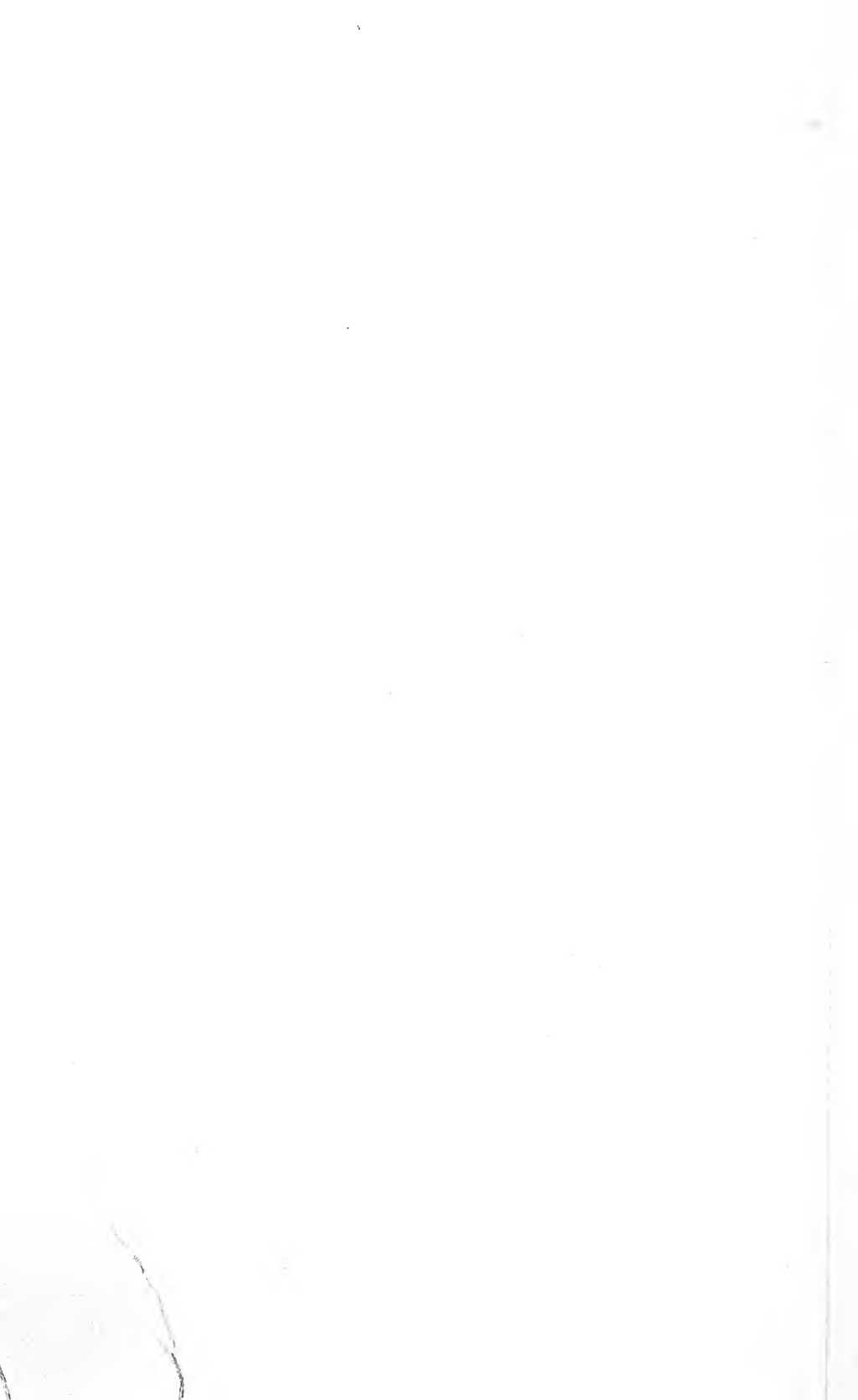


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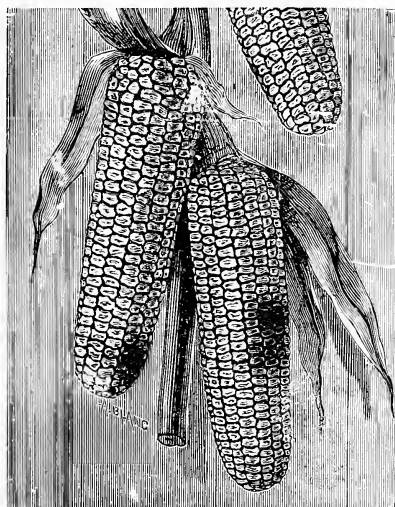


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★ AUG 20 1919 ★
U. S. Department of Agriculture

SPRING OF 1919

Farm and Garden SEEDS



A DESCRIPTIVE CATALOGUE

FROM THE

Denison Seed Co.

On the Lincoln Highway

DENISON, - IOWA

KING of the EARLIEST



Farm and Garden
SEEDS

JERUSALEM CORN



CATALOGUE

SPRING 1919

The Denison Seed Co.

On the Lincoln Highway

DENISON, IOWA

JACOB WEISS & SONS, Proprietors



Announcement



IN PRESENTING our second Farm Seed catalogue we wish to extend to our old friends and customers our hearty thanks, and hope they will continue to give us the same generous support and liberal patronage in the future that they have in the past. With them we are willing to stand upon our past record, both as to business integrity and as to results obtained from seed purchased during the previous year. But—

TO OUR NEW ACQUAINTANCES.

For the benefit of those whom we have never met, in a business way, new friends and prospective patrons, we will go into a few details.

We are in the seed business to stay, and on a permanent basis. While we do not claim to have the largest seed plant in the world, we do claim to have one of the most modern, up-to-date equipments. It is our aim to handle seeds in the best manner possible.

In handling our seed corn each ear is placed in a rack so that no other ear touches it, with perfect ventilation on all sides. Results obtained demonstrate beyond a doubt that by

this method we get greater vitality, and a larger percentage of germination of vigorous, healthy plants than were the old methods in use. We absolutely stand back of our germination guarantee. Our corn or any seeds we sell you must give you absolute satisfaction or we will refund your money upon return of the seed. Our greatest endeavor has been and will continue to be, the giving of absolute satisfaction, and our past record shows that we have been able to do so. No seed is offered for sale but strictly first-class seed.

As to our other farm seeds we might state that we handle none but the best. All seeds sold are re-cleaned. The best seed is the cheapest seed at all times. Never buy seed that is not re-cleaned; if you do you buy too much dirt, weed seeds, etc. Remember, patrons, we who are interested in this seed business here in Denison are farmers and we will not sell any one seed which we would not be willing to use ourselves on our own land.

Visitors are always welcome to come and see for themselves, and it will be a pleasure to show our seed corn, clover, alfalfa, timothy, wheat, oats, barley, garden seeds, onion sets, peas, beans, sweet corn, etc.

We want you to come and see for yourself how we clean and handle our seed. We select carefully as to purity, germination, yielding power, adaptation to the locality, breeding, etc. Correspondence invited. Visitors welcome.

DENISON SEED CO.

L. Cornwell, Pres. Geo. Naeve, V. Pres. M. E. Jones, Cash.

CRAWFORD COUNTY STATE BANK

Capital \$100,000.00.

Denison, Iowa.

To Whom It May Concern, Greetings:

That we have known and done business with Jacob Weiss & Sons, owners and managers of The Denison Seed Co., of Denison, Iowa, for many years, and heartily recommend them to any parties wishing to purchase seeds. We have always found them very reliable in all their transactions and commend them to the public as parties who will carry out their contracts in every way.

Yours very truly,

M. E. JONES, Cashier.

TERMS AND GENERAL INFORMATION ABOUT ORDERING.

When ordering please write plainly, as orders often come containing money orders and we can not read the address.

TERMS

Cash with order. We can not open accounts. We have no time during our busy season. If we can not fill your order your money will be refunded.

