	13.00
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BARLEY

Six-Rowed	3.40
White Hulless	4.50
Blue Hulless	4.50

OATS

	Per 100 lbs.
Swedish Select, Montana Grown.....	\$ 3.80
Dakota Grown	3.60

SORGHUM

Southern Cane for Fodder.....	7.00
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SPELTZ

Speltz or Emmer, Spring.....	3.60
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VETCH

Winter Vetch	23.00
Spring Vetch	11.50

SUNFLOWER (For Silage)

Mammoth Russian	15.00
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PEAS

	Per bu. 60 lbs.
Canadian Field	\$ 5.00

RYE

	Per bu. 56 lbs.
Spring Rye in Seamless Bags.....	\$ 3.00
Spring Rye in Burlap Bags.....	2.85

WHEAT

	Per bu. 60 lbs.
Marquis	\$ 2.75
Durum or Macaroni Black Bearded.....	2.85

FLAX

	Per bu. 56 lbs.
Russian, or Brown	\$ 4.25

CORN

	Per bu. 56 lbs.
Northwestern Dent	5.25
Minnesota No. 13	5.25
North Dakota White Flint.....	5.50
North Dakota Yellow Flint (Gehu)	5.50
Squaw Flint	5.50
Yellow Fodder Corn	4.00

ALPHANO INOCULANT

2 lb. can, 1 acre size.....	1.00
20 lb. can, 10 acre size.....	8.00

Part 1 of Field and Course Work

Instructions to students
and the faculty



The following instructions are intended to guide students and faculty in the completion of the field and course work. It is the responsibility of the student to read these instructions carefully and to follow them to the letter. The faculty will be held responsible for the proper interpretation and application of these instructions.

1. The student must complete the field work in accordance with the schedule and the instructions of the faculty. The student must submit a report of the field work to the faculty at the end of the course.

2. The student must complete the course work in accordance with the schedule and the instructions of the faculty. The student must submit a report of the course work to the faculty at the end of the course.

3. The student must maintain a journal of the field and course work. The journal should be kept in a notebook and should contain a record of all observations, measurements, and calculations. The journal should be submitted to the faculty at the end of the course.

4. The student must attend all lectures and seminars. The student must participate actively in the discussions and exercises. The student must complete all assignments and exercises on time.

5. The student must maintain a high standard of academic honesty. The student must not plagiarize or cheat. The student must acknowledge the sources of all information used in the report.

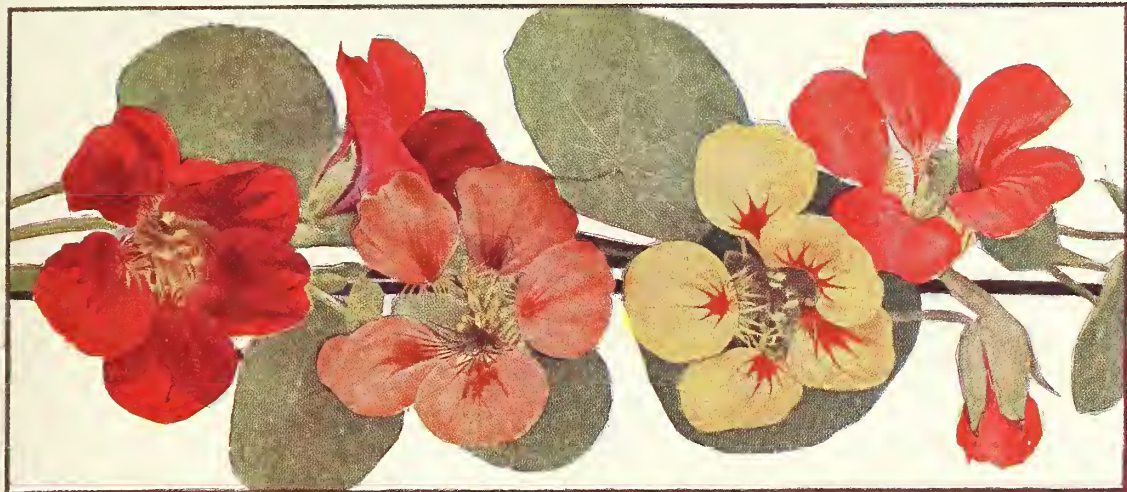
6. The student must maintain a high standard of personal conduct. The student must be punctual, organized, and cooperative. The student must respect the property and equipment of the institution.

7. The student must maintain a high standard of health and safety. The student must wear appropriate clothing and footwear. The student must use proper techniques for handling equipment and materials. The student must report any accidents or injuries immediately.

8. The student must maintain a high standard of communication. The student must communicate clearly and effectively. The student must listen to the faculty and to other students. The student must ask questions when needed.

9. The student must maintain a high standard of ethics. The student must be honest, fair, and just. The student must respect the rights and dignity of all people. The student must act in the best interests of the institution and of society.

10. The student must maintain a high standard of environmental awareness. The student must be aware of the impact of human activities on the environment. The student must take steps to minimize the impact of their activities on the environment.



Beautify Your Garden with Barkemeyer's Glacier Dwarf Mixed Nasturtiums

Suggestions for your Garden on a 50 Foot City Lot

Front

Two rows Nasturtiums, 12 feet long.

One row Mixed Sweet Peas, 30 feet long.

Division Border Summer Cypress.

Mixed Bed Petunia, Marigold, Sweet Alyssum,
and California Poppy.

Back

Four rows Onions, 10 feet.

Four rows Beets, 10 feet.

Four rows Carrots, 10 feet.

Four rows Peas, 10 feet.

Four rows Beans, 10 feet.

Four rows Cabbage, 10 feet.

Two rows Cauliflower, 10 feet.

Two rows Parsnips, 10 feet.

Four rows Radishes, 10 feet.

Four rows Lettuce, 10 feet.

Four rows Spinach, 10 feet.

Three rows Golden Bantam Sweet Corn, 30 ft.

Sixteen rows Potatoes, 30 feet.



A Montana Field
of Barkemeyer's
Onions and Cabbage



Our Sweet Peas Bloom

Barkemeyer Grain & Seed Co., Great Falls, Montana

Barkemeyer's Glacier Brand Alfalfa

