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1943 Superior Seeds

FARM *and* GARDEN SUPPLIES

★ 1943 ★
U. S. Department of Agriculture

Grow Vegetables for Vitamins and Victory

J. MANNS & CO. 1887 56th YEAR 1943 BALTIMORE, MD.

Manns

BALTIMORE, MD.

ENSOR and FORREST STS. AT BELAIR MARKET

MANNS' SUPERIOR SEEDS

Continuously Successful Since 1887

KEEP THIS CATALOG for reference — it contains valuable farm and garden information.

How and When to Plant Vegetables.....Page 1

"Protective" Foods for Better Health.....Page 2

Farm Seed Chart.....Pages 40, 41

Flowers for Particular Purposes.....Page 42

Spray Guide.....Page 62

Soil pH Preferences.....Page 91

State Fertilizer Recommendations.....Page 92

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—it begins with Seeds of dependable quality

Manns' seeds are carefully rogued to maintain the high standard of perfection demanded by commercial growers.

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It is very evident to anyone who gives the matter the slightest thought that it is to our best interests to send out only such stock as will grow and prove true to name and description. There are, however, so many contingencies to be encountered, entirely beyond our control, such as the weather, soil and other conditions that:

J. Manns & Company give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Plants or Bulbs sent out, and will not be in any way responsible for the crop.

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Fifth Zone within	600 to 1000 miles	.11	.05
Sixth Zone within	1000 to 1400 miles	.12	.07
Seventh Zone within	1400 to 1800 miles	.14	.09
Eighth Zone over	1800 miles	.15	.11

Prices Subject to Change Without Notice

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Quality of Strains Proven
at Our Trial Grounds

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Established 1887

J. MANNS & CO.

Superior Seeds

BALTIMORE, MD.

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	Amount Carried Forward,		

WANTED—Names and addresses of your acquaintances who should receive our Annual Catalog, Price Lists, etc. We will appreciate your kindness and so will they.—Thank you.

NAMES	POST OFFICE	STATE

QUANTITY	ARTICLES	PRICE	
	Amount Brought Forward,		

HOW AND WHEN TO PLANT VEGETABLES

Vegetables	Seeds or Plants to Provide For Family of Five	Date to Sow or Plant Outdoors		Depth to Cover	Space Between Rows	Set Plants or Thin Out to	Time Required to Produce Crop	Number of Running Feet of Row for Family of 5	Special Notes
		First	Last	Inches		Inches			
Asparagus	1 oz. or 50	Mar. 20	Aug. 1	Seeds 1 in. Plants 4 in.	3 to 4 ft.	12 in.	Seeds 4 years Plants 2 years	50 ft.	A well-cared for bed improves with age and lasts for many years.
Beans (Bush)	4 lbs.	April 20	Aug. 15	2 in.	2 ft.	3 to 4 in.	60 to 90 days	200 ft.	Select, early, midseason and late in both green and wax podded kinds.
Beans (Pole)	3 pkts.	May 5	Aug. 1	2 in.	3 to 4 ft.	3 ft. (hills)	90 to 120 days	80 to 100 hills	Select early and late, green and wax pod.
(Limas, see below)									
Beet	2 oz.	Mar. 20	Aug. 15	½ to 1 in.	18 in.	2 to 3 in.	60 to 80 days	80 ft.	Select early, midseason and late kinds for winter storage.
Borecole or Kale	1 pkt.	April 20	Sept. 1	⅛ in.	2½ ft.	12 in.	80 to 100 days	20 ft.	Sow during July for Fall use.
Broccoli	1 pkt.	April 5	Aug. 10	½ to 1 in.	2½ ft.	24 in.	120 days	20 ft.	Handle exactly like Cauliflower.
Brussels Sprouts	1 pkt. or 15	May 5		Seed ½ in.	2½ ft.	24 in.	120 days	20 ft.	The most delicate of all the cabbage tribe.
Cabbage	36	April 20	Sept. 15		2 to 3 ft.	18 to 24 in.	100 to 150 days	60 ft.	Set out 2 doz. early, 1 doz. midseason and 2 doz. late kinds.
Chinese Cabbage	1 pkt.	July 20		¼ in.	2½ ft.	12 in.	80 to 100 days	20 ft.	Sow only on August 1st for Fall use only.
Carrot	½ oz.	Mar. 20	Aug. 1	½ in.	1½ to 2 ft.	2 to 3 in.	45 to 60 days	40 ft.	Sow short rows often. Sow on August 1st for winter storage.
Cauliflower	24	April 5	July 10		2 to 3 ft.	2 ft.	120 to 150 days	20 ft.	Treat very much like Cabbage.
Celery	½ oz. or 60	Mar. 20		Seed ¼ in.	3 ft.	6 in.	100 to 120 days	60 ft.	Select an early and a late variety.
Corn (Sweet)	1 lb.	April 20	July 15	2 in.	3 ft.	12 in.	80 to 120 days	200 ft.	Sow in blocks of short rows, for perfect pollenization.
Cucumber	1 pkt.	April 20	Aug. 5	¾ in.	4 to 5 ft.	(3 to hill) 36 in.	60 to 80 days	10 hills	When picking, cut stems; do not pull vines.
Eggplant	12	May 20			2½ ft.	24 in.	100 to 120 days	20 ft.	Needs lots of heat and frequent hoeing.
Endive	1 pkt.	April 5	July 25	⅛ in.	2 ft.	12 in.	60 to 80 days	40 ft.	To bleach, tie plants into cone shape.
Kohl-Rabi	1 pkt.	April 5	Aug. 10	¼ to ½	1½ to 2 ft.	4 to 6 in.	60 to 80 days	60 ft.	Should be used when roots reach a diameter of 2½ in.
Leek	1 pkt.	Mar. 30		½ in.	2 ft.	4 in.	100 days	20 ft.	Grow like Onions and hill to bleach stalks.
Lettuce	2 oz. (4 kinds)	Mar. 20		¼ in.	1½ to 2 ft.	10 to 12 in.	45 to 60 days	150 ft.	Should be thinned out to stand a foot apart.
Lima Beans (Bush)	1 lb.	May 5	July 15	1 in.	2½ to 3 ft.	2 ft. (hills)	100 days	40 ft.	
Lima Beans (Pole)	2 pkts.	May 15	July 10	1 in.	3 ft.	3 ft. (hills)	120 days	20 hills	Select an early and a late variety in both classes.
Melons	1 pkt.	May 10		½ to 1 in.	4 ft.	4 ft. (hills)	100 to 120 days	10 hills	See note on Cucumbers.
Onions	1 oz.	Mar. 20		¼ to ½ in.	18 in.	3 or 4 in.	80 to 110 days	80 ft.	Weeding and hoeing are their chief requirements.
Onion Sets	1 qt.	Mar. 20			12 in.	2 in.	30 to 60 days	40 ft.	
Parsley	1 pkt.	Mar. 20	Aug. 10	⅛ to ½	15 to 18 in.	4 in.	100 to 120 days	50 ft.	Seed requires 3 to 6 weeks to germinate.
Parsnips	1 pkt.	April 5	June 1	½ to 1 in.	15 to 18 in.	2 to 4 in.	150 days	50 ft.	Cultivate well during the growing season.
Peas	3 lbs.	Mar. 20	Aug. 10	2 in.	2½ ft.	1 in.	60 to 100 days	200 ft.	The early smooth seeded sorts may be sown a month before the later, wrinkled varieties.
Pepper	12	May 5	Aug. 20		3 ft.	2 ft.	100 days	20 ft.	See note on Eggplants.
Potatoes	15 lbs.	Mar. 20		4 in.	3 ft.	6 in.	100 days	200 ft.	Really a farm crop.
Pumpkin	1 pkt.	May 20	July 1	½ in.	4 to 6 ft.	4 ft. (hills)	100 to 120 days	12 hills	When storing, prevent bruising.
Radish	3 pkts.	Mar. 20	Sept. 15	½ in.	18 in.	1 to 4 in.	30 to 60 days	50 ft.	Spring sorts can be grown quite close. Summer and fall varieties require more space.
Rhubarb	6	Mar. 20	Oct. 1		3 ft.	3 ft.	60 days	20 ft.	Requires a lot of space and plenty of manure.
Rutabaga	1 pkt.	Mar. 20	July 20	⅛ in.	2 ft.	6 in.	90 to 100 days	40 ft.	Sow around August 1st for winter use.
Salsify	½ oz.	April 5	June 1	1 to 1½ in.	15 to 18 in.	2 to 4 in.	100 to 150 days	25 ft.	Can be stored for winter use or left in ground until spring.
Spinach	1 oz.	Mar. 20		½ in.	12 in.	2 to 4 in.	60 days	75 ft.	Plant short rows often.
Squash	1 pkt.	April 20		½ to 1 in.	4 to 6 ft.	4 ft. (hills)	100 to 120 days	12 hills	See note on Pumpkins.
Swiss Chard	½ oz.	Mar. 20	Aug. 10	½ to 1 in.	1½ to 2 ft.	6 in.	90 to 100 days	40 ft.	Treat like Beets.
Tomato	1 pkt. or 48	Seeds Feb. 18 indoors Plants May 5		Seed ½ in.	3 to 4 ft.	3 ft.	100 to 120 days	150 ft.	For best results train to stakes or trellis.
Turnips	1 pkt.	Mar. 20	July 1 Aug. 31	⅛ in.	15 to 20 in.	2 to 4 in.	60 to 80 days	60 ft.	Sow again in August for winter use.

In the vicinity of Baltimore many varieties are sown in hot-beds during February, March and April to be planted out about May 10th, or earlier in the case of some varieties where the plants may be hardened off.

Some vegetables, such as Cabbage, Lettuce and Spinach, are sown at varying dates, according to variety.

SOW MANNS' SUPERIOR SEEDS

The "Protective" Foods Are the Best Sources of Those Nutrients Which Must Be Eaten in Generous Amounts If One Is to Have Buoyant Health

Cooperative Extension Work in Agriculture and Home Economics
University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating

NUTRIENT	BEST SOURCES OF NUTRIENTS		SOME CONDITIONS* WHICH HAVE BEEN CAUSED BY LACK OF NUTRIENT OR CURED BY FEEDING NUTRIENT
	Plant Sources	Animal Sources	
Vitamin A	Wild greens, Escarole, Leaf lettuce, Spinach, Green cabbage, Collards, Sweet potatoes, Tomatoes, Mustard, turnip, and beet leaves, Squash, Kale	Liver, Egg yolk, Butter, Cream, Milk, whole	Night blindness, sensitivity of eyes to bright light. Dryness and scaliness of skin. "Goose-pimple" skin, ingrown hair.
Thiamin (vitamin B_1)	Whole-grain products—bread, flour, cereals, Bran, Wheat germ, Beans—soy, navy, and lima, Peas	Pork, lean, Liver, Kidney, Heart, Muscle meats, Fish, Eggs, Milk	Poor appetite, constipation. Tiredness, low capacity to do work. Neuralgia, tingling in feet and hands; nervousness. Some types of heart trouble. Dropsy, sleeplessness, delirium tremens.
Riboflavin	(None comparable to animal sources)	Milk, Liver, Kidney, Heart, Muscle meats, Eggs	Eyes that burn, itch, tire easily or are sensitive to bright light; pink tinge surrounding iris. Blackheads and "whiteheads," oily skin, tiny blood vessels visible on face. Sore lips with cracks at corners. Purplish color of tongue. Decreased resistance to infections.
Nicotinic acid	Spinach, Kale, Collards, Leaf lettuce, Green cabbage	Liver, Kidney, Muscle meats, Fish, Milk, Eggs	Sore mouth and tongue, burning of throat, alternate constipation and diarrhea, pain in the region of the breast bone. Rough, chapped skin particularly in winter. Sleeplessness, emotional instability, hysteria, delirium. Decreased resistance to infections.
Pyridoxin (vitamin B_6)	Whole-grain products—bread, flour, cereals, Bran, Wheat germ, Beans and peas	Muscle meats, Fish	Some types of shaking palsy, rigidity of muscles, lack of facial expression. Sleeplessness, nervousness, poor appetite. Weakness.
Ascorbic acid (vitamin C)	Oranges, Grapefruit, Strawberries, Tomatoes, Sprouted beans, Raw vegetables, Potatoes, white	(None comparable to plant sources)	Tiredness, decreased capacity to do work, laziness, skin hemorrhages, spongy, bleeding gums. Poor healing of cuts and wounds. Serious after-effects of disease.
Tocopherol (vitamin E)	Oils from seeds, corn, cottonseed, Green leafy vegetables, Whole-grain products, Beans and peas	Egg yolk	Muscle weakness, some types of muscle paralysis. Sterility.
Vitamin K	Spinach, Kale, Collards, Green cabbage, Tomatoes	(None comparable to plant sources)	Slow clotting of blood, particularly in first ten days of life and in obstructive jaundice. Excessive loss of blood at childbirth. Hemorrhages following operations.
Unsaturated fatty acids	Oils from seeds	Lard, Liver, Fat pork, Egg yolk	Eczema. Scaliness of skin.
Protein	Dried peas and beans, particularly soybeans, Corn, wheat, and oat products	Milk, Cheese, Eggs, Liver, Kidney, Muscle meats	Tiredness, general weakness, laziness, anemia, dropsy. Serious after-effects of disease.
Calcium	(None comparable to milk or cheese)	Milk and cheese	Poorly calcified bones and teeth.
Iron	Whole-grain products, Bran, Green leafy vegetables	Liver, Eggs, Muscle meats	Tiredness, general weakness, laziness. Anemia. Slow progress in school and mental dullness.

* Many of these conditions can be caused by other means than faulty food habits.

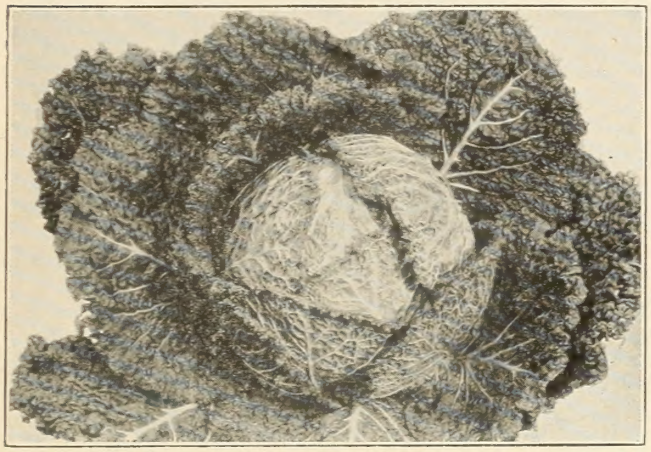
Varieties of Special Merit

OUR general stocks are unexcelled in quality and better seeds cannot be purchased at any price. The following recently improved strains, however, are worthy of special consideration and should be grown by every progressive market gardener.

BEETS

MANNS' NEW MODEL—Has become a favorite with market gardeners supplying the most critical trade. A thoroughly established strain, dependable year after year for its uniform maturity, deep red color, freedom from light zones, and good bunching tops. New Model is no longer "new." It has been grown for nearly ten years in the vicinity of Baltimore, and each year our sales of it have increased over the previous year. We do not know any beet that will beat New Model as a main crop variety for this section. Page 7.

CABBAGE



CHIEFTAIN SAVOY—Received the award of Merit, 1938 All-American selection. Produces well formed, medium sized firm heads, outstanding in uniformity and quality. Page 9.

CARROT

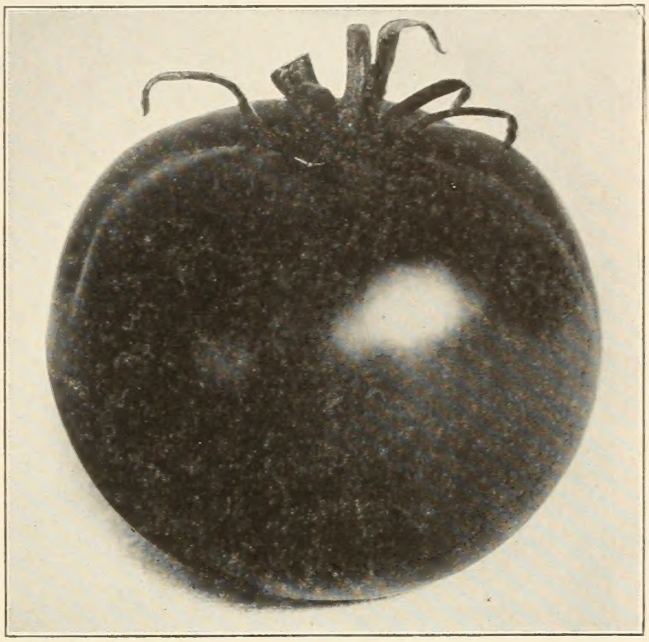
STREAMLINER—An ideal new bunching carrot for shippers and market gardeners. Tops short, rather sparse, dark green, and strong. Roots long slender, nearly cylindrical; at maturity 8 to 10 in. long by 1¼ to 1½ in. at shoulder; grow completely underground. Color very deep orange, cores small and uniformly red. Page 12.

SUNRISE—A favorite with market garden trade because of its fine quality, perfect shape and attractive color. Specially valuable for medium and late use, an excellent keeper and thoroughly dependable. Page 12.

RADISH

SCARLET GLOBE No. 8—So uniform in its maturity that each sowing can be entirely gathered and bunched at one pulling, with practically no waste. This means more bunches per row, more time saved in bunching, and the ground ready for the next crop a week earlier. Page 30.

TOMATOES



MANNS' SUPERIOR GLOBE—A trial ground selection consistently producing outstanding yields of deep globe-shaped, bright red, solid meaty fruits. Picking begins early mid-season and continues well until frost. Superior Globe has yielded heavier crops of No. 1 Grade than Rutgers, Marglobe or any of the other numerous varieties in our Parkville trials. Seed supply limited. **Pkt., 25c; oz., $1.00; ¼ lb., $3.50; lb., $12.50.**

RUTGERS tomato has become so popular due to its quality and yield that it naturally has had wide distribution and publicity. It is very important however that seeds of this new variety be purchased from the most reliable sources, as some stocks have been grown more carefully than others and preservation of the original qualitites has been an expensive item in its reproduction. Manns' stock of Rutger's is not only certified but has been produced from stock seed which we have proven to be superior to two other certified stocks. Oz., 40c; ¼ lb., $1.25; lb., $4.00.

ASPARAGUS

1 ounce to 60 feet of drill; 1 pound per acre; 3,000 plants per acre.

Sow in spring in drills about eighteen inches apart and two inches deep in light, rich soil, planting fifteen to twenty seed to each foot of row. Thin to about one inch apart and give frequent and thorough cultivation during the summer.

Set the plants about four inches deep and one to two feet apart in rows four to six feet apart. After the plants are well started, give frequent and thorough cultivation. The next season the bed may be cut over two or three times. After the final cutting, give a good dressing of manure, ashes and salt.

MARY WASHINGTON—Resistant to disease, large, early and produces remarkably tender dark green stalks with very compact purplish green tips. **Pkt., 10c; 2 ozs., 15c; ¼ lb., 25c; lb., 75c.**

PARADISE—New early, extremely strong, vigorous producer, rust resistant. **Pkt., 10c; oz., 50c; ¼ lb., $1.50; lb., $5.00.**

ASPARAGUS ROOTS

From one to two years may be saved by planting roots instead of seed. Choice, 2-year-old roots.

MARY WASHINGTON, 25 for 50c; $1.50 per 100; $12.50 per 1,000.

BUSH BEANS

1 pint to 100 feet of drill; 1 to 1½ bushels per acre.

Beans are tender and should not be planted until the soil is well warmed. Sowing too early will often result in a poor stand and uneven ripening. Sow the seed 1½ to 2 inches deep in rows not less than 18 inches apart and firm the soil to assist germination. Allow the plants to stand 4 to 10 inches apart in the row according to variety.

Shallow cultivating and hoeing should be done frequently until the vines are in blossom. To prevent blight do not cultivate deeply and avoid working them while the vines are wet. Beans grow best in warm, well-drained, sandy loam. For succession plant every two weeks until about August 15th.

Full Measure

ROUND GREEN PODDED VARIETIES

Asgrow Stringless Black Valentine Fully as hardy and early as the original Black Valentine but producing exceptionally long, oval or nearly round pods. Extremely prolific, entirely stringless, and of highest quality.

Black Valentine Stringless (Round Pod)—Produces strictly round, stringless pods. Not as early nor as prolific as the oval type and will not stand planting as early. Its real utility lies in the slenderness of its pods for canning.

Burpee's Stringless Green Pod (Improved)
Very popular and can be profitably grown by either trucker or home gardener. It combines vigor, earliness and productiveness. The pods are produced in abundance and are handsome in appearance, being rich dark green in color, smooth, absolutely round, meaty, stringless, free from fiber, and of exceptionally delicate quality. Mature for picking condition in 45 days.

New Stringless Green Pod **This new highly productive strain has many Full Measure characteristics bred into it. Its prolific nature, season of growth, length, roundness of pods and appearance, are definitely inherited and yet to these very desirable features has been added a wonderful degree of hardiness which helps New Stringless withstand adverse weather conditions better than its parent stock.**

Giant Stringless Green Pod **A very productive long, round-podded variety, longer and straighter than Burpee's Stringless.**

Dwarf Horticultural or Dwarf Cherry One of the best quality dwarf sorts for both snap and green shell beans for the home garden and market. As a green shelled bean it is equal to the lima in quality while any surplus crop can be kept for winter use. The pods are 5 inches long, stout, flat and stringless.

Streamliner An oval-flat green podded stringless bean, not as flat as Bountiful and growing about 1 to 1½ inches longer. Matures in 50 days and outyielded Bountiful in all tests. Seed white.

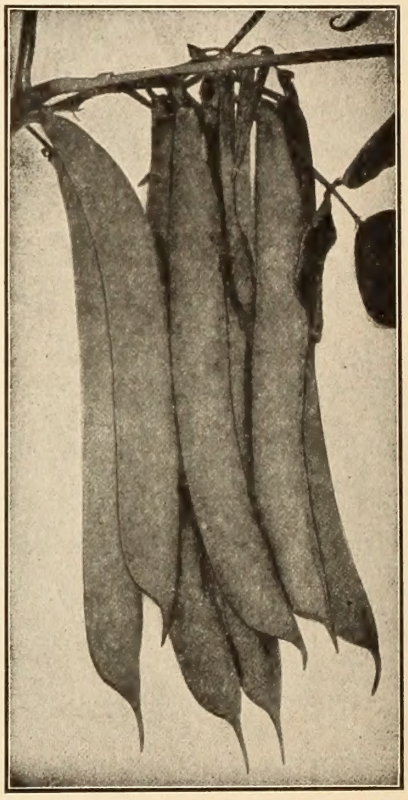
Full Measure Stringless **A second early, round-podded, stringless bean of recent introduction. The pods are straight, meaty, and are dark green in color. They are entirely stringless and measure 6 to 8 inches in length. Very prolific.**

FLAT PODDED GREEN STRINGLESS

Bountiful **Extra early, green pod, good cropper, hardy, prolific; pods long, straight, thick-flat, entirely stringless, good quality. The best** extra early, semi-round variety.

Plentiful **(50 Days)—An improved Bountiful, with longer, thicker, darker** green pods. Two or three days later than Bountiful but much more prolific and resistant to two of the most troublesome forms of rust; an All-American Winner. We offer the originator's stock.

Increased yields result from Nitragin Inoculation



Burpee's Stringless Improved

Block of Selected Pedigreed Stock Seed on Idaho Breeding Farm

WAX BEANS

Sure Crop Wax Decidedly better quality than Currie's Rust Proof but vine and seed very similar in appearance, and maturing about a week later. The pods are of a rich yellow color, growing an inch longer than Currie's and stringless at all stages of growth. The disease resistant qualities found in Currie's are duplicated in this variety and it is vigorous, hardy, and very productive. For quality use Sure Crop, while for earliness Currie's is better.

Round Pod Kidney Wax (Brittle Wax.) An excellent early round-podded variety of handsome appearance. Pods are long, straight, brittle, meaty; entirely stringless and of exceptionally desirable quality. The best round-podded wax bean for the home garden.

Pencil Pod Wax A leading variety for home and market gardens. Vigorous grower and strongly productive. The golden yellow pods are round, fleshy, tender, entirely stringless and of finest quality.

POLE BEANS

EDIBLE PODDED

For Cultural Directions See Pole Limas.

Burger's Stringless Green Pod or White Kentucky Wonder Bears large, brittle, stringless pods of excellent flavor, dark green in color. It resembles the Kentucky Wonder in form of pod but is much earlier, more productive and bears longer. Seeds white, fine for baking.

Kentucky Wonder or Old Homestead This old standard variety is extremely productive and of finest quality. It is early and produces round, green pods about 9 inches long. Splendid for use as snaps for the home gardener as it continues to bear for a long period. Seed light brown.

Horticultural Cranberry or Wren's Egg An old favorite, excellent both as a snap and shell bean. Medium early, producing large quantities of 5 and 6-inch pods which are broad, thick, and of fine flavor.

Lazy Wife One of the best general purpose pole beans; of superior quality as a snap, green shelled or dried bean. Pods, which are borne abundantly throughout the summer, are very easily gathered and entirely stringless, brittle, light green in color and of a mild, sweet flavor. Seed pure white, 6 to 8 in each pod.

Yard Long, Celestial or Asparagus Bean Somewhat of a curiosity and yet possessing excellent qualities. It is very prolific, absolutely rust proof and a rank grower. It will produce pods 18 to 24 and sometimes 30 inches long. An excellent table vegetable, the pods being tender, stringless and of a rich asparagus flavor.

BUSH BEANS

VARIETIES USED AS SHELL BEANS

Dwarf Horticultural, Fordhook Favorite, and Davis' White Kidney Wax. Three very satisfactory shell bean sorts have been listed previously.

White Marrowfat This is a very prolific variety and has become a choice family sort both for green shells and dry beans. Pods are broad, about 5½ inches long, medium green changing to yellow, having large, clear, white seeds which cook very dry and mealy.

Royal Dwarf or White Kidney Excellent late variety, green, shelled or dry. Seeds are large, white, kidney shaped, and of fine quality.

Erfurt Special (New) If you grow Italian varieties of FAVA, BROAD BEANS, ERFURT BEANS, be sure to grow Erfurt Special this year in preference to any other variety. It is much earlier, extremely large and of excellent quality.

PRICES

Let us quote bushel or bag lots—state variety and quantity

GREEN PODDED VARIETIES	Pt.	Qt.	Pk.
Asgrow—Black Valentine, Stringless, Oval	$ .30	$ .55	$3.50
Black Valentine, Stringless, Round	.30	.55	3.50
Bountiful	.30	.55	3.50
Burpee's Stringless Green Pod	.30	.55	3.50
Dwarf Horticultural or Dwarf Cherry	.30	.55	3.50
Full Measure Stringless	.30	.55	3.75
Giant Stringless Pod	.30	.55	3.75
New Stringless Green Pod or Tendergreen	.30	.55	3.75
Plentiful	.30	.55	3.50
Streamliner	.30	.55	4.00
WAX VARIETIES			
Pencil Pod Wax	.30	.55	3.50
Round Pod Kidney Wax	.30	.55	3.75
Sure Crop Wax	.30	.55	3.50
Unrivalled Wax	.30	.55	3.25
EDIBLE SOYBEANS (See U.S.D.A. Leaflet No. 166)			
Bansei	.30	.55	4.00
POLE BEANS			
Burger's Stringless or White Kentucky Wonder	.30	.50	3.00
Horticultural Cranberry	.30	.50	3.00
Kentucky Wonder	.30	.50	3.00
Lazy Wife	.30	.50	3.00
Yard Long, Celestial	Pkt., 10c;	oz., 15c;	lb., $1.00
BUSH BEANS			
Erfurt Special	.30	.55	3.50
Broad Erfurt	.30	.55	3.50
White Kidney	.30	.55	3.50
White Marrowfat	.30	.55	3.50

POLE LIMA BEANS

1 quart to 150 hills; 8 to 10 quarts per acre.

Pole beans do not bear as early as the bush varieties but they are more productive, their bearing season is longer and they are more easily gathered. They succeed best in a warm sandy loam which has been enriched with well rotted manure. If poles are used they should be set three to four feet apart each way. After the ground has become warm and dry, plant 4 to 6 beans to a pole and when well started thin out to 2 or 3 plants to a pole. By placing the seed eyes down they will germinate more quickly and for this reason are less liable to rot. Cultivate frequently but shallow.

Early Leviathan The Early Leviathan stands supreme because of its combined qualities, earliness, size and productiveness. The large, well filled pods are borne in clusters of five to ten and are spaced over the entire vine. They are well filled with large fleshy beans of excellent quality, delicate pale green in color.

King of the Garden This is the best and most popular main crop variety. Vines are strong and vigorous; setting pods early and continuing to bear until frost. Is used extensively by market gardeners because of its very prolific nature and the immense size of the pods, which are very straight and handsome; of medium dark green color, broad, flat and filled with four or five large white beans of finest quality.

Improved Challenger or Improved Dreer's Pole Vigorous and very productive. Pods and beans resemble Fordhook Bush Limas. Therefore also known as Fordhook Pole.

Today we have been pulling down the last of our Lima Beans and stacking the poles for next year and we cannot help but write you a few lines to let you know how we were pleased with the Improved Challenger Pole Limas.

To our mind they are the best of all the pole varieties, giving one a plump, green bean, very succulent or moist, but with still enough meatiness to afford plenty of substance and carry their green color after they are cooked, with a delicious nutty flavor.

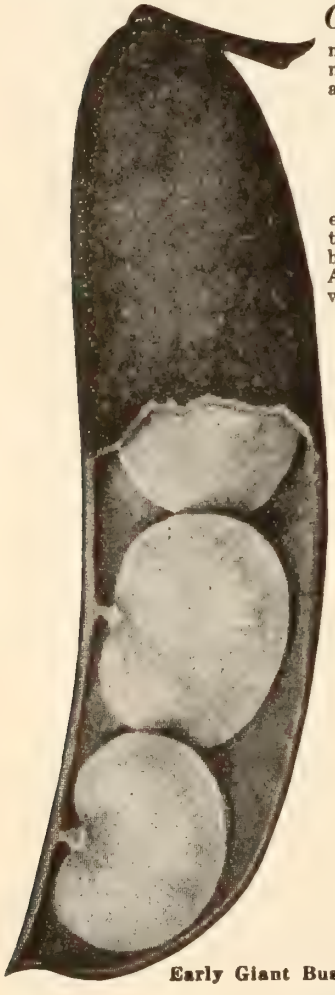
As to their productiveness we are fully satisfied as we have picked as many as 87 large plump green pods off one pole at one time and this after the pole had been picked several times during the season, our poles were about 12 feet high and the vines went to the tops and hung down.

We had another variety of pole limas in the garden that were sent to us by a friend and found them to be less productive and a thin or flat white bean that did not have the flavor or attractiveness when cooked, needless to say we will plant only Improved Challenger from Manns next season.

We are highly pleased with all the seeds we purchased from you and you will soon receive our order for next year's supply.

Sincerely,
Bruce H. Gallup

Early Leviathan



Early Giant Bush

Giant Podded The largest podded lima in cultivation; extremely vigorous in growth, mid-season. Pods are borne in clusters of 6 to 8 and measure 7 inches long and 1½ inches broad. The beans are extra large and of excellent quality.

BUSH LIMA BEANS

Large seeded sorts, 1 qt. to 100 hills; 1 bu. to the acre. Small seeded sorts, 1 qt. to 150 hills; 3 pks. to the acre.

These varieties require no support, are about two weeks earlier than the pole beans, and can be planted closer in the rows. They are therefore used by large growers and by gardeners who do not find it convenient to use poles. After danger of frost is past and the ground has become warm, plant in 3 foot rows dropping 3 seeds to a hill and the hills 15 inches apart.

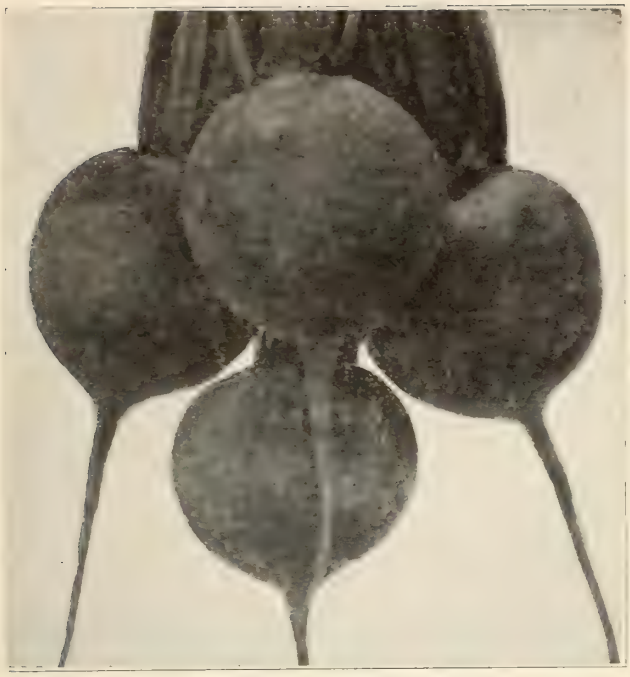
Early Giant Bush Lima The largest and earliest bush lima; two weeks earlier than Fordhook, very prolific and of excellent quality. Pods contain 4 to 5 large, close setting beans, and are borne in clusters of 5 to 8. Plant very vigorous and upright, often attaining a height of 30 inches.

Fordhook Bush Lima A most excellent variety and exceedingly popular with market gardeners. The plants are freely branching and very erect in their growth. Four or five large, very thick beans are contained in each pod and the plants continue to produce large quantities from July until frost. The green beans even when full size are tender, juicy and sweet when cooked.

Burpee's Improved Bush Lima A very prolific mid-season variety of very hardy, vigorous and true bush growth, bearing clusters of 5 to 8 pods measuring 5 to 6 inches long. The pods are borne abundantly, enormous in size and well filled with handsome beans which are both larger and thicker than those of the regular Burpee's Bush Lima.

Wood's Prolific or Henderson's Improved Bush Lima A very early and vigorous type, producing an abundance of 3 to 4-inch pods; contain 4 small, flat, white beans of good quality.

BUSH LIMAS — PRICES	Pt.	Qt.	Pk.	Bu.
Burpee's Improved Bush Lima	$ .30	$ .55	$3.50	$12.50
Early Giant Bush Lima	.30	.55	3.50	12.50
Fordhook Bush Lima	.30	.55	3.50	12.50
Maryland Thick Seeded (Baby Fordhook)	.30	.55	3.50	12.50
Wood's Prolific or Henderson's Improved Bush Lima	.30	.55	3.50	12.50
POLE LIMAS				
Burpee's Best	.30	.55	3.50	12.50
Carpinteria	.30	.55	3.50	12.50
Improved Challenger or Improved Dreer's Pole	.30	.55	3.50	12.50
Early Leviathan	.30	.55	3.50	12.50
Giant Podded Pole	.30	.55	3.50	12.50
King of the Garden	.30	.55	3.50	12.50
Sieva (small white)	.30	.55	3.50	12.50



Manns' New Ruby Gem

Manns' New Ruby Gem Is a beet of genuine quality and real beauty. As early as Crosbys Egyptian, extremely dark red and not a purple or brown root in the lot. The most critical produce buyer will be pleased with its intense color, perfect shape and freedom from zones. It has plenty of tops for bunching and while it is also an excellent canners variety it should not be confused with the various "all purpose" sorts developed mainly for packing house purposes.

BEETS—MANGEL (OR STOCK)

Sow 1 ounce to 100 feet of drill, 6 pounds to the acre in drills and 15 to 20 pounds to the acre if sown broadcast.

Mammoth Long Red Attains enormous size, producing thirty to fifty tons per acre. The roots are straight, well formed and much thicker than other sorts. Grows well above the ground and is therefore easily gathered. The flesh is white tinged with rose. Highest feeding qualities.

PRICES

BEETS	Pkt.	Oz.	¼ Lb.	Lb.	10 Lbs.
Crimson Globe	$ .10	$ .20	$ .60	$1.85	$17.50
Crosby's Egyptian—Dark	.10	.20	.50	1.65	15.00
Crosby's Egyptian—Light	.10	.20	.60	1.85	17.50
Detroit Dark Red	.10	.20	.60	1.85	17.50
Early Wonder (special)	.10	.20	.60	1.85	17.50
Edmand's Blood Turnip	.10	.20	.60	1.85	17.50
Extra Early Flat Egyptian	.10	.20	.50	1.65	15.00
Green Top Bunching	.10	.20	.65	2.00	19.00
Half Long Blood Red	.10	.20	.60	1.85	17.50
Lentz (Ex. Early Light Red)	.10	.20	.60	1.85	17.50
Little Egypt	.10	.20	.60	1.85	17.50
Lutz Green Leaf (Dark Red)	.10	.15	.45	1.25	10.00
Mammoth Long Red	.10	.20	.60	1.75	16.50
Manns' Early Spring	.10	.20	.60	1.85	17.50
New Model	.10	.20	.60	1.85	17.50
Nutting's Gem	.10	.20	.60	1.85	17.50
Perfected Detroit	.10	.20	.60	1.85	17.50
Ruby Gem	.10	.20	.60	1.85	17.50

TABLE BEETS

1 ounce to 50 feet of drill; 5 pounds per acre.