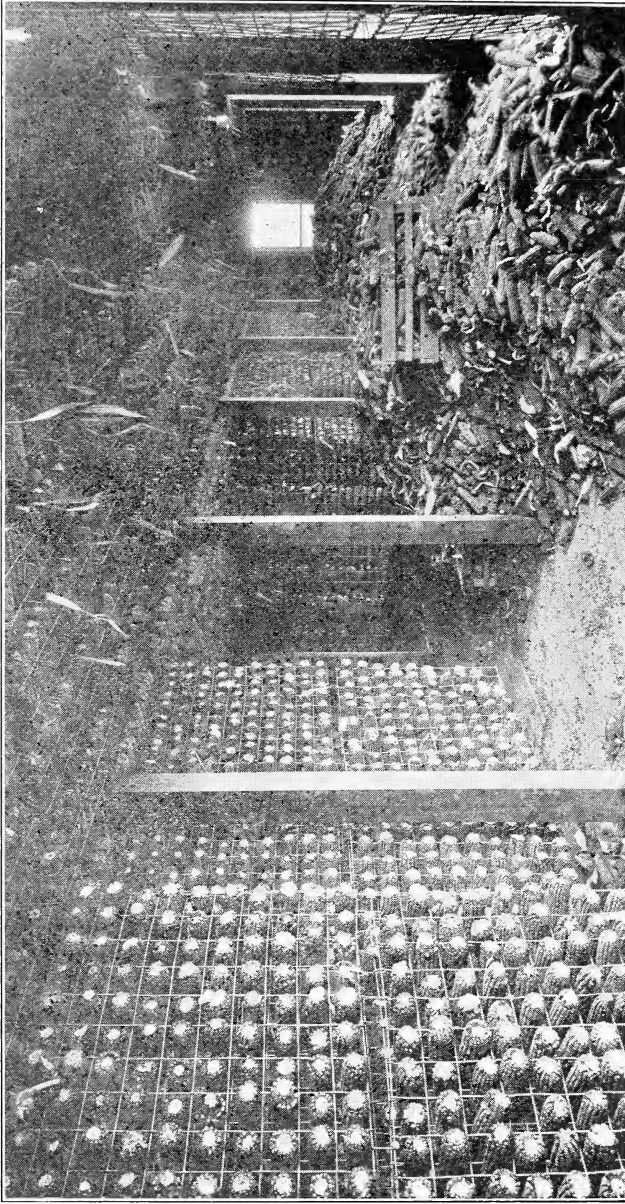
HOW TO REMIT

Money should be sent by express money order, bank draft, post office money order, on Denison, Iowa, or send your personal check.

DENISON SEED COMPANY GUARANTEE

We guarantee all seed to leave us in good condition, as we expect to give every order our personal attention. We cannot guarantee you a crop. You all know that is something no one can do. Some farmers plant too deep; others too shallow. Unfavorable weather, squirrels, bugs and worms that work on seed all make it impossible for us to guarantee a crop. We will send our seeds on ten days' approval, and if you are not satisfied with them, you being the judge, return them to us and we will refund your money.

DENISON SEED CO.,
By Jacob Weiss & Sons.



Corner of Our Corn Room

We are of practical experience in growing farm seeds, coupled with college learning in the science of breeding plants and animals, thus enabling us to apply the principles of selection and breeding in a practical way. It is much easier to grow the corn or grain you have in the best possible manner than to develop the best corn or grain to grow.

MISCELLANEOUS INFORMATION

If any of our customers care for some kind of seed that we do not have in stock, we are here to get that seed for you. We are in a position to get that seed for you cheaper and quicker than you can get it. Furthermore, we know where the best kinds of seeds are available. Place your order with us and we will see that you get satisfaction.

Our seed is our guarantee. If seed is not satisfactory or as represented, it may be returned and money will be refunded.

We will appreciate it very much if when giving us an order or writing for samples and prices, you would give us the names and address of your neighbors who might want some first class seed. For this we will gladly send you a package of seed which you may select from our different seeds.

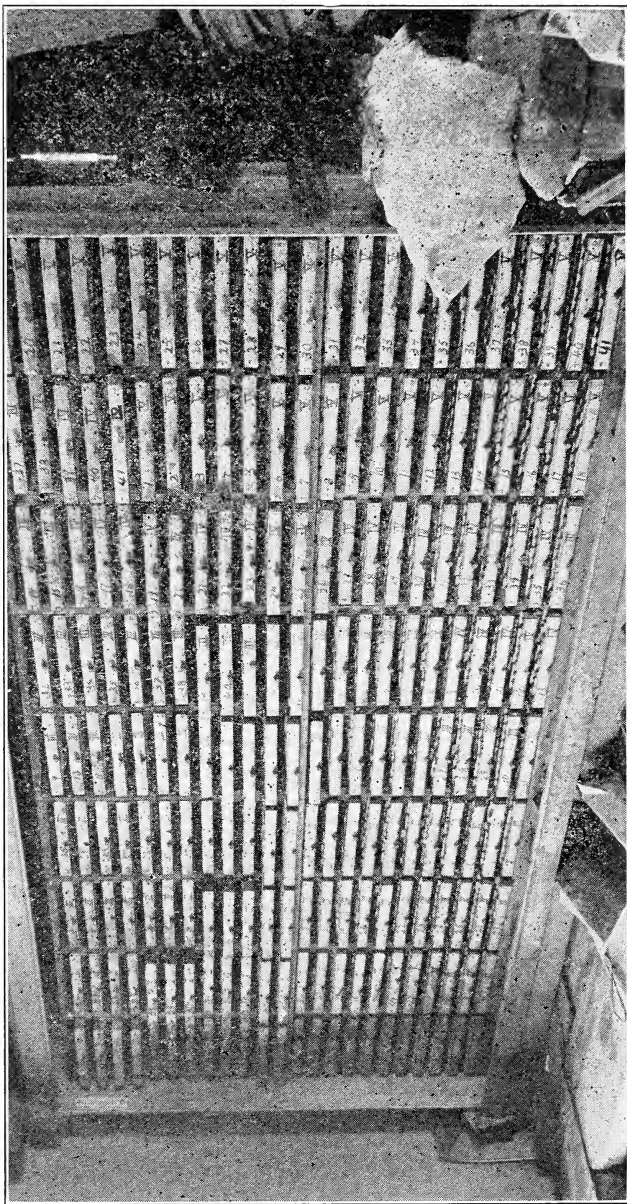
Information concerning any kind of seeds or feeds gladly furnished. A postal card will cause samples to be sent you.

Write us for prices on oats, corn and barley for feeding purposes. We are heavy feeders and know the best kinds of feeds you want.

We also have on hand for immediate delivery screenings and other feeds for poultry.

If you haven't time to write, just phone 396 at Denison, Iowa, and tell us your wants and your order will receive prompt and careful attention.

Yours respectfully,
DENISON SEED CO.,
Denison, Iowa.



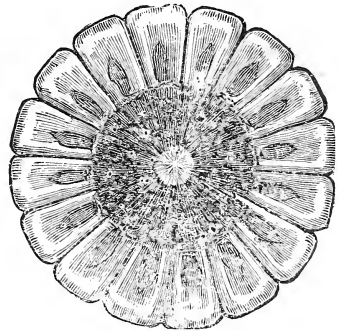
View of Testing Room

CORN

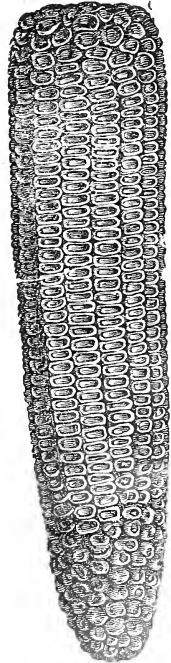
THE COST OF GOOD SEED AND ITS VALUE.

The extra expense in growing our seed corn is not the largest item in its cost. Once harvested it must be carefully hand picked three times before shelling. After picking and grading it is seldom that more than 15 per cent of the crop is left for seed. Hence it is apparent that our margin of profit is not large. A bushel of corn will plant six to eight acres. It usually costs less than 35c to plant one acre.

If the yield is increased one bushel to the acre the cost of good seed corn has been paid. Professor Holden shows a difference in yield due to the seed planted of from twenty to eighty bushels per acre. This difference in yield is the difference between planting common crib corn and planting our selected, graded, hand picked, pedigree seed corn, with a history of big yields behind it.



