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MARKET GARDENERS'
✓ ✓ WHOLESALE PRICE LIST ✓ ✓
AND SPRAYING CALENDAR FOR 1904

JONES
THE SEEDMAN

11 N. Iowa St.,

GRAND RAPIDS, MICH.

For Spraying Calendar see pages 53 and 54.

JONES THE SEEDMAN

MARKET
GARDENERS'
WHOLESALE
PRICE LIST
FOR 1904

11 NORTH IONIA STREET
GRAND RAPIDS, MICHIGAN

JONES' MARKET GARDENERS' WHOLESALE PRICE LIST FOR 1904

ALL of our seeds are tested as to Germinating quality.

The prices herein quoted we will adhere to as far as possible, but we reserve the right to change the price without notice. Many varieties of sweet corn are impossible to obtain and when we sell out will have to remain sold out on those sorts. We buy only from good growers and take every precaution to get the best seeds obtainable, and should they prove not true to name we will replace them with other seeds or refund the money paid.

Purchasers by mail will add to these prices a sufficient amount to cover postage. On quantities of from one-half pound upwards, 8 cents per pound; 15 cents per quart for peas and beans, or 10 cents per quart for sweet corn. All seeds in quarter pounds or ounces prepaid.

Remit by Postoffice Money Order, Express Order or Bank Draft.

.. JONES, THE SEEDMAN ..

11 NORTH IONIA STREET, GRAND RAPIDS, MICHIGAN

NOVELTIES IN VEGETABLE SEEDS

BEANS.

Burpee's Stringless Green Pod. This excellent bean combines unusual hardiness, extreme earliness, and great productiveness. For either market or home garden; no other green podded bean is so satisfactory. The pods are a rich green, very round and straight, five inches long, solidly meaty, tender and brittle; always entirely stringless even when fully matured.

Giant Stringless Green Pod. This new variety should not be confused with Burpee's Stringless Green Pod, from which it is entirely distinct. It more nearly resembles the Valentine, being about a week later. The pods average one-third larger than the Valentine. The plants are of strong growth, the pods five to six inches in length. Absolutely stringless, crisp, round, full and fleshy.

Longfellow. Very early and prolific. Pods about six inches long; light green; straight and round, of excellent flavor.

BEETS.

Crosby's Egyptian. The earliest beet on the market, a selection from the Early Egyptian which retains the earliness of the parent stock and has added thickness, giving it a more desirable shape. Color deep red, almost black; sweeter and smoother than the Egyptian. It is a rapid grower and the most desirable sort for early bunching; can be sown as late as July.

Acme. This new variety is just becoming recognized as one of the best main crop beets. The top is low, spreading, dark color, roots thick, turnip shaped with small tap root. Outside color dark purplish red, flesh crimson and ninety per cent. of the beets have no white zones. It is superior in both shape and color to the Detroit dark red, which it resembles, and is a remarkably long keeper. Especially adapted to gardeners and canner's use.

Giant Feeding Sugar Beet or Half Sugar Mangel. This valuable stock beet is the result of careful seed breeding and selection. It has the richness of the sugar beet combined with the size and yield of the mangel. It will yield twice as much as the sugar beet, is much easier handled and keeps better and in every way is more valuable to the farmer; roots are large ovoid in form, very smooth, white in color with small tops. It should be planted closer than mangels.

PEAS.

✓ **Gradus.** From the market gardeners' stand point too much cannot be said in praise of the *Gradus* or *Prosperity*. It is extra early, being but 2 or 3 days later than the very earliest. Pods very large from 4 to 4½ inches in length, peas large and handsome and as sweet as the Champion of England. The vine has heavy stems with large dark green leaves and grows from 2½ to 3 feet high. Crops very short, will have but a limited quantity.

PEAS—Continued

THE "NEW SURPRISE" PEA.

✓ **Gregory's Surprise or Eclipse.** This is the earliest of all wrinkled peas, fully as early as the Alaska. The vines grow about 18 inches and requires no bushing; a full cropper. Though equally as early as the smooth sorts it has the delicious sweetness of the wrinkled peas. The pods continue longer in condition for the table than the smooth varieties. The crop matures very evenly so that it can be gathered in one or two pickings. From the more tender character of the wrinkled peas it cannot be planted quite so early as the Alaska or First and Best.

✍ **Thomas Laxton.** The growth is similar to the Gradus, but the pods are a deeper green, square at the ends, instead of having a long sloping point. In quality the Thomas Laxton is fully equal to the Gradus, and but little difference in earliness. Crop short, quantity limited.

THE DELICIOUS SQUASH.

✓ **The Delicious** is the product of the work of years in careful selection, crossing and isolating by the originator of the old Hubbard and all who have tested the *Delicious* pronounce it superior to even the Hubbard when it was at its best a quarter of a century ago. In form the *Delicious* ranges between the two examples given above. Its color is almost uniformly of a green shade, with occasionally a blue specimen. In size it follows closely the original Hubbard, which weighed between five and ten pounds. In thickness of flesh it surpasses nearly every variety, the color being a dark orange. For table use no squash compares with it in its fineness of grain, dryness, sweetness and exceeding richness of flavor. It is a Fall and Winter squash, but like the old Hubbard, though at any time excellent, does not acquire its best qualities until Winter.

CUCUMBER.

✓ **Rawson's White Spine.** Mr. Rawson selects the specimens for seed stock from the vines saved in the green house in early Winter where nothing is allowed to grow except the vines for seed stock. The fruit grows very even in size and regular in form, color dark green, with light spines running from the blossom end. The very best cucumbers for forcing. Nine-tenths of the cucumbers grown in Grand Rapids green houses are grown from this seed.

DWARF STONE

This new variety from Livingston resembles the Dwarf Champion in habit of vine, but is of stronger growth and more erect. The first resembles Livingstons Stone in color and shape and is practically the same size. The new Dwarf Stone is fully double the size of the Dwarf Champion yet equally as early and as prolific. Oz. 50c., $\frac{1}{4}$ lb. \$1.50.

**New Savoy
Cabbage
"Iron Head"**

CABBAGE.

(New Savoy—Iron Head.)

Earliest. Large; this is the very best of all, tender and solid, Early Savoy Cabbage. The heads are round, very large, of best flavor and hard as iron. It is the earliest of all. Market gardeners will find it a money maker.

Earliest, Large,
Tender and Solid

Jones' Market Gardeners' Wholesale Price List for '04

Asparagus.

ROOTS.

Use 1000 lbs Armour's Bone Blood and Potash per acre.

	Per 100	Per 1000
✓ Palmetto, two year old roots	\$1.50	\$6.00

SEEDS.

	Oz.	½lb	1b
✓ Palmetto	5	15	50
✓ Conover's Colossal	5	15	50

Beans.

One pint to 100 feet of drill, 1 bushel per acre.

DWARF SNAP OR BUSH.

Green Podded Sort.

Sow 300 lbs. grain grower per acre.

	Qt.	4-Qt.	Peck	Bush
✓ Burpee's Stringless Green Pod. See novelties	20	60	\$1 25	\$4 75
✓ Long Yellow Six Weeks. Early, pod long, flat light green	20	60	1 00	3 50
✓ Round Yellow Six Weeks. Improved strain of long Yellow Six Weeks, pods not so long but more fleshy and brittle, nearly stringless	20	60	1 00	

BEANS—Continued.

	Qt.	4-Qt.	Peck	Bush.
✓ Giant Stringless Green Pod. See Novelties	20	60	1 25	4 75
✓ Emperor William. Earlier than the Dutch Case Knife, pods very tender and excellent flavor, flat and nearly 10 inches in length	20	60	1 00	3 50
✓ Refugee or 1000 to 1. Pods nearly round, pale green, solid, fleshy, brittle with slight strings 20	60	1 10	4 00	
✓ Dwarf Horticultural. Vines very productive, pods medium length, cylindrical, covered with splashes of bright red on a yellowish ground, beans very large and easily shelled. 20	75	1 50	5 00	
✓ Longfellow. See novelties	20	60	1 10	4 00

WAX SORTS.