The soil for beets should be light, rich, fine and deeply cultivated. Smooth beets cannot be grown if fresh manure is used. If wanted very early, sow in hot beds and transplant, cutting off the outer leaves. For early outdoor crop plant the seeds about 1 inch apart and 1 inch deep in rows 1 to 2 feet apart, firming the soil about the seeds by walking on the row. This should be done as soon as the ground can be worked and for table use, plantings should be made every three weeks. Thin out the plants to 3 inches apart. For main crop sow in the early part of May while for winter use they may be planted up to July 1st.

MANNS' BEET SEED

is grown from transplanted roots which have been carefully selected as to both interior and exterior color, tops, shape and uniformity of size. It could be grown much cheaper if we were supplying our trade just ordinary commercial beet seed. Superior seeds can only be grown from specially selected parent stocks.

New Model Perfect in shape and of a beautiful red color, very uniform in shape and size, the entire crop maturing during the same week. Forces well under glass. This variety fills a definite need among the market gardeners and has met with success. Practical growers realizing the superior quality of this strain are ordering in 25, 50 and 100-pound lots, using this one variety throughout the entire season.

Crosby's Egyptian Smooth, globe shaped, deep red in color, tender, sweet and richly palatable when served. This should not be confused with Flat Egyptian as it is similar only in point of earliness.

Detroit Dark Red Careful comparison with other prominent strains of this variety show that our stock is unsurpassed in quality and appearance. The tops are small and upright in growth and the roots are globular, of medium size, very smooth and of a wonderful dark red color throughout. Very desirable for canning.

Early Wonder Popular bunching variety in some sections where a light-colored beet is desired, and white zones are not objectionable.

Extra Early Flat Egyptian One of the very earliest, excellent for forcing and early crop. Roots are distinctly flat, very dark red, have very small tap root and are of fine quality when young. They measure 2 inches in diameter when mature and have very small tops.

Half Long Lentz Bright red outside, flesh pale pinkish white, sweet, about 2½ by about 4 inches top shaped.

Half Long Red or Lutz Green Leaf Five to six inches long, 2½ to 3½ inches diameter at shoulder, half long, top shaped, dark maroon red, flesh deep blood red.

Little Egypt Earlier, darker and more uniform than Extra Early Flat Egyptian, absolutely free from zoning, specially adapted for forcing, having short tops.

Manns' Early Spring Being extremely early, of a wonderful dark red color, and of exceptional quality, Manns' Early Spring Beet offers an unusual opportunity for profitable production.

True globe shaped, dark red smooth roots, with no light zones, ample tops for bunching. Ready for market just a few days later than Extra Early Flat Egyptian, yet possesses the advantages of being shaped like Detroit Dark Red.

Selected Heads of Golden Acre for Stock Seed Production

CABBAGE

1 oz. for 2,000 plants; ¼ lb. per acre.

Yellows Resistant Varieties marked *

CULTURE.—The best results are obtained from a well-drained, deep rich loam. The very early varieties should be sown about September 15th and in 4 or 5 weeks transplanted to coldframes, from which they are transplanted to open ground from March 15 to April 15. If this is not done the seed should be sown in hotbeds in February; making plantings later of course according to variety and time crop is wanted. The earliest sorts should be set out in rows 2 feet apart and 18 inches apart in the rows.

If it is not especially desired to have early cabbage the seed may be sown in open ground and transplanted after 4 weeks. For second early crops sow in April and transplant in May; these will mature in July and August. The later varieties should be planted in May and transplanted in July to rows 3 feet apart and 2 feet apart in the rows; these will mature from September to November.

FIRST EARLY SORTS

Extra Early Express Earlier than Jersey Wakefield, smaller and less compact, but often a very profitable crop.

New Selected Jersey Wakefield An improved strain of Early Jersey Wakefield, grown and selected with the greatest care; there is none better. Plant compact and erect or very slightly spreading, with few outer leaves, which are smooth, thick, nearly oval and light green. Stem short. Heads of medium size, very solid, uniformly pointed and of excellent quality.

Manns' Superior Jersey As early as Selected Jersey Wakefield but produces much larger heads. Uniformly sure head strain.

****Jersey Queen*** The yellows resistant Jersey Wakefield.

Charleston or Large Wakefield Produces larger and less pointed heads than Jersey and a week or two later in maturity.

Golden Acre Matures earlier than Jersey Wakefield, forming a large round, solid head resembling Copenhagen Market; very uniform, and compact, having few outer leaves which permits close planting. Golden Acre commands very high prices.

Copenhagen Market This very fine, large round headed variety is of Danish origin and has proven to be very valuable to the American grower. It is nearly as early as Jersey Wakefield. The heads average about 10 pounds, and the stems are very short.

****Marion Market*** Yellows resistant Copenhagen.

New Leader Very early flat heading sort forming small solid heads, very early but developing larger heads if allowed to stand.

Glory of Enkhuizen Large sure heading, dark green variety, globular, very hard and solid, few outer leaves, excellent quality.

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
Charleston or Large Wakefield	$ .10	$ .25	$ .75	$2.50
Copenhagen Market	.10	.40	1.25	4.00
Extra Early Express	.10	.30	.90	3.00
Glory of Enkhuizen	.10	.30	1.00	3.50
Golden Acre (Original)	.10	.30	1.00	3.50
Jersey Wakefield (New Selec'd)	.10	.30	.90	2.85
Manns' Superior Jersey	.10	.30	1.00	3.50
New Leader	.10	.30	1.00	3.50
Yellows Resistant Varieties				
Detroit (Resistant Golden Acre)	.10	.40	1.25	4.00
Jersey Queen	.10	.40	1.25	4.00
Marion Market	.10	.40	1.25	4.00

***YELLOWS RESISTANT VARIETIES**—The State of Wisconsin and several other State Departments of Agriculture have for a number of years been working on the best commercial cabbage varieties, adapting them to resist yellows or wilt. It is now possible with these resistant stocks to grow cabbage successfully even on diseased land, by sowing seed which is grown under special conditions to make it resistant. While the cost of this seed is somewhat higher than non-resistant seed, there is the added advantage of securing stock which has been reselected for conformity to true type and heading quality. Therefore these improved varieties are most desirable for both diseased and clean ground.

New Selected Jersey Wakefield

CABBAGE

SECOND EARLY SORTS

Volga One of the earliest main crop cabbages of superior quality. Very desirable where a large, uniformly round head with short stem and compact growth is wanted. Sure to produce a crop under difficult conditions, good keeper.

All Head Early or New Early Remarkably solid and uniform in color as well as in shape and size, its sure heading qualities and tenderness make it a favorite for the home garden. By reason of its compact growth, it is possible to produce 1,000 more heads per acre than many other good sized varieties. For winter use sow in July. Splendid sort for kraut making.

Early Flat Dutch Excellent large early flat sort, producing solid heads that mature with Early Summer. The stem is short and it has comparatively few outer leaves. Compares favorably with Large Late Flat Dutch but much earlier and smaller.

American Drumhead Savoy This is the finest of the Savoy class and very distinct from all other sorts. It forms the hardest heads and is the best for either early or late crops. The leaves are heavily crimped or savoyed and grow closely about the large, solid, dark green heads. The flavor is far superior to that of other cabbages, and for this reason is very much in demand. It is an excellent keeper and very hardy. Entire "pits" of it will keep in perfect condition until May.

New Danish Round Head Compared with Danish Ball Head, has less outer foliage. The heads are larger in size and are set on shorter stalks, maturing two weeks earlier. They are extremely solid, of sweet flavor and tender texture.

Henderson's Succession The best very large midseason cabbage, about a week later than Early Summer but much larger and can be planted closer because of its compact growth. It is sure to head, very uniform in habit and the quality is excellent.

All Seasons A reliable variety to use when only one planting of cabbage is made. It is equally as good for fall and winter as for summer use. Nearly as early as Early Summer and much larger heads of the best quality are produced.

****Wisconsin All Seasons*** Yellows resistant, all seasons.

Sure Head Extremely popular with the private gardener because of the sure heading qualities and the remarkably large, uniform, heavy heads. A good keeper and one of the best for late crops.

Danish Ball Head or Hollander A very hardy sure heading, heavy variety, which has proven to be the best keeper and the most desirable for distant markets. Exceedingly hardy and standing dry weather very well.

****Wisconsin Hollander Yellows Resistant***
A disease resistant strain of the Danish ball head type, very large, hard, sure heading.

Golden Acre

American Drumhead Savoy

LATE OR WINTER SORTS

Pointed Head Winter Sow the seed in time to set out plants first week in August. Dependable header, very solid, of fine quality, excellent keeper and shipper. Stands temperatures down to 24 degrees. Ready for market earlier than the Southern crop.

Houser Very popular with large cabbage growers in Pennsylvania. An extremely large, late sort, producing very hard round heads.

Premium Flat Dutch A very good variety for fall use or for making kraut. The heads are very solid, tender and of superior quality. They mature earlier than other late varieties but do not keep as well over the winter.

Extra Large Late Flat Dutch The best and most profitable late variety, possessing all the qualities a winter variety should have. It is hardy, vigorous, and high in quality. The heads are "as solid as a stone" and for that reason keep well for winter use. A favorite with the private gardener as well as the trucker.

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
All Head Early or New Early	$ .10	$ .30	$1.00	$3.50
All Seasons	.10	.30	1.00	3.50
American Drumhead Savoy Sp.	.10	.45	1.50	4.50
Chieftain Savoy	.10	.45	1.50	4.50
Danish Ball Head or Hollander	.10	.40	1.25	4.00
Early Flat Dutch	.10	.30	1.00	3.50
Extra Large Late Flat Dutch	.10	.30	1.00	3.50
Henderson's Succession	.10	.30	1.00	3.50
Houser	.10	.30	1.00	3.50
Mammoth Rock Red	.10	.40	1.25	4.00
New Danish Round Head	.10	.30	.90	3.50
Pointed Head Winter	.10	.30	1.00	3.50
Premium Flat Dutch	.10	.30	1.00	3.50
Sure Head	.10	.30	1.00	3.50
Volga	.10	.30	1.00	3.50
* Yellows Resistant Varieties	Pkt.	Oz.	¼ Lb.	Lb.
All Head Select	$ .10	$ .40	$1.25	$4.00
Globe (Resistant Glory)	.10	.40	1.25	4.00
Wisconsin All Seasons	.10	.40	1.25	4.00
Wisconsin Hollander	.10	.60	2.00	6.00

Borecole—Dwarf Green Scotch

BORECOLE Scotch Kale

Extensively grown in this section for marketing during the winter months, when other vegetables are scarce. Borecole should be grown like cabbage, the seed being sown from early spring to the middle of August. It is customary to pull off the lower leaves and let the plant grow on to furnish a continuous supply.

Hardy Winter This variety is one of the most salable and profitable sorts for either the home or market gardener. The plant attains a height of 18 inches and produces an abundance of beautiful light green leaves, which are densely curled and crimped. It is extremely hardy and has the additional advantage of putting forth a second crop of leaves after the first have been gathered or have fallen off.

Superior Extra Curled Green Scotch The leaves of this variety are very much more curled than the Dwarf-Green Scotch, and many more bushels per acre can be cut due to the extremely vigorous growth, which is characteristic of this variety. Nearly as hardy as Hardy Winter, and very popular with many of our customers.

Curled Perfection An improved type, specially rogued and developed from a privately held American stock. Well curled and of a wonderful dark green color; winters well and commands top prices.

Borecole—Curled Perfection

Dwarf Green Scotch This excellent sort is low spreading and compact in its nature of growth, forming a mass of leaves which are beautifully curled and mosslike in appearance. The color is an attractive bright green and the quality is excellent.

New Blue Curled Scotch Just as hardy as Hardy Winter and having very curly dark blue-green leaves.

BRUSSELS SPROUTS

1 oz. will sow 500 ft. of drills or 3,000 plants.

Sow in April for early crop or in early June for a late fall crop. Transplant to rows which are 3 to 4 feet apart, 18 to 24 inches apart in the rows. Will live through the winter without protection.

Danish Prize Found to be the best variety both in quality and productiveness. The sprouts develop very evenly over the entire stem, the lower sprouts being as tightly folded and as solid as those higher up.

Borecole—Superior Extra Curled

COLLARDS

Georgia, Southern or Creole The chief Southern variety for greens, growing 2 to 3 feet high and forming a large, loose, open head or cluster of leaves with a rather long stem. One ounce of seed will sow 300 feet of drill; two pounds per acre.

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
BORECOLE				
Curled Perfection	$ .10	$ .30	$1.00	$3.00
Dwarf Green Scotch	.10	.25	.85	2.75
Hardy Winter	.10	.35	1.25	3.85
New Blue Curled Scotch	.10	.25	.85	2.75
Superior Extra Curled	.10	.25	.85	2.75
BRUSSELS SPROUTS				
Danish Prize	.10	.50	1.50	4.50
COLLARDS				
Georgia, Southern or Creole	.10		.20	.50
Cabbage Collards	.10		.20	.65

Cauliflower—Manns' White Mountain, Grown in Maryland as easily as cabbage.

CAULIFLOWER

1 ounce to 2,000 plants.

For an early crop sow the seed either indoors or in a hotbed in January or February, transplanting them to 2 or 3 inches apart, thus allowing the plants to put forth a vigorous growth before being set in the permanent rows.

As soon as danger of freezing is over, set the plants in the open ground in rows 2½ to 3 feet apart and 18 inches apart in the row. Cultivate often and thoroughly. For fall crop sow the seeds during April or May. It is well to plan so that the early crop heads before very hot weather and the late crop matures after hot weather.

White Mountain See page 2.

Early Snowball The best early variety in cultivation. If planted March 1st, large heads will be produced early in June, and scarcely a single plant will fail to form a head.

Dry Weather Cauliflower Especially adapted for growing in dry locations where other varieties fail. Easily blanched and remains fit for use for a long time.

Cauliflower Plants SEE PAGE 39.

Broccoli—Sprouting or Turnip Salad

BROCCOLI

1 oz. to 2000 plants.

Calabrese Heading Broccoli Can be grown in the east as perfectly as any shipped into this section. There is also greater public demand for this delicious vegetable making it more than ever a profitable local crop. Sow Manns' Calabrese, grow it carefully and you will have a crop of No. 1 grade produce which sells at a good profit.

40 Day Extra early foliage type used for spring crop "greens." Extensively grown in New Jersey for New York markets.

Italian Green Sprouting (Turnip Salad Broccoli.) Known in the South as Salad Broccoli, grows more "greens" than seven top turnip and is fairly hardy in Maryland, making a profitable cover crop. Sow in August broadcasting two to three pounds per acre and the first sprouts will be ready for market during February or early March, at which time they usually command a very good price.

PRICES

BROCCOLI	Pkt.	Oz.	¼ Lb.	Lb.
Calabrese Heading	$ .10	$ .40	$1.25	$3.85
Green Sprouting (Turnip Salad)	.10	.15	.35	1.25
40 Day	.10	.25	.75	2.25
Cauliflower				
Dry Weather Cauliflower	.25	3.50	10.00	
Early Snowball	.25	3.50	10.00	
White Mountain	.25	3.50	10.00	

Broccoli Calabrese Heading

CARROTS

1 ounce to 150 feet of drill; 4 pounds per acre.

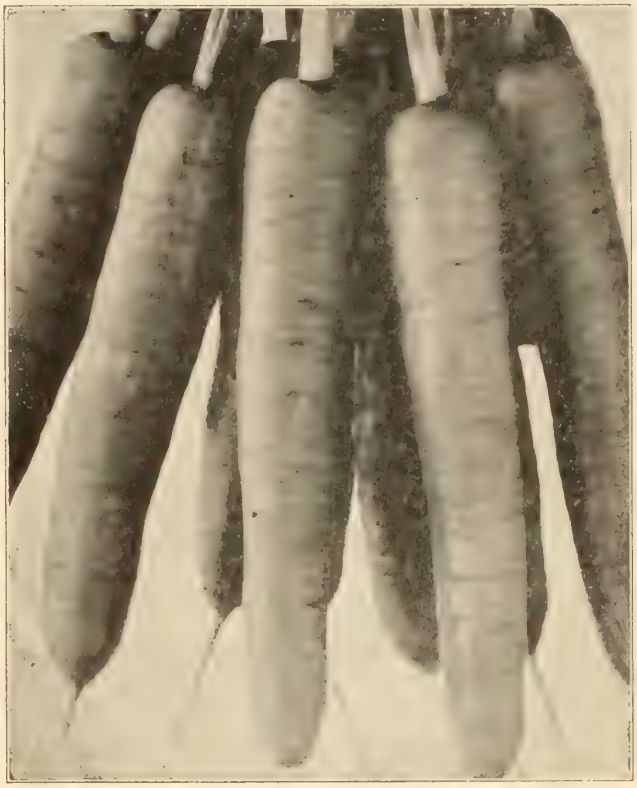
Our stock is grown from choice selected and transplanted roots only, and are of the truest type and richest color money can procure.

CULTURE.—Any good soil will grow this vegetable, but the most perfect roots, however, are developed in rich, friable soil, preferably sandy loam. The flavor and tenderness of the table varieties is secured by having a quick growth, which usually means good growing weather and proper cultivation. Sow as early as the ground can be worked or for late crop until the latter part of July, in drills 15 to 18 inches apart, finally thinning the plants to 3 to 4 inches in the drills. The seed is slow to germinate and if sown early or on moist soil, half an inch is deep enough. When sown during the hot summer months it is well to protect the seed bed with a thin layer of chips or straw as excessive heat will kill the vitality of the seeds before they germinate. After the seed has sprouted remove the covering, selecting the late afternoon for this work. Carrots are usually quite free from pests and diseases. The usual danger from ground worms and slugs is of course always prevalent, but once up they are easier to grow than most vegetables. They are ready for table use in about two months.

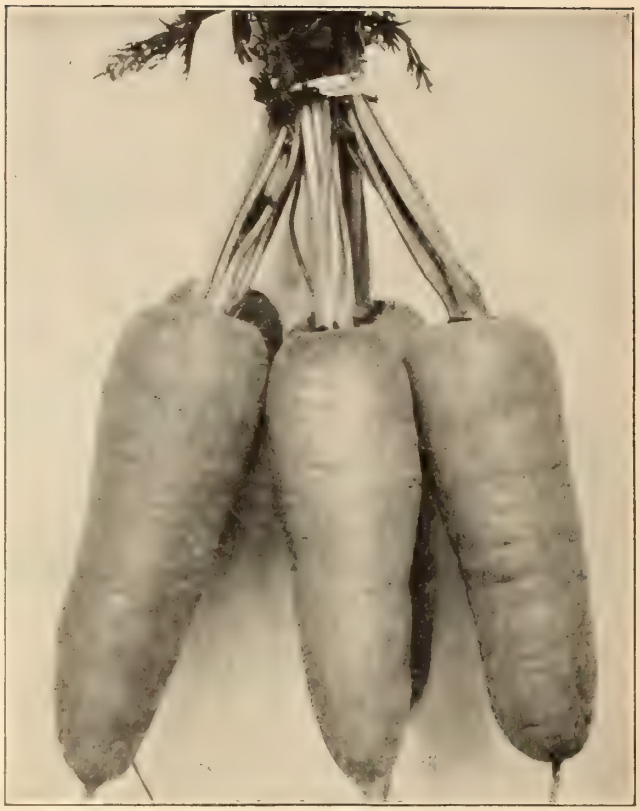
California Bunching **Developed especially as a bunching carrot for long distance shipping. Roots about 1½ in. by 7 in. long, cylindrical stump rooted, deep orange color throughout, can be pulled before maturity or allowed to stand weeks later without becoming overgrown.**

Chantenay or Model Carrot **A most excellent, medium early, half-long variety. Very uniform, stump-rooted but tapering slightly. They are smooth, deep orange-red in color and the flesh is very crisp and tender. Although a medium early sort the roots are suitable for use nearly as early as any, and will also prove very satisfactory if grown for winter use. Very easily harvested and bunched.**

New Chantenay **Produced from individual root selected stock, therefore a great improvement in uniformity of size and shape. The principal feature of this new strain, however, is its deep solid color.**



California Bunching



Chantenay

Sunrise **This variety has become a favorite with our market garden trade because of its fine quality, perfect shape and attractive color. Sunrise has been found to be specially valuable for medium and late use, an excellent keeper and thoroughly dependable. It is of most perfect form, pointed-rooted, with a broad, high shoulder. For main planting this sort has no superior, and when sown during June may be depended upon to produce the very best crop of roots to store for winter.**

Danvers Half Long **This is an exceptionally fine Carrot for private and market garden use. It is slightly longer than Chantenay and our strain produces uniformly smooth and evenly sized roots of handsome appearance. They are orange-red in color and the flesh is sweet, crisp and tender.**

Coreless or Scarlet Nantes **The earliest of its type; size and shape uniform; bright orange in color; smooth skin; small top.**

Improved Long Orange **A standard late variety, beautiful and uniform in shape, deep orange in color. The roots grow to a length of 12 inches and are of good quality for table use as well as for stock. They require a deep soil and if full size roots are wanted they should stand at least 8 inches apart in 18-inch rows.**

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
California Bunching	$ .10	$ .40	$1.25	$3.85
Chantenay (Long)	.10	.30	1.00	2.85
Danvers Half Long	.10	.30	1.00	2.85
Early Horn	.10	.50	1.50	4.50
Imperator	.10	.40	1.25	3.85
Improved Long Orange	.10	.30	1.00	2.85
Louisiana Danvers	.10	.40	1.25	3.85
Nantes Coreless (Special)	.10	.50	1.50	4.50
New Chantenay (Red Cored)	.10	.30	1.00	2.85
Oxheart or Guerande	.10	.50	1.50	4.50
Red Cored Danvers	.10	.40	1.25	3.85
Rubicon	.10	.40	1.25	3.85
Streamliner	.10	.40	1.25	3.85
Sunrise	.10	.40	1.25	3.85
Supreme	.10	.40	1.25	3.85
Tendersweet	.10	.40	1.25	3.85

Manns' Golden (Special)

CELERY

1 ounce to 5,000 plants; 20,000 plants per acre.

Celery seed is very slow to germinate and therefore should be started indoors in boxes from February to April or sown out of doors in a finely prepared seed bed during April. See that the seed is not covered too deep and that the bed is kept moist, almost wet until the seeds germinate. When the plants are about two inches high thin out and transplant to a distance of two or three inches apart each way. These must be kept entirely free from weeds and when they are four inches high the tops may be cut off so that the plants will grow more stocky. The plants are usually set out in the permanent bed when five inches high and it is usually best to do this during July or the first of August. In some sections best results are obtained by transplanting in June.

The permanent beds should be thoroughly prepared and well enriched with rotted manure, which should be spaded in deeply, the rows being spaced 3 to 4 feet apart. Cut off some of the root and set the plants 8 to 12 inches apart in the rows, firming the soil tightly, and cultivate them frequently for a period of six weeks. Celery needs plenty of moisture.

When the plants are nearly full grown they should be blanched. This is done by drawing the soil closely about the plants to about two-thirds of their height, being careful not to allow any of the earth to fall between the leaves. Repeat this process every few days until only the top of the leaves are visible. Do not disturb the plants while they are wet or the soil is damp as this is liable to result in injury from rust.

Golden Plume This new strain of Golden Self-Blanching has been pronounced by authorities to be the best of all the early varieties. It matures two or three weeks earlier than any other sort, blanches more quickly and shows less tendency to blight or crown-rot. Distinctly larger and ranker in growth than Golden Self-Blanching; more plainly ribbed and does not grow hollow. The crisp, tender stalks are very broad and the large full plumed centers are displayed to advantage.

Manns' Golden Special A more uniform strain of Golden Plume, has better hearts, is earlier and more easily blanched than other types. Strictly dependable for commercial production.

French Golden Yellow Self-Blanching (Originator's Stock.) Our strain of this very popular sort cannot be excelled in quality or appearance. The plants are of medium size, compact and stocky, with yellowish green foliage. The stalks are solid, crisp, tender, free from strings and of a fine nutty flavor.

Easy Bleacher Two weeks later than Golden Self-Blanching. Blanches readily and is a great favorite with Southern growers who usually plant a full crop of this one sort. Vigorous in growth and a splendid keeper.

Winter Queen Of medium height, an excellent winter keeping sort, producing thick creamy white stalks which are broad, very solid and crisp. The hearts are large and it blanches well.

Utah No. 99 (125 Days from Setting of Plants.) Green midseason celery. Easier to blanch than Utah. Height 26 to 28 inches, stems 9 to 10 inches long; very heavy, rounded with narrow channel, slightly tapered from base to first joint. Stems numerous, forming compact head and hastening blanching of inner stems and hearts. Crystal smoothness and appearance when thoroughly blanched.

Giant Pascal A superior keeping sort. The stalks are very large, thick, solid, crisp and of rich nutty flavor; it blanches very easily and quickly, and retains its freshness a long time.

Cornell No. 19 (100 Days from Setting of Plants.) Developed and introduced by the New York State College of Agriculture and described as a cross between Golden Self Blanching and Utah. An early, easy blanching strain of outstanding quality. Is prevailingly 10½ to 11 inches to joint with an over all height of 24 to 25 inches. Hearts long and comparatively full. Stems thick, rounded and of smooth texture. Combines the good qualities of the Pascal type with the early, easy blanching character and color of the Golden Self Blanching strains. Highly resistant to fusarium yellows.

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
CELERY				
Cornell No. 19	$ .10	$1.00	$3.25	$10.00
Easy Bleacher	.10	.40	1.25	4.00
French Golden Yellow	.10	.50	1.50	5.00
Giant Pascal (Special)	.10	.40	1.25	4.00
Golden Plume	.10	.30	1.00	3.50
Manns Golden (Special)	.10	1.00	3.50	12.50
Utah No. 99	.10	.50	1.50	5.00
Winter Queen	.10	.30	1.00	3.50
CELERY—LETTUCE				
Burpee's Celtuce, pkt., 15c; ¼ oz., 35c. oz., $1.25.				

CELERY BLEACHERS

No.	Size	Per 100	Per 500
B-2	6½x13 in.	$4.00	$18.00
B-3	7x14 in.	4.50	20.00

CELERY PLANTS

All Leading Varieties

Ready During July and August

SEE PAGE 39

USE A
FELINS VEGETABLE TYING MACHINE

Manns' No. 56—Note the low position of the ears, an evidence of extreme earliness.

CORN—Table Varieties

1 quart to 200 hills; 1 peck per acre.

Sugar Corn should not be planted until May, or when the ground is warm. For succession, plant about every two weeks until the last of July. All varieties may be either sown one inch deep in rows three to four feet apart, the seeds being placed about 8 inches apart in the rows, or they may be planted in hills at distances of three or four feet apart each way, allowing not more than 3 plants stand to a hill. The size of the variety and the richness of the soil should determine the distance of planting. Cultivate frequently and thoroughly but shallow until the tassels appear.

First Early Neck This variety can be planted earlier than any other sort; ear short, grain white. It is not a Sugar Corn.

Improved Early Adams A distinct improvement over the Old Early Adams, fully as hardy; ears measure from 10 to 14 inches in length, with 12 or more rows to the ear. Grains are narrow and deep, of excellent table quality.

Manns' No. 56 The best, largest, most saleable early market corn we have ever known. It can be planted extremely early without danger of rotting, which makes it possible to produce marketable ears at least five weeks ahead of Stowell's Evergreen. Resembles sugar corn, an excellent shipper, and a money maker.

Early Superior This new variety is of remarkable size considering its earliness. The ears are 8 inches long and have 16 to 20 rows of rather narrow deep grains. The quality is excellent and the attractive appearance of the rich, tender, well-filled ears make it a very desirable sort for the Market Gardener.

Country Gentleman Very deep grains, small cob and exceedingly rich flavor. Often produces 3 to 4 ears to the stalk. The grains are "staggered" on the cob, leaving no signs of rows.

Stowell's Evergreen Extra Selected Grown more extensively than any other; a favorite with canners and market gardeners for late use. Ears of large size, kernels very deep, tender and sugary; very productive and remains for a long time in fit condition for table use.

GROW HYBRIDIZED VARIETIES OF KNOWN ADAPTABILITY

The increased cost is only about $2.00 more per acre, but the yield is increased 25% or more. Practically all of the larger canning companies are now planting Hybrid Corn because of the certainty of a better yield and much better quality. It is important, however, to plant only seed grown by an expert hybridist as hybrid corn is not necessarily all desirable. The process is expensive, highly technical and requires the skill of a plant breeder. Buy Manns' hybridized corn; it has been grown by experts and has proven profitable for this section.

Please Note—It is useless to try to save seed from hybrid varieties of corn. They must be newly developed each year.

Golden Cross Bantam (Hybrid) Produces beautiful 8-inch ears having 10 to 14 rows of golden yellow kernels. It is resistant to wilt or Stewart's disease and is now the standard strain grown for the largest canners. As the crop matures at nearly the same time, it should be planted at intervals of a week or ten days to assure a continuous supply.

Ioana (87 days.) Outstanding yellow hybrid developed by the Iowa Experiment Station, a few days later than Golden Cross. Ears about 8 inches long, 12 to 14 rowed, cylindrical, well fitted with medium narrow, light yellow kernels. Excellent canning and market garden variety. Very productive.

Stowell's Evergreen Hybrid There are many Hybrids of the Stowell's Evergreen Variety but we have selected for you the most desirable and profitable hybrid based on Maryland Experiment Station tests, our own trials and reports of large growers. If you grow White Sugar Corn, be sure to plant Manns' Hybrid Stowell's. The ears are large, well filled, of beautiful appearance and excellent quality.

Howling Mob Stalks are of strong, vigorous growth, 5 feet in height; produces 2 large ears of sweetest quality.

Early Evergreen Ripens 10 to 12 days in advance of Stowell's Evergreen, and is equally as good in quality. Kernels sweet and tender; cob small, with irregular rows.

Golden Colonel The new golden yellow corn, resembling Country Gentleman or Shoe Peg in size and formation of kernels, equal if not superior in quality.

White Evergreen A pure white strain of the popular Stowell's Evergreen. The ears are very large and well filled from butt to tip with long, slender, pure white grains.

PRICES

Variety	Pt.	Qt.	Pk.	Bu.
Adams Early	$ .15	$ .25	$1.25	$4.50
Bantam Evergreen	.20	.35	2.00	7.00
Black Mexican	.20	.35	2.00	7.00
Country Gentleman (Shoe Peg)	.25	.40	2.35	7.50
Early Evergreen	.20	.35	2.00	7.00
Early Superior	.20	.35	2.00	7.00
First Early Neck	.15	.25	1.25	4.50
Golden Bantam	.20	.35	1.75	5.50
Golden Bantam	.20	.35	2.00	7.00
Golden Colonel	.25	.40	2.35	7.50
Golden Evergreen	.20	.35	2.00	7.00
Howling Mob	.20	.35	2.00	7.00
Improved Early Adams	.15	.25	1.25	4.50
Manns' No. 56	.25	.40	2.50	7.50
Stowell's Evergreen Ex. Selected	.25	.40	2.35	7.50
Whipples Early White	.20	.35	2.00	7.00
Whipples Early Yellow	.20	.35	2.00	7.00
White Evergreen	.25	.40	2.35	7.50
HYBRIDS				
Golden Cross Bantam Hybrid	$ .25	$ .50	$2.85	$10.50
Ioana	.25	.50	3.50	12.50
Marcross C6-13	.40	.75	4.00	14.50
Stowells Evergreen Hybrid	.50	.85	5.00	17.50
Top Cross Country Gentlemen	.25	.50	3.50	12.50

FIELD CORN

Manns' open pollinated stock has been especially grown and selected for seed purposes
We have carefully followed Maryland Agricultural Experiment Station's reports in selecting for you the Hybrids best suited for Maryland.

HYBRID CORN

Hybrid Corn increases yield 15% to 25%, is resistant to smut, rust and wilt; has deeper and more vigorous root systems, therefore less affected by drought or severe wind, the uniform maturity practically eliminates barren stalks and nubbins.

Manns' Hybrid Yellow Varieties

Early	Midseason	Main Crop
90-100 days	100-110 days	110-120 days

Select one of these proven hybrids with confidence. They are the most productive and profitable for this section. Qt., 35c; pk., $2.25; bu., $7.00.

Manns' Hybrid White Dent

Highest yielding white corn in trial of fifty leading varieties, producing 20% more than its closest rival. Qt., 35c; pk., $2.25; bu., $7.00.

Hybrid Yellow Sweepstakes Ensilage

Extremely tall, rank grower producing many more tons of ensilage per acre than open pollinated sorts. Qt., 35c; pk., $2.25; bu., $7.00.

Golden West

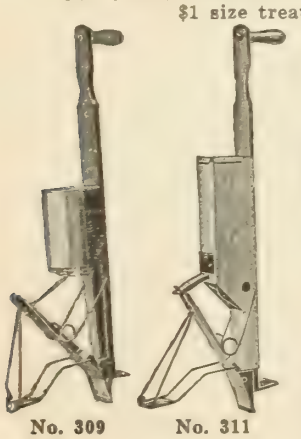
Clark's Early Smoky Dent This new introduction has been developed by one of the largest and most reliable growers of corn in this country. Early Smoky Dent is today the earliest Dent Corn in cultivation, maturing in 75 to 80 days; is a good yielder and entirely free from disease; grows strong, quick, and has splendid 7 to 8 foot fodder.

Golden West This variety will yield a larger crop than any other open pollinated corn. It is vigorous in growth, very deeply rooted and produces broad-leaved stalks of medium height. It is most attractive in appearance, and the ears usually have 18 to 20 rows of large kernels which are tightly wedged to make a solid ear. It requires about 100 days to mature and deserves the attention of any grower who wants a big crop of fine quality yellow corn.

Pride of the North Maturing perfectly in 90 days and being very hardy and prolific. Pride of the North has become a favorite among Northern growers and planters needing a 90-day yellow variety. The ears are of medium size with very small red cob. The kernels are closely set, long and compact.

Iowa Silver Mine The National White Corn. A remarkable drought resister and under adverse conditions seems to pull through and make a crop where other varieties fail. Silver Mine is deep grained, pure white, rough-topped, with a small, white cob. Ears run from 9 to 12 inches long, with 16 to 20 rows of pure white kernels. Stalks medium height, very leafy, with broad blades, frequently bearing two ears weighing 1 to 1½ pounds each. Iowa Silver Mine has probably taken as many sweepstakes and first premiums as any corn in existence.

Use CROW REPELLENT and do less replanting.
$1 size treats one Bushel.



No. 309 No. 311

No. 311—Acme Segment Corn Planter

Automatic slide type, adjustable for number of Kernels and depth of planting. Has Chinese bristle brush cut-off. Can be used for beans. $2.00.

No. 309—Acme Rotary Automatic Corn Planter

Full rotary Drop; having adjustable cast disk or seed plates, and depth gauge. Extremely accurate; also plants beans and peas. $2.50.

Iowa Gold Mine With the expert farmer Gold Mine is known as medium early, between the 110 day and the extra sorts that mature in 85 days. It is a great producer and sure cropper. Ears are medium symmetrical. Color bright golden yellow. The grain is deep and the cob is small.

Golden Beauty It is a large and broad-grained yellow corn. The ears of perfect shape with from ten to fourteen straight rows of grains. The cob is very small.

Lancaster County Sure Crop A great favorite with dairymen as a silage variety and also extremely valuable as a husking sort. Yields large crops even under adverse weather and soil conditions. Matures for silage in 90 days and for grain in 100 days producing long ears of deep large yellow grains.

Ried's Yellow Dent Probably the most dependable cropper of all yellow varieties.

Boone County White Boone County is a very large white corn, something like Silver Mine, but larger and later in maturing. Ears well filled out at both ends, cylindrical, 9 to 11 inches long, averaging 20 rows, some 18 to 22. Grain very deep, a little rough. Cobs white, of medium size. Matures in 110 to 120 days.

Improved Hickory King Largest grains of any white variety. Matures early and very productive. Ears set low, are of large size, well filled, very deep grained. It produces well, even on light land.

POP CORN

South American Giant Pops extremely large creamy white flakes. In greater demand than any other variety. 15c per lb.

PRICES

Variety	Qt.	Pk.	Bu.
Boone County White	$ .25	$1.15	$3.50
Clark's Early Smoky Dent	.25	1.00	3.15
Eureka Ensilage	.25	1.15	3.50
Golden Beauty	.25	1.40	4.25
Golden West	.25	1.25	3.85
Improved Hickory King	.25	1.25	3.85
Iowa Gold Mine	.25	1.00	3.15
Iowa Silver Mine	.25	1.15	3.50
Lancaster County Sure Crop	.25	1.00	3.15
Leaming Improved Dent	.25	1.00	3.15
Pride of the North	.25	1.00	3.15
Ried's Yellow Dent	.25	1.00	3.15

Chicory—Witloof

CHICORY

Witloof (French Endive) A very choice winter salad forced in hot-beds from roots; producing solid oblong heads blanched ivory white.

CRESS

CURLED OR PEPPER GRASS

Sprinkle seed freely along shallow drills 1 foot apart at intervals through spring and summer, as desired.

American Upland This small salad is much used with lettuce.

True Water Thrives only when its roots and stems are submerged in water.

CHARD (SWISS)

Plant the seeds the same as ordinary beet seeds but thin out at first to 6 inches apart, later to 1 foot apart. Ready for use in about 60 days.

Fordhook Giant **The best Swiss Chard in cultivation, producing extremely large, heavily savoyed leaves of a beautiful glossy, very dark green color. The ribs average three inches broad and are pure white.**

Swiss Chard—Fordhook Giant

Large Smooth Prague Celeriac

CELERIAC

Sow seed and cultivate same as celery, with the exception that it is not necessary to blanch the plants. When the roots attain a diameter of two inches they are fit for use. To keep these through the winter, pack in damp earth or sand and store them in a cellar or leave them out of doors, covering with earth and straw for protection.