REID'S YELLOW DENT. The great prize-winning show corn. Now the most popular and most uniformly distinct type of Yellow Dent for northern Iowa (in fact for the whole state) and similar corn belts. Fifty years of careful selection has resulted in remarkable evenness in appearance of ears. It is more accurately described as follows: Ear 9 to 10 inches long, 7 inches around, 18 to 24 rows with narrow space between rows; deep grains with small cob well filled at butt and tip. We offer a very choice selection of seed grown from pedigree seed selections for years—our stock. This strain is slightly rough, tapering very slightly; cob medium. It has won the first prize at most all state fairs and corn shows. It was grown with the view of breeding it up to an average size of ear eliminating barren and inferior stalks which produce only nubbins, and increasing the amount of oil and protein in the corn for feed purposes. We believe in this corn we have corn in which two bushels will do as much towards developing farm animals as with an ordinary corn, two and one-half bushels will do.



BOONE COUNTY WHITE. This is a popular variety of corn that has real merit. It is a very heavy yielding corn and requires from 100 to 110 days for maturing. It is not safe for planting farther north than the center of Iowa on account of its exceptionally large yields. It is a very popular corn for Missouri, Kansas and all the southern states. You cannot go wrong on Boone County White and you will find our corn superior as we have spared neither expense nor time in perfecting or improving this variety. It grows a very heavy stock, large ears and is valuable for ensilage purposes.

IOWA SILVER MINE. Stalks grow to a height of seven or eight feet and set the ears three and one-half to four feet from the ground, just the right height for easy picking. One peculiarity we noticed in going over the field was that there were no barren stalks, every one had an ear, many stalks had two good ears, and the originator says that has been the characteristic every year that he has grown it. It has not a large growth of fodder, having been bred essentially for grain, though it has plenty of blades to support the growth, and it is as well rooted as any corn grown. The type is very even. Ears measuring from ten to twelve inches in length and weighing one and one-half pounds are not uncommon. The ears are very uniform in size and shape, with sixteen to twenty straight rows (usually eighteen rows) of deep, pure white kernels, set on a small cob; and the ears are well filled out over the tip. It is early, matured last year in less than ninety-five days. The cob dries out rapidly so that it is ready for market earlier than any other white field corn. In its yield it will surpass all other varieties of any color. Seventy pounds of the corn in the ear will make sixty-two pounds shelled. It is adapted to a wider range of soil and climate than any corn ever offered. From Minnesota to Florida, from Massachusetts to California, it will yield a paying crop where other varieties are grown at a loss.

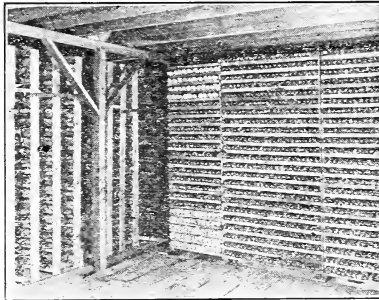
EARLY WIMPLE'S YELLOW DENT. A corn originated in Dakota; is a very early corn; a good yielder. It matured in 1917; has a very high shelling percentage, a corn that can't be beaten. Good under all conditions. We have a limited supply of 1917 corn only.

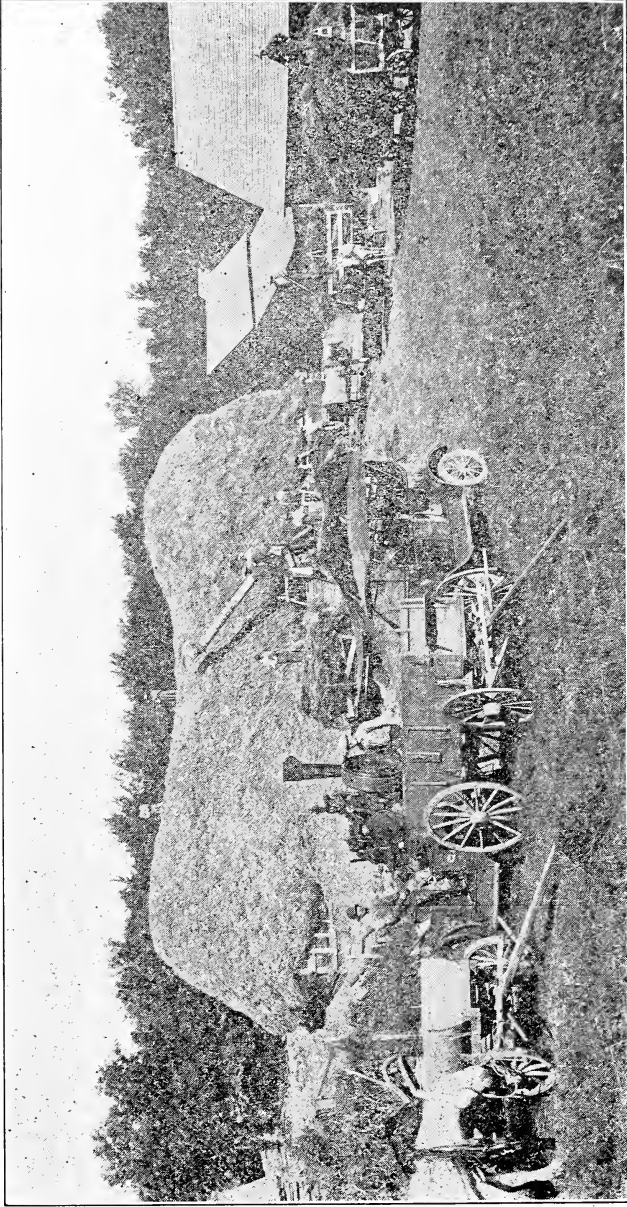
CRAWFORD COUNTY YELLOW DENT. A variety of corn that has been grown and developed in this locality. Everything considered it is a good yielder, and a variety which matures almost any year. This corn matured quite well during 1917. Matured good enough that it will keep in crib for summer use. A corn resembling Reid's.

ALBERT YELLOW DENT. A corn developed by Mr. Albert. A heavy yielder, not quite as early corn as Wimple's or Crawford County Dent. A good fodder or silage corn.

SMOKY DENT. Also called Model Dent and North Dakota Special. (Yellow Cap, Red Dent, 75-days.) This is the earliest Dent corn grown. It is a cross between Red Flint and Yellow Dent. It ripens easily in northern Minnesota, North Dakota and Wisconsin, and is by far the best extra early sort. It also gives splendid yields, and we would recommend it for main crop of central Minnesota and Wisconsin and North Dakota planting. This corn yields from 75 to 85 bushels per acre. It is also an especially valuable variety in the latitude of northern Iowa and southern Minnesota for early hog feed. This variety often ripens in seventy-five days, and it can be relied upon to fill your corn cribs with corn for early feeding weeks before the main crop has ripened. Among progressive farmers it is rapidly taking the place of Flint Corn, because it is practically as early, and not only gives a bigger yield, but a very much better quality feed. We recommend this for a main crop in the North, but in latitude of southern Minnesota and northern Iowa you should not think of planting corn without putting in a few acres at least of Smoky Dent for hog feed. Also especially valuable for replanting. Stocks of genuine northern-grown seed corn of high test are very small. We offer this variety subject to unsold.

OTHER VARIETIES. We have other varieties of field corn; also different kinds of sweet corn as the Evergreen, Early Minnesota, Yellow Bantam. Come and see our seed corn method of testing, shelling, grading, cleaning, etc. Get prices. Call us up; put in your order or get prices.





Threshing Marquis Wheat for Denison Seed Co.

WINTER WHEAT

WINTER WHEAT: We have growing now the following variety: Red Turkey. Will be pleased to quote prices next fall in time for sowing.

SPRING WHEAT

SPRING WHEAT: MARQUIS. Is a week to ten days earlier, yields 5 to 10 bushels per acre more and has higher milling and baking tests than any other hard spring wheat. This wheat is a cross between the Red Fife and Red Calcutta, an early, hard, red wheat from India. The plant is similar in appearance to Red Fife, but the heads as a rule are heavier and the straw shorter, thus making it less liable to lodge. The grain is flinty dark red and short and thick, giving it a distinctive appearance. The heads are beardless and the chaff smooth and yellow.

BUCKWHEAT

Buckwheat should be sown about the middle of June, broadcast, at the rate of from one to three pecks per acre.