✓ Dwarf Golden Wax. One of the best early wax varieties, pods long, flat, fleshy, color bright golden	25	90	1 75	6 50
✓ Challenge Black Wax. Early, round, clear, waxy white, fleshy, crisp, tender and stringless ...	25	90	1 75	6 50
✓ German Black Wax. Earliest wax podded bean, pods long, curved, round, deep golden yellow, meaty, brittle and stringless	25	90	1 75	6 50
✓ Davis' Kidney Wax. Immensely productive, pods very long, straight and handsome; color light yellow, should be picked young	25	90	1 75	6 50

Wardwell's Kidney Wax Beans.

✓ Wardwell's Kidney Wax. Early, good cropper, pods long, straight, fleshy. rich yellow and stringless	25	90	1 75	7 00
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BEANS—Continued.**POLE OR RUNNING.**

	Qt.	4-Qt.	Peck	Bush.
✓ Siebert's Early Lima. The earliest true pole lima	25	85	1 70	6 50
✓ King of the Garden. Late, very productive, large pods containing five or six large well flavored beans.....	25	85	1 70	6 50
✓ Dutch Case Knife. Pod long, flat, green, seed white, used largely for slicing and canning.20		60	1 20	4 50

LIMA BEANS.

1 pint to 100 hills.

Burpee's Bush Lima Beans.

✓ Burpee's Bush Lima. A bush form of true large lima, very productive, bean large and of fine flavor	25	90	1 60	6 00
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Beets.

One ounce to 100 feet of drill. Seven pounds per acre.

The color of beets depends largely on the season and cultivation. Richest coloring is developed during cool moist weather.

Use 500, Root Crop, special per acre.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Jones' Crosby's Egyptian. Selected stock, see novelties..	5	15	60
✓ Crosby's Egyptian.....	5	15	40
✓ Eclipse. A superior market garden beet, blood red, very early, excellent for greens and bunching beets	5	15	40
✓ Early Blood Turnip. Not so early as Detroit Dark Red, tops and roots larger	5	15	40

✓ Detroit Dark Red. A favorite sort for bunching; early, dark red, perfect turnip shape, tops small	5	15	40
✓ Acme. See novelties	5	15	40
✓ Early Bassano.....	5	15	40
✓ Bastian's Early Turnip.....	5	15	40
✓ Long Dark Blood	5	15	40
✓ Dewing's Blood Turnip. A favorite variety with market gardeners for main crop and winter storing; roots smooth, almost round, outer color dark red, inner color ringed red and white.....	5	15	40

BEETS—Continued.

	Oz.	¼-lb.	1b.
✓ Edmand's Blood Turnip. One of the best main crop beets: tops small, good form, color deep blood red, zoned with lighter shade.....	5	15	40
✓ Swiss Chard or Sea Kale Beet. Superior to beets for greens; plant forms broad wax like stems which may be used as a salad or pickled.....	5	15	40

SUGAR BEETS.

5 to 7 lbs per acre.

✓ Giant Feeding Sugar Beet. See novelties.....	5	10	25
✓ Lane's Imperial. One of the best for stock feeding ..	5	10	25
✓ Yilmorin's Imperial.....	5	10	25
✓ Klein's Wanzleben. Best German.....	5	10	25

BOERKOLE OR KOLE.

Kole is more hardy than cabbage and makes excellent greens for Winter and Spring use and is improved by frost. For Fall use sow in May or June.
1 oz. to 3000 plants.

✓ Tall Green Curled	10	20	75
✓ Dwarf Green Curled	10	20	75

BEETS—Continued.**MANGEL WURZEL.**

5 to 7 lbs per acre.

6 pounds of seeds will plant one acre. Sow in drills about two feet apart. Thin out to 10 inches in the row. Sow 400 lbs of Armours Root Crop Special per acre.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Mammoth Long Red. Enormously productive; needs deep, mellow soil	5	10	25
✓ Golden Tankard. Good yielder; flesh firm, not so coarse as Long Red.....	5	10	25

BROCOLI.

1 oz. to 5000 plants.

✓ Mammoth White.....	40	1 25	3 50
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BRUSSELS SPROUTS.

1 oz. to 5000 plants.

✓ Paris Market	15	40	1 50
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Cabbage.

1 oz. to 2000 plants; 2 oz. sown thinly provide enough plants for one acre. Sow a little Bone Blood and Potash around each plant and hoe it into the ground.

	Oz.	$\frac{1}{4}$ -oz.	lb
✓ Jone's Earliest Jersey Wakefield. Forms solid heads of fair size; conical in shape with few outside leaves. This is the earliest strain of this variety and is remarkably pure	20	60	2 00
✓ Charleston or Large Wakefield. A strain of the Wakefield in which the head is larger, a little later and not so pointed; a good cabbage to follow early Jersey Wakefield	25	75	2 50
✓ Early Spring. Nearly as early as Early Jersey Wakefield; heads round, solid, but not large.....	20	75	2 50

CABBAGE—Continued.**SECOND EARLY.**

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Henderson's Early Summer. Large, round, solid heads, keeps longer without bursting than most of the early sorts; one of the best Second Early Cabbage..	20	60	2 00
✓ All Head. For the second early market	20	60	1 75
✓ Early Winningstadt. Heads large, cone shaped and solid; very early and sure to head.....	20	60	1 75
✓ All Seasons	20	60	1 75
✓ Henderson's Succession. About 10 days later than Early Summer; heads larger and more uniform.....	20	60	2 00
✓ Fottler's Early Brunswick. Earliest of the large heading Drumheads	15	45	1 50
✓ Fielderkraut. Head is conical, very hard, the favorite sort for kraut... ..	15	45	1 50

LATE KINDS.

✓ Surehead. Strong, vigorous, uniform, large, solid and quality fine	15	45	1 50
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CABBAGE—Continued.

✓ Jones' Late Flat Dutch. A very fine strain of this variety; heads large and more solid than the loose headed Flat Dutch. Oz. 10c; $\frac{1}{4}$ -lb. 35c; lb. \$1 25.

✓ Danish Round Winter. The best cabbage for late Spring sales and for shipping; the heads of this variety are of medium size, are very solid and deep, and of a fine white color; their quality is superior and they keep better than any other sort

20

60

2 00

CABBAGE—Continued.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Hollander.	20	60	2 00
✓ Large Late Drumhead. Very large solid head.	15	45	1 50
✓ Deep Head.	15	40	1 50
✓ Stone Mason.	15	40	1 50
✓ Luxemburg or Hard Heading. Large, solid and good keeper.	15	50	1 50 ^a
✓ American Savoy.	15	40	1 50
✓ Iron Head Savoy. See Novelties.	30	90	3 50
✓ Mammoth Rock Red. Large, round, solid, deep red.	20	60	1 75

Carrots.

One ounce to 150 feet of drill, about one pound per acre.
 Sow 500 lbs Root Crop Special per acre.

✓ **Danver's Half Long.**

Very productive and adapted to all kinds of soil, roots smooth and handsome, of medium length, deep orange color, flesh sweet and tender.

Oz. 10c; $\frac{1}{4}$ -lb. 20c;
 1b. 60c.

CARROTS—Continued.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Chantena. The best for market garden; tops medium size necks small; roots tapering slightly, but stump rooted; color deep orange red	10	25	70
✓ Guerand or Ox Heart. A thick carrot, very blunt on the end, easy to gather, a great cropper	10	25	70
✓ Early French Short Horn. Early, good bunching carrot.....	10	25	70
✓ Improved Long Orange. A good cropper on deep mellow soil, the old standard for stock feeding	10	20	60
✓ White Intermediate.....	10	25	70
✓ Long White Belgian. Stock carrot, very large.....	5	15	40
✓ Long Yellow Belgian. Stock carrot.....	5	15	40

Cauliflower.

2½ oz. should produce enough plants for one acre. Sow a little Bone Blood and Potash around each plant and hoe it in.

	Oz.	¼-lb.	lb.
Early Snowball. The best; the heads are solid, compact and round, very white and kurd like.....	2 00	6 50

Celery.

1 oz. of seed to 1500 plants; per acre 2 oz. Use 400 Bone Blood and Potash per acre.