Large Smooth Prague One of the largest, very smooth and almost round with very few side roots. Plants are vigorous, with large dark green foliage.

CHINESE CABBAGE

Chinese or Celery Cabbage belongs to the cabbage family but more closely resembles lettuce. For best results plant the seed late in July or very early in August as spring plantings in this section are liable to bolt to seed. Plant the seed in the permanent bed and thin out to stand 12 to 15 inches apart.

Pe-Tsai Wong-Bok **The finest Chinese Cabbage in existence. The heads are large, compact and the crisp, tender interior blanches to a creamy white. It will stand long before bolting to seed and is not injured by light frosts.**

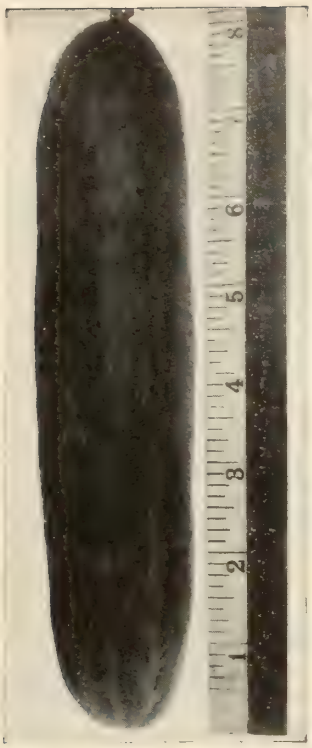
Chihili (or Improved Pekin) A longer and more slender type than Wong Bok, now the most popular strain in Baltimore, New York and Washington markets. Of excellent quality and should be more generally grown.

Cardoon	Pkt.	Oz.	¼ Lb.	Lb.
Smooth White Solid	..	..	..	..
Celeriac				
Large Smooth Prague	$ .10	$ .50	$1.50	$5.00
Chard (Swiss)				
Fordhook Giant	.10	.20	.50	1.50
Lucullus	.10	.20	.50	1.50
Chicory				
Ciccoria Catalogna (Radichetta)	.10	.50	1.50	4.50
Witloof	.10	.50	1.50	5.00
Large Rooted or Common	.10	.60	2.00	6.00
Chinese Cabbage				
Pe-Tsai Wong-Bok	.10	.30	1.00	3.50
Improved Pekin—Chihili	.10	.30	1.00	3.50
Cress				
American Upland	.10	.20	.50	1.50
True Water	..	..	..	..

CUCUMBERS

1 ounce to 100 hills or 50 ft. of row; 2 lbs. per acre.

CULTURE—Plant as soon as the weather becomes settled in hills 4 feet apart each way, with 8 or 10 seeds in each hill, cover half an inch deep, smoothing the hill off with the hoe. Keep the soil well stirred, and when the plants are out of danger of insects, leave 3 or 4 plants to the hill. For pickles, plant from the first of June to the first of August. The fruit should be gathered when large enough, whether required for use or not, for if left to ripen on the vines, it destroys their productive uses.



"Straight 8"

A & C Manns' selection of this now popular variety is far Superior to Colorado, Taxpayer, etc., etc., in shape, color, quality and production. 9 to 11 inches long by 2¼ inch diameter, blunt at both ends, very dark. In some sections A & C has now replaced all other varieties. (65 days.)

Klondike A favorite with market gardeners and shippers all over the country. The handsome dark green cucumbers average 7 inches long and 2 inches in diameter.

Early Fortune One of the best of the very desirable "White Spine" type. It was selected out of a field of Davis Perfect by reason of its outstanding qualities and the strain has now become so well established that large plantings do not show any variation either in plant or fruit. Early, very productive, and having unusual disease-resisting ability. Fruits are 8 inches long with very dark green skin and thick, firm flesh which is crisp and tender. Excellent shipper.

Long Green (Improved) Our carefully-selected strain, under favorable conditions, produces fruit averaging from 12 to 16 inches in length. Skin is a deep rich green, flesh solid, crisp and of excellent quality.

Japanese Climbing Vines are extra strong, vigorous; being a climbing sort, can be grown on trellises, etc.; valuable in small gardens. Very prolific, from 40 to 50 having been counted on single plants. Fruit long, round, of fine flavor.

Longfellow or Straight Pack

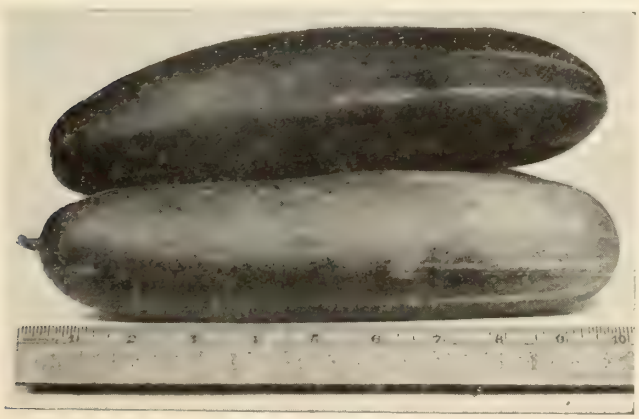
This new variety was developed primarily for greenhouse culture; its quality, size and attractive appearance, however, have definitely established it as one of the best for outdoor production. The beautiful dark green cucumbers average 12 inches in length and are adaptable for packing in flats for the very highest class trade.

Clark's Special

Clark's Special Profitable variety for Market Gardeners; 8½ to 10 inches long by 2½ inches in diameter, slightly tapered at the ends; very dark green, crisp and firm retaining its fine quality and handsome appearance even when shipped long distances.

Gherkins or Burr Very small, quite distinct from all others. It is grown exclusively for pickling, and should be picked when young and tender.

Straight 8 An "All American" Gold Medal Winner, producing symmetrical fruits, well rounded at both ends. Regularly eight inches in length and from 1¾ to 2 inches in diameter, deep green and free from pale striping and tipping. Vines are vigorous and remarkably productive.



Manns' A. & C.

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
A. & C.	$ .10	$ .30	$ .90	$2.75
Black Diamond (or Stays Green)	.10	.15	.50	1.50
Boston Pickling or Green Prolific	.10	.15	.50	1.50
Colorado	.10	.30	.90	2.75
Clark's Special (Original)	.10	.15	.50	1.50
Early Fortune	.10	.15	.50	1.50
Evergreen Long White Spine	.10	.15	.50	1.50
Gherkins or Burr	.10	.15	.50	1.50
Japanese Climbing	.10	.15	.50	1.50
Klondike	.10	.30	.75	2.25
Longfellow or Straight Pack	.10	.30	.90	2.75
Long Green (Improved)	.10	.30	.90	2.75
Straight 8	.10	.30	.90	2.75
Woodruff's Hybrid	.10	.15	.50	1.50

EGG PLANT

1 ounce will produce 1,000 plants.

Sow in March in hotbeds, and transplant when 2 inches high into a second hotbed, or let them remain and thin out to 4 inches apart. When the weather becomes settled, transplant into the open ground 3 feet apart each way. Good culture is quite as important as good seed. Work the ground deep, make it rich with well-rotted manure and hoe often.

Black Beauty **The most beautiful and earliest of all large Egg Plants.**

Florida High Bush **Very vigorous and productive; of upright growth holding the fruit well off the ground; color light purple of oblong shape.**

New Hampshire Hybrid The New Hampshire Agricultural Experiment Station developed this variety by hybridizing Black Beauty and Early Dwarf Purple for the purpose of obtaining an extra early, yet good size, Black Beauty type. The resulting hybrid won the All American Silver Medal 1939. It is nearly as large as Black Beauty, very uniform and yields a heavy crop of extra early fruits.

Black Beauty Egg Plant

CHIVES

Chives are a small hardy perennial plant, resembling the onion in appearance and growing in clusters. They are grown for the young leaves, which are produced freely from early in the spring and give a mild onion flavor to sausage, salads and various dishes.

CORN SALAD

1 ounce will sow 20 square feet; 6 pounds to the acre.

Ackersalad **Large Seeded Dutch. A vegetable used as a salad. It is sown in the opening of spring in rows 1 foot apart, and is fit to use in 6 or 8 weeks from sowing. If wanted in early spring, sow in September; cover with straw as soon as cold weather sets in. Can be grown in cold frames, covered with straw mats or shutters, and used any time during the winter.**

Endive—Full Heart

DANDELION

Arlington Strain The best market garden strain, forming a tuft of large, stocky, thick-leaved plants, white-ribbed.

ENDIVE

1 ounce to 100 feet of drill, 3 pounds to the acre.

Broad-leaved Batavian **(Escarolle) Leaves broad and almost plain; color light green.**

Full Heart Batavian (Escarolle) The most widely used variety of Endive; an improved Broad Leaved Batavian with thicker and broader heads; matures slightly earlier, requiring only 90 days from sowing of seed to heading.

Green Curled **This is the hardiest variety, and very desirable for the home and market garden. The deep green leaves are beautifully cut and curled, easily blanched, and become very crisp, tender and fine-flavored.**

FENNEL

(FLORENCE)

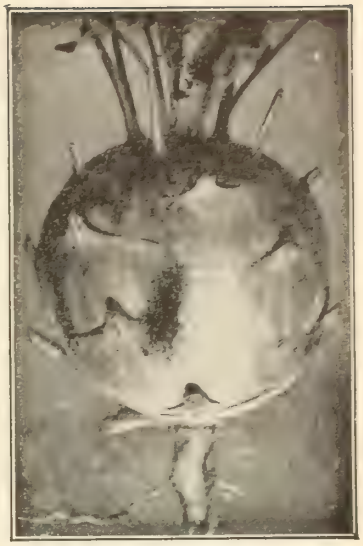
(Finocchia) In great demand with Italian trade and deserves to be more generally used. The leaf stalks are clustered in a bulb-like formation, and when these are about 1½ inches wide, the plants should be hilled up to about half their height.

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
CHIVES	.10	1.00	...	...
CORN SALAD				
Large Dutch	Subject to Crop			
DANDELION				
Arlington Strain	.10	.50	1.50	5.00
Italian (Ciccoria Catalogna)	.10	.35	1.25	4.00
EGG PLANT				
Black Beauty	.10	.35	1.25	4.00
Florida High Bush	.10	.35	1.25	4.00
Long Italian	.10	.35	1.25	4.00
New Hampshire Hybrid	.10	.35	1.25	4.00
ENDIVE				
Broad-leaved Batavian	.10	.15	.30	1.00
Full Heart Batavian	.10	.15	.30	1.00
Green Curled	.10	.15	.30	1.00
FENNEL				
Florence	.10	.20	.50	1.50

Kale, Extra Curled—Long Standing

Monstrous Carentan Leek



Early White Vienna

KALE

Broadcast, 2 to 3 pounds per acre; 1 ounce to 200 feet of drill.

The Kales are more hardy than Cabbage, and make excellent greens for winter and spring use. For early spring use, sow broadcast in September and protect during winter. It may also be sown in April or May for later use.

Extra Curled Long Standing An improvement on the well-known German Extra Curled Kale; beautifully curled, of strong, vigorous habit, perfectly hardy and slow-shooting to seed.

Extra Early Siberian Ready for cutting earlier in spring than Long Standing.

Manns' No. 640 The longest standing of any Kale we know, beautifully curled and having a distinct bright green color.

Spring Smooth Leaf or Hanover Salad Quick-growing, very hardy smooth leaf sort, tender when young.

SCOTCH KALE BORECOLE

SEE PAGE 10

Kale—Early Siberian

KOHLRABI

1 ounce will produce 1,500 plants.

This forms a bulb above the ground, and its flavor is somewhat similar to Cabbage. Sow in April in rows 18 inches apart, thinning out to 8 inches between the plants.

Early White Vienna Excellent for forcing and of fine quality. The bulbs grow to the size of an apple when ready for use, and are a pale whitish-green.

Triumph-Prague Extremely early forcing variety, winner in "All-American" trials.

LEEK

1 ounce to 50 yards of drill.

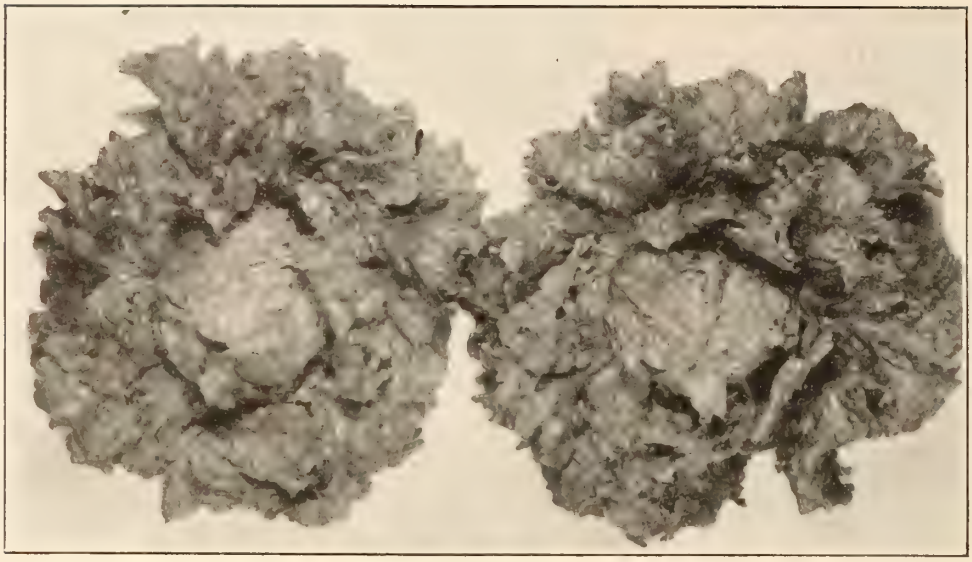
Sow early in the spring in drills 1 inch deep and 12 inches apart, when about 6 inches high transplant into deep, rich soil, 5 inches apart; use a dibble and plant deeply, close to their leaves.

Manns' Special No. 7 Improved large variety with unusually long thick white stalk.

Monstrous Carentan **OR SCOTCH CHAMPION.** Of extra large size; the leaves are fan-shaped, of a dark green color; the edible stem is 6 to 8 inches long and 3 inches in diameter.

HERBS	Pkt.	¼ Oz.	Oz.	¼ Lb.
Anise	$ .10	$ .25	$ .75	....
Basil	....	....	....	....
Caraway	.10	.25	.75	....
Coriander	.10	.25	.75	....
Dill, extra large, lb. $2.50	.10	.10	.30	$ .85
Fennel, Florence, lb. $1.50	.10	.10	.20	.50
Fennel, Sweet	....	....	....	....
Lavender	....	....	....	....
Marjoram, sweet	.10	.60	2.00	....
Rosemary	.10	.35	1.25	....
Sage	....	....	....	....
Summer Savory	.10	.50	1.50	....
Thyme	.10	.60	2.00	....

PRICES Variety	Oz.	¼ Lb.	Lb.	10 lbs.
KALE				
Extra Curled Long Standing	$ .15	$ .40	$1.25	$11.50
Manns' No. 640	.20	.60	1.75	16.50
Siberian Kale (Extra Early)	.15	.30	1.00	9.00
Spring Smooth Leaf (Hanover)	.10	.20	.50	4.75
KOHLRABI				
Early White Vienna	.60	1.75	5.00	....
Triumph-Prague	....	....	....	....
LEEK				
Large American Flag	1.00	3.00	8.50	....
Manns' Special No. 7	1.15	3.50	10.00	....
Monstrous Carentan	1.00	3.00	8.50	....



Imperial Iceberg No. 847

LETTUCE

1 ounce to 2,500 plants; 3 pounds per acre.

Lettuce to be at its best should be grown rapidly, hence the soil should be made as rich and friable as possible by liberal manuring and thorough preparation. For early crop sow in a seed-bed in September or October and protect through the winter with cold frames, which should be removed as soon as danger of severe freezing is past. Lettuce in the open ground will stand some freezing but is killed by prolonged frost or frequent freezing and thawing. The seed may also be sown in hotbeds in March, and the plants, if well hardened, may usually be set in the open ground in April, maturing a crop much earlier than complete open ground cultivation would produce. If, however, it is not convenient to get the plants started either in the fall or early spring in hotbeds, the seed may be sown in open ground from the middle of April until July, selecting varieties suitable for the season.

The plants should stand 8 to 10 inches apart in the rows, and the rows should be about 18 inches apart.

Grand Rapids As a lettuce for greenhouse forcing this variety undoubtedly stands at the head of the list, being of quick growth, hardy, little liable to rot and remaining in condition several days after being fit to cut. Forms a loose cluster of large, thin, bright green leaves, savoyed, finely crimped at edges. Will stand shipping long distances.

New York or Wonderful

Manns' Special Iceberg No. 10 Developed in the East for withstanding Eastern weather conditions. A sure heading white seeded strain of New York. Trial plantings have produced beautiful large solid heads readily accepted by critical buyers. Growers using the various Iceberg types will do well to change over a part of their acreage to Manns' No. 10.

Imperial Iceberg No. 44 Developed in California by Dr. Jagger of the U. S. D. A. primarily as a sure heading, disease resistant variety for shipping to the eastern markets. It's adaptability to many various growing centers and a wide range of climatic conditions make it one of the most dependable and sure heading types of Iceberg for this section.

Imperial Iceberg No. 847 Black seeded strain of New York grown successfully on the West coast for several years. Produces large size, solid, well rounded heads under conditions where other New York types do not succeed.

Cosberg Developed at the U. S. Dept. of Agr. plant breeding station, Beltsville, Md. Destined to become very useful in the East. Heads are of medium size, clear pale green, exceptionally firm. Resistant to tip burn and withstands heat very well.

Variety	PRICES Pkt.	Oz.	¼ Lb.	Lb.
All Seasons	$ .10	$ .25	$ .75	$2.25
Big Boston	.10	.20	.50	1.50
Chicken (loose leaf)	**.10**	**.15**	**.30**	**1.00**
Cos, or Romaine, White Paris	.10	.20	.50	1.65
Cos, Extra Dark Green	**.10**	**.15**	**.40**	**1.25**
Cosberg	.10	.30	.80	2.75
Earliest "Wayahead"	**.10**	**.15**	**.40**	**1.25**
Grand Rapids	.10	.20	.50	1.50
Iceberg	**.10**	**.20**	**.50**	**1.50**
Imperial No. 44	.10	.30	.80	2.75
Imperial Iceberg No. 847	.10	.30	.80	2.75
Manns' Defiance Summer	**.10**	**.20**	**.60**	**2.00**
Manns' Special Iceberg No. 10	**.10**	**.25**	**.85**	**2.85**
May King	**.10**	**.15**	**.30**	**1.00**
New York—Special No. 12	.10	.20	.60	2.00
Unrivalled	**.10**	**.20**	**.50**	**1.50**
White Boston	.10	.20	.60	1.85

Manns' Lettuce Seed is used by the largest commercial growers

LETTUCE (Continued)

All Seasons One of the best all-head Lettuces, standing the hot sun to a remarkable degree, slow to seed. The outer leaves are a bright soft green; the finely-blanched inner leaves are a rich golden-yellow, tender and mild in flavor. The heads are broad and nearly flat at the top, they continue to increase in size for about two weeks after they are ready for use.

May King Extremely early, compact cabbage or heading variety, forming very firm heads of medium size and excellent quality. Color light yellowish-green, tinged with reddish-brown when mature. Inner leaves blanch rich golden-yellow, very tender and buttery.

Big Boston This is a fine forcing variety for cold frames during the winter months, as it produces heads of very large size, often 12 inches or more across, and succeeds better in cooler temperature than most forcing strains. The large heads are beautifully blanched and of superior quality. It also heads well in the open ground during cool weather of spring and fall. Our seed is an extra selected strain of the true stock.

White Boston

Manns' Defiance Summer This variety, introduced by us several years ago, has made a very eventful impression upon the grower, as well as the consumer. It forms handsome, solid heads of enormous size, which remain in good salable condition long after all others have gone to seed. The flavor is excellent; the leaves are beautiful light green. Very profitable for market gardeners.

Unrivalled This lettuce might well be called an Improved Big Boston. Its usefulness and value are identically the same as Big Boston, but it is preferred by market gardeners because of its being a solid green color with no brownish tinge at the border of the leaves; its heads are larger and of better appearance than Big Boston.

White Boston A very light green type somewhat similar in size, shape and uses to Unrivalled and Big Boston. Entirely free from red edge and gaining in popularity among market gardeners.

COS, ROMAINE OR CELERY LETTUCE

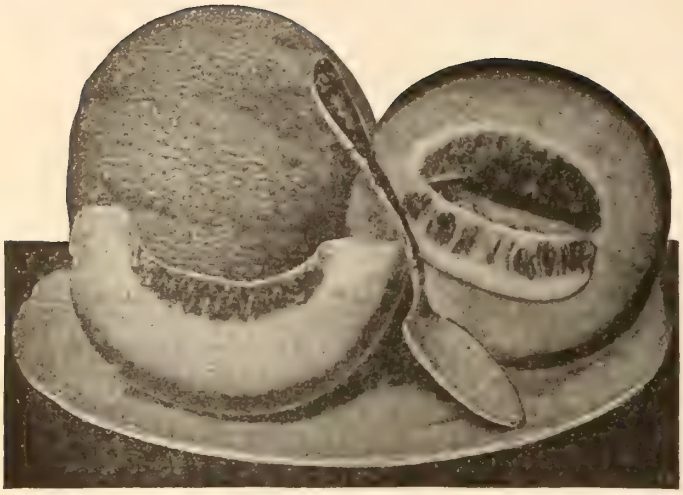
Paris Self-Folding White Cos

Grows to very large size, producing long-pointed, compact bunches. The outer leaves are closely folded about the center and interior is well blanched.

Paris Cos Lettuce

Cos, Extra Dark Green Similar to White Paris but darker in color.

LETTUCE PLANTS
FRESH DAILY IN SEASON—See Page 39



Bottomly Cantaloupe

MUSKMELON
CANTALOUPE

1 ounce for 50 hills; 3 pounds per acre.

The most suitable soil for melons is a warm, sandy loam, well worked and enriched with rotted manure. After danger from frost is over, sow ten to twelve seeds to a hill, about 2 inches deep; the hills being six feet apart each way. When the plants have the second pair of leaves and danger from insects is past, thin out to four plants to a hill. Cultivate frequently, deeply away from the plants and shallow close to them. When hoeing, remove the crust from around the plants and replace with fine, loose soil.

GREEN FLESHED VARIETIES

Knight's Early Maryland An extremely early medium sized melon. Fruit oblong, showing the neck tendency; skin deep green, turning to golden at maturity, well covered with a close gray netting and distinctly ribbed; flesh fairly thick and very sweet; color medium green blending to light pink near the center. The earliest high quality melon and a good shipper.

Jasper Our stock of this Anne Arundel County variety is a definitely established fixed type which is well netted, uniform in size and shape and of excellent quality. It is prolific, medium early and in general a profitable variety to grow.

Long John Somewhat similar in quality and appearance to Bottomly, but much larger and more elongated. Has green flesh and commands good prices in the Baltimore market.

Honey Ball Possess characteristics that make it one of the finest melons that has ever been offered to the grower, the shipper and the consumer. Exceedingly prolific, producing as many as fifteen to twenty large cantaloupes to the plant. Every commercial grower and home gardener should have at least a trial patch of Honey Ball.

Honey Dew A melon of the Cassaba type. The fruit is large, oval in form, about 10 inches long and 8 inches in diameter; thick flesh is light green in color, ripening to the rind, very tender, with an extreme sweetness. The vines are vigorous and set 6 to 10 melons to the hill. An excellent shipper, will keep for several weeks even when fully ripe.

Sweet Air An early, well netted medium sized, good quality and good shipping sort; grown largely in Southern Maryland.

Rocky Ford This has become one of the most popular of small or basket melons. The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh light green, very thick and highly flavored.

SALMON FLESHED VARIETIES

Hale's Best Original. The earliest strain, fruits vary in size and shape but average 7 inches long; 5 inches in diameter, distinctly ribbed.

No. 36 Most popular type, uniform size and shape, more heavily netted and less ribbed than Original Hale's Best.

No. 45 Mildew Resistant. Can be thoroughly vine-ripened and shipped long distances with its delicious flavor completely retained. It is being marketed under the name of "Sweet Eatin" and quality is being stressed by National advertising.

Burrell Gem Of sweet and aromatic flavor, oblong shape, smoothly rounded ends, closely netted and slightly ribbed dark green skin. Fruits average 6 inches long by 4 inches deep. Very fine for marketing.

Sugar Rock A valuable New Variety of a Distinct Type. Sweet as sugar and solid as a rock. Sells on sight and its marvelous flavor brings the buyers back for more. On account of its heavy netting and tough rind, can be thoroughly ripe before picking. A remarkable heavy yielder, and a real money maker.

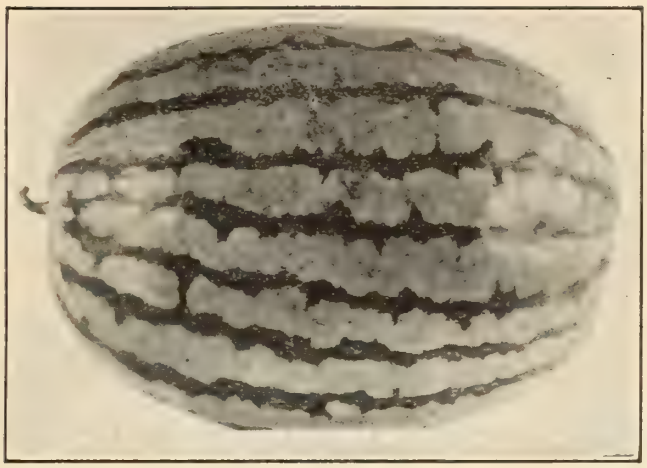
CITRON

Red Seeded A small globular variety, striped and marbled with light green. Flesh white and solid; seeds red. Used exclusively for pickles and preserves.

PRICES

MUSKMELON	Pkt.	Oz.	¼ Lb.	Lb.
Benders Surprise	$ .10	$ .20	$ .60	$2.00
Bottomly	.10	.20	.60	1.75
Burrell Gem	.10	.15	.40	1.25
Golden Honey Dew	.10	.20	.50	1.50
Hale's Best (Original)	.10	.20	.65	2.00
Hale's Best No. 36	.10	.20	.65	2.00
Hale's Best No. 45	.10	.20	.65	2.00
Honey Ball	.10	.20	.60	1.75
Honey Dew	.10	.20	.60	2.00
Imperial	.10	.20	.40	1.25
Improved Perfecto	.10	.20	.65	2.00
Jasper	.10	.20	.60	2.00
Knight's Early Maryland	.10	.20	.60	2.00
Long John	.10	.20	.60	2.00
Pollock No. 10-25	.10	.15	.40	1.25
Pride of Wisconsin	.10	.20	.50	1.65
Rocky Ford	.10	.20	.65	2.00
Sugar Rock	.10	.25	.75	2.25
Sweet Air	.10	.20	.60	2.00
CITRON				
Red Seeded	.10	.15	.35	.85

Imperial—Hale's Best



Dixie Queen

Stone Mountain

WATERMELON

1 ounce for 30 hills; 3 or 4 pounds per acre.
Cultivate exactly as for Cantaloupe, except that the hills should be 8 to 10 feet apart.

Dixie Queen A fine-flavored, early, 80-day round melon; skin striped dark green and greenish ivory, flesh bright red, solid and sweet. Shipped as White Seeded Cuban Queen.

Kleckley's Sweet This very popular melon is one of the best for nearby markets. Fruits are medium size, oblong, of a dark green color and have very thin rind. Flesh bright scarlet with solid heart, crisp, sugary and melting, and entirely free from stringiness.

Tom Watson A large long melon with dark green rind and light crimson flesh of excellent quality, and a splendid shipper.

Stone Mountain The outstanding introduction in the last few years. Its growth in popularity is phenomenal. Can be shipped long distances and its edible qualities are distinctly superior to any other shipping variety.

Early Canada (75 Days)—Perhaps the earliest good quality melon, usually about 9 inches in diameter, nearly round.

Florida Giant (95 Days)—Vigorous and prolific; fruits very large, nearly round, flesh bright red, crisp and sweet.

Hawkesburg (85 Days)—Wilt resistant strain; fruits oblong, about 18 inches long and 8 to 10 inches in dia., color light grey with deeper veins. Flesh deep pink and of good quality.

MUSHROOMS

Anyone with a fair understanding of the cultural requirements can grow Mushrooms successfully in any climate and in any season where the following conditions obtain:

1. Good spawn, procured from a reliable source.
2. A properly prepared bed with reasonable protection against weather extremes.
3. A temperature not greatly exceeding 60° F. nor much lower than 50° F.
4. A fairly moist temperature, avoiding the too frequent and direct application of water to the beds.
5. A gradual renewal of the air, avoiding draughts.

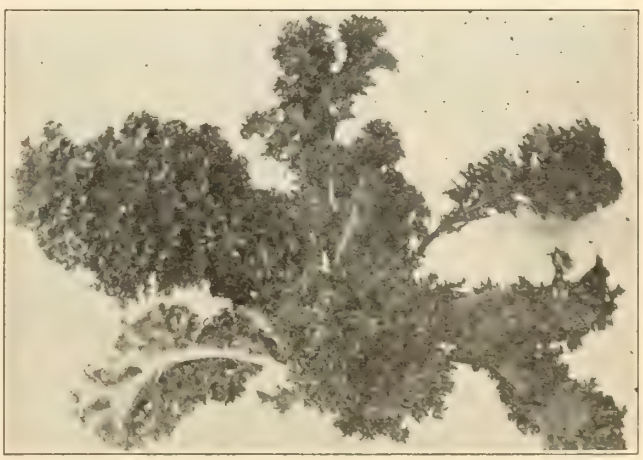
One brick will seed an area of 8 to 10 square feet. One quart bottle will seed an area of 35 to 40 square feet, depending on the size of piece planted. Full cultural directions free with purchase of spawn. Bricks 30c ea., 10 bricks $2.75, bottle spawn $1.00 ea.

PRICES

MUSTARD	Pkt.	¼ Lb.	Lb.	10 Lb.
Fordhook Fancy	$ .10	$ .40	$1.25	$11.50
Giant Southern Curled	.10	.30	1.00	8.50
Tendergreen (Mustard Spinach)	.10	.25	.75	7.00

WATERMELON	Pkt.	¼ Lb.	Lb.
Dixie Queen	$ .10	$ .35	$1.25
Early Canada	.10	.30	1.00
Florida Giant	.10	.30	1.00
Hawkesburg (Wilt Resistant)	.10	.40	1.25
Kleckley's Sweet (Wilt Resistant)	.10	.25	.75
Stone Mountain	.10	.30	1.00
Tom Watson	.10	.30	1.00

MUSTARD



Fordhook Fancy Darker green and leaves more curled at the edges than any other sort.

Giant Southern Curled The largest variety, forming a mass of finely curled leaves; hardy and vigorous.

ONIONS

To grow large bulbs 1 ounce to 100 feet of drill; 4 to 5 pounds to the acre. To grow sets 10 ounces to 100 feet of drill; 50 pounds to the acre.

The Onion must have a clean and very rich soil. Use well rotted manure freely, and get the seed in as early as possible in the spring, no matter if it is cold and unpleasant. If onions do not get a good growth before hot, dry weather, the crop is sure to be a failure. Keep the soil mellow and clear of weeds. Sow in shallow drills, not less than a foot apart nor more than half an inch deep. As onions grow on top of the ground, they may be allowed to remain pretty thick, no matter if they crowd each other. In hoeing, destroy weeds and keep the ground mellow; do not cover the young bulbs with earth.

White Silver Skin Onion

Early Yellow Globe Matures medium large uniform globe-shaped bulbs in about 98 days from time of sowing. Keeps exceptionally well.

White Silver Skin, or Portugal This is the most popular variety of all white Onions; is almost exclusively used for growing sets. It is a good keeper. The bulbs grow to good size, ripening early and quite evenly. The flesh is mild and sweet, the thin skin a clear silvery white, of handsome appearance if the bulbs are gathered as soon as ripened and carefully dried under shelter away from the strong sunlight. When seed is sown at the rate of 20 to 25 pounds per acre, it makes bulbs of suitable size and most desirable for pickling.

Southport White Globe Pure white, true globe form with very crisp flesh, exceedingly mild and fine grained, usually commands highest prices.

Ebenezer One of the best for the production of large onions for Fall and Winter market, yielding almost twice as many bushels per acre than any other set onion. Somewhat similar to Flat Danvers in color and shape but a trifle thicker and very much larger in circumference. They are very mild, excellent keepers, rapid growers and very few go to seed. The appearance, size, quality and wonderful yields of this variety give it a prominent place among the most valuable sorts.

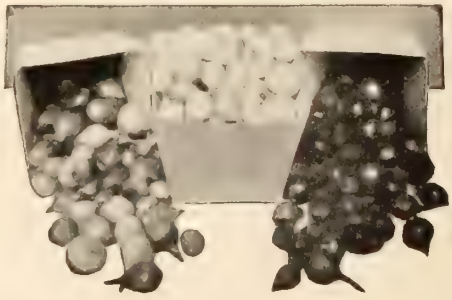
Prizetaker Produces large, well-ripened bulbs the first season from seed; flesh white; crisp and mild in flavor. The skin is thin, of a bright straw-yellow; form nearly a perfect globe. Under ordinary cultivation this variety will yield bulbs nearly three times as large as the Globe Danvers, while under special cultivation specimen bulbs have been raised to weigh from 4 to 5 pounds each.

Yellow Globe Danvers Our superior stock of this celebrated variety is of fine round shape. It grows to good size, with thin yellow skin, white flesh, fine grained and excellent quality. It ripens early, keeps well and is very productive.

Use a

FELINS TYING MACHINE

FOR BUNCHING SPRING ONIONS



Early Yellow Globe

PRICES

Variety	Pkt.	Oz.	¼ Lb.	Lb.
Early Yellow Globe	$ .10	$ .60	$2.00	$6.50
Ebenezer or Japanese	.10	.60	1.85	5.50
Prizetaker	.10	.60	2.00	6.50
Southport White Globe	.10	.60	2.00	6.00
Southport Yellow Globe (Brigham)	.10	.60	2.00	6.00
White Bunching	....	....	....	....
White Queen	....	....	....	....
White Silver Skin, or Portugal	.10	.60	2.00	6.50
Yellow Globe Danvers	.10	.60	1.85	5.50

ONION SETS

FINE QUALITY MARKET GARDENERS STOCK

SCREENED TO ⅞ INCH

	Qt.	Pk.	Bu. 32 lbs.
Ebenezer (Yellow)	$ .25	$1.25	$4.25
White Silverskin	.25	1.50	5.00
Yellow Danvers	.25	1.25	4.25
Extra Screened Small Sets	add 25c per bu.		

Prices subject to change. Postage Extra.

Okra

OKRA OR GUMBO

10 pounds to the acre.

Sow in drills during April and May. Thin until plants are 12 inches distant, and draw earth to the stems for support.

Improved Dwarf Green Prolific or Density A distinct variety, growing about 14 inches high. Grown in competition with the ordinary dwarf, it produces twice the number of pods, which are very smooth and beautiful.

Lady Finger Plants producing long, slender pods of pale green color.

Perkins' Mammoth Green Pod A splendid variety. Very prolific, with slender long green pods of best quality and most desirable color for canning.

PARSLEY

1 ounce to 150 feet of drill.

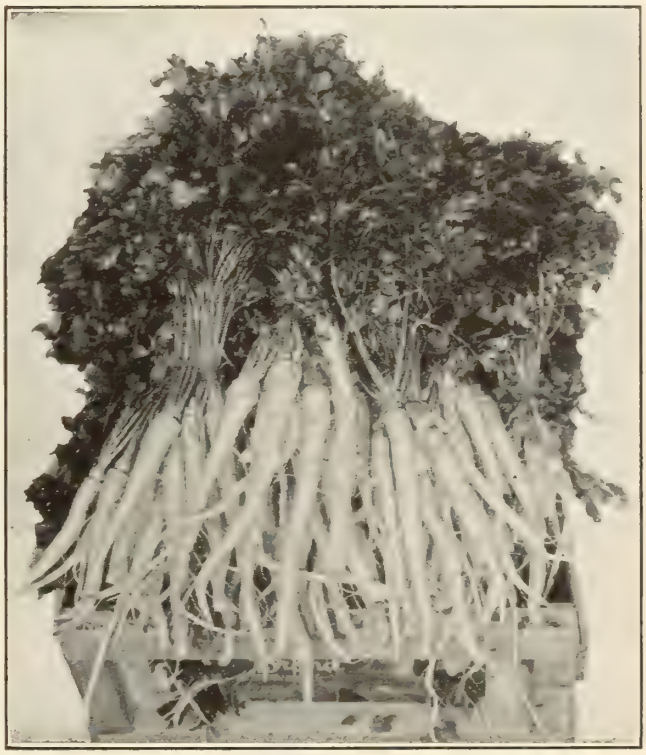
Sow in rows 1 foot apart and 1 inch apart in the row. The seed is slow to germinate, and should be given the most favorable conditions. A deep, rich loamy soil is required. For winter use a few plants placed in a box in the cellar will give a supply.

Champion Extra Dark Moss Curled The large leaves are very heavily crimped and curled. Very productive and most attractive, both on account of its dark green coloring and fine mossy appearance.

Green Castle An extremely hardy, late or main crop market gardeners variety which grows rather slowly early, but is tall, densely curled and can be depended upon as the most profitable Parsley for fall and winter crop.