SILVER HULL. This variety is a decided improvement over the common sort. The hulls are light gray and very thin. Much preferred by millers as there is less waste and it produces a winter flour. Remains in bloom for long time.

OATS

SWEDISH SELECT OATS

A pedigree variety introduced from Russia. This was in the cereal exhibit made by the United States Department of Agriculture at the late St. Louis Exposition. Now well acclimatized, weighs from 36 to 40 pounds per measured bushel. The straw is coarse, noted for its stiffness and power to withstand lodging. The grains are pure white in color, large, thick and plump, making a very handsome appearance. The heads are large, upright and bushy, they are also nearly all meat, the hull being exceedingly thin, making them especially valuable as a feeding oat. Their great root development enables them to resist drought better than most other kinds. They are quite early and less liable to smut and rust than most any other sort.

KHERSON OATS. This variety was brought to America by the University of Nebraska from the province of Kherson, Russia, with the idea of procuring an oat that would be hardy, a good yielder, and yet extra early. Small lots were sent out to farmers all over Nebraska and the tests have proven that the oats far exceed their highest expectation as to earliness, amount of yield, and ability to withstand our heavy winds and not lodge. The Kherson oats when ripe are a beautiful yellow color, have fine, large sprangled or full heads which frequently



contain more than 100 seeds. The stalk is stiff and does not lodge or rust. It has broad leaves, many of which are three-quarters of an inch wide; they extend to the roots and are so pliable that they stay on even through threshing. Unlike most heavy yielders these oats have a large grain with a very thin hull. Under favorable conditions they have yielded as high as 95 bushels to the acre in Nebraska.

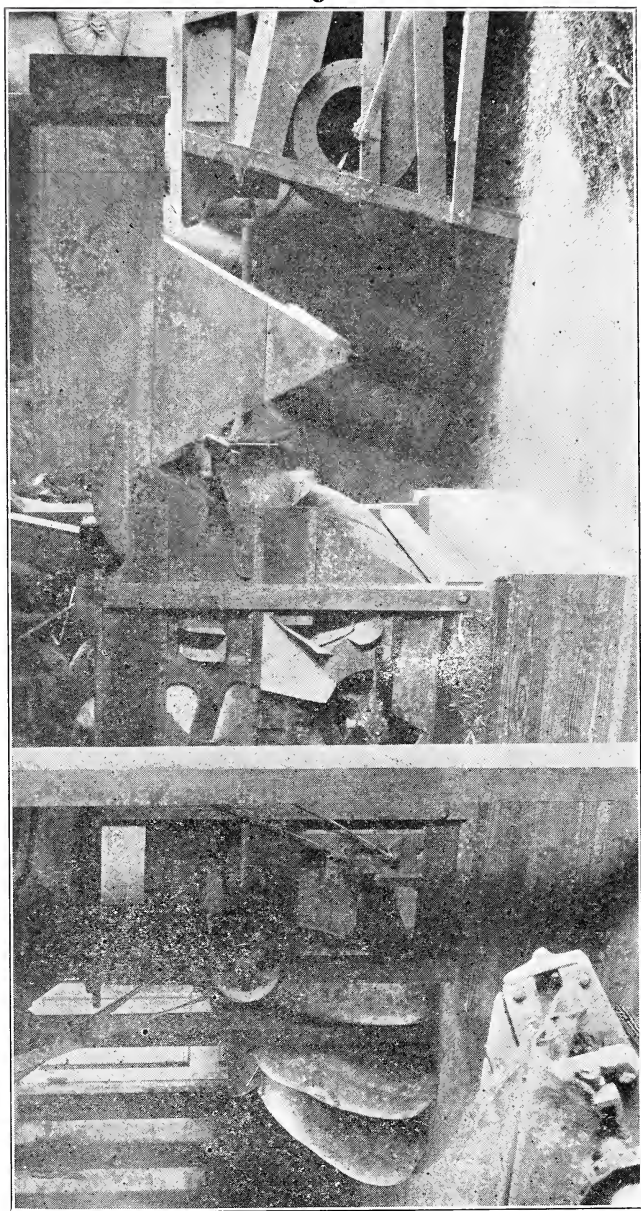
BARLEY

MANSHURY BARLEY. This grand barley was introduced from Asia by the Ontario Agricultural College several years ago, and is, beyond doubt, one of the most valuable varieties ever introduced into this country. It is an early 6-rowed variety, maturing in eighty to ninety days from time of sowing, and is adapted to all kinds of soil and climate; is very strong strawed, stools well, and bears large and well filled heads of plump grain, which possess malting qualities of the highest order. Another important factor is its nice and bright color, which will not turn dull and yellow when exposed to rainy weather, as most of the other varieties do, and on this account it will always be in good demand by the brewers, and will command the highest market price. A good malting barley always sells for at least 10 to 15 cents per bushel more than such as is discolored and which can only be used for feeding purposes. By growing the Manshury, instead of some common variety, one can quite easily gain from \$10 to \$20 per acre.

LEGUMES FOR FARMERS

There is no part of the United States that can produce more or better alfalfa, clover, etc., than can this great corn belt. There is no more valuable crop grown for hay, forage, etc., than these legumes. They fertilize the soil by adding nitrogen to it, an element which is absolutely necessary for the production of any kind of a crop. There is no other plant that will add nitrogen to soil better than the legumes. The legumes take the nitrogen from the air and store it into roots in the form of nodules. No more or better hay can be raised per acre than by the legumes, namely alfalfa and clovers. No more valuable hay for feed can be produced. It contains nitrogen, one of the essential elements of protein absolutely necessary for the growth and development of any animal. It is protein that we buy bran, oil meal, tankage, etc., to balance our rations which we feed our stock. Raise alfalfa, clovers, etc., and produce these yourself much cheaper.





View of Cleaning Machine

CLOVER

We have an Ames Experiment Station Scarifier. Scarifying greatly increases germination of all Clover and Alfalfa.

RED CLOVER, MEDIUM (*Trifolium pratense*).

This species is regarded by far the most important of the whole genus for the practical purpose of agriculture. 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 for manurial purposes. 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 grade of 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 weed seeds which decrease the value of the land on which they are growing.



MAMMOTH RED OR PEA VINE CLOVER. Compared with common Red Clover, its flower, foliage and stems are of a darker color, and its seed is the product of the flower of the first crop, while the seed of the common Red Clover is the product of the flower of the second crop, and different in some other characteristics of little importance. It is valuable when sown with other grasses for mixed hay, as it ripens later than the common Red Clover, and about the time that Timothy, Orchard and other grasses ripen, thereby making the hay a much better quality. Being a very rank grower, it is coming into very general use for soiling purposes. Sow twelve to fifteen pounds to the acre. Weight, 60 lbs. per bushel.

ALSYKE OR SWEDISH CLOVER (*Trifolium hybridum*). This clover comes from the little province of Alaska, in Sweden. It is one of the hardiest varieties known, being perennial and absolutely refuses to winter kill; it is alike capable of resisting the extreme of drouth or wet. It is a great favorite with all who have tried it. Produces annually a great quantity of herbage of excellent quality. Sow in spring or fall about eight or ten pounds per acre. Weight, 60 lbs. per bushel.

WHITE DUTCH CLOVER (*Trifolium repens*). An excellent pasture clover, forming in conjunction with the Kentucky Blue Grass, the finest and most nutritious food for sheep and cows. Sow five or six pounds to the acre. Weight, 60 lbs. per bushel.