White Plume. Early, uniformly white and free from green or hollow stalks.....	20	60	2 00
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CELERY—Continued.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Golden Self Blanching. Rich golden yellow, close, compact growth, easily blanched, crisp and solid; better than White Plume.....	30	1 00	3 50
✓ Dwarf Golden Heart. Good main crop variety for fall and winter; produces large bunches with solid heart, waxy yellow	15	35	1 25
✓ Evans' Triumph. This new variety is one of the best late sorts, very strong and vigorous with large, very white, crisp, tender and finely flavored stalks. It is late and requires the whole season to develop, and will keep longer than any other celery.....	15	35	1 25
✓ Kalamazoo. Large Ribbed. Half Dwarf white.....	15	40	1 50
✓ Perfection Hartwell. One of the best late sorts, producing large bunches of tall broad stalks, blanching to golden yellow.....	15	40	1 50
✓ Giant Pascal.....	15	35	1 25
✓ Soup or Cutting. Sown thickly in rows and cut when three or four inches high; used for flavoring soup...	15	35	

CELERIAC OR TURNIP ROOTED CELERY.

✓ Smooth Prague.....	20	40	1 50
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CORN SALAD—Feld Salat.

	Oz.	$\frac{1}{4}$ -lb.	1b.
Used during the winter and spring as a substitute for lettuce and spinach.....	5	15	40

Sweet Corn.

To have the best quality of Sweet Corn it must be picked at just the right time when the skin of the corn breaks at the least puncture. Sow 200 of Grain Grower per acre broad cast and drop a table spoonful of Bone blood and Potash in each hill. The fertilizer warms up the ground and makes the corn earlier. The crop of Sweet Corn is very short. Our supply of eastern grown seed will be limited. For the last two years the vitality of Sweet Corn has been low, while in a green house test it would germinate all right, yet if sown outside when the conditions were unfavorable the germination would be poor, and we have no reason to expect different results this spring unless we have a warm spring. Subject to being sold out.

SWEET CORN—Continued.

	Qt.	+qt.	Peck
✓ Early Champion. Earliest large sweet corn; very sweet and tender, the best second early sort for the market gardner.....	25	90	1 75
✓ Burbank's Early Maine. Very early, large, pure white ears, of first class quality; good market corn.....	25	80	1 50
✓ Early Minnesota. Popular old variety.....	25	90	1 75
✓ Early Crosby. This is the sort so largely grown in Maine for canning and which has given Maine canned sweet corn its reputation for quality; crop short, supply limited..	25	90	1 75

SWEET CORN—Continued.

	Qt.	4-Qts.	Peck
Black Mexican. When ready for use pure white, but the ripe grain is black; the sweetest variety and best for home garden.....	20	60	1 00
Perry's Hybride. Matures a little later than the Minnesota; ears very large	25	90	1 75

Early White Cob Cory. One of the best for the early market; ears fair size, cob white, and quality good.....	25	90	1 75
Mammoth White Cory. Ears are 12 rowed; larger than White Cory and nearly as early.....	25	90	1 75

Old Colony. Matures a little earlier than Stowell's Evergreen, a great producer, best for fodder.....	25	90	1 75
Country Gentleman. Very small white cob, well covered with irregular rows of long slender kernels, very sweet	25	90	1 75
Early Evergreen. One to two weeks earlier than Stowell's Evergreen, ears large and best quality.....	25	90	1 75

SWEET CORN—Continued.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Stowell's Evergreen. The standard main crop variety; crop very short, supply limited.....	25	90	1 75
✓ Mammoth. Produces the largest ears, quality sweet, tender and delicious	25	75	1 40

Cress.

✓ Extra Curled or Pepper Grass	5	15	40
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Cucumber.

1 oz. to 100 hill; 1 lb. per acre. Cucumber seed crop almost a failure. Sow a tablespoonful of Bone Blood and Potash around each hill and dig it in.

✓ Rawson's White Spine, for forcing.....	30	1 00	3 50
✓ Jersey Pickle. Vine of strong growth and a great bearer. fruit slender; the skin is thin and flesh pure white and solid; one of the best sorts for pickles....	20	50	1 75
✓ Arlington White Spine.....	20	60	2 00
✓ Improved Long Green.....	20	60	2 00
✓ Nichols' Medium Green.....	20	60	2 00
✓ Chicago Pickling. One of the best sorts for pickling, very prolific	20	60	2 00
✓ Boston Pickling or Green Prolific.....	20	50	1 50
✓ Early Frame.....	20	60	1 50
✓ Early Cluster.....	20	50	1 50
✓ Early Russian	20	50	1 50
✓ Gherkin. A very small oval variety, prickly, quite distinct from all others	20	60	2 00

Endive.

$\frac{1}{4}$ oz. to 100 feet of drill; $4\frac{1}{2}$ lb. per acre. Used for salad during fall and winter.

✓ Moss Curled	10	30	1 00
✓ Green Curled.....	10	30	1 00
✓ Broad Leaved Batavian.....	10	30	1 00

Egg Plant.

1 oz. to 4000 plants; 4 oz. per acre.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ New York Purple. Very large and smooth, and fine dark color.....	30	1 25	4 00
Black Pekin. Fruit round, almost black, flesh white, very early,....	20	75	2 50

Kohl Rabi.

$\frac{1}{2}$ oz. to 100 feet of drill; 4 lb. per acre.

✓ White Vienna.....	20	60	2 00
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Lettuce.

$\frac{1}{4}$ oz. to 100 feet of drill; 3 lb. per acre. Sow Bone Blood and Potash beside the row and dig in for quick growth.

LETTUCE—Continued.

	Oz.	¼-lb.	1b.
Big Boston. A very popular market gardener's sort; the plants are large, hardy, leaves smooth, thin, light green in color; in doors this forms a solid head, a less distinctively heading sort when out of doors....	10	25	80

Grand Rapids Forcing. The best forcing and shipping variety, will produce more pounds of lettuce on the same space and stand longer after maturity than any known sort.....	10	25	80
Early Curled Silesia. Very early, best for family garden	10	20	75
Black Seeded Simpson. Early, leaves large, thin, tender, growing in large loose clusters; good for forcing or early growing out doors for the early market.....	10	25	80
Prize Head. Leaves are large, crimped, bright green, tinged with brownish red.....	10	20	75
White Cabbage	10	20	75
Hanson. Very large heading variety.....	10	20	75
Black Seeded Butter. Large, smooth leaved, solid heading sort, inner leaves beautifully bleached and very tender, of fine flavor.....	10	25	80
Premium Cabbage	10	20	75
Sensation	10	20	75
Deacon. Forms very solid heads; the leaves bleached to a beautiful rich yellow and very crisp and tender	10	25	80
White Paris Cos.,	10	20	75
Immensity	10	25	90

Leek.

½ oz. to 100 feet of drill; 4 lb. per acre.

Large Musselburg	10	30	1 00
Broad Scotch	10	30	1 00

Musk Melon.

1 oz. to 100 hills; 1 to 3 lb. per acre. Sow handful of Bone Blood and Potash around the hill and dig it in.

	Oz.	¼-lb.	1b.
✓ Jackson First Market. As early as the Grand Rapids Early Market; fair size, nearly as large as the Osage and of the same shape. when ripe color light yellow, flesh green, very sweet and spicy, vines highly productive, but melons are poor keepers.....	10	20	60
✓ Grand Rapids Early Market. Very early, large, yellow; good sellers on account of earliness and large size..	10	20	60

✓ Paul Rose. For a shipping trade as a basket melon this new sort is unequalled; flesh yellow, very sweet and spicy.....	10	20	75
✓ Osage. (Jones' Stock Seed.) Grown by a careful grower; this seed is saved from the very best and most perfect shaped melons, of the best quality; every melon must come up to the standard required. The Osage is becoming more popular every year, and is the most profitable melon to grow on account of its being a heavy yielder and a good shipper and the demand yearly increases.....	20	60	2 00
Osage. Grown from stock seed.....	10	30	1 00
✓ Osage. Vaughans Selected Stock. Seed; grown by the originator of the Osage musk melon.....	20	60	2 00

Rocky Ford 10 25 70

MUSK MELON—Continued.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Extra Early Green Nutmeg One of the best sorts for hotels and restaurants.....	10	15	50
✓ Jenny Lind. Small early light green flesh.....	10	25	80

✓ Emerald Gem.....	10	15	80
✓ Extra Early Improved Hackensack.....	10	20	60
✓ Bay View.....	10	20	60
✓ Netted Gem.....	10	20	60

Water Melon.