Manns' Special Triple Curled Vigorous, fast growing, beautifully curled, bright vivid green strain. Superior to Moss Curled in production and appearance.

Turnip-Rooted, or Hamburg The large fleshy root, which resembles the root of a Parsnip, and is highly esteemed for flavoring soups, stews, etc.



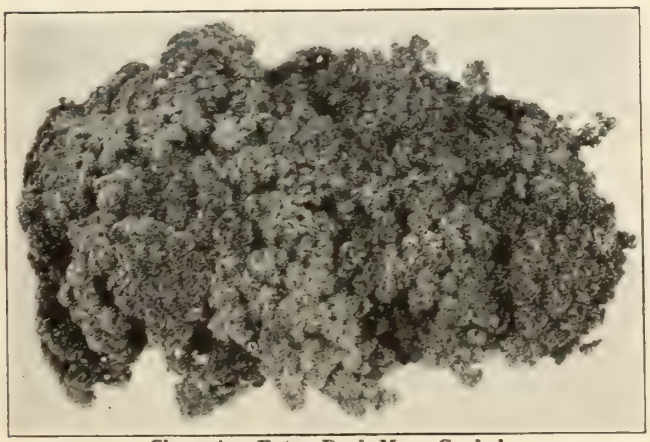
Hamburg Parsley

PRICES

OKRA OR GUMBO

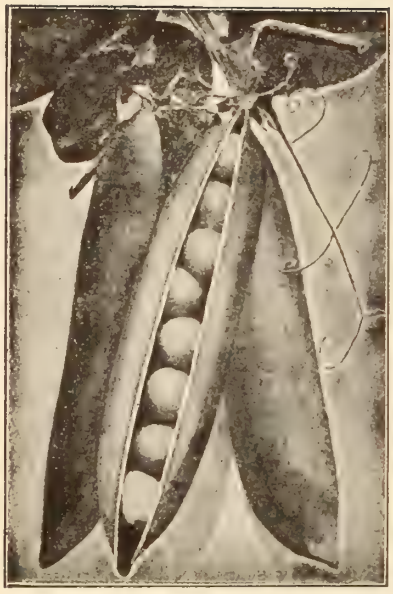
Variety	Pkt.	¼ Lb.	Lb.
Improved Dwarf Green Prolific	$ .10	$ .20	$ .60
Lady Finger	.10	.20	.60
Perkins' Mammoth Green Pod	.10	.20	.60
White Velvet	.10	.20	.60

PARSLEY	Pkt.	¼ Lb.	Lb.	10 Lb.
Champion Extra Dark Moss Curled	$ .10	$ .30	$1.00	$8.50
Green Castle	.10	.30	1.00	8.50
Manns' Special Triple Curled	.10	.30	1.00	8.50
Paramount	.10	.30	1.00	8.50
Plain or Single	.10	.30	1.00	8.50
Hamburg or Turnip-Rooted	.10	.30	1.00	8.50



Champion Extra Dark Moss Curled

Manns Parsley grown in N. J., under Irrigation



Long Pod Alaska

PEAS

1 quart to 100 feet of drill; 1½ bushels per acre.

Peas grow best on a light, rich, mellow soil under cool and moist weather conditions. Fresh manure and very rich or wet mucky soil should be avoided.

The extra early varieties are very hardy and should be planted as soon as the ground can be made ready, while the larger wrinkled varieties, which are not as hardy but of superior quality, may be planted when the soil has become slightly warmed, as the seed will rot if planted too early.

For private use, sow the seed in double rows, 18 inches apart and 3 inches apart in the row; for market, in single rows 2 to 3 feet apart and 1 inch apart in the rows. The peas will give quicker returns if covered only one inch deep, and where earliness is most important they may be treated this way. Larger pods and greater quantity will be produced if the seed is planted in trenches three to six inches deep and covered with only one to two inches of soil. When the plants are five or six inches high, fill the trench level with the surface. This will result in deep rooting, prevent mildew and prolong the bearing season. If the peas are covered to the full depth at first, or if water is allowed to stand in the trenches the seed will not germinate or grow well. The crop should be gathered as fast as it becomes fit for use, as even a few ripe pods left on the vines tend to retard the development of the young pods and prevent the formation of new ones.

FIRST EARLY SMOOTH VARIETIES

Extra Early Alaska Vine strong and vigorous, 2 to 2½ feet high, of a peculiar light green color, pods 3 to 3½ inches long, straight and blunt at the end. Is ready for picking 49 to 50 days from planting. Seed round, blue, slightly pitted. Matures crop very evenly.

Early Bird The most used and best extra early, large podded Dwarf now on the market. Very desirable for market gardeners and truckers. Seed is practically smooth, dark green in color, can be planted as early as the Alaska. Produces a strong, vigorous vine, dwarfed in length. Pods produced in profusion and are long, large, pointed and well filled with good sized peas. Is an excellent cropper and has replaced practically all other extra early varieties.

Long-Podded Alaska A favorite with truckers and shippers to Northern markets, producing a very early crop of large, broad, well-filled, dark green pods. Equally as hardy as Extra Early Alaska and much larger. The vines usually grow three feet high and the crop will remain fresh a long time after picking.

Mammoth Podded Extra Early An exceptionally early, large podded variety. Matures practically with Alaska and much more productive. Height 3 feet, pods 4 inches long, very dark, broad and round.

WRINKLED VARIETIES

Early Surprise An extra early variety of excellent quality, producing an abundance of dark green pods 4 to 5 inches long, very broad and well filled. The earliness, quality and the wonderfully prolific characteristics of this variety make it a very profitable sort for market gardeners.

Early Wonder Extremely early, of high quality and very productive. Pods are very dark and can be safely shipped long distances. Will soon become very important as a market gardeners variety.

Blue Bantam An improved strain of the Laxtonian type. Very early and produces pods a little darker than the Laxtonian. Vines are 16 to 18 inches high.

Little Marvel An ideal home garden and early market variety, popular for years for its outstanding quality and yield. Vine: stocky, medium height. Pods: blunt, plump, dark green, 3 in. long, well filled.

PRICES

Variety	Pt.	Qt.	Pk.	Bu.
Alaska—Wilt-resistant	$ .25	$ .45	$2.50	$8.00
Blue Bantam	.25	.45	2.65	8.50
Early Bird	.25	.50	2.85	9.50
Early Surprise	.25	.50	3.00	10.00
Early Wonder	.25	.45	2.75	9.00
Extra Early Alaska	.25	.45	2.50	8.00
Little Marvel	.25	.45	2.65	8.50
Long Podded Alaska	.25	.45	2.75	9.00
Mammoth Podded Extra Early	.25	.45	2.75	9.00
Black Eyed Peas	.25	.40	2.25	7.50

California Mammoth

PEAS —Continued

WRINKLED VARIETIES

Glacier A new hybrid pea developed to meet the needs for a variety somewhat earlier than Thomas Laxton, but of the same general type and also fully resistant to Fusarium wilt. The vines are dark green and medium heavy; pods single, dark green, blunt ended, plump and well filled with seven to eight deep green, semi-round peas of excellent quality. In growth it very closely resembles the Thomas Laxton, which is one of the parents of the new hybrid, and it carries the very excellent quality and hardiness of the Thomas Laxton variety but is several days earlier. Under normal crop conditions, the vines range between 30 and 34 inches in length, depending upon the growing conditions and come into picking condition between 57 and 60 days.

Laxtonian This is one of the finest dwarf early peas. The vines grow 18 to 20 inches high and produce an enormous crop of dark green pods as large as Gradus, maturing a few days ahead of this variety.

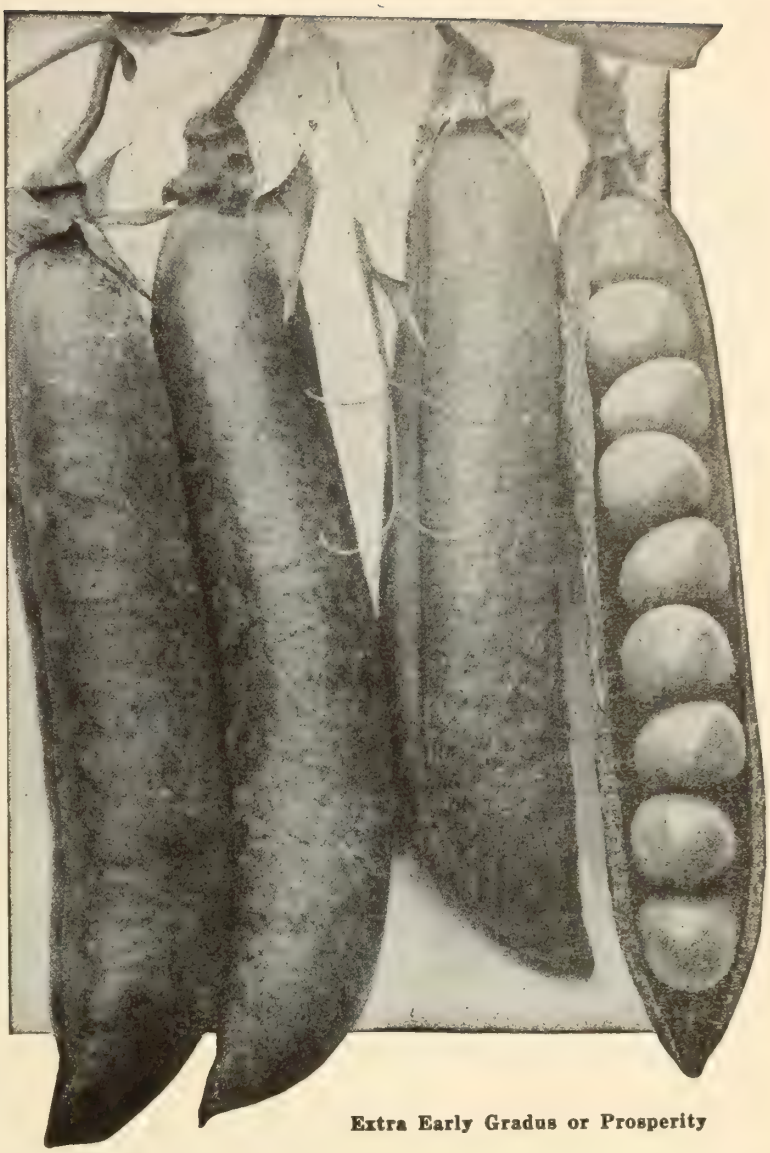
California Mammoth Medium early profuse bearer of large handsome dark green pointed pods. Can be very profitably grown by commercial growers and home gardeners as a succession to Early Bird and the Laxtonian types.

Alderman One of the best long vined, main crop varieties. Hardy, prolific, producing vines 3½ to 4 feet in length. Pods large, pointed, dark green in color. Maturing about the same time as the Admiral Dewey.

Gradus or Prosperity One of the best second early, long-strawed, wrinkled varieties. Produces long pointed pods, well filled and of fine table quality. Vines from 2½ to 3 feet in length. Considered one of the most desirable for the market garden or home use.

No. 95 Icer Very productive 2-foot vines, pods dark green and pointed, averaging 4¾ inches long. Five days later than Gilbo. A high quality type developed in the West for shipping; hence the name "Icer."

Potlatch Strong, vigorous vines of even growth, 20 to 24 inches in height, with luxuriant dark foliage, bearing pods medium green in color, 3½ to 4 inches in length. Broad and pointed at the ends. No variety known will produce more pods, and no pods could possibly shell out better. The Potlatch is a variety from which everyone may expect great things. Fit for table use 61 days from planting. Seed green, wrinkled, large in size.



Extra Early Gradus or Prosperity

Dark Green Telephone A tall-growing, late sort, 3½ to 4 feet in height, having beautiful dark green pods of very large size, containing 6 to 7 large peas of delicious flavor. Continues in bearing for quite a long time.

Thomas Laxton This variety is of the same growth as that of the Gradus, but is usually three to four days later for market. The pods are square at the ends instead of having a long, sloping point, and considered by some to be of a better flavor than the Gradus.

Daisy, or Dwarf Telephone A second early, of robust but remarkably even growth. From 16 to 18 inches high. The stout plants are fairly loaded with large, bright green pods. Each pod contains from 7 to 9 large peas of a light bright green color, tender and well flavored.

EDIBLE PODDED PEAS

Mammoth Melting Sugar This is by far the largest and finest of the true sugar or edible podded Peas.

PEANUTS

Virginia Bunch Earliest, most prolific and easiest cultivated variety. Lb., 25c; 10 lbs., $2.00.

PRICES	Pt.	Qt.	Pk.	Bu.
Alderman—Wilt resistant	$ .25	$ .50	$3.00	$10.00
California Mammoth	.25	.50	3.00	10.00
Dark Green Telephone—W.R.	.25	.50	3.00	10.00
Dwarf Telephone—W.R.	.25	.50	3.00	10.00
Glacier	.25	.45	2.75	9.00
Gradus or Prosperity	.25	.45	2.75	9.00
Laxtonian	.25	.45	2.75	9.00
Laxtons Progress	.25	.45	2.75	9.00
Mammoth Melting Sugar	.30	.50	3.00	10.00
Morses Market	.25	.45	2.75	9.00
No. 95 Icer	.25	.45	2.75	9.00
Potlatch—Wilt resisant	.25	.45	2.75	9.00
Thomas Laxton	.25	.45	2.75	9.00

PEPPERS

1 oz. to 1,500 plants.

Peppers should be sown either indoors or in hotbeds early in April and transplanted to the permanent beds when about 3 inches high in two foot drills and two feet apart in the drills. The seed can also be sown in open ground when danger from frost is past but the crop will naturally be much later. A top dressing of fertilizer or poultry manure well mixed with the soil when the plants are about 6 inches high will materially aid in the production of a big crop.

Royal King Pepper

Royal King Plants grow about 2½ feet high, and are vigorous; compact and very productive, commencing to bear very early and continuing until killed by frost. The fruit is very large, bright and glossy and the extremely thick flesh is sweet and mild. They will stand distant shipping and hold up well for market as they do not wilt nor become ripe near so quickly as other large varieties. This strain is extensively grown in the South by large shippers and deserves the attention of every trucker and home gardener.

King of the North The earliest large pepper in cultivation. The plants are very uniform in growth, dwarf and compact, and very productive. Fruits, mild and sweet, with medium thick flesh.

Ruby Giant A variety of Mango Pepper which is of a desirable size and shape for stuffing. A cross of Ruby King and Chinese Giant. Grows to large size and is very mild.

California Wonder Its large, smooth, extremely heavy, very mild, thick flesh, make this variety truly a wonder. Combining the excellent quality of the Pimento and the size of Crimson Giant, California Wonder is being grown for all purposes. Plants are sturdy, productive and slightly spreading, bearing five to nine large glossy fruits to a setting, averaging one-half pound each. Deserves the attention of every pepper grower.

Pimento or Perfection A medium early, prolific, perfectly mild variety with extremely thick flesh. On account of its thick flesh it will hold up for a long time, and is an excellent sort for canning whole.

Chili, Small Red conical pod, about 2 inches long, very hot. Fine for pepper sauce and seasoning.

Cherry Red Fruit small, round, color rich scarlet, very hot.

Chinese Giant This desirable variety is one of the largest sweet peppers ever offered. The flesh is quite thick, very mild and remarkably sweet.

Large Bell, or Bull Nose This large, early and productive sort has the most pungent flavor of all the large peppers. Thick flesh.

Long Red Cayenne The pods are long and slender; bright red color and very pungent. This is an old-time favorite and is used extensively for bunching with pot-herbs.

Oakview Wonder Slightly smaller than California Wonder, but a week earlier and more prolific.

World Beater or Sweet Mountain This splendid pepper is a cross between Chinese Giant and Ruby King, and combines the size of one and the earliness of the other. It is exceedingly mild, very large and the color good. The flesh is very thick, making distant shipment possible.

California Wonder

Chinese Giant Pepper

Pepper Plants

In All The Leading Varieties. FRESH DAILY. **See Page 39.**

PRICES	Pkt.	Oz.	¼ Lb.	Lb.
California Wonder	$ .10	$ .50	$1.50	$4.50
Cherry Red	.10	.30	1.00	3.50
Chili, Small	.10	.30	1.00	3.75
Chinese Giant	.10	.40	1.35	4.00
Half Long Narrow Cayenne	.10	.40	1.35	4.00
King of the North (Early)	.10	.50	1.65	5.00
Large Bell, or Bull Nose	.10	.30	.85	3.00
Long Red Cayenne	.10	.30	1.00	3.50
Mammoth Golden Queen	.10	.30	1.00	3.75
Oakview Wonder	.10	.50	1.65	5.00
Pimento or Perfection	.10	.30	1.00	3.50
Royal King	.10	.35	1.00	3.50
Ruby Giant	.10	.50	1.65	5.00
Sunnybrook or Cheese	.10	.30	1.00	3.50
World Beater or Sweet Mountain	.10	.40	1.35	4.00

PARSNIPS

1 ounce to 150 feet of drill.

Parsnips are well known as a delicious table vegetable but their value for the purpose of feeding cattle and stock is but little appreciated. The parsnip is rich in saccharine food which adds greatly to the richness of the milk when fed to cows, while the fresh, succulent roots increase the flow of milk as greatly as does the use of fresh, green food in the spring. It is especially valuable for the purpose from its extreme hardiness, as the roots can be left in the ground all winter and improve in quality by the continued freezing.

Hollow Crown Parsnip

Special Hollow Crown

A specially selected stock, developed for uniform well-shaped smooth roots of excellent quality.

PUMPKINS

1 ounce to 15 hills; 4 pounds per acre, in hills 10 by 10 feet apart.

CULTURE.—Sow in good soil in May, when the ground has become warm, in hills 8 to 10 feet apart each way, or in fields of corn about every fourth hill; always avoid planting near other vines, as they will hybridize.

Sugar Pie Pumpkins This is the best of all Pumpkins for pies. The fruit is small to medium in size, flesh solid and fine grained, the seed cavity small, and it is a splendid keeper.

Cushaw, or Crookneck One of the most popular varieties to grow for pies as well as for stock feeding. Fruits 2 feet in length, with long, solid neck, most frequently curved in form; seeds are located in the lower bulb-like end. Skin striped with mottled bands of creamy white. Flesh rich, creamy yellow, tender and of exceptionally fine flavor.

Sweet Potato Excellent for pies, pear-shaped, medium sized, flesh and skin creamy white, fine grained, sweet and delicious; first-class keeper.

Japanese Pie Crookneck variety, with extremely small seed cavity; nearly all solid meat; quality extra fine; seeds distinct in appearance, being curiously sculptured in the manner of Chinese letters. Productive, ripens early, medium size, good keeper.

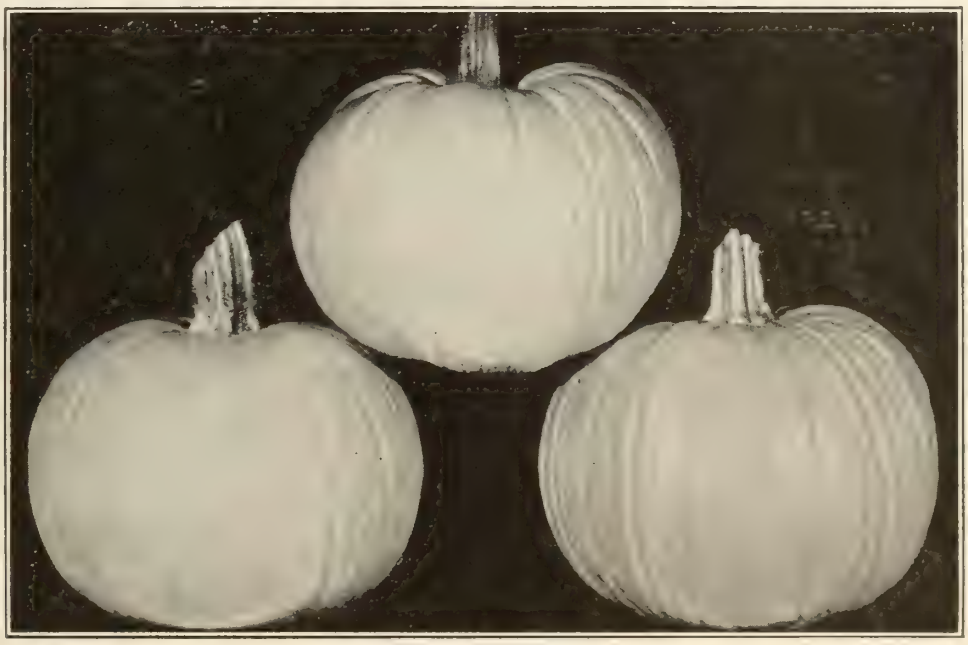
King of Mammoths This giant variety grows to enormous size. Deep yellow, glossy color. Splendid to grow for stock and exhibition purposes.

Squash Pumpkin—Boston Marrow

See Squash, Page 33.

PRICES

PARSNIPS	Pkt.	¼ Lb.	Lb.	10 Lb.
Special Hollow Crown	$ .10	$ .50	$1.50	$14.00
Manns New Market Garden Strain	.10	1.00	3.50	....
PUMPKINS				
Connecticut Field	.10	.20	.50	4.50
Cushaw, or Crookneck	.10	.25	.90	8.00
Japanese Pie	.10	.25	.75	6.50
King of Mammoths	.10	.30	1.00	9.00
Quaker Pie	.10	.30	.90	7.50
Sugar Pie Pumpkins	.10	.25	.75	6.50
Sweet Potato	.10	.25	.75	6.50



Sugar Pie Pumpkin

RADISHES

1 oz. for 100 feet of drill; 9 lbs. per acre.

Extra Early Scarlet Globe Outdoor Forcing

Light, sandy soil, rich in organic matter is essential to produce crisp and tender radishes. For an early crop sow the seed as soon as the ground can be worked, in drills 6 to 10 inches apart, covering the seed half an inch deep. When the plants are well started, thin out to one inch apart in the drills. Frequent watering in dry weather is very beneficial as high quality is largely dependent upon rapid growth. For a continuous supply, successive plantings should be made at intervals of 10 days to two weeks, selecting varieties best suited for the season.

Extra Early Scarlet Globe No. 8

From Specially Selected Transplanted Roots

A reselected strain so uniform in its maturity that each sowing can be entirely gathered and bunched at one pulling, with practically no waste. This means more bunches per row, more time saved in bunching, and the ground ready for the next crop a week earlier. This equalized maturity also permits sowing this crop between rows of beans, corn, etc., as a "catch crop." This is the market gardener's favorite as a forcing Radish, very early; mild and crisp, juicy and tender; ample top, will stand heat without becoming pithy. One of the best selling and most attractive Radishes on account of its bright scarlet color and handsome shape. Our stock of this is the very best, selected with special care as to size, shape, color and earliness, and market gardeners will find it a money maker, as it is just right in every respect. Pkt., 10c; ¼ lb., 30c; lb., $1.00; 10 lbs., $9.00; 25 lbs., $22.00; 100 lbs., $85.00.

Greenhouse Scarlet Globe This strain has been especially bred to meet the very exacting requirements of greenhouse cultivation, producing quickly a highly marketable crop of uniformly shaped radishes of fine quality.

Comet Distinctly a round or ball shaped sort of longkeeping quality, medium tops when grown outdoors. 1935 All-American winner.

Crimson Giant A variety combining earliness and great size. It grows much larger than other extra early varieties, but does not become pithy even when fully twice as large in diameter and a week older; beautiful crimson-carmine; turnip-shaped; flesh firm, crisp and tender. We recommend it for outdoor garden planting as well as for greenhouse forcing.

Sparkler (Round White Tipped) One of the most attractive of the Turnip Radishes for early planting outdoors. Color very deep scarlet with 1/3 white at the tip; flesh white and of the best quality.

Perpetual White Summer This variety introduced by us, has given splendid satisfaction to all who have tried it. They are pure white, of uniform good quality, crisp and brittle, and they keep longer in a fit condition for the table than any variety we know of, hence their name. Perpetual White Summer can be sown any time of the year, and will always produce good radishes fit for market earlier than the Chartier, and keeps in perfect shape for marketing about four weeks, or longer for home use.

White Stuttgart Quick growing and therefore very early. Of the largest size, and both flesh and skin are pure white; quality fine, firm, and brittle. Can be pulled for use at any stage.

New White Strasburg A very new desirable summer variety, a favorite with our market gardeners. Skin and flesh both white. It is excellent quality and a quick grower.

White Strasburg

PRICES

	Pkt.	¼ Lb.	Lb.	10 Lb.	100 Lb.
Comet	$ .10	$ .30	$1.00	$9.00	$85.00
Crimson Giant	.10	.30	1.00	9.00	....
Greenhouse Scarlet Globe	.10	.25	.75	7.00	65.00
Long Black Spanish	.10	.25	.90	8.00	75.00
Long Scarlet	.10	.25	.75	7.00	65.00
Perpetual White Summer	.10	.25	.75	7.00	65.00
Philadelphia White Box	.10	.30	.90	8.00	75.00
Round Black Spanish	.10	.30	.90	8.00	75.00
Scarlet Globe	.10	.25	.75	7.00	65.00
Scarlet Globe Manns' Round	.10	.30	1.00	9.00	85.00
Scarlet Globe No. 8	.10	.30	1.00	9.00	85.00
Scarlet Turnip	.10	.25	.75	7.00	65.00
Sparkler	.10	.30	.85	8.00	75.00
White Chinese or Celestial	.10	.30	1.00	9.00	85.00
White Icicle	.10	.25	.75	7.00	65.00
White Strasburg	.10	.25	.75	7.00	65.00
White Stuttgart	.10	.30	1.00	9.00	85.00

RADISHES (Continued)

Phila. Model White Box (Forcing) Very early (28 days) and has but few leaves, thus making it of special value for growing in hotbeds or "boxes." It is of clear white color, solid, juicy and unsurpassed in flavor, nearly round, 1⅜ in. in diameter.

Long Scarlet This is the standard extra early long scarlet market variety, short top, long scarlet roots; crisp, fine flavor.

White Icicle Radish Planted in spring the young Radishes are ready for use in 25 to 27 days from sowing and their long, slender form and pure paper-white skin are most attractive when bunched for market. Flesh: clear white, brittle and of a mild flavor.

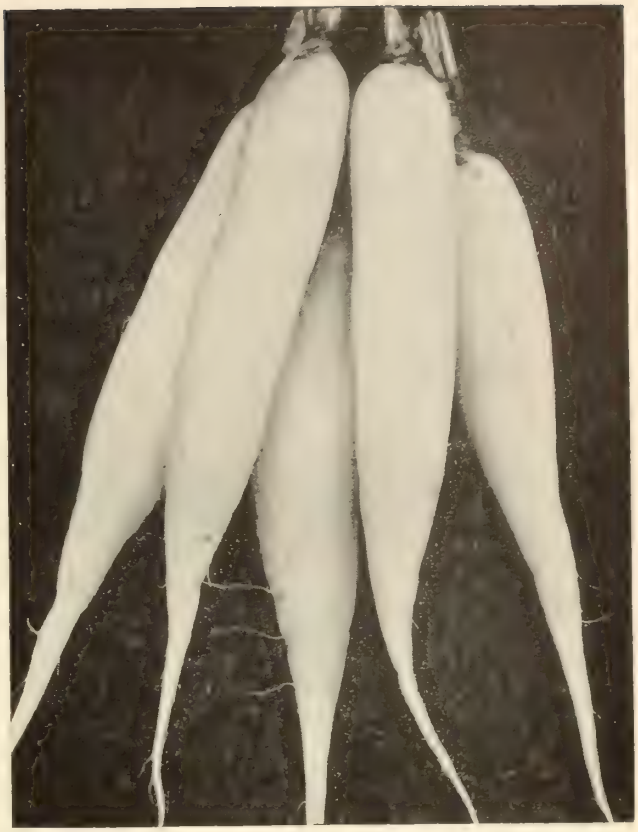
WINTER VARIETIES

White Chinese or Celestial Large, stump-rooted Radish with white skin and flesh. Can be sown from July 1 to August 15, and will keep in prime condition, mild in flavor, brittle, and never woody. Market gardeners will find this a profitable variety.

Round Black Spanish Characteristics similar to Long Black Spanish, except that it grows top-shaped, 3 to 4 in. in diameter.

Long Black Spanish Roots tapered cylindrical 7 to 10 in. long and about 2¼ in. in diameter. Skin black, flesh white, exceptionally good keeper, strong pungent flavor.

Long Scarlet



White Icicle

RHUBARB or Pie Plant

Sow in April or May, in drills 1 foot apart; when 3 or 4 inches high, thin out in rows 6 to 10 inches apart. Transplant the ensuing fall or spring in rich soil. Set out the roots 3 to 4 feet apart each way; the following spring it will be fit to use.

Victoria Very large, the finest cooking variety.

RHUBARB ROOTS—See Page 39.

SORREL

BROAD AND NARROW LEAVED

A hardy plant grown for its leaves, which are used as boiling "greens" or salad. Seed should be sown thinly in drills early in spring. When well started thin out to stand 4 to 6 inches apart in the row. The leaves can be gathered for use at any time after the plants are well started in growth, and the roots will continue to produce a further supply. The plant is entirely hardy, and, starting into growth early the following spring, will afford a large supply of fine "greens" quite early.

SALSIFY

OR OYSTER PLANT

1 oz. for 50 feet of drill.

Requires a well enriched, mellow soil, which, previous to sowing the seeds, should be stirred to a depth of 18 inches. Sow early in the spring in drills 15 inches apart; cover the seed with fine soil 1½ inches in depth, and when the plants are strong enough thin out to 6 inches apart. As the leaves resemble grass, be careful they are not mistaken for it when weeding.

Mammoth Sandwich Island A new and improved type, producing roots of nearly double the size and weight of the old varieties; mild and delicately flavored.

PRICES	Pkt.	Oz.	¼ Lb.	Lb.
RHUBARB				
Victoria	$ .10	$ .25	$ .75	$2.25
SALSIFY				
Mammoth Sandwich Island	.10	.20	.65	1.85
SORREL				
Large-Leaved French				
Narrow Leaved	.10	.60	2.00	6.00

Mammoth Sandwich Island Salsify

MAINE GROWN

SEED POTATOES

LET US QUOTE PRICES ON HIGHEST QUALITY SEED ON BASIS OF LOWEST MARKET VALUE

Potatoes will adapt themselves to various soil conditions as easily as most vegetables. A better crop will be produced, however, on a sandy loam which contains a quantity of well rotted vegetable matter. A clover sod, vetches turned under in the fall, or land which was heavily manured for a previous crop supply ideal conditions.

In preparing the seed the eyes should be cut so that the largest part of the surrounding flesh is situated toward the stem end, because the eyes of a potato always have a root system running toward that end and for that reason the sprouts cannot draw moisture from the opposite direction. If the ground you intend to use has produced a scabby crop previously or the seed shows any trace of disease, the pieces should be disinfected as a preventative.

For a very early crop, run off furrows about three feet apart and about four inches deep. Drop the pieces about 15 inches apart in the furrows and cover to a depth of about 1½ inches, gradually filling in the furrows to level as the vines grow larger. For main crop it is just as well to cover the eyes with four inches of soil at once. If fertilizer is used, apply it either in the row or broadcast before planting and be sure that it is thoroughly mixed with the soil so that the seed is not burned. Fresh stable manure will cause the potatoes to become scabby.

Just before the sprouts have appeared above the ground run a light harrow over them to kill the weeds and break up the crust. Continue weeding and harrowing until there is danger of breaking off too many sprouts. Cultivate thoroughly and frequently, being careful not to cut any of the roots, continuing until the vines have attained full growth and begin to spread.

Spraying for insects and blight is very necessary. Red River Potato Mix will give very satisfactory results in controlling insects and diseases.

The size and quality of the crop and the ability to resist disease is directly dependent upon the seed planted and no amount of cultivation or attention will offset the uncontrollable results of poor seed. Be sure of your crop and plant only the best Maine grown seed potatoes.

Chippewa Growers who planted this new variety last spring are more than pleased with its increased yield, better quality and greater sales appeal. It is a heavy yielder, of medium size, very uniform, round to oblong, somewhat flattened, eyes shallow, skin is smooth clean white.

Red Bliss, or Bliss Triumph This variety is rapidly growing in favor. The tubers are round and uniform in shape, eyes slightly depressed and of a beautiful bright red color, very hardy and vigorous, maturing with extra earlies.

Maine Certified Cobblers Planted, grown and shipped under the extremely rigid requirements of the Maine Dept. of Agriculture, assuring finest quality clean seed, free from disease, uniform in size, true to type and from highly productive strains.

Early Rose For a generation the standard Potato of the whole country for earliness, yield, thrift, beauty and table qualities, because it always succeeds well in any soil. Our stock is strictly pure.

Green Mountain White skin, flat, oval form, smooth, of good appearance; excellent table quality. Ripens slowly, and is a good keeper. Valuable for late crops. Now taking the lead in all markets.

Increase Your Profits
Dust or Spray with
RED RIVER POTATO MIX
(1 to 1½ lbs. make 12½ gallons or as dust)
Lb., 35c; 4-lb. bag, 85c

Dakota Red This very popular local variety has gained favor due to its very productive and fine cooking qualities. It often brings a higher price in Baltimore markets than the most fancy table stock from New York and Maine. Used for late crop only. Let us quote.

Michigan Russet Rapidly gaining popularity in Maryland due to excellent quality and exceptionally high yield. We offer specially selected seed.

SEED SWEET POTATOES

Elzey's Improved The strain used every year by Maryland's most successful sweet potato growers. Yields 25 to 50 per cent more marketable stock and sells higher than any other. Dry and sweet; decidedly the best of all. Prices subject to market fluctuations. Let us quote.

Sweet Potato Plants See Page 39.

Semesan Bel

This instantaneous dip treatment for both white and sweet potatoes is fast replacing all formerly practised methods of seed potato disinfection. Semesan Bel exerts an invigorating effect upon plant growth by removing disease handicaps and repelling the attacks of soil-borne organisms so that yields are greatly increased. Ask for Semesan Bel booklet. 1 lb. treats 16 to 22 bushel. Prices—2 ozs., 30c; 1 lb., $1.65; 5 lbs., $7.15.

Green Warted Hubbard | Golden Summer Crookneck | Boston Marrow

SQUASH

1 oz. of bush sorts to 40 hills; large seeded 15 hills.
2 lbs. of bush sorts to acre; large seeded 3 to 4 to acre.

Squashes, like other vines, are partial to a light, dry, rich soil. Plant the running varieties in hills 10 feet apart each way; thin out to three plants in a hill. Cultivate frequently until the vines commence running, after which do not work the soil deep.

Boston Marrow (or Squash Pumpkin) The fall and winter variety most widely used for canning and for pies. Fruits oval, pointed, deep orange color, weight 6 to 8 lbs. Very productive. (98 days.)

Cocozelle Extra Long Italian Produces dark green fruit about 20 inches long and 3 to 4 inches in diameter; very straight, striped when mature.

Early Prolific Straightneck Produces an abundance of ten inch fruits in a week after blossoming. Very prolific, exceeding all other varieties in early production. Color, lemon-yellow. Vine about half the size of other varieties which permits close planting. An ALL AMERICAN Selection. (50 days.)

Green Delicious (Winter) Top shaped, 7 to 8 pound fruits with orange flesh of excellent quality. Requires 100 days.

Green Tinted Bush Scallop Preferred by many market gardeners by reason of true decided light green color, even when fully matured.

Golden Summer Crookneck A superior strain of summer crookneck, heavily warted, of a very deep orange color, 9 inches long, of excellent quality and highly productive.

Golden Hubbard Resembles Boston Marrow somewhat in shape and size; more densely warted, flesh deep orange, dry and of fine quality. Good keeper. (100 days.)

Green Warted Hubbard Manns' strain is densely warted, much larger than Golden Hubbard; flesh exceptionally thick, deep orange, dry and of excellent quality. (105 days.)

Table Queen or Acorn (New Mammoth Type) Dark green, thin shelled, smooth, ribbed fruits with yellow flesh; favorite variety for baking. (58 Days.)

Green Tinted Bush Squash

PRICES

	Pkt.	¼ Lb.	Lb.
Boston Marrow (10 lbs. $3.50)	.10	.20	.50
Cocozelle, Extra Long Italian	.10	.30	1.00
Cocozelle, Vining	.10	.30	1.00
Early Prolific Straightneck (new)	.10	.30	1.00
Giant Summer Straightneck	.10	.25	.75
Golden Hubbard	.10	.40	1.25
Golden Summer Crookneck	.10	.30	1.00
Green Delicious	.10	.30	1.00
Green Tinted Bush Scallop	.10	.30	.85
Green Warted Hubbard	.10	.60	1.85
Jersey White Bush Scallop	.10	.30	.85
Number 14	.10	.60	2.00
Table Queen (Mammoth)	.10	.40	1.25
Vegetable Spaghetti	.10	.50	1.50
Zucchini (Extra Dark)	.10	.50	1.50

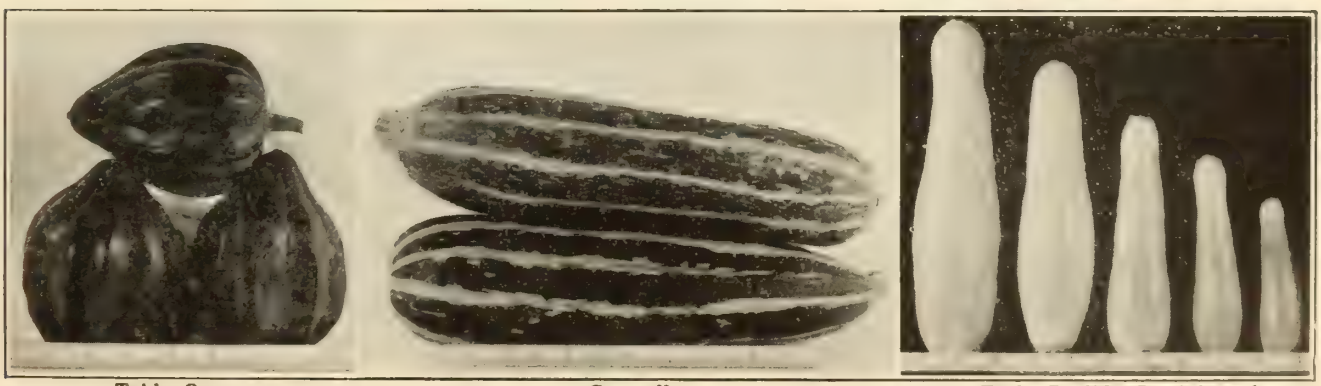


Table Queen | Cocozelle | Early Prolific Straightneck

SPINACH

1 oz. to 100 ft. of drill; 12 to 15 lbs. per acre.