SWEET CLOVER

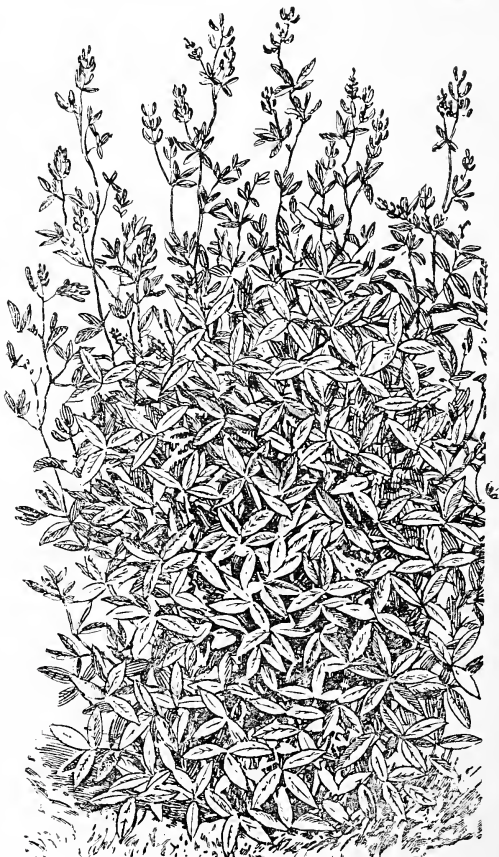
SWEET CLOVER. This plant from being considered a pest and legislated against, has in the past few years come to be ranked with red clover and alfalfa as a food crop and soil improver. It will grow on any soil that will grow clover or alfalfa and on many soils that will grow neither of these. It lives but two years. The first season it makes a rapid growth

and may be cut for hay or pastured in the latter part of the summer. The second year it will make two crops of hay or one of hay and a seed crop, as the second year it blossoms, bears seed and dies. The roots are large and fleshy and penetrate deeply into the soil, which on the death of the plant decay rapidly and furnish a large amount of humus. The same nitrogen gathering bacteria that are found on alfalfa live on the sweet clover roots making it as valuable a source of nitrogen as the former. It is invaluable for enriching a thin, sandy, hard, rocky or sour soil. It may be used freely as pasture as cattle do not bloat on it as when using alfalfa or red clover.

WHITE SWEET OR BOKHARA CLOVER (*Metilotus alba*). A biennial growing 4 to 6 feet high and the variety most widely used. Solid, hulled seeds. Prices subject to market changes.

ALFALFA

Alfalfa is the imperial forage crop of America. While other field crops surpass in acreage and total yield, in net returns per acre alfalfa is clearly in the lead. The empire over which alfalfa rules, while not as large as that of corn or wheat, is yet the most remarkable because of the quality and riches that follow in its wake wherever this monarch goes. The time is not far distant when alfalfa will occupy every available acre in every congenial area in America; when the demand for the crop and for its products for seed and hay at home and for meal abroad will be even greater than the supply. Alfalfa is one of the few crops that leave the soil in better condition for having grown on it. It makes heavy soils more porous, supplies humus, brings up plant food from lower depths and fixes nitrogen to its roots from the air to nourish later crops after the al-



alfalfa has been plowed up. All in all, it is the grandest forage plant on earth, and cannot be too highly recommended. So profitable is it when once established that every farmer can afford to take great pains to obtain a stand. As the best of seed is essential to the highest results, we earnestly recommend the use of our "Purity" brand. Like our other grades this seed is American grown, raised in the West and Northwest on non-irrigated land. It is absolutely free from noxious weeds and other foreign matter. It contains none but fully matured seeds and of the highest possible vitality. We invite the most critical examination and the most careful analysis.

GRIMM ALFALFA. This is an extremely hardy variety originally brought from Germany over fifty years ago. Some of the earliest seedings are still producing heavily. On account of its productiveness and extra hardiness it has attained considerable prominence in recent years. It is however a very shy seedling sort, seldom producing more than half as large a crop of seed as ordinary alfalfa.

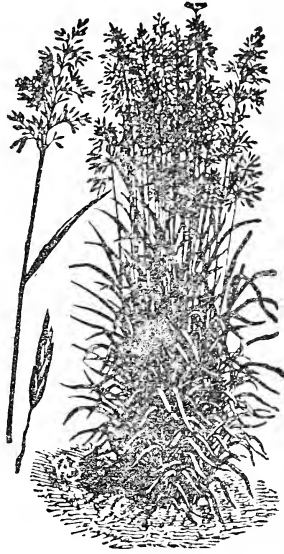
ALFALFA (COMMON). Most commonly grown around here. Sow in spring with wheat or oats; sow nurse crop a trifle thinner and seed about 18 to 20 pounds of alfalfa per acre. Be sure and sow quite early and do not sow alfalfa seed as deep as your nurse crop. May be sown in fall after plowing and preparing seed bed well; dry weather during fall often makes fall sowing a failure. We have on hand the following common kinds of alfalfa: Dakota, Nebraska, Kansas and Montana.

GRASS SEEDS

TIMOTHY (*Phleum Pratense*). The most popular of all grasses for hay and the standard to which all other hay is compared. It is a perennial, doing best on a moist, tenacious, rich soil. On light soils the yield is generally scant. The best results are had by sowing Timothy with a mixture of Red Top and Clover. Timothy does not make a desirable pasture, as there is little growth after being cut and trampling of stock soon destroys it. Hay should be cut just when it has stopped flowering. Quantity of seed per acre varies with the character of the soil. On heavy soils sow one-third to one-half bushel per acre, on light soils less. We have on hand a large amount of choice timothy seed, all home grown and well cleaned.

MILLET. There is nothing like millet to cover up shortage in your hay crop. Can be sown in the middle or last of July and makes a valuable catch crop. The popular varieties are German or Golden Millet, Common, Hungarian and Japanese. Millets are heavy yielders of hay. Write for prices and samples.

KENTUCKY BLUE GRASS (*Poa Pratensis*). Agriculturally this is well called the King of All Pasture Grasses. Wherever this grass does well, generally on lime soil, land there at once commands a high price, as it becomes the animal breeder's ideal location. This grass requires some time to establish itself. For a couple of years should only be lightly grazed. Time for sowing depends on the locality. There are three principal times of sowing, in the Fall, in the early Spring and again in June. Sow three bushels (14 lbs. to the bu.) per acre. This seed should never be covered, but only rolled after sowing, as the seed germinates better in the light than in the dark. Our seed this year was specially saved for us by one of the largest Kentucky growers, is almost free from foreign and chaffy matter, and our tests show a very high percentage of germination. Purchasers should beware of cheap Blue Grass, as it is sure to be light seed or else mixed with the cheaper Canadian Blue Grass. For lawn purposes it is the standard and superior to any other sort. Under favorable soils it will withstand all variations in weather and climate. For lawns sow 50 to 75 lbs. per acre; for pasture, 30 lbs.



CANE SEED. Cane is recognized as the King of forage plants. There is no other plant that will make more growth or yield of hay of such high feeding value. Growing hay for ensilage has become an established part of America's agriculture. No farmer who has grown cane and harvested the wonderful crop will be without it. If you have timothy hay sell it and grow cane for your feed, and you will be dollars ahead.

KIND TOSOW. Early Amber is considered the best variety, and this is the one we recommend. It is more generally grown and is early, making a splendid growth regardless of the time sown. Cane for molasses should be pure seed, not mixed with broom corn and other non-saccharine crops. Our seed is pure, and you will get the best results from it. Either sow broadcast or drill one to two bushels per acre, according to the strength of your land, at any time from May first to August first.

DWARF ESSEX RAPE. This is an ideal sheep feed, easily grown; perfectly hardy and possesses remarkable fattening properties. One acre will pasture 36 head of sheep two months and lambs will make a gain of 8 to 12 pounds a month. Pigs and cattle are also very fond of it. The plant is a rank grower and should have heavy manuring as well as high cultivation. Any corn soil will grow rape. A good crop will furnish at least twelve tons of green food per acre and its nutritive value is nearly twice that of clover.

This plant may be grown successfully in the following ways:

First—In the early spring to provide pasture for sheep and swine.

Second—In June or July on well prepared land to provide pasture for

sheep. The crop will be ready to feed at a season when it is most needed.

Third—Along with grain, using two pounds of seed per acre, to provide pasture for sheep after harvesting.

Fourth—Along with peas, oats, clover seed, to provide pasture for sheep, and to get a "catch" of clover.

Fifth—Along with corn drilled in broadcast to provide pasture for sheep.

Sixth—In corn, sowing the seed with the last cultivation given the corn.

Seventh—Along with rye sown in August in sheep pastures.

When the Rape is sown broadcast, 5 lbs. of seed per acre will suffice. When sown in rows, say 30 inches apart and cultivated, from one to two lbs. will be enough. The cost of sowing an acre is less than with any other forage plant. A director of one of the Agricultural Experiment Stations says: "We had one-half an acre of Rape, which gave an actual yield of nine and three-fourths tons, or at the rate of nineteen and one-half tons per acre."