4 oz. to 100 hills; $1\frac{1}{2}$ to 4 lb. per acre. Sow Armour's Bone Blood and Potash around each hill and dig it in.

✓ Cole's Early. The best early melon for the home market; extremely early, flesh very sweet and delicious, rind thin and brittle.....	10	20	70
✓ Triumph. Early and prolific, flesh very sweet and melon of enormous size, a good shipping melon.....	10	20	70
✓ Phinney's Early.....	10	20	50
✓ Black Spanish.....	10	20	50
✓ Georgia Rattlesnake. A popular old sort.....	10	20	50

✓ Monte Cristo or Kleckley's Sweet. A splendid variety for home garden or near market; fruit good size, long, somewhat tapering at the ends, skin dark green, flesh bright scarlet, very sweet, rind thin; not a good shipper.....	10	20	60
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WATER MELON—Continued.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Sweet Heart. Early, vine vigorous and productive, fruit large, rind thin but firm, flesh red, very sweet and tender	10	20	60
✓ Mountain Sweet	5	15	50
✓ Kolb's Gem	5	15	50
✓ Peerless.....	5	15	50
✓ Dark Icing.....	5	15	50
✓ Light Icing.....	5	15	50
✓ Dixie.....	5	15	50
✓ Hungarian Honey.....	5	15	50
✓ Citron.....	5	15	50

Onions.

$\frac{1}{3}$ oz. to 100 feet of drill; 4 to 5 lb. per acre. Sow 600 lbs. Armour's Root Crop Special per acre; pays big on Onions.

✓ Early Flat Red. A medium sized, early flat variety, very uniform size and shape, moderately strong flavored	10	30	90
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ONIONS—Continued.

	Oz.	¼-lb.	1b.
✓ Large Red Wethersfield. A popular red sort, good keeper	10	30	1 00
✓ Australian Brown. A small, early onion; one of the best keepers; quality good.....	10	30	1 00

✓ Yellow Globe Danvers. Best variety for the eastern market.....	10	30	90
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ONIONS—Continued.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Philadelphia Silver Skin or Portugal. The best white onion for sets.....	15	\$ 40	\$ 1 50

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Adriatic Barletta. Small, early white onion; used for pickling.....	15	45	1 60

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Michigan Yellow Globe. True globe, best on muck land, rich orange color.....	10	30	1 00
✓ Prizetaker or Mammoth Yellow Spanish.....	10	30	1 00
✓ Southport Yellow Globe.....	10	30	1 00

ONIONS—Continued.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Southport Large White Globe. Large, solid and handsome.	20	\$ 40	\$ 1 50
Mammoth Silver King. Very large handsome white			
✓ flat onion	20	50	1 60

✓ Southport Red Globe. Medium size, small neck, very deep rich color.	15	35	1 20
New Queen. Early, very white skinned; small, especially valuable for pickling.	15	50	1 75

Parsley.

$\frac{1}{4}$ oz. to 100 feet of drill; 3 lb. per acre. Use Armour's Bone Blood and Potash.

Champion Moss Curled.....	10	20	60
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✓ Fine Triple Curled Fine curled and a stronger grower than Champion Moss Curled.....	10	20	60
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Parsnips.

$\frac{1}{4}$ oz. to 100 feet of drill; 3 lb. per acre. Sow Armour's Root Crop

Special, 400 lbs. to acre.

✓ Hollow Crown. Root white, very tender, with smooth clean skin, the old standard.....	5	15	40
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✓ Long White Dutch or Sugar. Roots very long, white, smooth and tender.....	5	15	40
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Peas.

1 pint to 100 feet of drill; 1 to 3 bushel per acre. Sow Armour's Bone Blood and Potash or Fruit and Root Crop Special.

EXTRA EARLY

	Qt.	4-Qt.	Pk.	Bu.
✓ First and Best. Very early, popular for market and shipping.....	20	60	1 10	4 00
✓ Alaska. The earliest and most popular blue pea, takes the lead now for early market pea.....	20	60	90	3 50
✓ Gradus. See novelties.....	35	1 30	2 50	
✓ Eclipse or Surprise. See novelties.....	25	90	1 50	5 50

PEAS—Continued.

	Qt.	4-Qt.	Pk.	Bu.
✓ Nott's Excelsior. Best early dwarf wrinkled pea, better bearers than American Wonder or Little Gem, quality just as good.....	25	90	1 60	6 00
✓ American Wonder.....	25	90	1 60	6 00
✓ McLean's Little Gem.....	25	90	1 60	6 00
✓ Premium Gem.....	20	60	1 20	4 50
✓ May Queen.....	20	65	1 20	4 50
✓ Thomas Laxton. See novelties.....	35	1 30	2 50	

MAIN CROP.

✓ Yorkshire Hero. Very productive; peas large....	20	60	1 10	4 00
✓ Champion of England.....	20	60	1 00	3 75
✓ Telephone. Best main crop variety; pods very long, peas large and sweet.....	20	65	1 25	5 00
✓ Dwarf Telephone or Daisy.....	25	95	1 75	6 50
✓ Bliss' Everbearing.....	20	65	1 25	4 50
✓ Pride of the Market. Vines of medium height, stiff, with large dark green leaves, bearing at the top very large pods well filled with large good flavored peas; one of the best large podded sorts	20	65	1 25	4 50
✓ Sharp's Queen. Pods very large, vines quite productive; excellent for market garden.....	20	65	1 25	4 50
✓ Improved Stratagem. Vines 18 inches in height and very stocky, pods long, well filled with large peas.....	20	70	1 30	5 00
✓ Large White Marrowfat.....	15	40	75	2 50
✓ Black Eyed Marrowfat.....	15	40	75	2 50
✓ Melting Sugar. Edible pods.....	30	90	1 60	6 00

PEAS—Continued.

	Qt.	4-Qt.	Pk.	Bu.
Juno. Grows two feet in height, vigorous strong grower and prolific bearer, pods slightly curved, dark green, containing from seven to nine peas of excellent flavor.....	20	75	1 25	4 50
Long Island Mammoth or Telegraph. A strong growing hardy late variety; the green peas are very large but almost smooth when dry.....	20	75	1 25	4 50

Pepper.

1 oz. to 5000 plants; 3 oz. per acre. Use Armour's Fruit and Root Crop Special.

	Oz.	¼-lb.	1b.
✓ Ruby King. 4½ to 6 inches long, mild, one of the best for stuffed pickles.....	20	60	-2 00
✓ Sweet Mountain. Very productive, when ripe the peppers are a bright red, flesh thick, sweet and mild	20	60	2 00

✓ Large Bell or Bull Nose	20	60	2 00
✓ Chinese Giant Pepper. Fruit very large, scarlet, flesh, thick, very mild, plant grows to a height of 2 feet; this sort is later and should be started early.....	50	1 75	6 50
✓ Long Red Cayenne.....	20	60	2 00

Pumpkin.

$\frac{3}{4}$ Qt. to 100 hills; 3 to 4 lbs. per acre. Armour's Bone Blood and Potash.

	Oz.	$\frac{1}{4}$ -lb.	1b.
✓ Large Cheese or Kentucky Field. Popular for family use; flat shape.....	5	20	60
✓ Quaker Pie. Nearly oval, cream colored, best quality	10	30	1 00
✓ Common Yellow or Connecticut Field.....	5	10	30

Radish.

$\frac{3}{8}$ oz. to 100 feet of drill; 10 to 12 lbs. per acre. Sow Armour's Fruit and Root Crop Special 600 lbs. per acre.

✓ French Breakfast. Olive shaped, red, tipped with white	5	15	50
✓ Long Scarlet Short Top. Very popular.....	5	15	50
✓ Early Scarlet Turnip. Very early, small, round.....	5	15	50
✓ Long White Vienna or Lady Finger. One of the best white radishes	5	15	50
✓ Chertier. Large long summer radish; scarlet, white tipped.....	5	15	50
✓ Half Long Deep Scarlet. A great favorite; bright crisp flesh	5	15	50
— Long Brightest Scarlet White Tipped.....	5	15	50
— Giant White Stuttgart. A mammoth white summer radish.	5	15	50

RADISH—Continued.