Manns' Extra Dark Green Savoy

Select a rich piece of ground, the richer the better; and for late spring and early summer use, sow the seed during February, March and April in drills one foot to 20 inches apart, one-half to one inch deep. When the plants are well started, thin out to 4 to 6 inches apart, or sow the seed thinly and allow all the plants to stand.

For winter and early spring use, sow either in drills or broadcast during August, September and October. A top dressing of Nitrate of Soda will make a vast improvement in the earliness, size and quality of the crop.

Old Dominion Developed at the Virginia Experimental Station as a later seeding yellows resistant variety by crossing King of Denmark and Virginia Savoy. The plants are large, dark green, heavily crumpled and fast growing. It is one of the most hardy varieties for wintering over and therefore is well suited for either an early fall crop or for fall sowing to be cut in early spring.

Manns' Presto Savoy A prickly seeded variety possessing outstanding merits over the round seeded Bloomsdale, which it resembles identically. Presto is the earliest and quickest growing sort of spinach. It is much hardier than any other variety and will stand cold and unfavorable weather conditions better than round seeded sorts.

Reselected Bloomsdale Savoy For either fall or late winter sowing, a truly reselected strain developed by a Holland Plant Breeder for uniformly curled large heavy plants.

Manns' Extra Dark Green Savoy About two days later than Reselected, but the plants are larger, less liable to bolt to seed, more heavily crumpled and of more upright growth. The very dark green color, however, is its chief advantage and in making the selections for this deep color the plant breeder has also improved the strain in its savoyed characteristics and absolute freedom from smooth leaved plants.

Virginia Blight Resistant A strain of Bloomsdale Savoy especially developed by the Virginia Experimental Station for the purpose of resisting the disease commonly called yellows. Used extensively in the vicinity of Norfolk and in other sections where blight is encountered. It matures very quickly and is therefore preferred for early fall sowing.

PRICES

	Oz.	¼ Lb.	Lb.	10 Lbs.	25 Lbs.	100 Lbs.
Extra Dark Green	$ .10	$ .30	$ .85	$7.00	$16.00	$52.50
Long Standing	.10	.30	.85	7.50	17.50	60.00
Manns' Presto	.10	.30	.85	7.50	17.50	60.00
Old Dominion	.10	.30	.85	7.50	17.50	60.00
Reselected Bloomsdale	.10	.25	.75	6.50	15.00	50.00
Special Summer	.10	.30	.85	7.50	17.50	60.00
Virginia B. R.	.10	.25	.75	6.50	15.00	50.00

New Crop Seed Available about September 1 — LET US QUOTE

	Pkt.	Oz.	¼ Lb.	Lb.
New Zealand	$ .10	$ .30	$ .85	$2.50
Southland Summer	.10	.50	..	..

Manns' Special Summer Savoy

Field of Early Long Standing Savoy for Seed

Manns' Early Long Standing Savoy Nearly as early as Reselected Savoy but has the very valuable advantage of standing in perfect condition, without bolting to seed, 10 to 14 days longer. This feature is worth thousands of dollars to spinach growers, for with this variety it is possible to market the crop when it is convenient and advantageous for the grower to do so. Many severe losses have been incurred because cutters were not available, weather conditions unfavorable, or prices were too low, but Early Long Standing will wait for cutters, for weather, and for prices.

Southland Summer New special strain of Swiss Chard more closely resembling real spinach, producing large heavily crumpled leaves of a bright green color. Will eventually replace New Zealand.

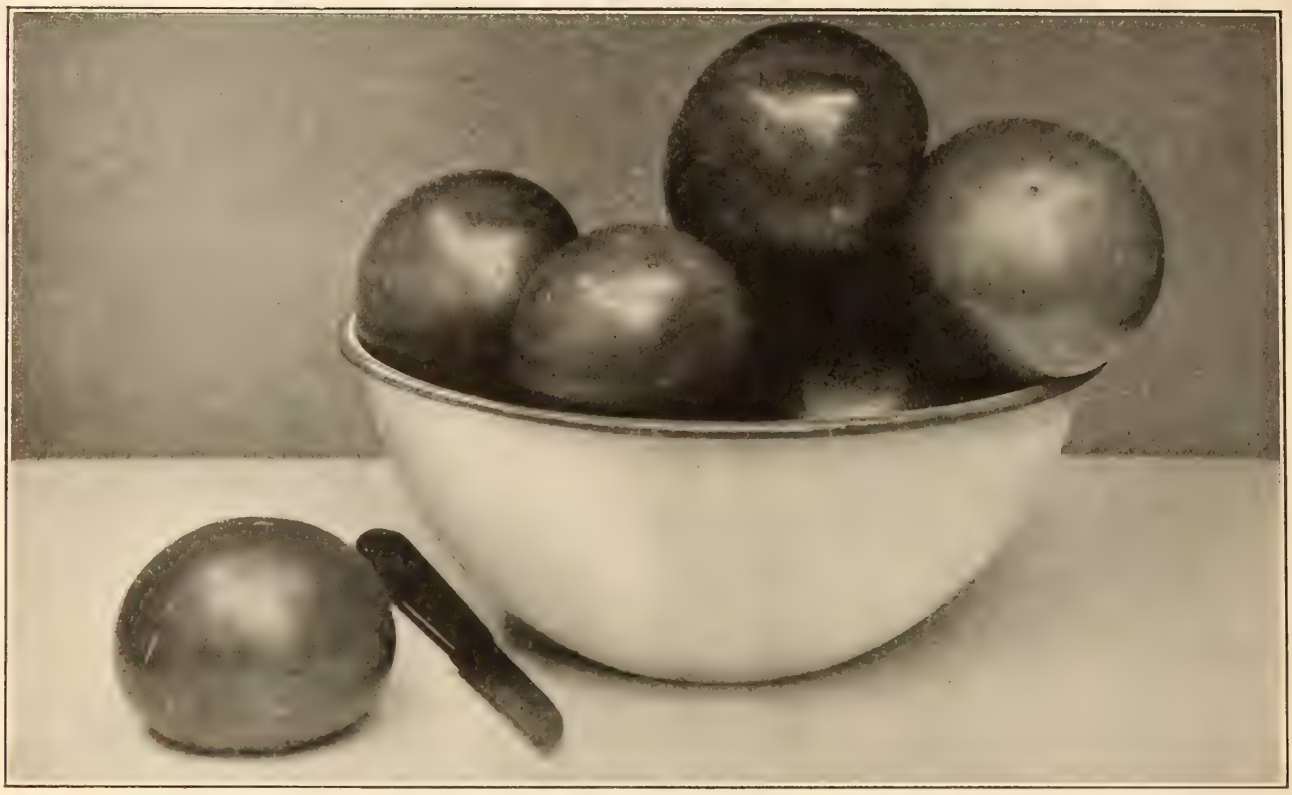
Manns' Special Summer Savoy Stands warm weather without bolting to seed better than any other Savoy leaved type. A great improvement even on Bloomsdale Long Standing. Very dark green and heavily crumpled leaves. Very slow grower and should be sown so as to mature during warm weather.

New Zealand (TETRAGONIA EXPANSA) Not related to regular spinaches but forming larger spreading plants producing fleshy brittle tips and leaves which are used as spinach. Of delightful flavor and practically ever-bearing.

Spinach, Isolated Plants Caged for Stock Seed.

Manns' Old Dominion, 35 days after sowing.

LET US QUOTE NITRATE OF SODA AND FERTILIZERS



Manns' Improved Advance

TOMATOES

1 oz. to 2,000 plants; ¼ lb. per acre.

All our tomato seeds are grown from stocks, exclusively for seed purposes, by the originators, experienced growers and experts. We are fully convinced of the merit of all new varieties before placing them in our catalog, and therefore strongly recommend our strains as being absolutely reliable.

For early, the seed should be sown in hotbeds during February or the first week in March, in drills 5 inches apart and half an inch deep. Later sowing may be made until the last of April. When the plants are 3 or 4 inches high they should be set out 4 or 5 inches apart in another hotbed or cold frame, or removed into small pots allowing a single plant to the pot. Expose to the air as much as possible to harden. Water freely at time of transplanting, and shelter from the sun a few days until the plants are established. Cultivate thoroughly as long as the vines will permit, but the last two or three workings should be very shallow or the crop may be badly injured, especially if the cultivator is run too near the plants.

Extra Early Varieties

Improved Advance An extra early, large tomato of high quality, round or slightly flattened shape, and exceptionally smooth for such an early variety. As early and hardy as Earliana and yielding more fruit both in the first and subsequent pickings. It is more shapely, more free from cracks and shows less green about the stem than other extra early sorts. With Improved Advance the grower can produce a crop which will stand superior in appearance and quality, in competition with the other extra earlies and command the fancy prices of an early market.

Break O'Day Dr. Fred J. Pritchard of the U. S. Dept. of Agriculture describes his new creation as follows: "Very productive, early variety, highly resistant to wilt and somewhat resistant to blights. Fruits large, smooth, meaty, red, globular."

Scarlet Dawn Winner of a Gold Medal in the 1934 All American Trials. This hybrid of Clark's Early and Marglobe has the shape and structure of Marglobe, but a brighter scarlet color. It is earlier than Bonny Best and yields as heavy as Break-O'Day. Excellent shipping quality as well as being desirable for home growing.

Valiant One of the earliest round, large, smooth varieties. Very profitable where it can be matured without too much danger of sunburn.

PRICES	Pkt.	Oz.	¼ Lb.	Lb.
Albino (White)	$ .10	$ .75	...	...
Bonny Best Certified	.10	.35	$1.25	$4.00
Break O'Day	.10	.30	1.00	3.50
Earliana	.10	.30	1.00	3.50
Early Detroit	.10	.30	1.00	3.50
Enormous	.10	.40	1.25	4.00
Extra Early Potato Leaf	.10	.30	1.00	3.00
Golden Queen	.10	.75	...	...
Greater Baltimore (Ind.)	.10	.30	.90	3.00
Grothens Globe	.10	.40	1.35	5.00
Improved Advance	.10	.50	1.75	6.00
Manns' Superior Globe	.25	1.00	3.50	12.50
Marglobe Special	.10	.30	1.00	3.50
Market Champion	.10	.30	1.00	3.50
Maryland Pride	.10	.40	1.25	4.50
New Deal	.10	.75	2.50	7.50
Oxheart	.10	.45	1.35	5.00
Ponderosa	.10	.50	1.50	5.00
Pritchard's Scarlet Topper (Certified)	.10	.40	1.00	3.50
Rutgers (Certified)	.10	.40	1.25	4.00
Scarlet Dawn	.10	.45	1.35	5.00
Sensation	.10	.40	1.35	5.00
Stokesdale (Certified)	.10	.40	1.50	5.00
Stone (Improved)	.10	.25	.75	2.50
Pear Shaped Red	.10	.30	1.00	...
Pear Shaped Yellow	.10	.30	1.00	...
Valiant	.10	.60	2.00	6.00
Yellow Plum	.10	.30	1.00	..

Manns' Marglobe Special

TOMATOES

Second Early and Main Crop Varieties

Rutgers Developed under the direction of Prof. L. G. Schermerhorn of the New Jersey Agr. Experiment Station. The fruits begin ripening at the center, are highly colored throughout and have a thick wall structure with very small seed cavity. In comparison with Marglobe they are slightly more flattened at the stem end and will average much larger. Very prolific and desirable for canning, market or the home garden. (Certified Stock.)

Indiana Baltimore Large, smooth, solid, bright scarlet; second early Tomato; a prolific bearer and fine shipper.

Manns' Improved Stone One of the most productive of the large flat varieties; fruits bright scarlet, smooth and solid. Fine market or canners variety.

Marglobe Special Our stock of this extremely popular variety is far superior to the average and we have received many unsolicited testimonials complimenting us on its excellent quality.

It produces heavy yields of large smooth, globular, meaty, red fruits. They have a delightful flavor, and are covered with a thick skin which hinders cracking. Moreover, the plants shade the fruits well and thus protect them from sun-scald.

Pritchard's Scarlet Topper Extremely productive, especially on heavy soils; wilt resistant and as early as Rutgers. Fruits large, firm, globe shaped and of fine quality.

Market Champion A main crop variety possessing all the good qualities to make it ideal for home and market gardeners. Vines large, hardy and productive. Fruits bright scarlet, oval and deep, exceptionally smooth; one of the best of all tomatoes for canning, and a money-maker for the market gardener.

Maryland Pride Since our introduction of it in 1905 it has been grown with great success by canners and market gardeners, who pronounce it "the very best second early and main crop Tomato they have ever grown." The fruit is a beautiful bright red color, magnificent size and handsome, smooth shape. The vines grow vigorously and produce abundantly until killed by frost.

Stokesdale (Certified)—A few days earlier than Rutgers, similar in shape and color, with fruits averaging slightly larger. Plant is open in habit with medium heavy foliage. Recommended for canners and shippers. Produces large crops when fertilized liberally.

Pritchard's Scarlet Topper

RUTABAGAS OR SWEDES

Rutabagas require about four weeks longer to mature than ordinary varieties of turnips, but are more solid, of firmer flesh and therefore keep later into the spring. They are for this reason more desirable for storage, while turnips are better adapted for the early market. Sow during July either in drills or broadcast.

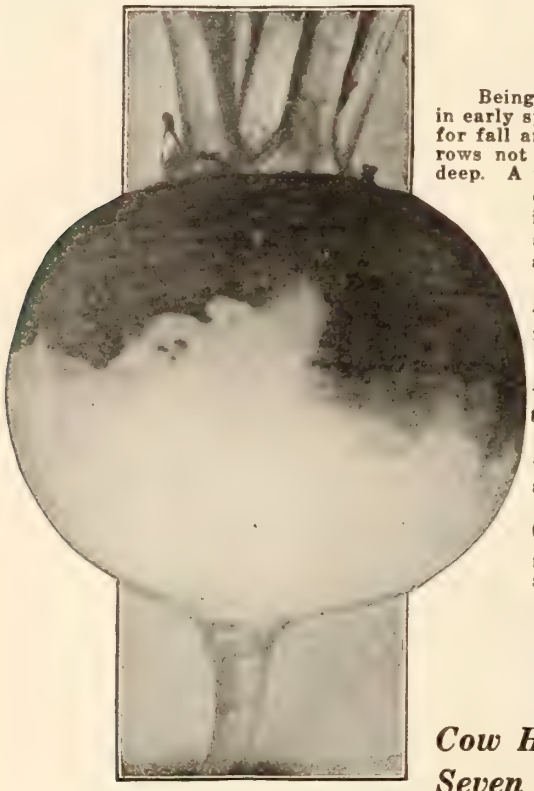
New Canadian Grown for a number of years in the North and held very closely by private individuals, the seed of this variety has always been extremely difficult to procure in a true and reliable type. After three years of searching and checking in our trial grounds, we have found the correct strain and offer it with every assurance that it will soon become the only Rutabaga grown in this section.

Neckless Purple Top Our superb strain of this excellent variety has become a favorite because of its hardy and productive nature. The flesh is sweet and solid, excellent for table use or stock feeding.

Turnip—Autumn King

TURNIPS

1 oz. to 150 feet of drill; 1 lb. per acre.



Purple Top White Globe Turnip

Being primarily a cool weather vegetable, turnips thrive best when planted in early spring or in the fall. For spring crop sow the seed early in April, while for fall and winter use, plantings should be made from July to August. Sow in rows not less than 18 inches apart and one-half to three-quarters of an inch deep. A very popular method, however, is to broadcast the seed between rows of corn or in the cultivated orchard. Proper control of root maggots is effected by rotation of crops, the use of commercial fertilizers instead of manure and the application of Mag-o-tite or other carbolic acid emulsion.

Extra Early Flat White Milan An all white flat variety, the earliest of all turnips. Remains in good condition a long time.

Autumn King Sure to become very popular with Market Gardeners; clear yellow with green tinged top, globular and of large size.

Double Duty Grown chiefly for its abundance of tops, surpassing Seven Top in production and quality. Also forms a pure white semi-globe root, which is sweet and tender.

Golden Ball or Orange Jelly One of the best yellow varieties for general crop; flesh firm and sweet; grows to a large size; splendid for table or stock, and keeps well until late in spring.

Purple Top White Globe Also known as Red Top White Globe. This excellent turnip is decidely the most popular variety and more extensively grown than any other. The roots are globular, very handsome and of superior quality; either for table use or stock feeding purposes. It is a heavy producer, early, of rapid growth, and one of the best for winter storage.

Cow Horn Very heavy cropper, a quick grower, most practical for stock feed.

Seven Top This variety is principally planted in the South for the green tops which are produced very abundantly.

FOR GREENS—See Broccoli—Page 8.

PRICES

RUTABAGA	Pkt.	¼ Lb.	Lb.
Neckless Purple Top	$ .10	$ .65	$1.75
New Canadian	.10	1.20	3.65
TURNIP			
Autumn King	.10	.20	.65
Cow Horn	.10	.20	.65
Double Duty	.10	.25	.75

TURNIP	Pkt.	¼ Lb.	Lb.
Extra Early Purple Top Flat Milan	.10	.20	.65
Golden Ball or Orange Jelly	.10	.25	.75
Purple Top White Globe	.10	.20	.65
Seven Top	.10	.20	.65
Yellow Aberdeen Purple Top	.10	.20	.65

MANNS' VEGETABLE PLANTS, ROOTS, TREES AND BERRIES

PLEASE NOTE: All plants are quoted f. o. b. Baltimore. On parcel post orders, 15c per 100 must be added for postage and packing. No shipment can be sent into sections having Japanese beetle restrictions.

CABBAGE PLANTS, FROST-PROOF.
(Ready in February to May.)
40c per 100: $2.00 per 1,000.

CAULIFLOWER PLANTS. (Ready in May.)
35c per doz.; $2.00 per 100.

BORECOLE PLANTS. (Ready in July.)
$1.00 per 100.

CELERY PLANTS. (Ready in July.)
Easy Bleacher Golden Plume Winter Queen
$1.00 per 100; $6.00 per 1,000.

EGG PLANTS. (Ready in May.)
20c per dozen; $1.25 per 100.

LETTUCE PLANTS. (Ready in March, April, September and October.) 75c per 100.

PEPPER PLANTS. (Ready in May and June.)
20c per doz.; $1.00 per 100.

SWEET POTATO PLANTS. (Ready in May and June.)
$1.00 per 100; $6.00 per 1,000.

TOMATO PLANTS. Hotbed Grown. (Ready in April.)
75c per 100; $4.00 per 1000,
Southern field-grown. 75c per 100. $4.00 per 1,000.

ASPARAGUS ROOTS

Mary Washington. From one to two years may be saved by planting Roots instead of seed. Choice, 2-year-old roots.
25 for 50c; $1.50 per 100; $12.50 per 1,000.

HORSERADISH ROOTS. Maliner Kren. (Bohemian.)
Postpaid, doz., 25c; 100, $1.25.

RHUBARB ROOTS. Victoria—$1.25 per doz.; $9.00 per 100.

SMALL FRUITS AND BERRIES

BLACKBERRIES. Blowers, Eldorado. 10 for $1.00; 100 for $6.00.

DEWBERRIES. Lucretia. 10 for 65c; 100 for $4.00.

RASPBERRIES. Chief-red; Cumberland-black; Latham-red; St. Regis-red. 10 for $1.00; 100 for $6.00.

PLANT SETTER

Automatic, positive and accurate operation, rigid construction, cadmium plated, no rust, removable water spout. $6.00.

FRUIT TREES

APPLES. 4 ft. and up $1.00 each, $8.50 per 10. Delicious, Grimes Golden, Hyslop Crab, McIntosh, Jonathan, Smoke House, Stark, Spitzenburg, Stayman's Winesap, Wealthy, York Imperial, etc.

PEARS. No. 1 grade, 11/16 in. and up $1.25 each. Bartlett, Keiffer, Seckel.

PEACHES. Strong 1 yr. 4 ft. and up 75c each. Belle of Georgia, Carman, Crawfords Early, Crawfords Late, Elberta, Heath Cling, J. H. Hale, Oriole, Shippers Late Red.

CHERRIES. 2 yr. old Budded No. 1, 11/16 in. and up $1.25 each, $10.00 per 10.
SWEET—Black Tartarian, Napoleon, Yellow Spanish.
SOUR—Early Richmond, English Morello, Montmorency.

PLUMS AND DAMSONS. 5 to 6 ft. $1.00 each. Abundance, Burbank, Red June, Shrop-Shire Damson.

APRICOTS ON PEACH. Early Golden, 11/16 in. and up $1.25.

QUINCE. Champion, Orange, ⅝ in. and up $1.25 each.

NUT TREES

BUTTERNUT. 5 to 6 ft. $2.00 each.

PECAN. Stuart. 3 to 4 ft. $2.00 each.

WALNUT. Black. 3 to 4 ft. $1.50 each.

WALNUT. English. 3 to 4 ft. $2.25 each.

SHADE TREES

MAPLE. Silver, 8 to 10 ft., $3.00; Norway, 8 to 10 ft., $4.50; Schwedlers Maple, 6 to 8 ft., $5.50.

BIRCH. White, 5 to 6 ft., $2.75; Weeping, 6 to 8 ft., $4.50.

TULIP TREE. 6 to 8 ft., $2.75.

SYCAMORE. American Planetree, 6 to 8 ft., $3.50.

POPLAR. Lombardy, 6 to 8 ft., $1.50.

LINDEN. Tilia Americana, 10 to 12 ft., $4.50.

AMERICAN ELM. (80 ft. to 100 ft.), 8 to 10 ft., $2.50.

TRANSPLANTONE

For all plants and trees. No set-back from transplanting, insurance against replanting and an aid to earlier production. See page 94.

STRAWBERRY PLANTS

OCTOBER 15th TO MAY 10th

We can supply fresh, strong, healthy plants of all the leading varieties in any quantity. Following is a partial list of the most popular sorts for planting in the vicinity of Baltimore.

Dorsett. Most productive, delicious and dependable of all early varieties. $1.75 per 100; $10.00 per 1,000.

Big Joe. Midseason. $1.75 per 100; $10.00 per 1,000.

Chesapeake. Late, very productive. $2.00 per 100; $11.50 per 1,000.

EVERBEARING

MASTODON. $2.50 per 100; 1,000, $15.00.

BERRY BOXES

	100	500	1000
Pints	$1.00	$4.00	$7.00
Quarts	.85	3.75	7.00

(Not Mailable)

MANNS' SUPERIOR FARM SEEDS

Variety	Lbs. per Bu.	Sow—Lbs. per Acre	Date of Sowing	Fertilizer Requirements per Acre	Uses	
Alfalfa	60	15-20	August or April	400 lbs. or more 4-12-4 at seeding. For sandy soils increase potash. Top dress with 0-14-6 every other year. Heavy user of lime.	Hay, soil improvement, pasture.	Inoculation important, sow broadcast on firm seed bed. Harvest when young shoots are 2 in. high. Do not cut late in fall.
Barley	48	72-96	About Oct. 1st.	Lime moderately helpful. 300 to 400 lbs. 4-12-4 at seeding. Top dress in spring.	Stock feed, malt, breakfast foods, flour, early spring grazing.	Does best on well drained loam or clay soils. Seed should be treated against smut and the harvested crop protected from weevil.
Bent Grass	....	10 (3 lbs. per 1000 sq. ft.)	March or September	Requires acid forming plant food. Injured by lime.	Lawns and putting greens or pasture on acid soils.	Does not yield as much hay as Red Top. Needs plenty of moisture. Thrives only on acid soils.
Blue Grass (Kentucky)	14 to 25	30-40	Late summer early spring	On pastures—300 lbs. superphosphate every spring for three years. Adding nitrogen for quick results. For new seedings, 400 lbs. 4-12-4. Lime helpful applied 50 lbs. per 1000 sq. ft. about every 5 years. Thrives best on well drained heavy soil, rich in organic matter and all fertilizing elements.	Permanent pastures, lawns and fairways.	Best results when seeded in mixtures as it requires about 3 years to establish a sod. Gives good early grazing, languishes in late summer but flourishes again in fall.
Blue Grass (Canada)	14 to 20	15 in mixtures	Late summer early spring	Same as Kentucky Blue but adapted to thinner soils.	Pasture with other perennial varieties.	Darker blue than Kentucky Blue, produces running rootstocks and forms dense sod. Leaves short. Best variety for stiff clay soils or poor fertility.
Buckwheat	48	36-60	May 15 to July 15	150 to 300 lbs. 2-12-6 heavy phosphorous and potash feeder. Best on moderately acid soil.	Flour, stock and poultry feed, bees, summer cover and green manure crop.	Likes cool, moist climate, a poor land crop. Harvest between time first seed fully formed and the time they mature.
Corn (Field)	56	14	May July	200 to 500 lbs. 3-12-6 in row at planting. Side dress when 40 days old with 200 lbs. nitrate of soda.	Grain, ensilage and hogging down.	Drill or check-row in rows 3 to 4 ft. apart. Cultivate shallow often enough to keep down weeds. Harvest for grain when kernels are well glazed and dented, shuck and bottom leaves dry and upper leaves ¼ to ½ green. For ensilage harvest in early glaze stage, shucks yellow.
Clover (Alsike)	60	5-8	August and September February to April	200 to 400 lbs. 4-12-4 except if seeded on well fertilized grain, when no additional fertilizer is required. Responds readily to lime.	Hay, pasture, soil improvement.	Better on wet, poor or acid soils than any other clover. Inoculation helpful.
Clover Crimson	60	15	August	200 to 300 lbs. superphosphate. Responds to lime but not very sensitive to acid.	Green manure, and to some extent for hay and pasture winter annual.	Best suited to coastal plain soils but not to wet soils. Commonly sown at last working of corn or on small grain stubble. If not making sufficient growth, supply nitrogen fertilizer. Graze same if growth is too rank.
Clover Red	60	10-15	March April or August	200 to 400 lbs. 4-12-4 ½ to 1 ton hydrated lime is beneficial.	Primarily as a forage crop. Largely used in hay mixtures but frequently sown by itself for hay. Improves soil.	For hay, cut when just past full bloom stage and handle to save as many leaves as possible. May be expected to yield 1 to 3 tons per acre.
Clover Sweet (Biennial)	60	10-15	March April	300 lbs. 0-12-5 or superphosphate. High lime requirement, not less than 1600 lbs. hydrated.	Pasture hay, soil improvement, honey plant, may be included in pasture mixtures.	Grows well on poor soil (except sands) provided lime and inoculation are supplied. Sow on grain in March or April and harrow in or sow on frozen ground.
Clover White Dutch	60	5-8	Spring or late summer	500 lbs. superphosphate once in 4 or 5 years as a top dressing. Some potash on sandy soil. Tolerant to acid soils but responds to lime.	Pasture, furnishes early grazing.	Use about 2 lbs. per acre in pasture mixture.
Cowpeas	60	1½ to 2 bu.	May 15th July 15	300 lbs. superphosphate and add potash for sandy soils. Lime not necessary but beneficial.	Black-eye, for human food; other varieties for hay, soil improvement and pasture. Valuable crop in any rotation requiring a summer legume.	Must be protected from weevil. Will grow on poor soils but does best on sandy loam. Harvest for hay when most of the pods are full grown and a few are ripe. Racks are a help in curing as it cures very slowly.
Fescue Chewings	14	30 (3 lbs. per 1000 sq. ft.)	March April August September	Complete plant food—abundant nitrogen. Lime not necessary.	Lawns principally; also as pasture.	Withstands more shade than most grasses, especially suited to sandy soils. Leaves bright green, creeps by underground stems.
Fescue Meadow (English Blue-Grass)	24	20-30	March May August September	300 lbs. 4-12-4.	Hay and pasture mixtures, gives early spring and late fall grazing.	Adapted to practically all but sandy soils. Does as well as any grass on wet soils. Harvest (Hay) as it comes into bloom. Yields of two tons per acre are not exceptional.
Lespedeza Korean (Annual)	25	25-30	February May	200 to 300 lbs. superphosphate; for sandy soils use 0-14-6. Lime not necessary but responds readily.	Hay, pasture and soil improvement.	Will grow on any soil but does best on fertile loams. For hay sow on fertile moist land. If seeding is done too late or if ground is too hard for the freezing and thawing of the ground to work the seed under the surface, the field should be lightly harrowed after seeding. If second growth is allowed to go to seed, Korean will reseed itself.

Variety	Lbs. per Bu.	Sow—Lbs. per Acre	Date of Sowing	Fertilizer Requirements per Acre	Uses	
Lespedeza Sericea (Perennial)	64	25-30	May 15th to July 1st	Same as Korean.	Same as above.	Very slow grower and may be killed by late spring frost after new growth starts. Therefore safest to allow it go to seed each fall. Takes several years to thoroughly establish itself.
Millet (Golden)	50	25-30	May to July	Fertilizer not usually profitable. Responds to 200 lbs. superphosphate or 0-14-6. Lime unnecessary.	Mainly as a "catch" hay crop.	Requires at least 60 days from seeding to maturity. Sow broadcast and cover lightly. Cut hay just after blooming. Has about same feeding value as timothy but may become injurious if used as a continuous ration for horses.
Oats (Winter Spring)	32	2 to 2½ bu.	Winter Three weeks before first killing frost. Spring Soon as land can be prepared	200 to 400 lbs. 4-12-4 at seeding. Top-dress as growth begins in spring where straw is likely to be too short.	Chiefly as grain for horses and other live stock; cut for hay and also used for human food.	Well drained moderately rich soil is best. Harvest grain in hard dough stage; for hay cut in early milk stage. Fall sown oats mature 2 to 3 weeks earlier than spring oats.
Orchard Grass	14	14 to 25	March to May August to October	200 to 400 lbs. 4-12-4 for fall application or 6-8-6 for spring application.	Hay and pasture.	Long-lived deep rooted perennial bunch grass. Does best on heavy soils such as clays and clay loams. Cut in bloom stage, as it quickly becomes woody after blooming. Serves best when sown in mixtures with red clover, alsike, tall meadow oat grass.
Peas (Canada Field)	60	1½ to 2 bu. per acre	February March	200 to 300 lbs. superphosphate. Moderate liming helps.	Hay, early pasture, green manure, and as human food.	Clay loam soils suit best. Does well mixed with oats. Drill 2 to 4 in. deep. Cut hay when most of the pods are well formed.
Rape (Dwarf Essex)	56	6-10	March-April August-September	Heavy feeder and responds to manure and a complete fertilizer. Requires lime for best results.	Pasture for hogs and sheep.	Thrives on rich, moist loamy soil.
Red Top (Grass)	32	5-10	August-September	Seems to do better on "Sour" soils.	Hay and pasture.	A perennial grass with a creeping habit of growth making a coarse loose turf. For hay harvest a little before or during full bloom. Suited to wet soils.
Rye	56	1 to 1½ bu.	August-November	At seeding 200 to 400 lbs. 4-12-4. Top dress in spring when growth begins. Not necessary but helps some.	Grain, winter and spring pasture, soiling and as cover crop. (Usually with winter vetch.)	Does better than wheat, on poor soils. Suitable to any well drained soil.
Rye Grass (Domestic) (Italian)	24	30-40	Early Fall	Usual Grass requirements.	Annual hay crop, temporary pasture or in lawns for a quick covering while waiting for other grasses to establish themselves.	Not an annual but little of it lives more than one year. Grows rapidly and in bunches. Fall seeding usually makes a good crop of hay by June. More drought resistant than Perennial Rye Grass.
Rye Grass (Perennial)	20	30	Feb.-May Aug.-Oct.	Complete plant food.	Very similar to above.	More persistent than Domestic Rye Grass.
Sorghum (Cane)	50	Drill 8-10 Broadcast 60-75	May-July	150 to 400 lbs. 4-12-4 at planting, top dress (or side dress if in rows) with 100 to 200 lbs. nitrogen fertilizer when 40 days old.	Syrup, fodder, hay, soiling and silage.	Any well drained corn or wheat land is suitable. Is heavy feeder and hard on land. Small grains usually do not do well following it in crop rotation. May be broadcast, sowing 50 lbs. per acre or drilled in 3 to 3½ ft. rows. 4 to 6 in. apart in the rows. For syrup or silage cut when seeds are in hard dough stage. When pastured or fed green there is danger of poisoning to live stock.
Soy Beans	60	Drilled 45-60 Broadcast 60-90	May 15th to July 15th	200-300 lbs. superphosphate or 0-14-6 fertilizer. Lime not necessary, but helps especially on heavy soils.	Hay, green manure, hogging off silage and seed.	Responds well to inoculation. Plant very shallow (about 1 in.) and if crust forms on land before they come up, break it with a harrow. Harvest seed when leaves have fallen and pods are brown and dry. For hay, cut when lower leaves begin to turn yellow and pods about half filled.
Sudan Grass	35	15-30	May July	200 to 300 lbs. superphosphate.	Catch hay crop, soiling, silage and grazing.	Does well on any soil except those that are cold and wet, good with cowpeas or soybeans. Cut hay just after it is beginning to head. Drought resistant and produces well in dry seasons.
Tall Meadow Oat Grass	11	30-40	Mar.-April Aug.-Sept.	Responds to soil improvement and fertilizer.	Hay and pasture, of most value in a mixture of Red Clover, Alsike and Orchard Grass.	One of the best poor land grasses and especially adapted to well drained sandy soil. Does not like shade. Very drought resistant, perennial bunch type variety. Cut for hay about the time of blooming.
Timothy	45	....	Mar.-Apr. Aug.-Oct.	200-400 lbs. 4-12-4 except where it follows a well fertilized grain crop. Lime helps and should always be applied when clover is sown with timothy. If land is poor top dress with 100 lbs. each nitrogen fertilizer and superphosphate when spring growth begins.	Primarily for hay. Does not stand grazing well.	Semi-bunch growth. Adapted to heavy soils such as clays and loams. Usually seeded in mixture with sapling clover, or with wheat in the fall and the clover on the wheat in spring. Cut hay when in full bloom or slightly after.
Vetch (Winter)	60	20-40 with 1 bu. small grain	Aug.-Oct.	200-400 lbs. superphosphate, add potash on sandy soils. Responds to lime but will grow on fairly acid soil.	Hay, pasture and soil improvement.	Best annual winter legume cover crop. Adapted to most any well drained soil. Inoculation necessary.
Wheat	60	1 to 1½ bu.	Oct.	200-400 lbs. 4-12-4 at seeding, additional superphosphate on better soils. Top dress in spring where straw is likely to be too short. Responds to use of lime in rotation.	Human food, hay or cover crop.	Does best on heavy loams of good fertility. Seed should be treated. Harvest when stalk is brown and grain in dough stage.

This chart compiled from Handbook of Agronomy—**Va. P. I. and U. S. D. A. Cooperating.**

MANNS' PERMANENT PASTURE MIXTURE — $9.00 Per Acre

10 VARIETY SPECIAL (UPLAND)

Contains recleaned seed of high vitality in ten nutritious varieties properly proportioned to give continuous pasture from early spring until late fall, quickly becoming permanently established. Sow 30 lbs. per acre. Lb., 35c; 100 lbs., $30.00. (Low Lands—sow 25 lbs. plus 5 lbs. Red Top per acre.)

Cyclone illustrated.....$2.75
Noc-Out 1.25

BIRD SEED

FRESH, RECLEANED STOCK

Postage Extra

Canary .....lb. 15c	Lettuce Seed .....lb. 25c
Rape .....lb. 20c	Mixed Canary Seed .....lb. 15c
Millet .....lb. 10c	Cuttle Fish Bone...¼ lb. 40c
Hemp .....lb. 25c	
Sunflower ..lb. 15c	

Wild Bird Seed, lb., 10c; 5 lbs., 45c; 25 lbs., $2.00; 100 lbs., $7.00.

MANNS' SUPERIOR FLOWER SEEDS

Flower Seeds for Particular Purposes

BORDER AND EDGING

Ageratum
x Alyssum, Saxatile
x Arabis, Alpina
x Bellis Perennis
Calendula
x Campanula, Carpatica
Candytuft
Centaurea
x Cerastium
x Dianthus, Barbatus
x Heuchera
x Iberis, Sempervirens
Lobelia
Nasturtiums
Marigold
x Nierembergia
Pansy
x Papaver, Nudicaule
Petunia
x Phlox, Subulata
Portulaca
x Sedum
Verbena

FRAGRANCE

Ageratum
Alyssum, Sweet
Antirrhinum
Candytuft
Centaurea
x Dianthus
Heliotrope
x Iris
Mignonette
Nasturtium
Nicotiana
Pansy
Petunia
Scabiosa
Stock
Stock, Virginian
Sweet Peas
Verbena

x Perennial Varieties.