SUDAN GRASS—Has every other forage plant backed off the track. Sudan Grass is the wonder of the age. It is the greatest forage plant ever introduced by the United States Department of Agriculture. It seems to have taken the country by storm.

GROWING THE CROP. It may be grown either drilled, in cultivated rows or broadcast. If planted in cultivated rows, the rows should be as close as possible, and yet permit of easy cultivation. In 24 to 30-inch rows, 2 to 3 lbs. of seed per acre is ample; and, under conditions of very low rainfall, this method is recommended. Under humid conditions, 18-inch rows are preferable, and 5 lbs. of seed per acre are sufficient. For drilling or broadcasting, 15 lbs. of seed per acre should be used. The seed should not be sown until the ground is warm; that is, about the time for planting corn. The young plants will withstand slight frosts without injury.

HARVESTING THE CROP. The hay should be cut as soon as the grass is fully headed, and early cutting is especially advisable where two or more cuttings per season are expected. The grass can be cut with a mower, but more conveniently with a binder, especially in dry regions, as the hay cures very readily in bundles.

SAVING THE SEED. The grass yields a heavy crop of seed, especially in cultivated rows. If the seed is grown for commercial purposes it is highly important that it be grown on land not infested with Johnson Grass, as the seeds of the two are distinguishable only with difficulty. It is recommended that, in growing for seed only, it be cultivated in rows, taking great care to hoe out and eliminate any Johnson Grass or other weeds, etc., that may show in the Sudan Grass. It crosses very readily with all the cultivated varieties of sorghum, and when it is grown near any such variety more or less numerous hybrid plants will appear in the progeny. These hybrids do not harm in fields intended for hay, but where a crop is to be harvested for seed the hybrid plants should be rogued out. This should be done preferably as soon as the hybrids appear in bloom, so as to prevent further crossing in the field, but in any

event it should be done before the Sudan Grass is harvested. The Sudan seed weighs about 32 lbs. to the bushel.

Sudan Grass without doubt has solved the hay question. The greatest drought resistant forage crop known. At the same time it does not blight where the moisture is heavy, and under good seasonable conditions it yields a larger tonnage of hay per acre than any other crop known. It recovers rapidly after cutting and the next crop is usually ready for harvest within thirty days from the first cutting. Sudan Grass has solved the hay question wherever grown. Farmers are looking for a crop with both a feeding value and a market value. This country has never produced enough hay. Good hay always brings splendid returns. Hay is the best forage and the most convenient to handle. Sudan Grass is a great producing crop, both in quality and yield, makes a nutritious and palatable hay which is greatly relished by cattle, horses and other farm stock. In feeding value the hay is second to Alfalfa and far better than Millet, which is usually grown as a catch crop. Its yield is also much larger than Millet. Sudan Grass has everything in the way of forage crop we have ever seen backed clear off the boards.

KAFFIR CORN. The great fodder crop of western Kansas and Nebraska, valuable for both fodder and grain. In regions so dry that corn cannot be grown at all, Kaffir Corn will make a yield of 30 or 40 bushels per acre of seed, equal to corn in feeding qualities, besides a large amount of first-class fodder—better than the best corn fodder and almost equal to cane. This grain is especially valuable for fowls, as it is convenient size for feeding and seems to be just the right quality. It can be sown broadcast at 75 lbs. per acre, or drilled in like corn, using about 5 or 10 lbs. per acre.



SAND VETCH

GARDEN SEEDS

BEANS

CULTURE. Early in the spring after the ground is perfectly warm, the Beans should be sown in drills 2 inches deep and 18 inches apart, dropping the Beans 3 inches apart in the drills. Hoe well in dry weather and plant every two weeks for a succession.



Grown exclusively as a shell bean for winter use.

S STRINGLESS GREEN POD. This variety is ready for use several days ahead of Valentine, is absolutely stringless, retains its tenderness long after maturity, and remains longer crisp and brittle after picking than any other variety. Its earliness and unequaled productiveness make it positively the best green bean

EARLY BOUNTIFUL. This is one of the best green podded beans, especially for the market gardener. It is as hardy and productive as Six Weeks and has stringless pods of unusually good quality. The pods are borne early and are 5 to 6 inches long, broad, flat and meaty and almost lacking strings.

WHITE NAVY.

GARDEN BEETS

CULTURE. Sow as early in the spring as the ground can be worked (one ounce will sow 60 feet of drill, five pounds will sow an acre) in drills 1 foot to 15 inches apart; and when the seed is well up thin them out from 4 to 6 inches apart. Sow every two weeks for a succession, up to the first of July.

CROSBY'S EGYPTIAN. One of the best for early planting out doors. It is a most excellent sort, becoming fit for use sooner than any other variety. An improved strain of the Early Egyptian, being much thicker, smoother and of better color and quality. We recommend this variety as an extra early beet for bunching.

EARLY BLOOD TURNIP. A standard second early variety which attains a good size and is excellent for late keeping. The old standby.

Mangels or Stock Beets

Root crops are highly valuable and worthy of more general cultivation in the United States. The feeding value of roots is directly proportional to the dry matter content. This dry matter, pound for pound, is equal to any grain; when fed to cattle is more eagerly eaten and more digestible. This dry matter runs from 10 to 14 per cent of the total weight. Thus a low yield of 20 tons would give over 2 tons of dry matter equal to 65 bushels of corn. A supplementary ration of cereal is good. Successful cultivation depends largely upon a well prepared seed bed, plowed deep and well pulverized. Sow 6 pounds of seed per acre. On carefully prepared land yields of 40 and 50 tons per acre have been taken not uncommonly. The Mangel is a dependable cropper, ripening after harvest, is ready to feed January 15th. Mangel diet gives one-third more milk than potatoes when fed to milch cows.

MAMMOTH LONG RED. This is the most productive mangel variety, yielding enormously. Crops as high as forty to sixty tons to the acre have been produced, and a single root often weighs twenty to thirty pounds. It grows well above the ground, and is easily pulled; very hardy and a good yielder.

SUGAR BEETS

The growing of Sugar Beets in the United States has become one of our most important industries. Our seed is from the best growers, who select all their beets by laboratory tests for high sugar content. Our seeds will raise beets with a much higher percentage of sugar than seed ordinarily offered. They are also superior for stock feeding, as they are very high in dry matter content.

VILMORIN'S IMPROVED. An improved French variety, exceedingly rich in sugar. Under average conditions it has yielded 14 tons of roots to the acre, containing about 16 per cent of sugar.

CABBAGE

CULTURE. To secure early cabbage sow seed in fall in boxes and winter the young plants in cold frames, or it may be sown in February or March in hotbeds. The latter plan is generally adopted in this neighborhood. The February sown plants, when large enough, should be transplanted into rows about two feet apart and about eighteen inches apart in the row. The late varieties should be sown about the 1st of May and set out in the garden in July. As these grow larger than the early varieties, they should be planted in rows about three feet apart and about two feet apart in the row.

EARLY JERSEY WAKEFIELD SELECTED. This is positively the best first early cabbage in existence, combining a uniformity of earliness and of crop most unusual in first early varieties. It forms fine, solid heads of good size and the best quality, conical in shape, with very few outside

leaves, admitting of close planting. Its extreme earliness makes it a sure money maker for the gardener who plants it for the early markets. The purity of our strain is unsurpassed.

PREMIUM LATE FLAT DUTCH. This is a sure heading strain of the Late Flat Dutch. Its large, solid heads, uniform cropping and splendid keeping qualities, recommend it particularly to the market gardener for late or main crop use. Our stock of this variety has been especially raised for us from carefully selected heads, and is unsurpassed.

CARROT

CULTURE. For successful cultivation soil should be light (sandy soil is the best) and deeply tilled. For an early crop the seed should be sown as early as the ground can be properly worked. For late crops it may be sown until about the middle of June.

RUBICON HALF LONG. Since the introduction of this valuable and distinct American carrot a few years ago, it has rapidly grown in popularity, until now it is more largely grown than all other varieties of carrot combined. It is the best in shape, and its deep red orange colored flesh is the finest of all in quality. It is earlier than Danvers, about the same length, but heavier and thicker at the shoulders, making it more productive. It is a wonderfully heavy cropper, producing thirty to forty tons to the acre under good field culture. It grows well under the ground, which prevents it from becoming sunburnt.