	Oz.	¼-lb.	1b.
✓ Long Black Spanish. A long winter radish; black skin, white flesh.....	5	15	50
✓ Round Black Spanish. Round black winter radish...	5	15	50
✓ Chinese Rose or Scarlet China. One of the best fall and winter varieties; bright rose color, flesh white and firm, good keeper.....	5	15	50

✓ Vicks Scarlet Globe. One of the best for forcing on account of small top; attractive color and does not become pithy, early, equally good for out of door sowing.	5	15	50
✓ Scarlet Turnip White Tip. One of the earliest turnip shaped radishes; very handsome, good flavor, favorite on Grand Rapids market	5	15	50
✓ Cincinnati Market. Long smooth, tops small, flesh very tender; does not become pithy or hollow.....	5	15	50
✓ Wood's Early Frame. Good early, long scarlet.....	5	15	50

Spinach.

½ oz. to 100 foot drill; 8 lb. per acre. Sow 600 lbs. Armour's Bone Blood and Potash per acre.

✓ Thick Leaved. Large dark green leaves, the most popular variety for the market.....	5	10	20
✓ Bloomsdale or Savoy Leaved. Curly, thick and fleshy....	5	10	20
✓ Long Standing. Leaves smooth, dark green.	5	10	20
✓ New Victory. Dark black green leaves; splendid for spring sowing	5	10	20
✓ Prickly Winter. Very hardy, leaves triangular or arrow shaped; hardiest for fall sowing.....	5	10	20

Salsify or Vegetable Oyster.

$\frac{3}{4}$ oz. to 100 feet of drill; 8 lb. per acre. Sow Armour's Fruit and Root Crop Special 400 lbs. per acre.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Mammoth Sandwich Island. This is a large strong growing plant, less liable to branch than the large white	10	30	\$1 00
✓ Large White.....	10	30	1 00

Squash.

SUMMER VARIETIES.

4 oz. to 100 hills; 2 lb. per acre. Use Armour's Bone Blood and Potash.

✓ White Bush Scallop.....	10	20	70
✓ Mammoth White Bush. Twice the size of above....	10	25	80
✓ Yellow Bush Scallop.....	10	20	60
✓ Mammoth Yellow Bush. Large yellow, very early...	10	25	80
✓ Summer Crookneck. The old standard sort, very early..	10	20	70
✓ Giant Summer Crookneck, Very large..	10	20	70

FALL AND WINTER SQUASH.

8 oz. to 100 hills; 2 lb. per acre.

✓ Boston Marrow. Good for autumn use.....	10	25	80
✓ Hubbard.....	10	30	1 00

SQUASH—Continued.

Red or Golden Hubbard. A perfect type of the Green Hubbard, except in color, which is a bright, deep orange-yellow, very showy and attractive. Flesh deep golden yellow, much richer in color than Hubbard, fine grained, cooks very dry, and is of excellent flavor. Its keeping qualities are fully equal to, while in productiveness it far excels the Green variety..... 10 30 1 00

Chicago Warty Hubbard. Much larger and more warty than the old Hubbard. 10 30 1 00
Sibley or Pike Peak..... 10 30 1 00
Faxon. Very productive winter squash, fine keeper.... 10 20 75
Delicious. See novelties..... 20 50 1 75

Tomatoes.

1 oz. to 4500 plants: 1 to 2 oz. per acre. Use Armour's Fruit and Root Crop Special.

	Oz.	¼-lb	1lb.
✓ Dwarf Champion. Very early, fruit bright pink, smooth and regular.....	20	70	2 50
✓ Early Michigan. Smooth deep rich red.....	20	60	2 00
✓ Honor Bright. Bright red, good for shipping....	20	60	2 00
✓ Livingstone's Favorite. Large smooth, productive; a good shipper and canner.....	20	50	1 60
✓ Livingston's Perfection. Large size, productive, fine blood red; good canner.....	20	50	1 75
✓ Livingston's Beauty. Large, smooth, fruit purplish pink, thick flesh; good canner.....	20	50	1 75
Dwarf Stone. See novelties	50	1 50

✓ New Stone. Very large, smooth, bright scarlet, solid; splendid canner.....	20	50	1 75
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TOMATOES—Continued.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Acme. Fruit smooth, large, color purple.....	20	50	1 75
✓ Magnus. New, color of Beauty, but thicker leaves and more solid, very productive, matures quickly and will take first rank for early market	20	60	2 00
✓ Golden Queen.....	20	60	
✓ Red Cherry	25	70	
✓ Yellow Plum.....	25	75	

Turnip.

1 oz. to 250 feet drill; 1 lb. per acre. Use Armour's Fruit and Root Crop Special.

✓ New White Milan. Very early, white; best for bunching	10	20	70
✓ Purple Top Milan. Early.	5	15	50
✓ Purple Top Munich.....	5	15	40
✓ Purple Top Strap Leaf.....	5	15	40

✓ White Egg. Very handsome, good early or late turnip for the market.....	5	15	40
✓ Purple Top White Globe.....	5	15	40
✓ White Flat Dutch.....	5	15	40
✓ Cow Horn. Good stock turnip, heavy cropper.....	5	15	40
✓ Large White Norfolk	5	15	40
✓ Early White Stone.....	5	15	40
✓ Yellow Stone	5	15	40
✓ Sweet German. Flesh hard, white and firm, sow early	5	15	40

✓ Yellow Aberdeen. Globe shaped, very large; good stock turnip.....	5	15	40
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TOMATOES—Continued.

	Oz.	$\frac{1}{4}$ -lb.	lb.
✓ Robertson's Golden Ball. Small, early, fine quality.....	5	15	40
✓ Yellow Globe	5	15	40

Rutabagas.

✓ American Purple Top. Best yellow baga for market....	5	15	40
✓ Carter's Imperial Swede.....	5	15	40
✓ New Breadstone or Budlong. Early, white and sweet	5	15	40
✓ White Sweet Russian. Large, very desirable for either table use or stock feeding.....	5	15	40

Herbs.

	Oz.	lb.		Oz.	lb.
Caraway	10	50	Summer Savory.....	10	60
Dill.....	10	50	Sweet Marjoran.....	10	90
Lavender.	15	\$1 25	Thyme	20	\$2 00
Sage. Broad leaved	10	1 00			

Grass Seed.

Medium Clover, 8 to 12 lb. per acre.....	Prices upon application
Mammoth Clover, 8 to 12 lb. per acre.....	" " "
Alskye Clover, 6 lb. per acre.....	" " "
White Dutch Clover. 6 lb. per acre.....	30 cts. per lb.
Crimson Trefoil. 10 to 15 lb. per acre.....	Prices upon application
Alfalfa or Lucerne. 15 to 20 lb. per acre.....	" " "
Kentucky Blue Grass. 2 bush. per acre.	\$1 60 per bush.
Hungarian and Millett. $\frac{1}{2}$ bush. per acre	Prices upon application
Orchard Grass. 2 bush. per acre.....	" " "
Red Top, fancy clean. 8 to 12 lb. per acre	" " "
Red Top, unhulled. 15 to 20 lb. per acre.....	" " "
Red Top, in chaff. 20 to 28 lb. per acre	" " "
Timothy. 6 Qts. per acre.....	" " "

Field Seeds.

Dwarf Essex Rape.	1 to 5 lb. per acre.....	\$5 00 per 100 lbs.
Cow Peas.	$\frac{1}{2}$ to 1 bush. per acre.....	Prices upon application
Whipperwill.	Clay, early, black and mixed.....	" " "
Soy Beans.	$\frac{1}{2}$ to 1 lb. per acre.....	" " "
Sorghum.	Early, Amber, 3 to 4 lb. per acre.....	" " "
Kaffr Corn.	White, 3 to 6 lb. per acre.....	" " "

Field Corn.