EVERLASTINGS

Globe Amaranth
Helichrysum
Linaria
Statice

PARTIAL SHADE

Alyssum, Sweet
x Anchusa Italica
x Anemone
Antirrhinum
x Aster, Hardy
x Candytuft, Iberis
Centaurea
China-Aster
Clarkia
x Foxglove or Digitalis
x Hibiscus, Moschata
x Lathyrus
Lupinus
Myosotis, Forget-me-not
Nicotiana
Pansy
Petunia
x Primula, English Cowslip
x Rudbeckia
Schizanthus
x Violas

MOIST PLACES

x Heliotrope
x Hibiscus, Moschata
Mimulus
x Viola
x Wallflower

ROCK GARDENS

See Annuals and Perennials Marked *

DRY PLACES

x Aster
California Poppy
x Coreopsis
x Dianthus
Dimorphotheca
x Gypsophila, Paniculata
x Helianthus
x Iris
Mesembryanthemum
Mimosa
x Papaver, Nudicaule
Phlox, Annual
x Phlox, Hardy
x Statice, Latifolium

CUT FLOWERS

Ageratum
Arctotis
Asters
Babysbreath
Calendula
Cornflower
Cosmos
Dianthus
Gaillardia
Larkspur
Marigold, African
Mignonette
Nasturtium
Nigella
Phlox, Drummondi
Salpiglossis
Scabiosa
Snapdragon
Stocks
Strawflower
Xeranthemum
Zinnia

TALL VARIETIES

Amaranthus, Caudatus
x Campanula, Pyramidalis
x Coreopsis
Cosmos
x Dahlia
x Digitalis
x Hibiscus, Moschata
x Hollyhock
Marigold, African
Nicotiana
Ricinus

WINDOW BOXES

Ageratum
Alyssum
Begonia
Centaurea
Lobelia
Nasturtium
Pansy
Petunia
Phlox
Portulaca
Salvia Splendens
Thunbergia
Verbena
Vinca
Zinnia, Lilliput

POOR SOIL

Alyssum, Sweet
Amaranthus
Balsam
California Poppy
Calliopsis
Cornflower
Four-O'Clock
Marigold
Nasturtium
Poppy
Portulaca

ANNUAL FLOWER SEEDS

The ease of cultivation and the quickly effective results obtained from Annuals make them indispensable, as they are adaptable to an almost endless variety of arrangement.

Even in perennial borders, beds and rock gardens, annuals are very essential to bridge the span between periods of bloom of the perennials and to give desired color effects which are possible only with annuals. Many varieties can be started indoors early and transplanted giving continuous bloom from early summer until frost. Some sorts are very easily grown in late summer to produce plants for the sun-parlor or conservatory where they will blossom during the winter.

Annuals bloom more profusely than biennials or perennials because it is not necessary for them to store up food or build root systems for succeeding years; their business being to produce flowers and seeds abundantly the first year. For this reason it is advisable to cut the flowers before going to seed so that the plants will continue to bloom freely.

For Variety, Color, Fragrance, Economy Sow Annuals.

POTTED PLANTS

Potted plants in the following varieties carried in stock at our store after May 10th.

Ageratum	Pansy
Alyssum	Petunia
Aster	Phlox
Calendula	Scarlet Sage
Cannas	Snapdragon
Coleus	Stock
Coreopsis	Summer Poinsettia
Dianthus	Verbena
Geranium	Vinca
Heliotrope	Wallflower
Lantana	Zinnia
Lobelia	

MARIGOLD. Crown of Gold.
CALENDULA. Orange Shaggy.
CORNFLOWER. New Jubilee Gem (Blue).
COSMOS. Sensation (Mixed Colors).
GAILLARDIA. Indian Chief, annual (Red).
ZINNIA. Double Mexican, Haageana (Mixed).

(No plants mailed or shipped.)

AGERATUM

*Splendid for bedding or pot culture, covered from June until frost with a mass of very attractive flowers of a tufted appearance. Very effective when contrasted with geraniums. **Large-flowered White, Blue or Mixed. Pkt., 10c;** ½ oz., 60c. Dwarf Varieties. Pkt., 10c; ½ oz., 60c.

AGROSTEMMA—Rose of Heaven

COELI-ROSEA. A very showy old time favorite greatly admired; excellent cut flowers, grows 12 to 15 inches; blooms early. Color bright rose pink. Pkt., 10c; oz., 60c.

ALYSSUM

*Sweet Alyssum. Little Gem. Very popular border flower, coming into bloom six weeks after planting seed and requiring the least attention of all flowers. Very erect and dwarf, its white flowers greatly enhancing the beauty of any bed or border. Height 4 inches. Pkt., 10c; oz., $1.00.

PROCUMBENS (Carpet of Snow)—Extra dwarf, very dense. Pkt., 10c; ½ oz., 75c.

Crego Aster

ANTIRRHINUM OR SNAPDRAGON

This border and bedding plant of long blooming season is now one of the best perennials suitable for flowering as an annual. The long showy spikes of curiously-shaped tubular flowers with spreading lobes and finely marked throats are fragrant as well as brilliantly-colored. They are very desirable for cutting as the blooms are borne well above the dark glossy leaves and keep fresh for a long time.

RUSTPROOF TALL MIXED, pkt., 10c; ¼ oz., $1.00.

RUSTPROOF SEMI-DWARFED MIXED, pkt., 10c; ¼ oz., 85c.

TOM THUMB—ROCK HYBRIDS MIXED, pkt., 10c; ¼ oz., $1.20.

ASTERS

Very popular because of their beauty and ease of culture. The varieties listed represent the finest Asters of the early, midseason and late types and will give a profusion of bloom from July to late October. Asters require good rich soil and during the growing period should be well supplied with water.

CALIFORNIA SUNSHINE. Flowers measure from 4 to 5 inches in diameter are half double and exhibit all the grace and beauty of the single Aster. The golden yellow ground tone of the quilled petals contrasts wonderfully with the outer petals. Forms a loosely curled circle which makes the flowers pleasing to the eye, fine for cutting. Mixed, pkt., 10c; ¼ oz., $1.25.

ASTERS (Wilt Resistant)

CREGO. Flowers of immense size, 4 to 5 inches in diameter borne on very long stems. Plants are of strong branching growth, 2 to 2½ feet high. Separate colors, pkt., 10c; ¼ oz., 50c. Mixed, pkt., 10c; ¼ oz., 50c.

EARLY GIANT LIGHT BLUE. A. A. Winner, 3 ft. branching plants, 5 inch flowers. Pkt., 10c; ¼ oz., $1.50.

LATE BRANCHING. A handsome and very distinct variety resembling Japanese Chrysanthemums. The plants grow 1½ feet in height and width and the large full petaled blossoms are borne on long stems or branches. Comes into flower ten days later than other asters. Separate colors, pkt., 10c; ¼ oz., 50c. Mixture, pkt., 10c; ¼ oz., 50c.

AMERICAN BEAUTY. Mixed, pkt., 10c; ¼ oz., 50c.

Varieties marked * suitable for Rock Gardens.

Anchusa

AMARANTHUS

Very useful in borders of tall plants, among shrubs, or in centers of large beds. One type has large feathery plumes or sprays of rich crimson coloring while the other is grown exclusively for the brilliant-colored leaves.

CAUDATUS. (Love Lies Bleeding.) Plants of erect growth three to four feet high producing numerous feather sprays of rich crimson color. Pkt., 10c; ¼ oz., 25c.

MOLTEN FIRE. Very ornamental and beautiful; 4 feet tall; easily grown, leaves dark bronze, top of plant and centers of lower leaves, brilliant Poinsettia red. Pkt., 10c; ¼ oz., 65c.

SALICIFOLIUS. (Willow-Leaved or Fountain Plant.) Grows two to three feet high, with long hanging flower heads and foliage of a deep purple coloring. Pkt., 10c; ¼ oz., 40c.

TRICOLOR. (Joseph's Coat.) Similar to Splendens, having a single erect stalk of brilliantly colored foliage. Pkt., 10c; ¼ oz., 30c.

ARCTOTIS (Blue-Eyed African Daisy)

GRANDIS. White petals tinged lilac with centers steel blue. A splendid and easily grown flower, 2 feet tall. Good for cutting. Pkt., 10c; ¼ oz., 40c.

ANCHUSA (Summer Forget-Me-Not)

CAPENSIS, ATROCOERULEA. A fine blue flower through late spring, summer, and fall. Easily grown. Height 2 feet. Pkt., 10c; ½ oz., 40c.

BLUE BIRD. Vivid indigo blue, plants compact and of even growth. Stems about 18 inches. Pkt., 10c; ½ oz., 50c.

BALSAM OR LADY SLIPPER

An easy growing annual of quick growth, producing numerous flowers resembling tiny roses. Splendid double mixed, pkt., 10c; $1.00.

BARTONIA (Golden Yellow)

AUREA. Large, showy flowers, 2½ inches in diameter; deep orange yellow. Blooms early, height 18 inches. Pkt., 10c; oz., $1.00.

CALENDULA—POT MARIGOLD

Effective in beds or potted; showy, free-flowering, hardy annuals. **EXTRA DOUBLE ORANGE KING.** Pkt., 10c; oz., 50c. **FINEST MIXED.** Pkt., 10c; oz. 50c.
BALL'S GOLDEN. Glowing Yellow. Pkt., 10c; ¼ oz., 30c.
BALL'S, IMPROVED GOLDEN ORANGE. Long stemmed extra double, excellent for forcing. Pkt., 10c; ¼ oz., 30c.
LEMON QUEEN. Light golden-yellow flowers, light center, showy for bedding and borders. Pkt., 10c; oz., 50c.
LEMON QUEEN. Golden-yellow, dark center. Pkt., 10c; ½ oz., 60c.
ORANGE SHAGGY. Very distinct type having long narrow fringed petals, somewhat resembling rich deep orange Chrysanthemums, long stems, grows 18 in. high. Pkt., 10c; oz., 50c.
RADIO. Medium sized, clear orange, closely set petals, attractively quilled. Pkt., 10c; oz., 50c.

CAMPANULA—CANTERBURY BELLS

An old-fashioned favorite, stately, showy, and easily grown, hardy biennial. **Single and Double Mixed, pkt., 10c; ¼ oz., 40c.**
ANNUAL. Liberty Bell, violet-blue; **Angelus Bell,** deep pink. Pkt., 10c; ¼ oz., 50c.

CANDYTUFT

This hardy annual is universally known and its clusters of small flowers are very beautiful and useful for cutting and borders.
FINEST HYBRID MIXTURE OF ALL COLORS. Pkt., 10c; oz., 50c.

CARNATION (Margaret)

Easily grown as an Annual producing large double blooms 4 or 5 months after sowing seed. Very fragrant. (See Perennials.)

CELOSIA OR COCKSCOMB

PLUMOSA. Feathered varieties, fiery red or mixed. Pkt., 10c; ½ oz., 70c.
DWARF EMPRESS COCKSCOMB. Dark-leaved, bright crimson. Pkt., 10c; ¼ oz., 75c.
COCKSCOMB. Tall mixed. Pkt., 10c; ½ oz., 50c.
CHILDSII. (Chinese Woolflower.) Crimson—pkt., 10c; ¼ oz., 75c.

CENTAUREA

CENTAUREA CYANUS OR BACHELOR'S BUTTON OR CORN FLOWER. Charming old-fashioned flowers. Free flowering habit, reseeding itself year after year. Useful as a cut flower, as well as a garden decoration. Double mixed. Pkt., 10c; oz., 50c.
CENTAUREA GYMNOCARPA OR DUSTY MILLER. One foot, foliage finely cut of silvery gray color, used for bedding. Pkt., 10c; oz., 80c.
CENTAUREA MOSCHATA OR SWEET SULTAN. Beautiful, sweet scented, artistic shaped flowers borne on long stems, when cut will last for several days. Mixed. Pkt., 10c; oz., $1.00.
CORNFLOWER, JUBILEE GEM—Dwarf plants freely blooming, vivid blue. Pkt., 10c; ¼ oz., 50c.

Calendula

Varieties marked * suitable for Rock Gardens.

Arctotis

Didiscus

Dianthus

CHRYSANTHEMUM

The annual Chrysanthemums are free-blooming, easily grown plants, having large flowers in a variety of brilliant colors, fine for cutting.

Mixed. Finest double hybrids. **Pkt., 10c; ¼ oz., 25c.**
Single. **Pkt., 10c; ¼ oz., 25c.**

CLARKIA

Very pretty, profuse flowering annuals, much used for edging. They grow from nine to eighteen inches high. Useful for hanging baskets. Double mixed. **Pkt., 10c; ¼ oz., 50c.**

CALLIOPSIS

Very handsome and showy plants with numerous flowers excellent for bouquets. Thrive well in any soil. Pkt., 10c; ⅛ oz., 30c.

COSMOS

One of the most satisfactory hardy annuals, flowering in late summer. Fine for cutting and easily grown. Can be sown anywhere and transplanted. Grows 4 to 6 feet high.

EARLY KLONDIKE ORANGE FLARE. Bright vivid orange, very free flowering. **Pkt., 10c; ¼ oz., 25c.**

SENSATION. (White and Shades of Pink Mixed.) Extremely early free blooming, flowers 4 to 5 inches, plants 4 ft. with rather heavy foliage. **Pkt., 10c; ¼ oz., 50c.**

DOUBLE EARLY FLOWERING MIXED. Pkt., 10c; ¼ oz., $1.00.

DATURA

Large branching plants producing very large handsome, double or single, trumpet-shaped blossoms of exquisite fragrance. Excellent for late summer and autumn flowering. Mixed colors. **Pkt., 10c; ½ oz., 30c.**

DIANTHUS OR PINKS

These very beautiful and popular biennials flower freely the first year from seed, and in most locations they are quite hardy and produce larger flowers the second year.

***HEDDEWEGI.** Hybrids, very large double flowers. **Pkt., 10c; ¼ oz., 40c.**

SWEET WIVELSFIELD. Hybrid Type. Flowers large, somewhat similar to Sweet William. **Pkt., 10c; ¼ oz., 50c.**

LACINIATUS SPLENDENS. Large single brilliant crimson, white-eyed flowers borne profusely on neat dwarf compact plants. **Pkt., 10c; ¼ oz., 50c.**

DIDISCUS—Blue Lace Flower

COERULEUS. Lavender, blue, lace-like flower; heads blooming profusely from June to September; 1½ feet tall. **Pkt., 10c; ½ oz., 75c.**

DIMORPHOTHECA

***AURANTIACA (African Daisy).** Very showy flowers for bed or border, bushy plants with orange-gold daisy-like blooms on long stems. **Pkt., 10c; ¼ oz., 60c.** Hybrid Mixed. **Pkt., 10c; ¼ oz., 50c.**

EUPHORBIA

HETERPHYLLA (Mexican Fire Plant). Grown by many as "Summer Poinsettia" as it produces a crown of brilliant red leaves. Rapid grower; 30 to 36 inches tall. **Pkt., 10c; ½ oz., 75c.**

VARIEGATA (Snow on the Mountain). Pkt., 10c; ½ oz., 40c.

GILIA

Exceedingly graceful and attractive, with tiny, single star-like flowers, borne profusely on plants 12 to 15 inches tall, especially valuable for bees. Charming in flower border; a good cut flower. Tall mixed. **Pkt., 10c; ¼ oz., 50c.**

GLOBE AMARANTH-GOMPHRENA

Similar in type to Bachelor's Button but having flowers of perfect globe shape. Mixed colors. **Pkt., 10c; ½ oz., 50c.**

Clarkia

Varieties marked * suitable for Rock Gardens

Dimorphotheca

Larkspur

Gilia

GODETIA (Satin Flower)

DOUBLE-DWARF MIXED. Azalea flowered. Plants grow 1 foot high, and bloom in great profusion for nearly six weeks. Excellent for cutting and easily grown. **Pkt., 10c; ¼ oz., 75c.**

GYSOPHILA (Baby's Breath)

*Single—(A). Graceful plants with light fairy-like growth. A quick growing annual with myriads of small open bell-shaped flowers. These fine mist-like flowers are excellent for their delicate effect in bouquets. **Pkt., 10c; ¼ oz., 25c.** Mixed. **Pkt., 10c; ¼ oz., 25c.**

HELIANTHUS

CHRYSANTHEMUM FLOWERED. Double yellow, 7 feet. **Pkt., 10c; ¼ oz., 25c.**

HELICHRYSUM-EVERLASTING FLOWER

Monstrosum. Double mixed, first quality, mixed. **Pkt., 10c; ¼ oz., 50c.**

KOCHIA—SUMMER CYPRESS

Quick growing hedge plant about two and one-half feet high. Very symmetrical and attractive, the bushes taking on a distinctive red tinge late in the summer; for this reason often called Mexican Fire Bush. **Pkt., 10c; ½ oz., 25c.**

LANTANA (Half Hardy)

One of the most desirable greenhouse or bedding plants, constantly in bloom, somewhat resembling Verbenas. Dwarf Hybrid Mixed. **Pkt., 10c; ¼ oz., 90c.**

LARKSPUR

One of the best known of garden flowers and if planted in April will produce flowering plants by the first of July and continue to bloom until frost.

DWARF EMPEROR FINEST MIXED. A dwarf compact type, ideal for border work. 2 ft. **Pkt., 10c; ½ oz., 70c.**

GIANT IMPERIAL DOUBLE MIXED. Pkt., 10c; ½ oz., 70c. Separate colors. **Pkt., 10c; ½ oz., 90c.**

For Perennial Larkspur see Delphinium.

ROSAMOND. Tall double stock flowered, early, free flowering, pure deep pink; another All-American Gold Medal Winner. **Pkt., 10c; ½ oz., 70c.**

LOBELIA

CRYSTAL PALACE COMPACTA. Dark blue flowers, dark foliage, 4 inches tall. **Pkt., 10c; ¼ oz., $1.00.**

LUPINUS

Free-flowering, easily grown annuals with long graceful spikes of richly colored pea-shaped flowers. Prefers a little shade, acid soil and cool weather.

HARTWEGII GIANT KING MIXED. Enormous 3 foot spikes; 6 to 8 per plant; oxford blue or white. **Pkt., 10c; ¼ oz., 25c.**

KING BLUE, KING WHITE. New improved strain 3 to 4 ft. producing 4 to 6 flower spikes to a plant. **Pkt., 10c; ¼ oz., 30c.**

MARIGOLD

French Marigolds are smaller than the African but are marked and spotted with varied shades of red and orange. The African is very large, double and in solid colors.

AFRICAN. Tall, double, extra mixed, first quality. **Pkt., 10c; ¼ oz., 50c.**

FRENCH. Dwarf double mixed. **Pkt., 10c; ¼ oz., 20c.**

GUINEA GOLD. Orange flushed with gold, height 2 to 2½ feet; flowers semi-double. **Pkt., 10c; ¼ oz., 30c.**

CROWN OF GOLD. Collarette type, chrysanthemum formed, fragrant, double. 2½-inch blooms; plants 2 ft. tall. **Pkt., 10c; ¼ oz., 30c.**

MELODY. Dwarf French double, solid bright orange, height 12 in. **Pkt., 10c; ¼ oz., 60c.**

SUNSET GIANTS. Largest known Marigolds, measuring 5 inches or more, plants 3 to 4 ft. tall, profuse bearer of fragrant flowers, coming about sixty percent double. **Pkt., 10c; ¼ oz., 50c.**

MARVEL OF PERU—FOUR O'CLOCK

Large showy fragrant flowers, blooming the entire season. Succeed well in any ordinary garden soil in a sunny location. Mixed. **Pkt., 10c; oz., 40c.**

MESEMBRYANTHEMUM

***CRYSTALLINUM OR ICE PLANT.** Dwarf trailing annual plants. Flowers white, prized for its distinctive icy foliage. **Pkt., 10c; ¼ oz., 20c.**

MIGNONETTE

Well known fragrant bedding or potting plant. Sowings made in April and again in July will result in a succession of bloom from early summer until frost.

MACHET GIANT MIXED. Large spikes, very fragrant. **Pkt., 10c; ½ oz., 30c.**

Varieties marked * suitable for Rock Gardens

Lobelia

Lupinus

Nigella

NASTURTIUM

GOLDEN GLEAM. New double sweet scented dwarf variety sure to become very popular. **Pkt., 10c; oz., 40c.**
DWARF MIXED. Very brilliant in all shades of yellow, red and purple. **Pkt., 10c; oz., 20c; ¼ lb., 50c.**
DOUBLE GLEAM HYBRIDS. Large well-formed, sweet-scented double flowers in an extremely wide range of colors. **Pkt., 10c; oz., 40c. SCARLET GLEAM.** Extremely large and lovely. **Pkt., 10c; oz., 40c.**
DWARF DOUBLE GOLDEN GLOBE. Pkt., 10c; oz., 40c.
TALL—CHOICE MIXED. Pkt., 10c; oz., 20c; ¼ lb., 50c.

NICOTIANA

AFFINIS. Gives a continuous display of flowers through the summer and autumn; plant 2 to 3 feet high. The blooms sweet scented and measure 3 inches in diameter. **Mixed. Pkt., 10c; ¼ oz., 20c.**

NIEREMBERGIA (Tender Perennial)

HIPPOMANICA (Dwarf Cup Flower.) Dwarf compact, lavender blue, for borders, edgings and rock gardens. Always in bloom. **Pkt., 10c; 1/16 oz., 75c.**

NIGELLA OR LOVE-IN-A-MIST

Free-flowering plant, 1 foot high, producing curious flowers surrounded by the finely cut foliage. Easily grown; useful for cutting.
DOUBLE BLUE. Pkt., 10c; ¼ oz., 30c.

ORNAMENTAL GRASS

COIX LACRYMA. (Job's Tears.) Pkt., 10c; oz., 40c.

PANSIES

These very popular and beautiful flowers may be sown in April or May for summer flowering or in August for early spring blooming. They thrive best in an open exposure, with protection during the winter.
BUGNOT'S GIANT. Flowers of enormous size, nearly circular in form and in a great variety of the most rare and handsome colors. Pkt., 10c; 1/16 oz., $2.00.
MAMMOTH EXHIBITION MIXTURE. True round and solid pansy form of giant size, each color an attraction. Pkt., 10c; 1/16 oz., $1.50.
MANN'S TRIUMPH OF THE GIANTS. (Frilled.) Finest for commercial or private use. Blooms enormous, most striking in brilliancy and beauty of color. Pkt., 10c; 1/16 oz., $2.00.
SWISS ULLSWATER BLUE. Large blooms of a vivid most intense shade of blue, with a blue-black blotch in center. **Pkt., 10c; 1/16 oz., $1.50.**
SWISS WHITE. Pkt., 10c; 1/16 oz., $1.50.
SWISS LUNA YELLOW. Pkt., 10c; 1/16 oz., $1.50.

PETUNIAS

HYBRIDA GRANDIFLORA. Giants of California mixed. **Pkt., 10c; 1/16 oz., $5.00.**

HOWARD'S STAR. Purple white striped. **Pkt., 10c; ¼ oz., 50c.**

ALL DOUBLE. Dwarf Giant fringed Victorious Mixed. **Packets, about 100 seeds, 40c; 1000 seeds, $2.00.**

DWARF BEDDING VARIETIES

ALDERMAN. Deep violet blue.
ROSY MORN. Pink white throat.
ROSE OF HEAVEN. Deep brilliant rose.
SNOW QUEEN. Large white.
Separate colors or mixture. **Pkt., 10c; ¼ oz., $1.00.**

SALMON SUPREME. Light salmon, white throat. **Pkt., 10c; 1/32 oz., $1.00.**

HOLLYWOOD STAR. New lovely rich deep pink with amber throat; five pointed star shaped flowers are so profuse they hide the foliage. **Pkt., 10c; ¼ oz., $1.00.**

***PINK GEM.** Grows 5 inches high, globe shaped, entirely covered with deep pink blooms. **Pkt., 10c; 1/16 oz., 75c.**

FLAMING VELVET—Rich, brilliant, velvety crimson, hybrida type. **Pkt., 10c; ¼ oz., $2.50.**

MARTHA WASHINGTON—Bright pink with darker center, ruffled; plants compact and covered with blooms. **Pkt., 10c; 1/16 oz., $3.00.**

BALCONY PETUNIAS

HYBRIDA PENDULA. For porch and window boxes, also excellent for bedding in solid masses of one or more colors. Large blooms produced in abundance. Mixed. **Pkt., 10c; 1/16 oz., 35c.**

PHLOX

Phlox makes a magnificient show in beds and masses where their brilliant and varied colors produce a gorgeous effect. Very easily raised and afford a bright display of flowers, all through the summer.

***DRUMMONDII.** Choice mixture, first quality. **Pkt., 10c; ¼ oz., $1.50.**

DRUMMONDI GIGANTEA. Salmon glory—Gigantic florets, pure salmon pink with cream-white eye, plants ten inches tall. **Pkt., 10c; ¼ oz., $2.00.**

***STAR PHLOX. (Cuspidata.)** With star-shaped flowers, dwarf growth. **Pkt., 10c; ¼ oz., $1.50.**

Varieties marked * suitable for Rock Gardens.

Stocks

Schizanthus

Salpiglossis

POPPIES

TULIP POPPY. One of the most brilliant annuals, the flowers are 3 inches in diameter and of a brilliant scarlet color, greatly resembling tulips. **Pkt., 10c; ½ oz., 50c.**

THE SHIRLEY. Special strain mixed; fine for bedding or cutting; single annual. **Pkt., 10c; ¼ oz. 25c.**

ESCHSCHOLTZIA. (California Poppy.) Spreading plants 1 foot high, suitable for beds and borders, blooming from June until frost. Hybrid mixed. **Pkt., 10c; ¼ oz., 75c.**

PORTULACA—Mexican Rose

Very showy annual, easily grown, and very effective when massed in beds or edgings. A profusion of brilliantly colored flowers are produced throughout the summer. They thrive best in rather rich soil in a sunny situation.

***LARGE-FLOWERING EXTRA DOUBLE MIXED. Pkt., 10c; ¼ oz., $1.50.**

***LARGE FLOWERING SINGLE MIXED.** All colors. **Pkt., 10c; ¼ oz., $1.00.**

RICINUS—CASTOR OIL BEAN

Ornamental plants of strong, stately growth, the foliage having the appearance of a tropical plant, very effective when planted in masses or as centers of Canna or Dahlia beds.

ZANZIBAR. Extra mixed. **Pkt., 10c; oz., 40c.**

SALPIGLOSSIS

Petunia-like flower borne on bushy stem, about 24 inches tall, various shades, which flower profusely during the summer. Mixed. **Pkt., 10c; ½ oz., 70c.**

SALVIA SPLENDENS OR SCARLET SAGE

Very popular bedding plant, extensively used for lawn and conservatory decoration, bearing long spikes of brilliant flowers from July to frost.

BONFIRE. Very dense flowering 2½ foot plants, excellent for beds or massing for color effect. **Pkt., 10c; ¼ oz., 75c.**

FIREBRAND. The most brilliant of all types. If sown in February produces flowers from June until frost. Its dwarf compact growth makes it especially suitable for edging lawns or borders. **Pkt., 10c; ⅛ oz., $1.00.**

SANVITALIA

***PROCUMBENS.** Useful border and edging plant of spreading nature, 8 inches tall, continuously producing an abundance of deep golden yellow double blooms resembling small zinnias. **Pkt., 10c; ¼ oz., 75c.**

SCABIOSA OR MOURNING BRIDE

Fine free-flowering plants for mixed borders and highly esteemed for cut flowers. The blooms are borne on long, erect stems in globular heads in colors ranging from white to dark maroon. Height 2 to 2½ feet. Double mixed. **Pkt., 10c; oz., $1.00.**

SNAPDRAGON. See Antirrhinum, page 43.

SCHIZANTHUS

***MONARCH HYBRID MIXED.** A plant noted for its wonderful variety of coloring and peculiarly shaped flowers, fine for cutting, graceful fern-like foliage, height about 18 inches. **Pkt., 10c; ⅛ oz., $1.00.**

SENSITIVE PLANT—MIMOSA

Curious and interesting annuals, with pinkish-white flowers; the leaves close and droop when touched or shaken. **Pkt., 10c; ¼ oz., 25c.**

STEVIA

SERRATA. Grown out-doors or as a home plant for its dainty, fragrant, tiny white, star shaped flowers produced profusely. Excellent cut flower for combining with other varieties. **Pkt., 10c; ⅛ oz., 50c.**

STOCKS-10-WEEKS

DOUBLE EARLY GIANT IMPERIAL. (Bismarck 26-Inch.) Mixed. **Pkt., 10c; ⅛ oz., 75c.**

DRESDEN PERPETUAL. These fine stocks will live outdoors for several years if protected with a fairly thick layer of straw, which must be lifted early in the spring. 20-inch. **Pkt., 10c; ¼ oz., 75c.**

DWARF DOUBLE LARGE FLOWERED MIXED. 12-inch. **Pkt., 10c; ¼ oz., 75c.**

***VIRGINIA.** Very early bedding variety. Six inch plants bearing a profusion of small flowers continuously during cool weather. Mixed. **Pkt., 10c; oz., $1.00.**

SUMMER POINSETTIA

See Amaranthus Molten Fire also Euphorbia, Heterophylla.

TITHONIA

SPECIOSA GRANDIFLORA FIREBALL. Brilliant orange-scarlet flowers 3 to 4 inches across, dark green foliage, blooms in fall, 6 feet tall depending on soil and climate. **Pkt., 10c; ¼ oz., $1.00.**

Varieties marked * suitable for Rock Gardens.

SWEET PEAS

CALIFORNIA GROWN **SUCCESSFUL EVERYWHERE**

One Ounce for 50 feet of row.

THE SPENCERS are of exceptionally large size, the petals waved and frilled and the general effect remarkably graceful and effective. The plants are of vigorous growth and remain in bloom for a longer time than the Grandiflora sorts.

CULTURE.—Grow named varieties of the colors you like best; know them by name in your garden and you will derive much more pleasure from them. Early in the spring make a trench three to four inches deep in rich, mellow soil, so arranged that no water can stand in it and plant the seed in the bottom, covering at first only one inch deep. When the plants are two inches high, cultivate; and as they grow, gradually fill in the trench. When the plants are about five inches high they should be supported by poultry netting, strings or brush. Water should be applied thoroughly once or twice a week early in the morning or in the evening. The blooms should be picked before they form pods or the plants will soon stop flowering. The following have been selected from hundreds of varieties, as being those of the highest quality in their respective classes.

SPENCER VARIETIES

AMBITION. Rosy lavender.

CAPTAIN BLOOD. Brilliant blood scarlet, veneered copper.

COMMANDER GODSALL. Large, navy blue.

DEBUTANTE. Salmon shaded coral.

GIGANTIC. White, black seeded, best white.

GLENEAGLES. Very large, silver blue.

GOOD CHEER. Orange cerise.

MAGNET. Bright cream pink.

PINKIE. Large rose pink.

PRINCE OF ORANGE. Best deep orange.

THE SULTAN. Black velvety maroon.

WHAT JOY. Deep, rich cream.

Pkt., 10c; oz., 20c; ¼ lb., 50c; lb., $1.75.

EARLY FLOWERING SPENCERS

Florists' varieties for early forcing—can also be grown successfully outdoors, coming into bloom a month earlier than original Spencers.

BLUE BONNET. Best clear blue.

HARMONY. Clear lavender.

SNOW QUEEN. Pure white, opens and retains pure white color.

VALENCIA. Bright orange, sunproof, long stems.

VULCAN. Vivid scarlet, sunproof.

ZVOLANEK'S ROSE. Bright rose pink.

PRICES—Pkt., 10c; oz., 40c; ¼ lb., $1.30; lb., $4.00.

SWEET PEA MIXTURES

Our Sweet Pea Mixtures are combined of carefully considered proportions of varieties which have proven themselves to be the very choicest of their respective types and colors. These mixtures cannot be equaled in their beauty and flowering qualities.

MANNS' SUPERB SPENCER MIXTURE. Pkt., 10c; oz., 20c; ¼ lb., 50c; lb., $1.50.

VENIDIUM

FASTUOSUM. Very showy plant 2 to 3 feet tall, producing 3 inch diameter brilliant orange flowers with dark centers. The soft, gray, woolly foliage is very attractive. **Pkt., 10c; ⅛ oz., 75c.**

VERBENA

One of the finest bedding plants and also suitable for borders, with its heads of brilliantly colored flowers, producing one mass of bloom throughout the summer. Seeds may be planted as soon as the ground can be worked or earlier indoors and transplanted to the beds in April or May. They succeed in almost any good garden soil.

HYBRID MAMMOTH MIXED. Extra large flowered, brilliant colors and vigorous. **Pkt., 10c; ¼ oz., 90c.**

***HYBRID COMPACTA MIXED.** Very compact and erect in its habit of growth; excellent border variety. **Pkt., 10c; ¼ oz., 90c.**

VINCA (Periwinkle)

Very attractive bushy plants with luxuriant glossy green foliage, producing in abundance handsome flowers that bloom freely all summer. Excellent for borders, summer bedding and window boxes, one foot tall. Choice mixed. **Pkt., 10c; ¼ oz., 90c.**

WALLFLOWER

SINGLE. Mixed. **Pkt., 10c; oz., 50c.**
SINGLE. Blood-red. **Pkt., 10c; oz., 50c.**

Varieties marked * suitable for Rock Gardens

XERANTHEMUM

CHOICE DOUBLE MIXED. Silky flowers which are highly prized for dried bouquets. Plants grow about 2 feet tall and bloom from early summer until frost. **Pkt., 10c; ¼ oz., 50c.**

ZINNIAS—DOUBLE

We have given particular attention to these annuals, developing them into perfection unsurpassed.

GIANT FLOWERED MIXED. Pkt., 10c; ¼ oz., 40c.

DAHLIA FLOWERED IN SEPARATE COLORS

CRIMSON MONARCH. Deep crimson.

DREAM. Deep lavender purple.

GOLDEN DAWN. Golden yellow.

ILLUMINATION. Deep soft pink.

POLAR BEAR. Pure White.
Pkt., 10c; ¼ oz., 50c.

WILL ROGERS. New memorial zinnia. Glowing intense scarlet blooms of immense size. **Pkt., 10c; ¼ oz., 50c.**

DAHLIA FLOWERED MIXED. Pkt., 10c; ¼ oz., 40c.

FANTASY. Large, well-rounded, informal graceful Chrysanthemum shaped blooms on long stems in the usual range of zinnia colors. **Pkt., 10c; ¼ oz., 50c.**

LINEARIS

Dwarf, compact, early flowering, single flowers, orange, light yellow stripe, dark center. **Pkt., 10c; ¼ oz., 80c.**

DOUBLE LILLIPUT

Dainty profuse blooming type, 12 to 15 inches tall; flowers 1 inch in diameter, very popular. Orange, Salmon Rose, Lilac, Pink, Scarlet, Mixed. Pkt., 10c; ¼ oz., 40c.

Dahlia Flowered Zinnia

VINES

BALLOON VINE. (Cardiospermum.) **Very graceful, rapid grower, producing inconspicuous flowers, foliage light green. Pkt., 10c; ¼ oz., 20c.**

BALSAM APPLE. (Balsamina.) **Fine for trellises or low fences. Rapid growing vines with lobed light green leaves and beautiful fruits of a rich golden yellow color, which when ripe, open up, disclosing the seeds enclosed in a carmine covering. Pkt., 10c; ¼ oz., 25c.**

CARDINAL CLIMBER. (Ipomae Quamoclit Hybrida.) **An easily grown climber developing to perfection in sandy loam soil. The brilliant scarlet flowers are borne profusely. The leaves resemble those of a fine Japanese Mahle. Pkt., 10c; ½ oz., $1.00.**

COBAEA SCANDENS. Of rapid growth, with fine foliage and large bell-shaped flowers of a beautiful violet blue color. Pkt., 10c; ¼ oz., 50c.

WILD CUCUMBER VINE. (Echinocystis lobata.) **A quick-growing and attractive climber, will grow 20 feet in six weeks, the large foliage affording plenty of shade. Covered during the summer and fall with sprays of small white flowers. Pkt., 10c; oz., 40c.**

CYPRESS VINE. (Ipomoea quamoclit.) **Beautiful and very popular, slender vine, with fern-like foliage and a mass of small star-shaped flowers. Mixed colors. Pkt., 10c; ¼ oz., 30c.**

GOURDS. A large and interesting class producing a great variety of curious fruits, many of which are peculiarly marked. Pkt., 10c; oz., 40c.

HYACINTH BEAN. (Dolichos.) **Of extra rapid growth, introduced from Japan and very much superior to the old-fashioned flowering bean. Darkness, purple flower; daylight, white flowers; or mixed. Pkt., 10c; oz., 40c.**

Gourds

KUDZU VINE. (Pueraria thumbergiana.) **Perennial. One of the most rapid growing of all climbers, providing a dense screen of large rich green leaves. Pkt., 10c; ¼ oz., 50c.**

JAPANESE HOP VINE. (Humulus Japonicus.) **Where an attractive climber is desired that will stand rough usage there is nothing better. Variegated leaves. Pkt., 10c; ¼ oz., 30c.**

MOON FLOWER. (Ipomoea mexicana.) **Very pretty, rapid growing vine, with handsome trumpet-shaped flowers. Pkt., 10c; ¼ oz., 20c.**

MORNING GLORY. (Convolvulus.) Giant Japanese Imperial mixed. **Pkt., 10c; ¼ oz., 25c.**
Scarlet O'Hara. Rich dark wine red or deep rosy crimson, 3½ inch diameter. **Pkt., 10c; ¼ oz., 50c.**

Heavenly Blue. Sky blue, shading golden yellow in throat, extremely large. **Pkt., 10c; ¼ oz., 30c.**
Large White. Pkt., 10c; oz., 75c.