GUERANDE OR OXHEART. A variety with short, thick roots, the diameter often exceeding the length. Color bright orange, sweet and fine grained, good for table or stock.

CUCUMBER

CULTURE. Plant in hills four feet apart, in well prepared, warm, rich, loamy soil. Mix a shovelful of well rotted manure in each hill. The fruit should be picked when large enough, whether wanted or not.

EXTRA LONG WHITE SPINE. A large variety of White Spine, much used by market gardeners for forcing. Retains its deep green color through all stages of growth.

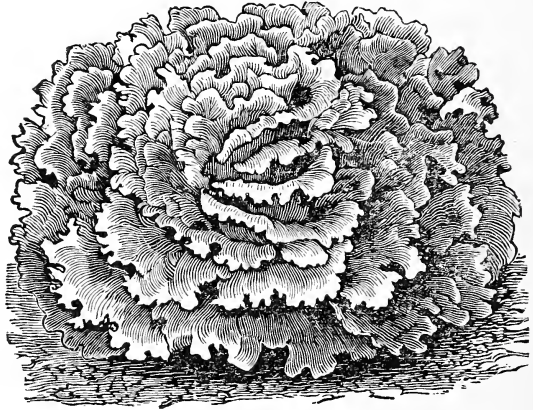
BOSTON PICKLING. One of the most prolific of the pickling sorts. We recommend it highly for the home garden.

IMPROVED LONG GREEN. Produced by selections from the Long Green vines; vigorous and productive, forming fruit fit for the table nearly as early as the shorter sorts; fruit about 12 inches long, firm and crisp. The younger fruit makes excellent pickles and when ripe is best for sweet pickles. We offer a carefully selected strain, uniformly long, and of good form, with the large warts and spines well distributed over the surface instead of being clustered at one end, as in inferior stock.

LETTUCE

CULTURE. For an early crop sow under glass in February and transplant on a well prepared bed, in some sheltered corner, in April. For successive crops sow in beds of well pulverized soil in March and at intervals of about a fortnight until the end of May.

BLACK SEEDED SIMPSON. Forms large, loose curled leaves of light green color and remarkably crisp and tender. Equally suitable for hot bed, cold frame or outdoor culture. A most profitable variety for the market gardener.



Black Seeded Simpson Lettuce.

PRIZE HEAD. For many years the most popular of the large, loose headed sorts. The leaves are very crisp and tender and finely crimped, bright green in color, tinged with brown. Excellent for the home gardener, but too tender for handing on the market.

HANSON. A very fine heading variety of large size. The heads are very solid, sweet, tender and crisp throughout and entirely free from any bitter taste.

SWEET CORN

CULTURE. Plant in hills three feet apart and leave four plants to the hill. Plant at intervals of ten days from early spring to middle of summer.

GOLDEN BANTAM (Extra early). A new variety, by many considered the richest and sweetest of all corns. In eating from the cob the grain comes off clean, no particle of cob adhering. Its extreme hardness admits of very early planting, so that it may be had for market as early as Cory, to which it is much superior in quality. A tight, firm husk protects the ear from the ravages of disease smut, etc., and from worms. We recommend it unqualifiedly.

EARLY MINNESOTA (Early variety). One of the best and most popular of the older varieties, both for the market and private gardener. Stalk short and bearing two long ears, eight-rowed, very sweet and tender, and shrinks but little in drying.

STOWELL'S EVERGREEN (Late and Main Crop Sort). The general favorite with canners, market gardeners and for the home garden.

COUNTRY GENTLEMAN (Late and Main Crop Sort). This is the variety par excellence for quality. It is medium early, rows zigzag, grains long, flavor beyond description. Excellent for canning.

MUSK MELON

CULTURE. Musk melons grow best in light soil. Plant in hills about six feet apart, mixing in each hill about a shovelful of well rotted manure. Sow about a dozen seeds in every hill, early in May, and when well started thin out to three or four of the strongest plants.

ROCKY FORD. This popular variety sells more readily than any other kind. It is of the netted gem type, but more oval in shape. The surface is very deeply netted and presents a most attractive appearance. The flesh is green in color, very thick and of a delicious sugary flavor unapproached by any other variety. Produces abundantly and continuously. Our seed is genuine, from selected and perfect melons, grown by experts at the original home of the variety, Rock Ford, Colo.

OSAGE. A large, orange fleshed melon of unsurpassed table quality and increasing popularity. It is productive, a splendid shipper and commands a good price.

WATER MELON

CULTURE. Plant in hills eight to ten feet apart each way with a shovelful of well rotted manure mixed with the soil in each hill. Put six or eight seeds in each hill and finally leave when danger from insects is past but three strong plants. Hoe often. If extra large fruit is desired have but two or three melons to the vine.

TOM WATSON. Typical fruits of this variety reach a size of twenty-four inches in length and twelve inches in diameter. The rind is dark mottled green, thin but tough enough to endure shipping to very distant markets. Of the long shaped melons it is the best shipper. The flesh is deep red and comes very close—about three-fourths of an inch—to the rind. The exquisite deliciousness of flavor possessed by the fine quality flesh of this melon places it in the very front rank of melon excellence. For the home or market garden, or for shipping, it is a money maker for the growers. Our strain of this is not surpassed in the market.

KLECKLEY SWEET (MONTE CRISTO). The finest melon yet introduced for home growing and table use. The fruits grow 18 to 20 inches long and 12 inches in diameter. The skin is a rich, dark green; flesh bright scarlet. The rind is but half an inch thick, so that shipping it long distances is not practicable. The seeds are white, lying close to the skin and leaving a very large, solid heart, crisp, sugary, melting and entirely free from stringiness. The handsome appearance, uniform growth and luscious sweetness make it one of the finest melons in cultivation. Our seed was saved from carefully selected melons and is strictly pure and true.

PHINNEY'S EARLY. Very early; flesh bright red, sweet, tender and well flavored. Reliable for market gardeners.

ONIONS

CULTURE. The ground for Onions should be well prepared by digging in plenty of well rotted manure. The seed may be sown from the first of April to the middle of May. Sow in drills one inch deep and twelve inches apart. When the onions are up thin them out to a distance of three inches apart.

LARGE RED WETHERSFIELD.

The standard red variety and the favorite onion in the west, where immense crops are grown for shipment. Large size, skin deep purplish, form round, somewhat flattened. Flesh purplish white, moderately fine grained and stronger flavor than any of the other kinds. Very productive, the best keeper, and one of the most popular for general cultivation.

DANVERS YELLOW GLOBE.

Distinct in form, being nearly globular, of a beautiful golden yellow. Mild flavor and good keeper.

ONION SETS (Prices subject to Market Fluctuations). White Bottom Sets; Red Bottom Sets.



PARSNIP

CULTURE. Sow as early in the spring as the weather will permit, in drills 15 inches apart, and half an inch deep, in rich, well manured ground, well dug. Cultivate similar to carrots and thin out to six inches apart in the rows.

HOLLOW CROWN, OR LARGE SUGAR. The largest variety in cultivation. Roots long, white, smooth, tender, sugary and of excellent flavor.

PUMPKIN

CULTURE. Plant in hills, in well prepared ground, mixing two or three shovelful of well rotted manure in each hill. Light soils are best suited for their growth. Plant six to eight seeds in each hill and thin out to three or four after they have made partial growth.

CONNECTICUT FIELD. A large yellow variety, hard shell. An excellent variety for field culture.

SUGAR. This variety is smaller than the Large Field, but of finer grain, sweeter and very prolific.

PEAS

CULTURE. The planting of an early crop of Garden Peas should be made in the spring, as soon as the ground can be worked, in a warm dry location and covered about 3 inches. They are usually planted in double rows three to four feet apart, and, those requiring it, bushed when about six inches high. The large and later sorts do better at a greater distance apart, leaving a broad space for planting low growing vegetables between.

FIRST AND BEST (30 inches. Extra Early Variety). Vines small, bearing three to seven straight handsome pods, each containing six to eight medium sized round peas of good quality. The stock we offer is especially grown for us.

AMERICAN WONDER (10 inches. Wrinkled variety). Of fine quality and flavor, and wonderfully productive. Its great distinctive feature, however, is its compact and dwarf growth.