4 Qts. per acre.

Pride of the North.	Large ear and stalk, long kernel, 90 days.....	Prices upon application
Smut Nose.	Flint, very long ear	" " "
Red Cob Ensilage.	Very large, leafy stalk, used for fod- der; corn sown in rows at rate of 1 to 2 bush. per acre	" " "
Leaming Fodder.	Earlier than Red Cob Ensilage	" " "

Lawn Grass.

1 lb. to 600 square feet: 3 to 5 bush. per acre.

Hill Lawn Mixture. Especially adapted to light soils and shady situations. A thick velvety sod is very hard to grow on the light sandy soil of the hill residence district, but four years actual use has demonstrated that the *Hill Lawn Mixture* will do better, last longer and grow a thicker sod than any lawn mixture on the market.

Price - 1 lb, 25 cts.; 3 lb. 60 cts.

CHICAGO PARK LAWN MIXTURE.

It will produce an even, dense growth of permanent sward as early in the season as it is possible to do with seed. This mixture contains no annual grasses for making a quick show to the detriment of a good lawn but only those of lasting value and hardiness.

Price—1 lb, 25 cts.; 3 lb, 60 cts.; 10 lb, \$1.75.

Kentucky Blue Grass. The base of all lawn mixtures. It makes a grand sward, but takes longer than the lawn mixture to get it established.

Fancy clean seed per lb. 15 cts.

Red Top. For quick results Red Top is unequalled as it comes up quickly and makes a nice thick lawn but does not last.

Fancy seed per lb. 15 cts.

White Dutch Clover. Many prefer a white clover lawn to any other grass.

Fancy seed per lb. 30 cts.

Nasturtium.

	Oz.	$\frac{1}{4}$ -lb.	lb.
Dwarf Mixed Nasturtium. This mixture will give a great variety of colors in even proportions	10	30	\$1 00
Tall Mixed Nasturtium. Contains all the choicest colors of the tall nasturtium; the flowers are larger than the old fashioned kind....	10	30	1 00
Madam Gunther's Hybrids. For richness and variety of colors this hybrids excel all other nasturtium; they are climbers and continuous bloomers.....	10	35	1 25

Sweet Peas.

We have taken great pains to obtain a choice collection of sweet peas. The following named varieties represent the choicest varieties of the list of these popular flowers.

WHITE.

	Oz.	$\frac{1}{4}$ -lb.	lb.
Blanch Burpee. Vines of strong growth, flowers snowy white on long strong stem	5	15	50
Emily Henderson. Pure white, earlier than the Blanch Burpee; very popular.....	5	15	40
Queen of England.....	5	15	40
Cupid. Dwarf.....	5	15	40

YELLOW.

Golden Gleam. Deep primrose yellow.....	5	15	50
Primrose. Creamy yellow.....	5	15	40

PINK.

Apple Blossom. Bright pink.....	5	15	40
Lovely. Shell pink.....	5	15	50
Royal Robe. Bright rose pink.....	5	15	50
Katherine Tracy. Soft rose pink, lighter at edges, large flower of strong growth, two on stem.....	5	15	50
Lady Mary Currie. Bright orange pink	5	15	50

PINK AND WHITE.

Blanch Ferry. Bright rose pink, wings creamy white, tinted with rose.	5	15	50
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RED AND SCARLET.

Brilliant. Bright crimson scarlet, standard broad and slightly hooded.....	5	15	40
Firefly. Bright scarlet.....	5	15	50
Salopian. Flowers of large size, finely hooded, deep crimson	5	15	40
Mars. Glowing scarlet, wings heavily suffused with rose.	5	15	40

BLUE AND WHITE.

Maid of Honor. Beautifully shaded with light blue on white ground, edged with deep violet.....	5	15	50
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MAROON.

Black Knight. Flowers of large size, a rich wine brown or claret, wings heavily shaded with brownish purple,	5	15	50
Shazada. Intensely dark maroon with a tint of purple in inner portion of wings	5	15	50
Indigo King. Rich purple maroon	5	15	50
Boreatton. Very dark crimson purple.....	5	15	50

SWEET PEAS—Continued.**STRIPED AND VARIEGATED.**

	Oz.	$\frac{1}{4}$ -lb.	lb.
American. Striped with bright blood red on white ground, very showy.....	5	15	50
Aurora. Flowers extra large, three on a stem, beautifully flaked with bright orange salmon on a creamy white ground.....	5	15	50
Grey Friar. General effect is grey heavily shadowed purple markings on creamy white ground.....	5	15	50
Lottie Hutchins. Large flowers, delicately flaked and striped with light pink on creamy ground.....	5	15	50
Senator. Purplish maroon striped on a white ground, darkest striped variety.....	5	15	50
Red and White Striped.....	5	15	40

LAVENDER AND BLUE.

Countess of Radnor. Large, light lavender with faint purple tinge.....	5	15	50
Golden Gate. Blended pinkish mauve and lavender.....	5	15	50
Captain of the Blues. Purplish blue wings and lavender purple.....	5	15	50
Emily Eckford. Flowers large, light rosy purple or reddish mauve, wings blue.....	5	15	50
Prize Mixture. This mixture contains the cream of the new and standard sorts; carefully proportioned as to its composition. There is no better mixture to be found anywhere.....	10	30	1 00

Thistle-ine Kills Canada

Thistles and all Other

Noxious Weeds. ♪ ♪ ♪

IRON AGE FARM AND GARDEN TOOLS

New Model Seed Drill.

The best drill for market gardeners. The best value in material, durability and merit. Each drill tested, crated and carefully packed for shipment. Price reduced to \$7.50.

No. 4 Iron Age Combined Double Wheel Hoe Drill Seeder.

The most practical and complete combined tool on the market. Easy to adjust and operate, light and strong. Complete \$10.00. As Drill Seeder \$7.00.

No. 15 Combined Single Wheel Hoe, Hill and Drill Seeder.

Will place the seed accurately either in the hill or drill, \$10.00. As Hill Dropper Drill, only \$7.50.

No. 18. Combined Single Wheel Hoe and Drill, similar to No. 47, without the Hill Dropping device, \$9.00.

Gem of the Garden Single Wheel Hoe.

Gem Double Wheel Hoe.....	5 50
Gem of the Garden Single Wheel Hoe.....	4 50
Iron Age Single Wheel Hoe, No. 20.....	5 50
Iron Age Single Wheel Hoe, Hoes only.....	3 50
Iron Age Double Wheel Hoe.....	6 60
Iron Age Double Wheel Hoe, with side hoes only	3 75

The Bateman Hoe.

Light and strong and just the thing for innumerable purposes. It is especially adapted to spading around fruit trees and on grassy lawn. Every fruit grower should have two or three of these hoes. Three sizes, No. 1, 75 cts.; No. 2, \$1.00; No. 3, \$1.25.

Premier Broadcast Seed Sower, \$1.00.

GARDEN TOOLS.

Asparagus Knives, each.....\$	35	Dandelion Pullers.....\$	20
Excelsior Weeders.....	20	Lang's Weeders	20
Combination Weeders	25	Lang's Mole Trap.....	50
Steel Trowels.....	50	Putty Bulbs.....	85

YOU'VE WANTED IT A THOUSAND TIMES.

The EUREKA Kitchen Garden and Hot Bed SEED DRILL

For those planters who have only a small garden, and for large gardeners who have hot beds or plant seeds in small quantities.

It will sow and cover beets, cabbage, carrots, celery, lettuce, onions, radishes, spinach, turnips and all such seeds with the greatest regularity. The quality of work equals that done with the costly machines and is infinitely better and faster than hand work. It opens the furrow, drops the seed and covers.

Have You a Kitchen Garden?

Don't try to do without this little planter another season. Your garden will smile approbation all through the season if you sow seed with the Eureka Drill.

Have You a Hot Bed?

This drill you must have. It is the only machine suited to sow in a hot bed. Sows up close to the sides in straight rows. Sows the smallest packet of seeds as well as a larger bulk. This drill is not a toy but a strong, practical machine that will last many years. Don't buy a similar machine that has the opening plow in front of the machine. You cannot get near the sides of a hot bed nor close up to the fence. Neither does it cover the seed. It will be an aggravation rather than a labor-saving machine, as we offer.