PEARLY GATES. (1941 All-American selection.) Enormous flowers, 4½ inches across, clear shining white. **Pkt., 10c; ¼ oz., 75c.**

PASSION FLOWER. (Passiflora.) **A most interesting and well known climber, bearing singularly beautiful flowers. Pkt., 10c; ¼ oz., 65c.**

SMILAX. (Medeola.) **This popular Boston Smilax is a most desirable window vine, on account of its charming, glossy green, graceful foliage. Perennial, splendid for greenhouse or conservatory. Pkt., 10c; ¼ oz., 35c.**

THUNBERGIA. (Black-eyed Susan.) **Free-flowering and of rapid growth. May be trained on a slender trellis or allowed to run freely over the ground to cover bare spaces. Pkt., 10c; ¼ oz., 50c.**

SCARLET RUNNER. Of very rapid growth, producing clusters of showy bright scarlet pea-shaped blossoms, followed by edible beans of very fine quality. Pkt., 10c; oz., 15c.

MADEIRA VINE. Rapid growing climber. Tubers, 15c each. $1.50 per doz.

CLEMATIS PANICULATA. (White.) **One of the most beautifully hardy climbers; of strong rapid growth, producing a profusion of deliciously fragrant flowers. Roots, 75c each.**

JACKMANII. A perennial climber with very delightful purple flowers. Roots, $1.00 each.

Varieties marked * suitable for Rock Gardens.

PERENNIAL FLOWER SEEDS

Perennials are used extensively in old fashioned gardens, hardy borders and rock gardens. They are easily grown and when once established become increasingly beautiful year after year. Care should be taken in selecting varieties according to their color, height and season of bloom.

The seeds may be sown indoors or in hot beds early in the spring and transplanted to their permanent locations when three or four inches tall. Very satisfactory results can also be obtained by sowing the seeds early in August and shading from excessive heat by using lath or burlap screens. It is well to give young plants winter protection the first year.

The following list includes those varieties which are most popular because of their beauty, usefulness and adaptability to local climatic conditions.

ACONITUM (Monkshood or Helmet Flower)

NAPELLUS. A dwarf variety growing 18 inches high, with large dark blue flowers in September and October. **Pkt., 10c; ⅛ oz., 50c.**

ALYSSUM

***SAXATILE—Compactum.** An excellent border plant 6 to 9 inches tall covered with bright sulphur-yellow flowers during early spring. Pkt., 10c; ¼ oz., 40c; oz., $1.25.

ANCHUSA ITALICA (Alkanet)

DROPMORE. One of the finest blue flowered plants growing 4 feet tall. Magnificent spikes from June until frost. An excellent plant for the background to hide walls or fences. Pkt., 10c; ¼ oz., 30c.

ANEMONE

***CORONARIA ST. BRIGID.** Blooms early in the spring, grows about 10 inches tall, and has a variety of colors. Scarlet, Violet, Mixed. Pkt., 10c.

AQUILEGIA OR COLUMBINE

As a cut flower the long spurred Aquilegias are the daintiest of our outdoor grown flowers. Very hardy, blooming profusely early in the season and remaining in bloom for a considerable period. **LONG SPURRED GIANT HYBRIDS.** Pkt., 10c; ⅛ oz., $1.00.

MRS. SCOTT ELLIOTT HYBRIDS. The world's finest strain, consisting of the most wonderful colors, with very long spurred flowers. Pkt., 10c; ⅛ oz., 90c.

***COERULEA**—The Rocky Mountain Columbine. Blue and white flowers, 18 inches tall, blooms during June. Pkt., 10c; ⅛ oz., 75c.

ARABIS—Rock Cress

***ALPINA.** An excellent early blooming dwarf perennial, covered with a mass of white flowers. It makes a fine border to taller perennials. Blooms during April. Pkt., 10c; ¼ oz., 75c.

ARMERIA—Sea Pink

***FORMOSUM HYBRIDS.** Dwarf growing plants with grassy leaves and clover-like flower heads from May until July in various shades of pinks. Pkt., 10c; ¼ oz., 60c.

ASTERS

MICHAELMAS DAISY. Mixed. Pkt., 10c; ⅛ oz., 75c.

AUBRIETIA

***LARGE FLOWERING HYBRIDS.** Excellent dwarf spreading plants with rose, blue and lilac, blooms early in spring. Pkt., 10c; ⅛ oz., 70c.

Varieties marked * suitable for Rock Gardens.

Anemone

BELLIS—English Daisy (Double)

Favorite perennials producing their handsome double flowers in the spring. Rich soil and a cool situation suit them best.

GIANT ROSE. Extra large double rose flowers from April on. Prefers a cool, shady place. Pkt., 10c; ⅛ oz., $2.00.

GIANT WHITE. Beautiful white double flowers produced on compact and sturdy plants. Pkt., 10c; ⅛ oz., $4.00.

DOUBLE MIXED. This mixture includes a well-balanced proportion of all colors. Pkt., 10c.

Aquilegia

BOSTON IVY

AMPELOPSIS VEITCHII. Popular wall ivy with three lobed leaves which turn to a bright red color late in the fall. Pkt., 10c; ¼ oz., 30c.

CACTUS

Good Mixture. **Pkt., 10c; 1/16 oz., 60c.**

CAMPANULA—CANTERBURY BELLS

CALYCANTHEMA. Tall, erect growing plants, completely covered with large cup and saucer-shaped flowers during May and June. A hardy Biennial. Blue, Rose, White and Mixed. **Pkt., 10c; ¼ oz., 90c.**

CAMPANULA (Single)

***CARPATICA.** Hare Bells. Flowers clear blue and white, held erect on wiry stems 8 inches high, begins blooming in July until October. **Pkt., 10c; ⅛ oz., 75c.**

PYRAMIDALIS. Chimney Bells. Produces spikes 4 to 6 feet, covered with star-shaped flowers during entire summer. Blue and White. **Pkt., 10c; ⅛ oz., 75c.**

PERSICIFOLIA. Peach Bells. Elegant blue and white flowers, height 2 feet. **Pkt., 10c; ⅛ oz., $1.00.**

CANDYTUFT

***IBERIS SEMPERVIRENS.** Large heads of white flowers. **Pkt., 10c.**

GIBRALTARICA. White flushed lilac, early. **Pkt., 10c; ¼ oz., 45c.**

CARNATIONS

With protection these well known half-hardy perennials can be wintered over outdoors. When planted early they will begin to bloom in about four months and continue until late in the fall. For winter blooming they should be cut back by removing the flower shoots early in the fall and transplanted to pots and kept in a cool room.

EARLY DWARF VIENNA. Mixed Dwarf, compact plants about a foot tall, displaying an excellent range of bright colors. **Pkt., 10c; ¼ oz., $2.00.**

MARGUERITE. Half Dwarf, choice double mixed. **Pkt., 10c; ¼ oz., $1.00.**

PERPETUAL (Famous Chaubaud Type). Choicest mixture. **Pkt., 10c; ¼ oz., $1.25.**

CHRYSANTHEMUM PLANTS

Hardy Garden Varieties

20c, 30c, 40c varieties $2, $3, $4 per doz.

NEW DOUBLE HYBRIDS

Burgandy, red 30c
Caliph, ox blood-red 30c
Capt. Cook, pink 30c
Ember, coral-orange 25c
Eugene A. Wander, yellow 40c
Goblin, golden bronze 30c
Indian Summer, bronze .. 30c
King Midas, yellow 25c
Lavender Lady 40c
Mrs. P. S. Dupont, peach . 40c
Sun God, yellow 30c

SINGLE HYBRID NORTHLAND DAISIES

Astrid, apricot pink 30c
Good Morning, yellow 40c
Igloo, pure white 40c
Kristina, rose lilac 40c
Loki, wine-red 40c
Mars, early red 20c
Meilin, red 40c
Mrs. Martin, trailing red .. 40c
Orange Wonder 20c
Princess, early white 20c
Red Hussar, late 30c
Rheingold, tall yellow ... 40c
Sappho, early yellow ... 20c
Vesta, two toned 20c
White Spoon 30c
Yellow Spoon 30c

BUTTONS

Bonnibell, orange buff 20c
Early Wonder, early pink . 30c
Judith Anderson, late yellow 20c
White Jewell, dwarf 30c

COMMERCIAL LARGE FLOWERING

Oconto, very hardy flat white 30c
Gold Lode, dwarf early yellow 30c

EXTRA EARLY CUSHION TYPES

Amelia, pink, 20c; bronze, 30c; red, 30c; yellow, 40c.

Marguerite Carnations

CENTAUREA

MONTANA. Showy, thistle-like, blue flowers on sturdy plants, growing 2 feet tall. Blooms freely from late April until late June. **Pkt., 10c; ¼ oz., 50c.**

CERASTIUM—Snow in Summer

TOMENTOSUM. A valuable creeping plant, with silvery white foliage and snowy white star-shaped blooms covering the plants during May and June. When in full bloom the plants appear like a bed of snow. **Pkt., 10c; ⅛ oz., 75c.**

COLEUS (Tender)

An attractive foliage plant for ornamental bedding. Finest hybrid mixture. Pkt., 10c; 1/16 oz., $2.00.

COREOPSIS—Golden Wave

GRANDIFLORA. (Mayfield Giants.) Produces a large number of double and semi-double broadly expanded golden yellow flowers. The plants bloom freely during late spring and summer. Grows about 2 feet tall. **Pkt., 10c; ¼ oz., 25c.**

CYCLAMEN (Tender)

Universally admired, tuberous rooted house plants with beautiful foliage and richly colored flowers. Sow the seed in light rich soil, barely covering, and keep at a temperature of 50 to 60 degrees F. Water freely until well started. Seeds sown in spring, by autumn will produce little bulbs, which placed in pots will bloom the following spring.

AMSTERDAM GIANTS, Florists Prize Mixture. Pkt., 10c; 100 seeds, $4.00.

Varieties marked * suitable for Rock Gardens.

DAHLIA (Half Hardy)

Seed should be planted very early indoors and the plants transplanted in May or June. Most of the plants will bloom the same year. The roots should be dug before freezing weather and stored in sand in a cool place.

CACTUS HYBRIDS. Extra double mixed. Pkt., 10c; ⅛ oz., $2.50.

SINGLE MIXED. Pkt., 10c; ¼ oz., 35c.

DELPHINIUM (Hardy Perennial Larkspur)

One of the finest hardy perennials. Very effective in beds, masses or borders. To prolong the season of bloom cut the old flower stems off after they have faded and new shoots will produce flower heads successively. Sow Delphinium seed as soon as it is received to insure strong germination.

GOLD MEDAL HYBRIDS. A selected English variety, producing long spikes, completely covered with large blooms. The colors range from sky-blue to a deep pansy violet. Pkt., 10c; ⅛ oz., 50c.

NUDICAULE. Deep scarlet. Pkt., 10c; ⅛ oz., 75c.

PACIFIC GIANTS. Mixed. Pkt., 10c; 1/16 oz., $1.00.

WREXHAM HOLLYHOCK STRAIN. Light and deep blue shades. Pkt., 10c; ⅛ oz., $1.50.

DIANTHUS—Hardy Pinks

FLORISTS PERPETUAL. Large clusters, fragrant, very useful for cut flowers. Mixed. Pkt., 10c; ¼ oz., 75c.

***PLUMARIUS—Single Mixed.** Large showy single flowers in wide range of colors during May and June. 1 foot tall. Pkt., 10c; ¼ oz., 50c.

***PLUMARIUS—Double Mixed.** Of very compact growth, double flowers in many colors, during May and June. 1 foot tall. Pkt., 10c; ¼ oz., $1.25.

FEVERFEW (Matricaria)

Beautiful, small, white button-like double flower heads. Plants of husky growth with very finely cut dark green foliage; desirable for bedding. Pkt., 10c; ¼ oz., 50c.

FORGET-ME-NOT—Myosotis

***BIENNIAL ALPESTRIS.** Mixed. Pkt., 10c; ¼ oz., $1.00.

FOXGLOVE OR DIGITALIS

In stately appearance the Foxgloves occupy a prominent place among our hardy plants. They succeed well in an average garden soil. Early summer sowings do best.

MONSTROSA FINE MIXED. This mixture of the Giant Foxgloves is sure to please every gardener. It contains a wide range of rich colors. Pkt., 10c; ¼ oz., 50c.

GAILLARDIA

BURGUNDY. Coppery Scarlet. Some flowers slightly tipped yellow. Pkt., 10c; ¼ oz., 90c.

GRANDIFLORA, FINEST MIXED. Pkt., 10c; ¼ oz., 30c.

PORTOLA HYBRIDS. A new strain of Gaillardia of strong growth. The long stemmed, well-shaped flowers are golden yellow, marked with rich scarlet. Most outstanding. Pkt., 10c; ¼ oz., 50c.

THE DAZZLER. Bright golden yellow with crimson center, rather large. Pkt., 10c; ¼ oz., 60c.

GERBERA (Jamesoni Hybrids)

NEW AFRICAN TRANSVAL DAISY, producing wonderfully beautiful daisy-like blooms of large size, in a wide range of colors. Grown either as a greenhouse plant or propagated in hot-beds and set out early in May. Very profitable cut flower for florists. Pkt., 10 seeds, 10c; 100 seeds, 75c.

Delphinium

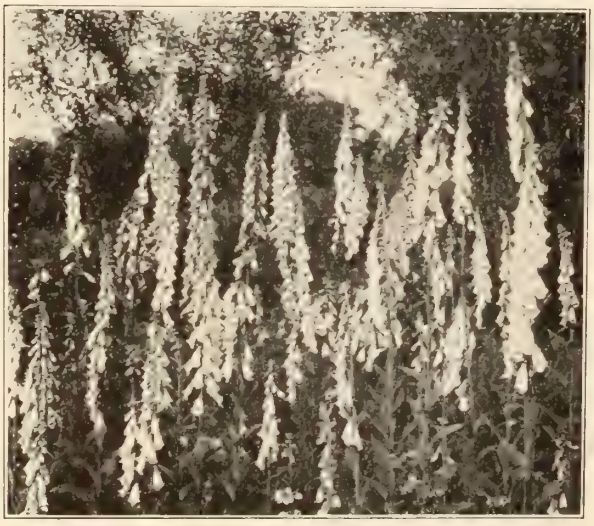
Gerbera

Feverfew

Varieties marked * suitable for Rock Gardens.

Sweet Rocket

Gaillardia



Foxglove

GEUM—Coccineum

*MRS. BRADSHAW. Graceful, double orange-scarlet flowers produced during the summer on plants 2 feet tall. Pkt., 10c; ⅛ oz., 50c.

*LADY STRATHEDEN. Fine, double, golden yellow flowers borne on graceful stems. Blooms during the summer; 2 feet. Pkt., 10c; ⅛ oz., 60c.

GYPSOPHILA—Baby's Breath

SINGLE (PANICULATA). Tiny white flowers borne on slender stems. The plants are simply covered with blooms during June and July; 2½ feet. Pkt., 10c; oz., 60c.

DOUBLE BABY'S BREATH. Small, double, white flowers, carried on slender wiry stems. Makes a fine show during June and July. Pkt., 10c; ¼ oz., $2.50.

*REPENS. An excellent variety for rock-garden planting because of its prostrate growth. The plants are covered with small white flowers during June and July; 4 inches tall. Pkt., 10c; ¼ oz., 85c.

HELIANTHEMUM (Rock-Rose)

*MUTABILE MIXED. Dwarf evergreen, blooms May and June, dry sunny locations; 1 foot. Pkt., 10c; ¼ oz., 80c.

HESPERIS MATRONALIS

(SWEET ROCKET)

Old fashioned garden plants growing 2 to 3 feet high. Excellent for planting in a border or among shrubbery. Mixed. Pkt., 10c; ¼ oz., 40c.

HEUCHERA—CORAL-BELLS

SANGUINEA. Deep red spikes, blooms from May until July. Pkt., 10c; 1/16 oz., $2.00.

HIBISCUS—MALLOW MARVELS

GIANT MIXED. Canes growing 4 feet tall with large flower spikes in Crimson, Pink and White, blooms from May until July. Pkt., 10c; ¼ oz., 50c.

HOLLYHOCKS

CHATERS DOUBLE CHOICE MIXTURE. Pkt., 10c; ¼ oz., 75c.
CHATERS SINGLE MIXED. Large, very artistic blooms. Pkt., 10c; ¼ oz., 20c.

IBERIS—See Candytuft (Perennial)

LATHYRUS—Perennial Sweet Peas

Hardy climber with branches 8 to 10 feet long, blooms freely during the summer. Excellent for cutting.

FINEST MIXED. Pkt., 10c; ½ oz., 60c.

LINARIA—Kenilworth Ivy

*CYMBALARIA. Small lilac blue flowers, are born on a charming neat trailing plant. Pkt., 10c; ⅛ oz., $2.00.

LINUM—Perennial Flax

*PERENNE. Beautiful light blue flowers borne profusely on plants 2 feet tall from July until August. The blooms last only one day but they are produced continuously. Pkt., 10c; oz., 60c.

LUNARIA—Honesty

Biennial plant having round, paper-like seed-pods which are dried for winter bouquets. Mixed. Pkt., 10c; ¼ oz., 60c.

Varieties marked * suitable for Rock Gardens.

Physostegia

Platycodon

Saponaria

LUPINUS—Hardy Lupines

POLYPHYLLUS. Blue. A very popular sort, bearing clear deep azure blue flowers from June until September. Pkt., 10c; ¼ oz., 60c.

RUSSEL. New hybrid. Pkt., 10c; ¼ oz., 90c.

LYTHRUM

SALICARIA. Fine long heads of rich purplish red flowers from early July until late September, 2 to 3 feet tall. Pkt., 10c.

NEPETA

***MUSSINII.** Pale mauve flowers, May-September. 1 foot. Aromatic. Pkt., 10c; ⅛ oz., 75c.

PENTSTEMON

GIANT FLOWERED. Choice mixed. Beautiful bell-shaped flowers on 18-inch spikes. Pkt., 10c; ¼ oz., $1.00.

PHLOX

DECUSSATA—New Hybrids. 2 to 3 feet high; flowers in all bright colors; sow seeds late in fall and they will germinate in the spring. Pkt., 10c; ⅛ oz., $1.25.

PLATYCODON—Chinese Bellflower

GRANDIFLORA. Large showy, deep blue flowers on 20-inch spikes, are produced all summer. A splendid plant for the hardy border. Pkt., 10c; ⅛ oz., 40c.

PHYSALIS—Chinese Lantern Plant

FRANCHETTI. Dense bushes about 2 feet high, producing freely, bright, orange-scarlet, lantern-like fruits. Pkt., 10c; ½ oz., 80c.

PHYSOSTEGIA—False Dragon Head

A very pretty hardy perennial; dense bushes, bearing freely delicate tubular flowers; 3 to 4 feet; July-August.
VIRGINICA. Pink. Pkt., 10c; ⅛ oz., $1.25.

POPPIES

ORIENTAL SCARLET. The blooms are an intense shade of scarlet red having a conspicuous black blotch on each petal, borne on 2½ foot stems, during June and July. Pkt., 10c; ¼ oz., 75c.

PRINCESS VICTORIA LOUISE. An exquisite variety with mammoth flowers of bright salmon rose, very free bloomer. Pkt., 10c; 1/16 oz., 90c.

CHOICEST MIXED. It includes many bright shades as is found in Oriental Poppies. Pkt., 10c; ¼ oz., $1.00.

POPPY NUDICAULE—Iceland Poppies

Great numbers of flowers on slender stems 1 foot long throughout the season.

***COONARA.** Salmon shades. A particularly fine strain of a lovely pink shade of latest introduction. Pkt., 10c; ⅛ oz., 65c.

***SUNBEAM MIXED.** Embracing all the graceful, gaily, colored flowers in white, yellow and orange found in Iceland Poppies. Pkt., 10c; ¼ oz., 75c.

PRIMULA—Primrose

***AURICULA.** Many bright colors, including orange, copper, brown, and other pastel shades. An excellent hardy Primrose for the border; 6 inches tall. Blooms during spring. Pkt., 10c.

***VULGARIS (English Primrose).** Large rich yellow flowers during the spring; 6 to 8 inches tall. A favorite variety. Pkt., 10c; 1/32 oz., $1.00.

CHINESE PRIMROSE. (Primula chinensis fimbriata.) Popular winter blooming pot plant. Special florist strain, giant double mixed. Pkt., 10c.

PYRETHRUM—Painted Daisy

SINGLE MIXED. A showy perennial with daisy-like flowers, blooming during May and June, grows 2 feet tall; rose. Pkt., 10c; ⅛ oz., $1.50.

DOUBLE MIXED. This mixture contains many bright showy colors, shading from white to deepest red. The blooms are elegantly doubled. Pkt., 10c; ⅛ oz., $3.00.

Varieties marked * suitable for Rock Gardens.

Trollius

Stokesia

Wallflower

RUDBECKIA—Cone Flower

PURPUREA. (Echinacea.) A handsome variety, producing large, dull rosy purple flowers with a black center. Blooms from July until October; 2 feet. Pkt., 10c; ¼ oz., 80c.

SAPONARIA—Rock Soapwort

*OCYMOIDES. Splendid hardy rock plant, with rose pink flowers during spring and summer; 6 to 9 inches tall. Pkt., 10c; ¼ oz., 50c.

SCABIOSA

Charming perennials for border and cut flower culture.

CAUCASICA. (Lila.) The large lavender blue flowers are borne profusely on fine long stems. The plants are about 2 feet tall. Pkt., 10c; ⅛ oz., 60c.

SHASTA DAISY

Splendid hardy perennial plants, having large white flowers with yellow center, born singly on long stiff, wiry stems; excellent for cutting; profuse bloomers. Alaska. Pkt., 10c; ¼ oz., 50c.

STATICE—Sea Lavender

Splendid hardy perennials, either for the border or rockery, producing all summer panicles of small flowers, which can be dried and used for winter bouquets; 2 feet.

LATIFOLIA. Large deep-blue flowers. Pkt., 10c; ¼ oz., 75c.

STOKESIA—Cornflower Aster

CYANEA. A lovely hardy plant producing an abundance of handsome blue flowers blooming all summer, 2 feet high. Pkt., 10c; ⅛ oz., $1.00.

SWEET WILLIAM—Biennial

DIANTHUS BARBATUS

Sow the seed very early and have vigorous young plants coming into bloom the same season. They may be sown, however, in August to bloom the following spring.

SINGLE MIXED. All shades of white, pink and red. Pkt., 10c; oz., $1.00.

SINGLE NEWPORT PINK. Pkt., 10c; ¼ oz., $1.75.

SINGLE SCARLET BEAUTY. Scarlet. Pkt., 10c; ¼ oz., 75c.

DOUBLE MIXED. Very fine; all colors. Pkt., 10c; ½ oz., $1.00.

DOUBLE EXTRA DWARF MIXED. Pkt., 10c; ½ oz., $1.00.

TRITOMA—Poker Plant

EARLY HYBRID. Massive orange-scarlet flowers, spikes 3 feet tall. Needs winter protection. Pkt., 10c; ¼ oz., 60c.

TROLLIUS (Globe Flower)

Beautiful border and rockery plants, 18 inches, flowering from May to July.

HYBRIDUS. Orange globe. Pkt., 10c.

VALERIANA (Coccinea)

Very showy red flowered border plant, 2 to 3 feet. Does well in poor soil. Pkt., 10c; ¼ oz., 50c.

VERONICA—Speedwell

SPICATA MIXED. Bright blue, pink and white flowers during June. Grows 1½ feet tall. Pkt., 10c; ¼ oz., 75c.

VIOLAS OR TUFTED PANSIES

Well-known, free-flowering hardy perennials, easily grown from seed. While flowers are not so large as the regular type of Pansy, the blooms are produced in such an abundance and the flowering season so much longer that they are superior to pansies for some purposes. Seed sown in April produces flowering plants by June and from then on until frost they are a sheet of bloom.

LUTEA SPLENDENS (Yellow). 1/16 oz., 70c.

HYBRIDA. Choice mixed. Pkt., 10c; ⅛ oz., $1.00.

WALLFLOWER

GIANT GOLIATH. The earliest and best single variety; large flowered, extra dark blood red. Pkt., 10c; ¼ oz., 35c.

SINGLE MIXED. Pkt., 10c; ¼ oz., 90c.

BRANCHING TALL. Double mixed. Pkt., 10c; ⅛ oz., $1.00.

Varieties marked * suitable for Rock Gardens.

CANNA ROOTS

CITY OF PORTLAND. 3½ ft. pink. Flowers of largest size. A glowing shade of pink. Foliage green. **75c per dozen.**

EUREKA. 4 ft. green foliage. The best white canna for all purposes. The large substantial flowers are very freely produced on strong vigorous plants. **75c per dozen.**

INDIANA. 6 ft. Very large flowers of a rich, golden orange color. **60c per dozen.**

KING HUMBERT. 4 ft. Leaves are purple-brown over bronze. Crowned with immense heads of velvety orange-scarlet. **50c per dozen.**

MRS. ALFRED F. CONARD. 4 ft. The grandest salmon-pink in existence. **60c per dozen.**

PRESIDENT. 4 ft. The most wonderful green leaved, red flowered canna in cultivation. **50c per dozen.**

YELLOW KING HUMBERT. 4 ft. Green leaves, golden-yellow flowers blotched red. **50c per dozen.**

IRIS

ALCAZAR. Reddish bronze and purple.

AMBASSADOR. Reddish violet.

GEORGE YELD. Combination of colors, standards bright apricot shaded rose, falls brilliant rose crimson.

GOLD IMPERIAL. Chrome yellow throughout.

HER MAJESTY. Bright mauve.

KING OF IRIS. Standards clear lemon color, falls deep satiny-brown with broad border of golden yellow.

MOTHER OF PEARL. Pale bluish lavender.

PRINCESS BEATRICE. Silvery lavender.

SKY BLUE. Blue.

WHITE QUEEN. White.

10c each; $1.00 doz.

HYACINTHUS CANDICANS

An ornamental midsummer flowering plant, producing from 20 to 100 large bell shaped flowers of a creamy white color on spikes two to three feet long. **10c each; $1.00 doz.**

PERUVIAN DAFFODIL (Ismene Calathina)

Summer-flowering bulb with large, amaryllis-like, pure white, fragrant blossoms. 2½ in. size. **35c each.**

Hardy Iris

AURATUM (Gold Banded Japanese Lily)

LILIES

	Each	Doz.
Tenuifolium. Bright rich scarlet	$ .20	$2.00
Tigrinum splendens (Single). Red spotted purple black	.30	3.00
Regale. White, shading to yellow in the center with pink tinge on outer edge	.30	3.00

PEONIES

	Each
Baroness Schroeder. Immense white, fragrant	$ .50
Couronne d'Or. White with yellow stamens	.40
Duchesse de Nemours. Surphur white, early	.40
Edulis Superba. Clear mauve pink, very early	.30
Felix Crousse. Ruby red, blooms profusely	.40
Festiva Maxima. White, carmine spot on center petal	.40
Mons. Jules Elie. Glossy lilac pink, shading to a deeper rose at the base	.50
Sarah Bernhardt. Midseason. Appleblossom pink with each petal silver tipped	.50

AMARYLLIS
Giant American Hybrids

The most desirable type of Amaryllis, especially beautiful and easily managed in the amateur's window or conservatory, produces from four to six gigantic blooms of perfect form. Mixed colors, 2½-3 inch **35c each; $3.50 per dozen.**

TUBEROUS ROOTED BEGONIAS

Especially adapted to window or conservatory culture. Sizes 1 to 1½ inch in diameter. Scarlet, pink, yellow. Single or double. **15c each; $1.50 per dozen.**

BLEEDING HEARTS

A beautiful hardy garden plant of graceful habit, 2 to 3 feet high. The foliage is of a highly ornamental fernlike appearance, over which hang the drooping spikes of pink, heart-shaped flowers. Blooms in May and June. Can be lifted and potted for winter and spring bloom indoors. **45c each.**

EXCELSIOR PEARL TUBEROSE

One of the most fragrant and most popular of the summer flowering bulbs. May be started early in hotbeds or pots, or planted in open ground after the first of May. **Extra large size blubs. 5c each.**

CALADIUM ESCULENTUM OR ELEPHANT'S EAR

Large bulbs, 3 to 4 inches in diameter. **20c each; $2.00 per dozen; medium sized bulbs 8c each; 75c per dozen.**

GLADIOLI

Gladioli in Mass Planting

Plant Manns' Gladioli Bulbs. They are strictly 1½ inches or more in diameter, sound, true to name, and can be absolutely depended upon to produce large, beautiful well-formed blooms.

Cultural Suggestions: Set bulbs 4 inches deep and 6 inches apart, either in rows or massed in beds, borders or among shrubbery. Successive plantings from April to July will bloom from July until frost. They will thrive in any good garden soil, but a sunny location is best. Cultivate frequently and water freely while blooms are forming.

AFLAME. Orange-red of immense size. (80 days.)

BEACON. Bright salmon red, cream blotch. (80 days.)

CHARLES DICKENS. Beautiful purple violet. A very good grower with large flowers on tall spikes. (75 days.)

COMMANDER KOEHL. Large massive clear blood red. Tall straight spike. Considered by many the best medium red. (85 days.)

DEBONAIR. La France pink, with cream throat. (90 days.)

DREAM OF BEAUTY. Purest rose red. (80 days.)

DR. F. E. BENNETT. Peach red, overlaid with flame scarlet, throat speckled ruby and creamy white. Flowers of large size and on strong stem. (75 days.)

DUNA. A beautiful clear soft pinky buff. (85 days.)

GIANT NYMPH. Large light salmon pink. Tall grower. One of the very best commercial pink varieties. (80 days.)

LA FIESTA. Beautiful soft orange-bronze, very tall spike, with many flowers open. (95 days.)

MAID OF ORLEANS. Beautiful milky white with cream throat. Tall straight plant with up to 8 large well placed blooms open. (80 days.)

MARGARET FULTON. Clear rich soft rose pink of a beautiful distinct shade. 6 to 8 perfectly placed medium sized blooms open. One of the finest cut flower varieties. (70 days.)

MARMORA. Massive lavender-gray with purple throat. (85 days.)

MINUET. A beautiful clear light lavender. Considered the finest gladiolus in this color. (80 days.)

MORACCO. Glistening dark red, almost black. (90 days.)

MOTHER MACHREE. Lavender, edged salmon-pink. (90 days.)

PEGGY LOU. Pure pink with light rosy cast. Long flower head. One of the 1942 Flower Show champions. (95 days.)

PELEGRINA. Large dark blue. 6 or more perfectly placed blooms open with most of the remaining buds showing color. One of the best dark blue varieties. (75 days.)

PICARDY. Rich apricot, pink blooms. (85 days.)

PRIMROSE PRINCESS. Fine light primrose yellow, straight spike. (90 days.)

RED PHIPPS. Bright red, free blooming, good commercial variety. Many flowers open at one time. (85 days.)

SALBACH'S ORCHID. Large clear orchid-pink. (90 days.)

SCHWABEN GIRL. Pure pink without any other shade or blotch. (70 days.)

SHIRLEY TEMPLE. Huge ruffled cream. (75 days.)

SONATINE. Light pink often flaked with darker pink. (90 days.)

VAGABOND PRINCE. Bronze red, orange blotch. (75 days.)

Variety	PRICES Each	Doz.	Per 100
Aflame	$0.05	$0.50	$3.50
Beacon	.08	.80	6.00
Charles Dickens	.05	.50	3.50
Commander Koehl	.07	.65	4.50
Debonair	.04	.40	3.00
Dream of Beauty	.07	.65	4.50
Dr. F. E. Bennett	.07	.65	4.50
Duna	.05	.50	3.50
Giant Nymph	.05	.50	3.50
La Fiesta	.08	.80	5.50
Maid of Orleans	.05	.50	3.50
Margaret Fulton	.05	.50	3.50
Marmora	.05	.50	3.50
Minuet	.07	.65	4.50
Moracco	.07	.65	4.50
Mother Machree	.08	.80	6.00
Pelgrina	.07	.65	4.50
Peggy Lou	.08	.80	6.00
Picardy	.04	.40	3.00
Primrose Princess	.05	.50	3.50
Red Phipps	.07	.65	4.50
Schwaben Girl	.06	.60	4.00
Shirley Temple	.08	.80	6.00
Sonatine	.06	.60	4.00
Vagabond Prince	.08	.75	5.00

GLADIOLUS MIXTURES

MANNS' SPECIAL VARIETY MIXTURE:
25 Bulbs (mixed) 1 of each listed **$1.15.**
100 Bulbs (mixed) 4 of each listed **$3.85.**
100 Bulbs, in multiples of 10, your selection at 100 rates.

MANNS' SUPERIOR RAINBOW MIXTURE: Made up of varieties which because of their commercial value and reliable flowering qualities are being produced in such large quantities that low prices are made possible.
25c per doz.; $1.85 per 100

ROSE BUSHES

U. S. PLANT PATENTED NOVELTIES

FERTIL-POTTED	Price
ALICE HARDING (202) Golden yellow with carmine	$1.00
BETTER TIMES (23) Cerise-red	1.00
COUNTESS VANDAL (38) Pink with salmon glow	1.00
DICKSON'S RED (376) Scarlet red	1.25
ECLIPSE (172) Rich gold	1.25
HECTOR DEANE (361) Crimson, Orange	1.25
McGREDY'S SUNSET (317) Orange, yellow	1.25
McGREDY'S TRIUMPH (190) Cerise flushed orange	1.25
MISS AMERICA (264) Flesh with salmon and gold	1.25
SIGNORA (201) Orange red	1.00
BLAZE (10) Climber, scarlet	1.00
DOUBLOONS (152) Climber, saffron yellow	1.00
NEW DAWN (1) Climber, pink	1.50
JUNE MORN (375) Climber, red, yellow	1.50

WINTER HARDENED SELECT POTTED EVERBLOOMING HYBRID—TEA

These roses are ready to bloom when planted out in May, and will give maximum results. They were freshly dug last Fall and potted at once, preserving all their vitality. During the Winter they have been developing in cold frames to be planted, pot and all, in the field during March. Their growth has been natural and they should not be confused with bushes which have been forced for cut flowers all Winter.

Place your order early while complete assortment is available.

(Ready About May 15th)

85c each. $8.50 Per Dozen

AUTUMN. Orange-red.
BETTY UPRICHARD. Salmon-pink.
BRIARCLIFF. Rose-pink.
CALEDONIA. White.
CATHERINE KORDES. Scarlet.
DAME EDITH HELEN. Pink.
EDITH NELLIE PERKINS. Cerise-orange.
E. G. HILL. Scarlet.
ETOILE DE HOLLAND. Crimson-red.
GIPSY LASS. Scarlet, crimson.
GOLDEN DAWN. Yellow.
GRUSS AN TEPLITZ. Velvety crimson.
HEINRICH WENDLAND. Red, golden-yellow.
KILLARNEY BRILLIANT. Rosy carmine.
KILLARNEY DOUBLE WHITE. White.
LADY ALICE STANLEY. Rose, pink.
LADY MARGARET STEWART. Yellow, orange, scarlet.
LOS ANGELES. Pink, gold.
MARGARET McGREDY. Red, gold.
MAX KRAUSE. Golden yellow.
McGREDY'S IVORY, Creamy white, yellow base.
McGREDY'S SCARLET. Red.
MISS ROWENA THOM. Rose pink.
MME. EDOUARD HERRIOT. Coral-red, yellow.
MRS. ERSKINE PEMBROKE THOM. Yellow.
MRS. HENRY MORSE. Pink-yellow.
MRS. P. S. DUPONT. Golden yellow.
MRS. SAM McGREDY. Scarlet orange.
PRESIDENT HOOVER. Scarlet, yellow.
RADIANCE. Carmine pink.
RED RADIANCE. Red.
ROSE MARIE. Rose-pink.
TALISMAN. Scarlet orange, yellow.
VILLE DE PARIS. Yellow.