RADISHES

CULTURE. For a successive supply sow from the middle of March until September, at intervals of two or three weeks. For an early supply they may be sown in a hotbed in February, care being taken to give plenty of ventilation, otherwise they will run to leaves.

EARLY DEEP SCARLET TURNIP. A small round red turnip-shaped radish with a small top and of very quick growth. Mild and crisp when young.

FRENCH BREAKFAST. Bright rich carmine color with clear white lower portion; very tender and mild.

WHITE ICICLE. A fine long, pure white and very early sort, ready in 20 to 25 days after planting. Its small foliage makes it most desirable for forcing. The snowy whiteness of the roots, their crispness and fresh mild flavor, make it one of the very finest for market or table.

LONG SCARLET SHORT TOP. Standard sort grown for private gardens and for market.

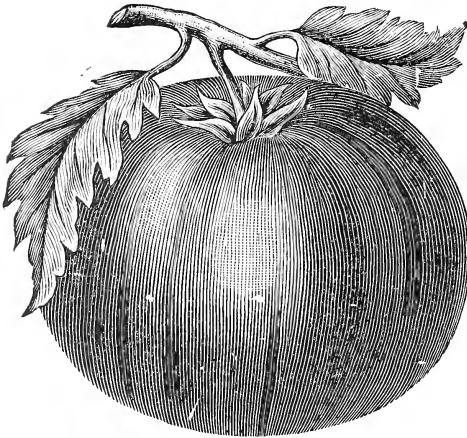
SQUASH

CULTURE. Plant in hills, in well prepared ground, mixing plenty of well rotted manure in each hill. Light soils are best suited for their growth. Plant six to eight seeds in each hill and thin out to three or four after they have made partial growth. Plant bush varieties from three to four feet apart each way, and the trailing sorts six to eight.

IMPROVED HUBBARD. An old favorite, still retaining its place as one of the best winter squashes; vines luxuriant, healthy and very productive; fruits dark, bluish green, 10 to 25 lbs. each; flesh rich yellow, always richly flavored, sweet and dry, whether boiled, steamed or baked; good keeper.

TOMATO

CULTURE. Sow in early March, in hotbeds or seed boxes, and when plants have four leaves transplant to four or five inches apart; give plenty of air and endeavor to secure a vigorous and healthy growth. When all danger of frost is past, transplant to open ground, four to six feet apart each way.



EARLIANA. The earliest large smooth red tomato. This tomato is not only remarkable for its earliness, but for its very large size, handsome shape and bright red color. Its solidity and fine quality are quite equal to the best medium and late sorts. One of our growers has a specimen plant that had by actual count forty-five ripened fruits at time of the first picking, and thirty-five green ones of good size. No market gardener should be without this tomato.

NEW STONE. Positively the best all around main crop tomato whether for the market, for canning purposes or for the home garden. The fruit is large, smooth, sold, firm fleshed, of a handsome deep red color and ripens evenly to the stem without a crack. Our stock of this splendid variety is far superior to what is usually sold under this name.

GARDEN SEEDS

Full line of standard varieties of Garden Seeds in packages not mentioned before in this catalogue.

For prices of all seeds look on Special Price Sheet in catalogue.

TURNIP

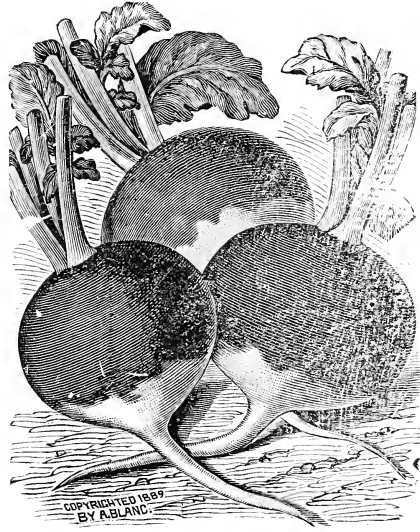
CULTURE. Light, well manured soil is best suited for turnips. Sow the earliest varieties in April, in drills about fifteen inches apart, and thin out to from 6 to 9 inches in the rows. For a succession sow at intervals until the end of August.

PURPLE OR RED TOP

STRAP LEAF. Flat; fine flavor and one of the most popular varieties grown, and when sown late is one of our best varieties, being an excellent keeper.

PURPLE TOP WHITE GLOBE

Handsome globular shape, fine grained, tender and sweet; the best table turnip and a splendid keeper; a rapid grower and a heavy yielder, producing enormous crops. Our stock has been specially selected for years and cannot be equalled.



RUTABAGA

CULTURE. The roots may be preserved in a pit or cellar during the winter, and are excellent for table use. Sow from the tenth of June to the middle of July in drills two feet apart and thin out to eight inches.

SEED POTATOES

EARLY OHIO. Early Ohio is the most popular potato in this country. We have more calls for it than for any other variety. Every potato grower knows just about what it will do in his locality. It is the standard extra early the country over, and other varieties are measured by it. We consider our stock of Ohio to be the earliest, purest and altogether the handsomest stock of Early Ohio potatoes to be found anywhere. On these points we challenge comparison with stock from any other source. We do not admit that its equal exists among Early Ohio potatoes. They are grown under conditions that make them cost more than common stock. They are selected with the utmost care and the result is grand, such as to delight everyone who knows and appreciates a good potato. Every one of them is a "picture" of what an Early Ohio potato should be.

RURAL NEW YORKER No. 2. Well known now the country over and very largely planted for a profitable main crop. It commands the highest price in all the leading markets of the country. It has a long, rather spindling vine, with dark colored stalks, dark green leaves and purple blossoms; tubers nearly round, flattened, with very smooth, pure white skin, uniform in size, quite numerous in the hill, always very attractive in appearance. Our stock of Rural New Yorkers this year is a splendid one, and our prices are certainly very reasonable.

FEEDS

Balance Your Feeding Rations

We are balancing our corn ration which we are feeding to our 200 cattle, 1000 hogs and 2000 lambs with the following feeds:

- Tankage 60 per cent protein for hogs.
- International sugar feed for hogs.
- International Planters feed for cattle.
- Gluten feed for hogs, cattle and sheep.
- Oil meal for hogs, cattle and sheep.
- International ready ration dairy feed for dairy cattle.
- International pig meal.
- Hay of all kinds.
- Other feeds on hand. Ask us for what you want.

These feeds have given us good results and we are feeding them by car lots. We sell you no feed which is not good enough for our feed lots, and do not show a profit by feeding. Write and ask us for full information on our feeds.





ORDER SHEET

Denison Seed Company

On the Lincoln Highway

Railroad Avenue, Between Sweet and Locust Street

TERMS: Cash with order, or order will be shipped C. O. D., subject to inspection. Money refunded if seeds are not as represented, and seeds are returned. We do not pay the freight. Bags extra, at cost.

Check manner in which you desire seeds shipped. Express [] Freight []

Date _____ 191_____

Please Forward Following Articles to

Name _____

Postoffice _____

County _____ State. _____ Am't Enclosed \$ _____

Quantity

ARTICLES WANTED

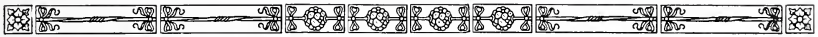
PRICE

From _____

The Denison Seed Company

Denison,

Iowa.



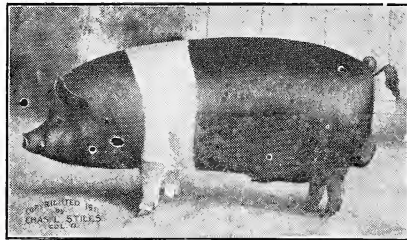
Aberdeen Angus Cattle



Ask us, or write us, as to your needs in the Aberdeen Angus breeding line. We may have just what you want.

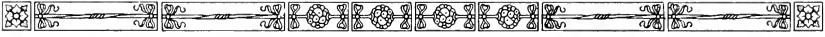


Hampshire Hogs



The hog that gives the best results. Write or call and let us know your needs in the Hampshire breeding line. We have such blood as "Lookout" and "Patterson" in our herd.





Farm and Garden Seeds

The Spring of 1919

Denison Seed Company

On the Lincoln Highway

DENISON, IOWA

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