By using this Drill you save seed, you save time, you stand in an upright position, the work is easy, you get a better stand, you get better plants.

Price is only \$1.00.

Spray Pumps.

Manufactured by the Friend Mfg. Co., of Gasport, N. Y.

The great superiority of this pump lies in its ease of running, (a boy twelve years old can drive and furnish all the power needed for two line of hose.) The great amount of force produced by the compression of air in the air dome sending the liquid out in the finest spray. Economy of material and durability. Several of these pumps have been in use near Grand Rapids for the past four years and they are just as good today as when they came from the factory.

Price---Pump, \$25.00; Strainer, 75 cts.; Band and Connections 35 cts.; 10 feet Suction Hose, \$3.00.

The Lightning Sprayer.

This pump works automatically. It may be charged quickly by a few strokes of the pump, which is attached to the outside of the tank, the air being forced in with the liquids compresses them, forcing out the entire contents. The Lightning Sprayer will throw a very fine mist or a solid stream. It is impossible to clog the nozzle as each pump is provided with a strainer and all sediment must pass through it before entering the nozzle.

The Lightening Sprayer is the only pump that will spray whitewash without clogging.

Price—2 gallon, galvanized iron, \$2.50; 2 gallon brass, \$3.50.

The Fountain Sprayer.

□ This three gallon sprayer is carried in one hand while the hose is held, and spray directed with the other. The spray is started or stopped by a thumb lever operated in the same hand that carries the spray. The tank is tested to a pressure of 50 lbs. to the square inch. The amount of volume of the spray can be regulated by the pressure of the double valve, which starts or stops it. You can throw the spray over each hill of potatoes without wasting any material on the intervening space. In spraying small fruit trees the Fountain Sprayer is a practical machine up to 12 feet from the ground.

Price--Brass, \$6.00; galvanized iron, \$5.00.

SPRAYING CALENDAR.

We present this table to assist the users of our Sprayers. They will find a complete list of applications for all kinds of vegetable and tree spraying, and when and what to use, and how often the ingredients should be used.

NOTE.—In this calendar it will be seen that some applications are italicized and these are the ones which are *most important*. The number of applications given in each case has particular reference to localities in which fungous and insect enemies are most abundant.

PLANTS	First Application	Second Application	Third Application	Fourth Application	Fifth Application	Sixth Application
APPLE.—Canker worm, codling moth, scab.	Before the buds burst, copper sulphate solution.	<i>Just before blossoms open, Bordeaux.</i>	<i>When blossoms have fallen, Bordeaux and Arsenites.</i>	<i>7-10 days later, Bordeaux and Arsenites.</i>	10-14 days later, Bordeaux.	10-14 days later, Bordeaux.
BEAN.—Anthracnose	<i>When third leaf expands, Bordeaux.</i>	10 days later, Bordeaux	14 days later, Bordeaux	14 days later, Bordeaux		
CAULIFLOR.—Worms, aphids.	<i>When worms are first seen, Kerosene emulsion.</i>	7-10 days later, if not heading, renew emulsion	<i>7-10 days later, if heading, hot water 100° F.</i>	Repeat third, in 10-14 days, if necessary.		
CHERRY.—Rot, aphids, curculio, slug.	As buds are breaking, Bordeaux; when aphids appear, Kerosene emulsion	When fruit has set, Bordeaux.	10-14 days, if rot appears, Bordeaux.	10-14 days later, Ammoniacal copper carbonate.		
CUCUMBER.—Worms, mildew.	Before mildew becomes serious, Bordeaux.	If disease increases, repeat first application.	If worms persist, Helio-bore			
CURRENT.—Worms, mildew.	<i>At first sign of worms, Arsenites.</i>	10 days later, helio-bore.				
GOOSEBERRY (English) Mildew, worms.	<i>When leaves expand, Bordeaux.</i>	10-14 days later, Bordeaux.	10 days later, Ammoniacal copper carbonate.	<i>10-14 days later, repeat third</i>	10-14 days later, if any disease appears, Bordeaux.	10-14 days, Ammoniacal copper carbonate. Make later applications of this if necessary.
GRAPE.—Fire-beetle, fungous disease.	In Spring before buds swell, copper sulphate solution.	<i>When leaves are 1-1½ inches in diameter, Bordeaux.</i>	<i>When flowers are open, Bordeaux.</i>	10-14 days later, Bordeaux.	10-14 days, repeat first.	10-14 days, repeat first.
NURSERY STOCK.—Fungous diseases.	<i>When first leaves appear, Bordeaux</i>	Before, flowers open, Bordeaux.	When fruit is green, Bordeaux.	5-7 days later, Ammoniacal copper carbonate.	5-7 days later, repeat fourth, if necessary.	5-7 days later, repeat fourth if necessary.
PEACH.—Nectarine.—Leaf curl, mildew, and rot	As buds are swelling, copper sulphate solution.	<i>Just before blossoms open, emulsion when leaves open for Psylla.</i>	<i>After blossoms have fallen, Bordeaux and Arsenites.</i>	<i>8-12 days later, repeat third.</i>	10-14 days later, Bordeaux.	10-14 days later, Bordeaux if necessary.
PEAR.—Leaf blight, scab, codling moth.	When buds are swelling, copper sulphate solution.	<i>When blossoms have fallen, Bordeaux and Arsenites.</i>	10-14 days later, Bordeaux and Arsenites.	10-20 days later, Bordeaux.	10-20 days later, Ammoniacal copper carbonate.	2-3 weeks before fruit ripen, Bordeaux.

POTATO—Beetle, scab, blight.	When beetles first appear, Arsenites.	When vines are two-thirds grown, Bordeaux and Arsenites. Bordeaux.	5-15 days later, Bordeaux.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.
QUINCE—Leaf and fruit spot, rot.	When blossom buds, before buds break, copper sulphate solution.	During the summer, if rust appears on leaves, Bordeaux.	10-20 days later, Bordeaux.		
RASPBERRY—BLACKBERRY—DEWBERRY—	As first fruits are setting, Bordeaux.	As first fruits are ripening, Ammoniacal copper carbonate.	When last fruits are harvested, Bordeaux.	Repeat third if foliage rusts.	
STRAWBERRY—Rust.		Repeat first if diseases are not checked.			
TOMATO—Rot and blight, worms.	At first appearance of blight or rot, Bordeaux.	Black spot. Spray plants once a week with weak copper sulphate.	Repeat first when necessary.		
ROSE—Mildew, black spot, red spider, aphids.	Mildew. Keep heating pipes painted with equal parts lime and sulphur, mixed with water to a paste.	Repeat at intervals of 10 to 20 days, as necessary for blight.	Red spider. Kerosene emulsion to under side of foliage.	Aphis, Kerosene emulsion.	
VIOLET—Blight, red spider.	When blight is first seen, weak copper sulphate. Kerosene emulsion for insects.		NOTE—Use kerosene emulsion, very weak.		

SPECIAL NOTES.—For BLACK KNOT on cherries and plums cut out and destroy by burning the diseased parts as soon as discovered. For Aphis on all plants use kerosene emulsion. If RED RUST appears the entire stools affected should be cut out and burned. YOUNG PLANTS should be sprayed with Bordeaux mixture at the time of the first and third applications to bearing plants.

FORMULAS.

Bordeaux Mixture.		Copper Sulphate Solution.		London Purple.	
Copper Sulphate.....	6 pounds	Copper Sulphate.....	1 pound	This is used in the same proportion as Paris Green, but as it is more caustic it should be applied with the lime, or with the Bordeaux mixture. Do not use it on peach or plum trees. For insects which chew.	
Quicklime.....	4 "	Water.....	15 gallons	Hellebore.	
Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered by water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make 40 gallons. It is then ready for immediate use. For rots, moulds, mildews and all fungous diseases.		Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use 25 gallons of water for fungous diseases.		Fresh White Hellebore.....1 ounce Water.....3 gallons Apply when thoroughly mixed. For insects which chew.	
Ammoniacal Copper Carbonate.		Paris Green. (Arsenites.)		Kerosene Emulsion.	
Copper Carbonate.....	1 ounce	Paris Green.....	1 pound	Hard Soap..... $\frac{1}{2}$ pound Boiling Water.....1 gallon	
Ammonia.....	enough to dissolve the copper	Water.....	250 gallons	Kerosene.....2 gallons	
Water.....	9 gallons	If this mixture is to be used upon peach trees, 1 pound quicklime should be added. Repeated applications will injure most foliage, unless lime is added. Paris Green and Bordeaux can be applied together with perfect safety. The action of neither is weakened, and the Paris Green loses all caustic properties. For insects which chew.		Dissolve the soap in water, add the kerosene and churn with a pump for 5-10 minutes. Dilute to times before applying. For insects which suck, cabbage worms and all insects which have soft bodies.

The Lowell Sprayer.

A careful look at this cut of the Lowell Sprayer will show you pretty thoroughly what the machine is—a simple and inexpensive device which will satisfactorily answer the purpose of spraying vines, shrubs, flowers, plants, etc., where a more expensive and elaborate machine is not needed. You will also find this sprayer very useful for administering the many disinfectants and insecticides now on the market.

Notice the agitator inside the glass can which rattles around loosely in the can by the motions of the sprayer and assists in the thorough mixing while the liquid is being used.

Knowing that the doctrine of continuous improvement is the secret of continued success, we have each year made improvements and we are absolutely sure that we are manufacturing the very best sprayers on the market.

Price—Each, 75 cents.

ARMOUR'S FERTILIZERS.

Armour's Grain Grower. Especially adapted for the growing of all cereals and for general farm use, quick and lasting.

Analysis—Ammonia	Available Phos Acid	Potash K O	Price
per ct. 2	per ct. 8	per ct. 2	per ton \$22.00

Fruit and Root Crop Special. For fruit trees and small fruits, grapes, etc., potatoes, beets, onions and all root crops.

Analysis—Ammonia	Available Phos. Acid	Potash K O	Price
per ct. 2	per ct. 8	per ct. 5	per ton \$28.00

Bone Blood and Potash. Made of dissolved bone meal, dried blood and with potash in the form of sulphate and nitrogen in the form of nitrate of soda added. It is especially adapted for the culture of celery, asparagus, corn, fruits, grapes, tomatoes, cucumbers, melons, squash and wherever a very concentrated fertilizer is wanted.

Analysis—Ammonia	Available Phos. Acid	Potash K O	Price
per ct. 5	per ct. 8	per ct. 7	per ton \$36.00

Wheat, Corn and Oat Special. For all cereal crops.

Analysis Ammonia	Available Phos. Acid	Potash K O	Price
per ct. 1	per ct. 7	per ct. 7	per ton \$18.00

Bone Meal. Made from pure finely ground bone, steamed in vats and thus rendered readily available in the soil, largely used for fruit, with either wood ashes or Muriate of Potash.

Analysis—Ammonia	Available Phos. Acid	Bone Phop.	Price
per ct. 3	per ct. 24	per ct. 52	per ton \$25.00

INSECTICIDE.

Pat. March 16 and Nov. 9, 1897.

Pat. in Canada Nov. 2, 1897,
and Jan. 25, 1900.

Bug Death. This Insecticide and Plant Food Combined has been on the market for six years and its sales have shown a large increase each year. We can say to our customers that we give Bug Death our fullest endorsement. While the first cost to kill the bugs on an acre of potatoes is rather more than the arsenical insecticides, the results at harvesting time are entirely satisfactory, and where practical tests have been made the extra marketable potatoes has more than paid the entire expense. It is non-poisonous, which makes it perfectly safe to use on all plants or vines.

Very beneficial results are obtained by using Bordeaux mixture in connection with Bug Death, and they can be mixed and sprayed on the vines at the same time, with any of the spraying machines on the market for that purpose. *Bug Death prevents blight.*

Reduction in Price. The manufacturers at request of the trade and many customers, have added a 100-pound keg, which will be much appreciated by the farmers, as it reduces the cost per pound.

Put up in packages as follows, with trade mark on each package:

1-lb. package.....	15	100-lb. package.....	7 00
3-lb. package.....	35	Perfection Shaker for applying	
5-lb. package.....	50	Bug Death.....	65
12½-lb. package.....	1 00		

Bug Death may be applied dry with the Perfection Shaker, or with a small bag made from burlap or gunny cloth having the right mesh; also mixed with water and sprayed as above stated. The best spray for fruit trees.

Hammond's Slug Shot. Kills the currant worm, potato bug, cabbage worm, slugs and aphids on roses, caterpillars, bugs on melons and cucumbers, cut worms, sow bugs, lice on fowls, curculio on plums, tobacco worms, etc.

Price per 5-lb. package, 30 cts.; 100-lb. \$3.50.

Tobacco Dust. Fertilizer and insecticide, lice on lettuce.

Price per 5-lb. package, 25 cts.; 15-lb. 60 cts.; 100-lb. \$2.00.

Twemlow's Old English Glazing Putty Semi-Liquid and Elastic. For bedding glass in sash or for filling cracks or seams in roof joints or frames of greenhouses or hot beds; lasts from 5 to 7 years.

Price per 1 gallon, \$1.25; 5 gallons, \$1.20 per gallon.

JONES' FLIZIP.

The great fly remedy for cows, horses and sheep. How would you like to be a cow and have the flies bite you. Think of the long weary summer days and warm dreary summer nights of torment. It is not only the protection of your animals from flies, lice, mites and other vermin but it is money in your pocket to use Flizip; it is cheap, as 1 gallon properly applied will keep 25 cows free from flies for two weeks. The feed saved will more than pay the cost and you will gain in the increase of flesh and the increased production of milk.

Price per 1 gallon, \$1.00. Express prepaid to Michigan points.

HORSE-ENE.

The best and cheapest horse and cattle ointment made. Will positively cure galls, cuts, scratches, mud scalds, quarter cracks, sore shoulders, necks, and backs on horses, foot rot on sheep and cattle, sore teats on cows, mange on dogs and all skin diseases.

Price per box, 15 cts.; 2 boxes, 25 cts. Special prices on boxes 1 and 5 lbs.

THISTLEINE.

The great thistle and weed killer. Thistleine is a chemical preparation and when applied to the leaves and stalks of Canadian Thistles, Burdock, Dandelion, Johnson grass, Mullen Plantain or other fibrous plants, will absolutely and positively kill them root and branch. Canada Thistle, the farmer's greatest enemy can be easily overcome. Thistleine follows the fibers of the plant and works all through the roots and will cure every rootlet. Thistleine should be dissolved in boiling water. One pound will make one gallon of liquid strong enough to kill Canada Thistles. It should then be applied with a spray pump to the leaves and stalks. For killing weeds in the walks and driveways and city streets it is unequalled. Your money back if it don't do the work.

Price—5-lb. can, \$2.00.

WEIGHTS OF VARIOUS ARTICLES.

Barley	48	Grass, Sheep's Fescue	12
Beans	60	“ Meadow Fescue or English	
Buckwheat	48	“ Blue Grass	22
Canary Seed	60	“ Perennial Rye	20
Castor Beans	46	“ Timothy	45
Clover Seed	60	“ Wood Meadow	14
Corn, field, shelled	56	“ Kentucky Blue	14
“ “ on ear	70	“ Fowl Meadow	12
“ “ sweet, sold by measured bu.		“ Rough Stalked Meadow	14
Flax Seed	56	“ Hemp Seed	44
Grass, Rhode Island Bent	14	Hungarian	48
“ Creeping Bent	20	Millet, Gorman or Golden	50
“ Red Top (in chaff)	14	Millet	50
“ “ (cleaned from chaff)	32	Peach Pits	50
“ Meadow Foxtail	7	Peas, smooth	60
“ Tall Meadow Oat	10	“ wrinkled	56
“ Awnless Brome	14	Rape	50
“ Orchard	14	Rye	56
“ Hard Fescue	12	Vetches or Tares	60
“ Tall “	14		

POULTRY SUPPLIES.

We also handle a complete line of Poultry Supplies consisting of Cyphers Incubators and Brooders, Humphrey Bone Cutter, Drinking Fountain, Oyster Shell Grit, Beef Scraps, Meat Meal and everything needed for the poultry yard. Write for catalogue.