CLIMBING HYBRID—TEA

K. A. VICTORIA. White.
LADY ASHTOWN. Rose pink.
RED RADIANCE. Bright cerise.
MARECHAL NIEL. Golden yellow.

AZALEAS

CALENDULACEA—(Flame Azalea). The most showy Azalea; bears flame-red or orange-yellow flowers before the leaves appear. 15 to 18 inches, **$3.00 each.**

HINODEGIRI. Beautiful brilliant red, **8 to 10 in. heavy $1.50 each.**

MOLLIS—(Chinese Azalea). Thrives in sunny positions, bearing masses of flowers in various shades of red, yellow and orange, 15 to 18 inches, **$3.50 each.**

NUDIFLORA — (Pinxter Bloom). Handsome, early, free flowering, deep pink species, 18 to 24 inches, **$3.50 each.**

RHODODENDRONS

CATAWBIENSE. The most showy Rhododendron, grows 4 to 6 ft.; hardy, vigorous and free-flowering, producing a gorgeous display of lilac purple blooms in May and June. 18 to 24 inch. B. & B., **$4.75 each.**

MAXIMUM. The Great Laurel of the Mountain, attains a height and width of 10 ft. Flowers white to pale pink blooms in June and July. Most beautiful foliage of all Rhododendrons. Very suitable for bold mass planting. 18 to 24 inch. B. & B., **$3.75 each.**

FLOWERING TREES

PINK FLOWERING DOGWOOD—(Cornus Floida Rubra). Beautiful rose pink flowering tree making a lovely contrast with the more common white variety. 18 to 24 inches, **$2.00**; B. & B., 3 to 4 ft., **$5.00**; 4 to 5 ft., **$7.00.**

JAPANESE FLOWERING CHERRIES. Double (30 ft.). Kwanzan, deep pink. 5 to 6 ft., **$5.50 each.**

MAGNOLIA GLAUCA. (Sweet Bay) (20 ft.), 3 to 4 ft., B. & B., **$4.00.**

HEDGE PLANTS

BARBERRY

THUNBERGI. Popular for mixing in the shrubbery border, as single specimens, or for planting in clumps on the lawn, as well as for foundation plantings and for hedges. 3 yr. 12 to 15 in., **$2.00 per 10; $14.00 per 100;** 15 to 18 in., **$2.50 per 10; $18.00 per 100.**

CALIFORNIA PRIVET. 12 to 18 in., **10 for $1.25; $9.00 per 100;** 18 to 24 in., **10 for $1.50; $10.00 per 100.**

DAHLIAS

Exhibition, Garden and Cut Flower Varieties

Dahlias do well in almost any kind of soil, but thrive best in a medium loam. The tubers should be planted in a horizontal position, with the sprout up and about four inches below the surface; they should be set three or four feet apart each way, in deeply spaded soil. Mulch with peat moss and allow only one shoot to stand. A good plant food applied just as the buds start to form will increase the size and improve the color of the blooms. If large exhibition blossoms are desired, it is absolutely necessary to disbud. After the frost has killed the flowers, the roots should be removed from the ground, allowed to dry for two or three days, and then stored away in peat moss in a cool, dry, dark place, where frost will not reach them.

KEY. C—Cactus. IC—Informal Cactus. SC—Semi Cactus. ID—Informal Decorative. FD—Formal Decorative.

AMELIA EARHART—(SC). Apricot buff. **Plants 50c.**

BALLEGO SURPRISE—(SC). White. **Plants 50c.**

BLUE RIVER—(FD). Deep purple. **Plants 50c.**

CALIFORNIA IDOL—(ID). Large yellow. **Plants 50c.**

CHEROKEE BRAVE—(ID). Ox-blood red. **Plants $1.00.**

DISCOVERY—(ID). Purple. **Roots 75c; Plants 50c.**

DULCINEA—(C). Bright red. **Roots 75c; Plants 50c.**

FRECKLES—(FD). Lemon yellow speckled red. **Roots $1.50; Plants 75c.**

GLAMOUR—(ID). Purple veined violet. **Plants $2.00.**

GRAND MASTER—(ID). Orange. **Plants 50c.**

HASLEROVA—(FD). Lavender and purple. **Roots $1.00; Plants 50c.**

JANE COWL—(ID). Bronzy buff and brilliant gold. **Roots 25c.**

JIMMY FOX—(ID). Coppery red suffused henna. **Plants 50c.**

LOIS WALCHER—(FD). Purple, white. **Roots $2.00; Plants 75c.**

MILTON J. CROSS—(ID). Lemon yellow and rose. **Roots 75c; Plants 50c.**

MRS. GEORGE LE BOUTILLIER—(ID). Carmine red. **Roots 50c; Plants 35c.**

MRS. HERBERT O'CONOR—(C). Bright rose pink. **Plants 50c.**

MRS. WM. KNUDSEN—(ID). White. **Roots $1.00; Plants 50c.**

OAKLEIGH MONARCH—(FD). Red. **Plants 50c.**

PHANTOM—(FD). Violet purple with white tips. **Plants 50c.**

PREMIERS MAJESTIC—(ID). Salmon gold and mulberry. **Plants $1.00.**

PREMIERS WINSOME—(I). White with pink. **Plants $1.50.**

ROBERT RIPLEY—(ID). Lavender. **Plants 75c.**

ROI DU ALBERT—(I). Purple and white. **Roots $1.00; Plants 50c.**

SON OF SATAN—(C). Bright scarlet. **Plants 50c.**

SULTAN OF HILLCREST—(FD). Lemon yellow, reverse pink. **Plants 50c.**

VIRGINIA SHIPLEY—(ID). Deep lemon yellow. **Plants $1.00.**

YELLOW SURPRISE—(SC). Yellow. **Plants 50c.**

MINIATURES

NAMED VARIETIES

Plants 25c each.

DAD'S FAVORITE—A winner at the Baltimore Dahlia Show. Bright scarlet and gold. **Roots $1.00; plants 50c.**

POMPONS

Plants Assorted $1.50 per dozen.

PLEASE NOTE

Special unnamed large varieties worth from 50c to $2.50 each. **Roots 25c each; $2.50 per dozen.**

EVERGREENS

These Evergreens have been grown at our proving grounds and are priced low for such high quality material. All are burlaped and balled for safe transplanting.

ARBORVITAE (Thuja)

AMERICAN. A quick compact, pyramidal, grower for house foundation groups. 3 to 4 ft. $3.50.

PYRAMIDAL. A perfect pyramid, densely branched, very slow grower that needs no shearing. 2 to 2½ ft. $2.75; 2½ to 3 ft. $3.50.

GLOBE. A charming little evergreen that is an almost perfect ball, it seldom reaches over 3½ ft. 2½ to 3 ft. $3.50.

GOLDEN GEO. PEABODY. A clear yellow color in the springtime, very compact habit of growth. The flattened leaf clusters face outward edgewise, presenting a beautiful surface of vertical fluted lines. 2½ to 3 ft. $3.50.

JUNIPERS

IRISH—(Communis Hibernica). Symmetrical spiral grower, silvery green foliage. Makes perfect specimen without pruning. 2 to 2½ ft. $2.00; 2½ to 3 ft. $2.75.

PFITZERS. A graceful broad evergreen with sweeping fronds of greenish-blue foliage. It thrives under almost any condition. 1½ to 2 ft. spread $3.00; 2 to 2½ ft. spread $4.00; 2½ to 3 ft. spread $5.00.

ANDORA—(Communis Depressa). A low spreading Juniper. It seldom raises its branches over 18 inches off the ground, the extremities curve upward. Ideal for hillside planting. Spread 12 to 15 inches $1.50.

RETINOSPORAS (Chamaecyparis)

These belong to the Japanese Cypress family and embrace some of the most beautiful evergreens in cultivation.

OBTUSA—(Gracilis). A neat pyramidal tree which develops quite rapidly into a symmetrical pyramid. The foliage is of dark green color above and silvery beneath. 2 to 2½ ft. $3.50; 2½ to 3 ft. $5.00.

PLUMOSA. Useful for hedges and formal work. Is of a tall pyramidal shape with firm green foliage. 3 to 4 ft. $4.50.

SQUARROSA—(Veitch's Moss Cypress). The distinctive silvery-blue foliage makes it very desirable as a lawn specimen or for color contrast in groups. Pyramidal in habit very dense in branch structure. 5 to 6 ft. $7.00.

SPRUCE—PICEA

COLORADO BLUE—(Picea Pungens Glauca). It has steel blue foliage glistening throughout the summer and winter. Seeds sown from the very best strain produces but a very small percentage of blue specimens, which accounts for the high price. 15 to 18 inches $2.50; 18 to 24 inches $3.00.

KOSTER BLUE SPRUCE. This is a grafted variety and undoubtedly is the bluest of all evergreens. Rather high in price but very valuable as a specimen on the lawn. 24 to 30 inches $6.00; 2½ to 3 ft. $7.50.

NORWAY—(Picea Excelsa). A tall picturesque, hardy, rapid growing tree, graceful in all its lines. Used extensively as specimens. 2 to 3 ft. $2.75; 3 to 4 ft. $4.00.

Books for better Gardens

THE BOOK OF ANNUALS
By A. C. Hottes. Complete information on over 100 genera of annual plants, everlastings and vines. Care, culture, diseases, etc. 182 pages, 155 illustrations. Cloth, $1.50, postpaid.

FLOWERS OF THE WILD
By F. C. Pellett. Covers most of the common wild flowers suited for naturalization in the Northeastern States and the best of them from the West. 168 pages, 4 color plates and 104 halftones. Cloth, $1.00, postpaid.

GARDEN GUIDE
Each subject written by an expert in that line. Discusses all phases of gardening pertaining to the owner of a moderate-sized home. 576 pages, 300 illustrations. Cloth, $2.00, postpaid.

THE BOOK OF PERENNIALS
By A. C. Hottes. Complete information on over 140 genera. Discusses care, culture, propagation, fertilizers, diseases, etc. Gives pronunciation under each genera. 280 pages, 103 illustrations, numerous tables. Cloth, $2.00, postpaid.

ROCK GARDEN PRIMER
By A. Thornton. For the amateur who wishes practical information on every minute point in the construction of a rock garden. 152 pages, 4 color plates, 70 illustrations. Imitation leather, $2.00, postpaid.

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By A. C. Hottes. Covers from description to complete care and culture of all the common and some uncommon deciduous shrubs and broad-leaved evergreens. Exceptionally complete. 448 pages, 187 illustrations. Cloth, $3.00, postpaid.

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By R. V. Sawyer and E. H. Perkins. Two closely related subjects presented under the same cover—for those wishing a small tub-pool to the large formal pool. Cloth, $2.00, postpaid.

CITY AND SUBURBAN GARDENING by C. C. Sherlock $1.00
LANDSCAPING THE SMALL HOME by Edw. W. Olver 1.00
1001 GARDEN QUESTIONS ANSWERED by A. C. Hottes 2.50
ORNAMENTAL DWARF FRUIT TREES by E. Abjornson 1.00
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PRACTICAL LAWN CARE by M. G. Merritt .75
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THE GARDENER, by L. H. Bailey. You get full advantage of Dr. Bailey's unequalled knowledge and experience in this book. It tells how to grow flowers, vegetables, and fruits from the time of planting through to maturity. Special articles on different types of gardening. Information that is easy to find and simple to use. 116 illustrations, 260 pages. $2.50

AROUND THE YEAR IN THE GARDEN, by F. F. Rockwell. Because the time when you do your garden work is so important, you need a regular schedule. This book gives you complete information on every garden problem, outlined week by week, and written by a practical gardener. 88 illustrations, 350 pages. $3.00

THE STANDARD CYCLOPEDIA OF HORTICULTURE, edited by L. H. Bailey. This is the one universal and invaluable authority on every horticultural question. Makes a compact but thorough presentation of the kinds, characteristics and methods of cultivation of the plants grown in the United States and Canada for ornament, for fancy, for fruit, and for vegetables. Formerly in 6 volumes, but now in three at about half the original price. 5,000 illustrations, 3,637 pages, 3 volumes, fabrikoid binding. $15.00

HOME FLOWER GROWING, by E. C. Volz. A real flower garden encyclopedia! It will teach you how to propagate and cultivate your plants, how to care for, fertilize, and maintain them. It tells how and when and where to grow flowers; what different kinds look like; how to plan indoor, outdoor, rock, and water gardens; how to prepare exhibits for a flower show; how to organize a garden club. 151 illustrations, 364 pages. $3.00

GARDEN MAINTENANCE, by Ortloff and Raymore. How to prune, fertilize, spray, and care for flowers, trees, shrubs, and lawns. This is a book written for the home owner who already has a lawn and garden space; it does not presuppose a new garden or the complete rearrangement of existing plantings. $2.50

HOW TO GROW ROSES, by Pyle and McFarland. Makes every step in the culture and care of roses so clear that any grower can understand it and succeed with them. A completely re-written edition of America's most popular rose book. 211 pages, 138 illustrations, including 45 varieties illustrated in color. $1.00

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THE GARDEN ENCYCLOPEDIA

Completely revised and contains many new features. This is the lowest price since publication some years ago. Three hundred fifty thousand copies have been sold of the older edition. America's best-selling garden book is now offered at an extremely low price.

$2.98

SPRAY GUIDE

HOW TO GUARD YOUR FLOWER AND VEGETABLE GARDEN

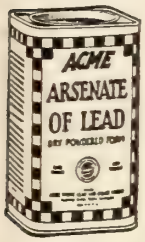
INSECT OR DISEASE	DESCRIPTION	MATERIAL TO USE (See List)	WHEN TO APPLY
Anthracnose	A common disease recognizable from dusky white spots on stems with brown spot on leaves.	**B—Q**	Make first application when growth starts in spring. Repeat weekly until plants start blooming.
Ants	Sweet or grease eating.	**Antrol**	When ants appear.
Aphis	Small green, red or black lice feeding on the tender terminal growth of many plants.	**C—E—X**	When pests first appear. Wet insects thoroughly. Repeat as necessary.
Asparagus Beetles	Olive colored, both adults and grub like larvae.	**A—E—N—S—X**	When grubs first appear, preferably when plants are wet with dew.
Bag Worm	Builds ½-inch to 2-inch tapering bag-web.	**A—M—P—X**	When insects first appear or when evidence of feeding is observed. Repeat as needed.
Black Rot	(Grapes) Fungus disease. Shows first as small white spots, later surrounded by brown ring.	**B—F—G—L—Q**	When leaf buds first open. When shoots are 10 to 15 inches long. Just after blossoms fall.
Blights	Bacterial disease that attacks young shoots and leaves, causing brown or black spots and sudden wilting.	**B—F—Q**	Make first application when growth starts in spring. Repeat weekly until plants start blooming.
Brown Canker	Disease which develops small purple spots on stems and leaves of roses, later turning to light center with purple margin.	**B—F—Q**	As above.
Cabbage Looper **Cabbage Worm**	Pale green-white, striped caterpillar. Doubles or loops as it crawls.	**A—E—N—S—X**	When larvae first appear.
Caterpillars	Wooly or naked. Feed on leaves.	**A—E—M—P—S—X**	When insects first appear or when evidence is observed. Repeat as needed.
Celery Leaf Tier	Pale green or green striped caterpillars.	**A—E—P—X**	When first appears.
Corn Earworm	Green worm which eats into ears of corn.	**A—M—P—S**	Apply to silk when it first shows through the tips of each ear. Repeat two or three times within week.
Cucumber Beetles	Yellow and black striped.	**A—E—N—S—X**	When vines begin to run. Repeat at frequent intervals.
Currant Worm	Green leaf-devouring worm.	**A—E—P—S—X**	When pests appear.
Cut Worms	Destroy plants by cutting stems.	**Snarol**	When first appear.
Damping Off	Causes plants to suddenly wilt as though rotted at the ground level.	**Cuprocide** **Semesan** **Formaldehyde**	Treat seed or soil.
Downy Mildew	White, downy mold on pods of lima bean, or under side of melon leaves.	**B—F—S**	At weekly intervals.
Grape Berry Moth	Lays eggs from which small worm develops in fruit.	**E—S**	Just after blossoms fall. Repeat at monthly intervals until July.
Grapevine Flea Beetle	Dark brown larvae.		
Grape Root Worm	Grayish brown beetles.		
Horn (Tomato) Worms	Large green worms.	**A—E—N**	When bugs or worms first appear.
Japanese Beetles	Bronzy-green about ⅝ inch long.	**J**	When first appear.
Leaf Beetles	Yellow beetles with twelve spots on wings.	**A—E—N—S—X**	When pests first appear. Repeat at weekly intervals.
Leaf Hoppers	Small greenish insects that suck plant juices.	**C—E—N—X**	When pests first appear. Repeat as necessary.
Leaf Spot	Fungus disease causing brown spots on leaves.	**B—F—Q**	Repeat at intervals.
Mealy Bug	White, cottony appearance.	**E**	Every few days until under control.
Mexican Bean Beetles	Copper-colored beetles with eight black spots. Cream-colored larvae, which also devour leaves.	**D—E—K—M—N—S**	When pests first appear.
Potato Bug or Blister Beetles	Gray, black or striped beetles up to ¾ inch long.	**A—P—X**	Spray or dust plants as soon as they break through and every ten days thereafter.
Powdery Mildew	White growth on leaves.	**B—F—Q**	When white growth makes its appearance.
Red Spiders	Small mites that feed on foliage, causing it to assume a rusty appearance.	**E—T**	When pests first appear; on strawberry use Strawberry Dust (85-15).
Rose Beetle	Long-legged clay-colored beetles on roses and peonies.	**A—E—S—X**	When pests first appear. Repeat at weekly intervals.
Rust	Orange-colored pustules (fungus) in streaks or patches on leaves or stems.	**B—Q—V**	When first appears, or early and weekly as a preventative.
Scab Spot	Fungus disease causing black spots on leaves.	**B—F—Q**	Begin when leaves are size of mouse ears and repeat every ten days or two weeks.
Scale	Attacks bark of tree.	**L—R**	As late dormant spray.
Scurfy Scale	Gray, pear-shaped scale.	**O**	When first appears.
Thrips	Tiny winged or wingless insects that rasp leaves and suck juices from plants.	**C—E—X**	When pests first appear. Repeat as necessary.
Tussock Moth	Caterpillar 1½ inches long. Red head. Has tufts of yellow, red, black and white hairs.	**A—E—P**	When insects first appear or when evidence is observed. Repeat as needed.
White Flies	Small whitish flies. In larval stage, tiny, scale-like, greenish objects.	**E—O**	When pests first appear. Repeat as necessary.

LIST OF MATERIALS INDICATED IN ABOVE CHART

A—Arsenate of Lead.
B—Bordeaux, Kopper King, Kopper Queen
C—Aphis Spray, Black Leaf 40
D—20-20-60 Dust.
E—*D-X Evergreen, Red Arrow
F—Dusting Sulphur, Fungtrogen.
G—Grape Dust.
J—Acme Japanese Spray, D-X and Japtox.
K—Dutox.
L—Lime and Sulphur Solution.
M—Garden Guard, Magnesium Arsenate.
N—*Rotenone Dust.
O—*Fish Oil Soap.
P—Paris Green, Red River Potato Mix
Q—Sulfocide.
R—Scalecide.
S—*Slug Shot.
T—Emo, Emo-Nik and Selocide.
V—Volck.
X—Nicotine-Pyrox.

Materials marked (*) are non-poisonous when used as directed. Pyrethrum and Rotenone base materials such as Evergreen, Red Arrow and Rotecide are contact sprays and must strike the insects to be effective.

ACME SPRAYS INSECTICIDES & DUSTS



ARSENATE OF LEAD
(1 lb. makes 25 to 35 gallons)

For fruit trees, vegetables, bushes and tobacco. Can be used as dust or spray. To control Japanese Beetle grub on lawns apply 1 lb. to 100 sq. ft. ½ lb., 20c; 1-lb., 30c; 4-lb. 75c.

ARSENITE OF ZINC
(1 lb. makes 50 gallons)

Ranks next to Paris Green in strength, and the new formula being produced by Acme is greatly improved in physical character. It has gained considerable popularity in certain sections for use on potatoes and other hardy ground crops to destroy chewing insects. Mixes well with Lime Sulfur solution which is used to combat psyllid on potatoes. **1 lb. 30c; 4 lb. 80c.**

BORDEAUX MIXTURE
(1 to 2 lbs. makes 12½ gallons)

Prevents large losses caused by blight, rot, mildew, scab, anthracnose and certain other fungous diseases. It stimulates plant growth and greatly increases the harvests. **1 lb. 35c; 4 lbs. 75c.**

KOPPER KING
(1 to 2 lbs. makes 50 gallons)
(Basic Copper Sulphate).
1 lb. 45c; 4 lb. $1.05.

CALCIUM ARSENATE
(1 to 2 lbs. makes 50 gallons)

Calcium Arsenate is the cheapest arsenical insecticide on the market but of great economy and efficiency for certain purposes. Recommended to combat chewing insects on potatoes, vegetables, cotton and certain fruit trees. **1 lb. 25c; 4 lb. 50c; 24 lb. $2.75.**

RED RIVER POTATO MIX
(Special Formula for Potatoes Only)
(1 to 1½ lbs. makes 12½ gallons, or as dust)

A scientific development combining a new patented copper fungicide with quick-killing arsenic. Kills potato bugs quicker, drives off flea beetle and leaf-hopper, prevents blight from gaining a foothold, stimulates foliage, making more and better potatoes. **1-lb. bag 35c; 4-lb. bag 85c.**

DUSTING SULPHUR
(An Excellent Chigger Chaser)
(2 lbs. makes 35 gallons; or as dust)

An improved dusting sulphur for home use which can also be used as a liquid spray. Recommended to control mildew, leaf spot, black spot and rust on rose bushes, chrysanthemums, snapdragons, carnations, and certain other foliage; also red spiders on evergreen. **2-lb. carton 30c.**

GARDEN GUARD
(1 lb. makes 10 gallons as spray, 15 to 25 lbs. per acre as dust.)

Especially recommended for use on broccoli, cabbage, cauliflower, Brussels sprouts, string beans, currants, and sweet corn. A favorite of the housewife for dusting roses and flower gardens. Controls lice, fleas and mites on dogs, cats, birds, and chickens. **1-lb. sifter carton 40c; 4-lb. bag 75c.**

APHIS SPRAY
(3 oz. tube makes 6 gallons)

An improved nicotine spray combining a soft spray soap with Black Leaf 40, suitable for the control of all kinds of aphis (plant lice), thrip, leaf hopper and many more hardy insects infesting rose bushes, flowers, shrubs, vines, bushes and trees. **3-oz. tube 35c; 12-oz. can $1.00.**

LIME SULPHUR
Dry
(1 lb. makes 4 gal.)

A standard 33° Beaume lime and sulphur converted into a dry powder but having all the effectiveness of the liquid product when dissolved in water.

For use in dormant spraying against scale, peach blight, leaf curl and twig borer. Summer spraying against scab, soot, blotch, red spider and mite. **1-lb. 35c.**

PARIS GREEN
(1 lb. makes 30 gallons)

A rich, emerald color and of fine fluffy physical character. Containing 55% arsenious oxide, it will give quickest control where extreme measures are necessary.

¼ lb. 20c; 1 lb. 55c; 5 lb. $2.35; 14 lb. $5.40.

EMO
(1 pt. makes 4 gallons)

A summer oil spray of fine quality, safe to use, pleasant to handle and of the much desired flowable consistency. Recommended as a contact spray in the control of White Flies, Rust Mites, Blister Mites, Mealy Bugs, Red Spiders, certain scale, and other insects. **8oz. 30c; pt. 50c; qt. 70c; gal. $1.95.**

EMO-NIK
(1 pt. makes 12½ gallons)

Complete contact spray combining nicotine in its most active form with Emo a summer oil emulsion. **4½ oz. 35c; pint 65c; quart 95c; gallon $2.50.**

KOPPER QUEEN
(Mildew Spray)
(1 pt. makes 12½ gal.)

A strong liquid copper spray for the control of mildew, leaf spot, and black spot on rose bushes, flowers, and many other kinds of foliage. Stainless, leaves no unsightly residue which detracts so much from the appearance of flowers and ornamentals in your yard. Use as a liquid spray replacing Bordeaux Mixture and Sulphur. **½ pt. 35c; pt. 60c; qt. 90c; gal. $2.25.**

DOG REPELLENTS

Protect that evergreen — keep dogs away. Remove cap and hang tube of Dawg-Gone (opening down) in the lower branches of trees at the points of approach. Not necessary to place tube in every tree unless standing alone. The odor slowly emanating from the open tube will keep dogs at a distance. **Tubes 25c each.**

CHAPERONE. 4 oz. 50c; 12 oz. $1.00.
ANTI-DOG. ½ pt. 30c; 1 pt. 50c.
DOG CHECK. 3 oz., 60c; 8 oz., $1.00.
DOGZOFF. 3 oz., 60c.
FUMOGEN. 8 oz., 50c.

DUSTING AND SPRAYING MATERIALS

ANTROL ANT SETS

A scientific method, safe, sure, permanent. Can be used inside or outside the house.

READY FILLED ANTROL SET

Set 40c

Individual feeders **Each 10c**

REGULAR ANTROL SET

Four glass containers and 4 oz. bottle syrup.

Set 60c

ANTROL SYRUP
4-oz. bottle 20c; pint 50c

ACME ANT-KILL SETS

Jr. Sets **35c**

Cottage Sets **65c**

ANTROL ANT TRAPS. 10c Each.
ANT-X ANT TRAPS. 25c Each.
ANT-X JELLY. Tubes, 1 oz., 35c.
MAGIKILL JELLY. Tubes, 1 oz.. 35c.

MECHLING'S JAPTOX KILLS REPELS
POSITIVE CONTROL FOR JAPANESE BEETLES

Arsenical poison combined with special sticker and spreader. One application lasts entire Beetle season. (One pound makes 10 gallons.) **Lb., 50c; 4 lb. pkg. $1.50.**

JAPANESE BEETLE REPELLENT. (Liquid.) **8-oz. can, 50c.**

ACME JAPANESE BEETLE SPRAY

(One pound makes 20 gallons.) **75c lb.**

BEETLE TRAPS
(Jar not included)

No. 4 Trap (without cage) **$1.10**
Liquid Bait .. **.70**
No. 1 Trap .... **.50**
Dry Bait .. **.15**
Galv. Rods .... **.35**
Perforated Cages
2 qt. capacity .. **.40**
(As illustrated on bottom of trap.)

No. 4 No. 0

G & O Beetle Traps with Dry Bait, 75c ea.
G & O Dry Bait—1-oz. can 10c; 2¾-oz. can 25c.
G & O Perforated Metal Containers, 20c ea.
G & O Green Painted Rods, 35c ea.

BLACK LEAF 40
(1 oz. makes 6 gallons)

Kills Aphis, Thrips, Leaf Hoppers and other insects on garden, farm and orchard crops by contact and fumes—an advantage not possessed by non-volatile, non-poisonous spray materials.

Also Kills Poultry Lice . . .

Merely paint tops of perches with "Black Leaf 40." Body heat from roosting birds creates fumes which penetrate feathers and kill lice and feather mites. (Cap brush packed with bottle.)

Oz., 36c; 5 ozs., $1.05; 1 lb., $2.42; 2 lbs., $3.57; 5 lbs., $6.70; 10 lbs., $11.65.

CARBOLA

Carbola applied to the walls, ceilings, partitions, nests, etc., of your poultry houses will help to prevent contagious diseases among your flock.
5 lbs., 60c; 10 lbs., $1.00; 50 lbs., $3.50.

CARBOLINEUM—AMERICA

Kills chicken mites and blue bugs in poultry houses, makes wood Termite proof and Stops Rots. **Qt., 45c; gal., $1.50; 5 gals., $6.00.**

CARBON DI-SULPHIDE

Specified by U. S. Dept. of Agriculture for treatment of soils to destroy grubs of the Japanese Beetle.

Also used for control of insects in grain.

Lb., 40c; 5 lbs., $1.35.

CATALIZER

A combined adhesive and spreader, making spray materials more economical and effective, inexpensive. Use 2 pounds to each 100 gallons of spray. 2-lb. pkg., 55c.

COPPER SULPHATE
(Blue Stone)

Powdered: 20c lb.; 5 lbs., 75c; 10 lbs., $1.25.

CORONA COPPERCARB

Grow clean wheat free from bunt or stinking smut and receive top prices for your crop. Corona Coppercarb is a dust recommended by experimental stations to be applied dry to seed wheat any time before sowing. Use 2½ to 3 ounces per bushel of wheat. **5 lbs., $1.25.**

CROW REPELLENT

NO-CROW—Treat corn and other seeds to repel crows, birds, moles, etc. Economical and easy to use. Liquid, **½ pt., 60c; pint, $1.00.**

CUPROCIDE *will Save your Seeds*

YELLOW CUPROCIDE

A Superior fungicide (93% Cuprous Oxide) for treating Seed and spraying seed bed soil and seedlings to prevent "dampening off." Its chief value, however, is for controlling diseases on vegetable crops as it is more effective than Bordeaux and perfectly safe on tomatoes, cucurbits and others which are subject to Bordeaux injury. Use 1½ lbs. per 100 gallons. **3-lb. pkg. $1.40.**

CYANOGAS ANT KILLER—A gas-producing powder. 4-oz. spout can is enough to treat ant nests in average lawn. **30c.**

CYANOGAS A-DUST—Kills rats, moles, woodchucks (groundhogs) and other rodents instantly. "It's the gas that kills 'em." **½ lb., 45c; 1 lb., 75c; 5 lbs., $3.00.**

CYANOGAS G-FUMIGANT—Most widely used greenhouse insecticide. Regular use insures insect-free house all season. **5 lbs., $3.00; 25 lbs., $10.00.**

DX-PYRETHRUM SPRAY
(1 oz. makes 6 gallons)

DX — Powerful non-poisonous spray for both sucking and chewing insects.

1½ oz. ..... **$ .35**
½ pint **1.25**
Quart **3.50**

DX NICOTINE SPRAY. 1½ oz., 40c; ½ pt., $1.40.

DUST

20—20—60 Dust—Arsenate—Copper—Lime. **$8.00 per 100 lbs.**

DOW'S MAGNESIUM ARSENATE

Magnesium Arsenate (pure) 2-lb. pkg., 60c.

Magnesium Arsenate Dust Mixture, 4-lb. pkg., 60c; 100-lb. drum, $12.00.

DUBAY

SEED DISINFECTANTS

These effective seed disinfectants are sold by the Bayer-Semesan Company, a consolidation of E. I. du Pont de Nemours & Company, Inc., and The Bayer Company, Inc. They comprise the following products:

SEMESAN—For vegetable and flower seeds. One ounce to 15 to 30 lbs. seed. **⅛ oz., 10c; 2 oz., 40c; lb., $2.50; 5 lbs., $11.40.**

SEMESAN, JR.—For corn, 2 ounces to 1 bushel corn. **1½ oz., 15c; 1 lb., 75c; 6¼ lbs., $3.75.**

SEMESAN BEL—For potatoes. 1 lb to 60-80 bu. potatoes. **2 oz., 30c; 1 lb., $1.65; 5 lbs., $7.15.**

CERESAN (New Improved) — For wheat. ½ oz. for 1 bu. seed. **4 oz., 30c; lb., 80c; 5 lbs., $3.40.**

DUSTING AND SPRAYING MATERIALS (Continued)

THE EASY WAY . . . Simply dilute with water in accordance with directions and spray, hitting the insects to be controlled. Non-injurious when used as directed. Deadly to many common varieties of both chewing and sucking insects. (1 oz. makes 6 gallons.)

1 oz. . . 35c 6 oz. . . $1.00 16 oz $2.15 Gal. . . $12.20

FISH OIL SOAP

Keeps trees, plants and vines clean and healthy, effectively controlling sucking insects and many forms of scale. **1 lb., 35c; 5 lbs., $1.25.**

ACME SPRAY SOAP

1 lb. 35c; 5 lbs. $1.55

FORMALDEHYDE

Extensively used in the preparation of potatoes for seed, as a preventative against potato scab and to destroy other germs on the seed. Will also control some forms of grain smut. For potatoes a solution of 1 pint to 15 or 20 gallons of water is made and cut pieces are soaked for 2 hours. One to two gallons of this will be sufficient for 1 bushel of seed. Pt., 50c.

FORMACIDE
FORMALDEHYDE DUST

Is a seed and soil treating compound which controls seed borne diseases and when applied to the soil controls "damping off" and other root rots of vegetable and flower seedlings. Usually applied 1 lb. per 10 sq. ft. 1 lb., 85c; 5-lb. can, $2.50.

Fungtrogen
FUNGICIDE FERTILIZER
REG US PAT OFF

An effective and scientific preventive and remedy for mildew, black spot and many fungus diseases of Roses and other plants. Dilute one part to 60 parts water. ½ pt., 75c; pint, $1.25; quart, $2.00.

GRAPE DUST

A readily diffusible, light weight powder fungicide, very efficient in destroying mildews and preventing blights. **1 lb., 35c; 5 lbs., $1.25.**

LIME AND SULPHUR SOLUTION

1 qt., 50c; 1 gal., 95c; 5 gal., $3.25.

DRY LIME AND SULPHUR

Dormant Season: 12 lbs. to 50 gallons.
Growing Season: 3 lbs. to 50 gallons.

1 lb., 35c; 12½ lbs., $1.65.

LORO

1 pint makes 50 to 125 gallons

A contact spray for control of aphids, thrips, red spider, mealy bugs, midge, lace bug, etc. Recommended especially for use on carnations and chrysanthemums. **Pt., $2.00; gal., $10.50.**

MOLE-NOTS

Protects lawns, gardens, flower beds, golf courses, etc. No traps, ready to use. **Pkg. of 8, 35c; pkg. of 50, $1.00.**

MOLOGEN

Patents Pending

Destroys moles quickly, easy to use. No odor or gases. Harmless to soil or grass. **½ lb., 50c; 1½ lbs., $1.25.**

NAPTHALENE FLAKES

Used for sprinkling lightly over bulbs for protection against moles and field-mice. **20c lb.; 5 lbs., 75c; 100 lbs., $14.00.**

"NICO-FUME" LIQUID

Very powerful tobacco extract. Soluble in water. Guaranteed 40 per cent nicotine.

1-lb. tin, $2.40; 4 lbs., $6.35; 8 lbs., $11.10.

"NICO-FUME" POWDER PRESSURE-FUMIGATOR

Improved quality; burns under pressure in special container; more effective and more economical than old methods. Use at approximate rate of 1 lb. per 20,000 to 30,000 cu. ft. of air space. 1 lb. size, 80c ea.; 6 for $4.00; 12 for $7.35; ½ lb. size, 50c ea.; 6 for $2.70; 12 for $4.35.

POMO-GREEN

With Nicotine—1 lb., 80c.

PRUNING PAINT

Forms a protective shield while the tree is recovering from wounds left by pruning, storms or accidents, and helps to prevent diseases. **½ pt., 30c; pint, 45c; quart, 75c; gallon, $2.35.**

PEACH BORER CONTROLS

PARA-DICHLOROBENZENE

Very powerful and effective remedy just coming into general use as a result of the experiments of the Department of Entomology. Should be applied September 1st to October 10th, according to latitude. Some growers prefer to make two applications, the first being in the month of June. One pound is sufficient for 10 to 30 trees, according to size. It is not advisable to treat trees under 4 years of age with Para-Dichlorobenzene, and apple trees should never be treated.

1 lb., 40c; 5 lbs., per lb., 30c; 25 lbs., per lb., 22c; 100 lbs., per lb., 20c.

PARA-SCALECIDE

(1 gallon to 7 gallons water)

(Use 1 pint solution to each three-year-old tree.)

Is effective and safe on young or old trees. **Qt., 85c; gal., $2.20; 5 gals., $7.03; 15 gals., $14.82 (Plus $2.00 deposit on drum.)**

PESTEX (Pest Repellent)

Does not kill but repells dogs, rabbits, squirrels, moles, rats, mice, starlings, pigeons, crows, etc. **Lb., 50c; 5 lbs., $1.75.**

just mix
Pyrox
with water—and spray.

It not only kills leaf-chewing insects, prevents blight and other diseases, as Standard Pyrox does, but it also kills sucking insects, such as aphis, thrips, and leaf-hoppers. Standard Pyrox, of course, is designed for most commercial crops, but in the garden, where sucking insects do so much damage, you will want Nicotine Pyrox.

	Without Nicotine	With Nicotine
1 lb	...	$ .59
5 lb	...	2.00
25 lb	$5.75	6.50
50 lb	8.35	10.65
300 lb	34.50	...

RED ARROW

1 oz. makes 8 gal.

Economical and efficient contact spray, non-poisonous, will not injure blossoms, foliage or fruit; positive death to all types of insects. Poison sprays only kill if eaten, while **Red Arrow Pyrethrum Spray** kills every insect it strikes. **1 oz., 35c; 4 oz., $1.00; 1 pt., $2.85. Grower—1 qt., $3.35; 1 gal., $10.70.**

DUSTING AND SPRAYING MATERIALS (Continued)

ROSE SPRAY

Good-by guesswork! Grow beautiful roses and other flowers with the Acme System of Spray Treatment combining 3 necessary elements (packed separately) to solve the entire spraying problem — NO other sprays needed. Ask for ACME SCIENTIFIC ROSE SPRAY

The number indicates number of gallons of spray each will make.

No. 8	$ .95
No. 6	1.50
No. 24	4.00
No. 48	6.00
No. 96	9.75

ROTENONE DUST

Strictly non-poisonous and proven to be the most practical, effective and economical insecticide for the control of insects attacking vegetable crops. Contains ¾% Rotenone, plus all the toxic (killing) ingredients of the rotenone bearing roots. Should be used at rate of 15 to 25 lbs. per acre or as a spray 1 lb. to 10 gallons. **Lb., 35c; 5 lbs., 85c.**

Let us quote larger quantities.

S. E. C. OIL

A combination of Cotton Seed Oil and a special emulsifier. By adding Cuprocide you have an effective and safe spray for controlling blue mold on tobacco. **Gal. $2.30.**

SCALECIDE

(1 gallon to 15 gallons water.)

Qt., 75c; gal., $1.75; 5 gals., $6.35; 15 gals., $12.95 (plus $2.00 deposit on drum); 30 gals., $21.25 (plus $2.50 deposit on drum); 50 gals., $29.90 (plus $3.00 deposit on drum). (Freight to factory to be deducted from refund.)

SELOCIDE

1 gallon makes 100 to 400 gallons. Kills Red Spider. **Gal., $3.00.**

SLUG SHOT

(Hammond's.) Guaranteed to destroy potato bugs, cabbage worms, lice, fleas, beetles, striped bugs, etc., on currants, egg plants, melons, turnips, beets, etc.; canker worms and caterpillars on fruit and ornamental trees.

1-lb. sifter, 30c; 5-lb. pkg., $1.20.
Liquid—1 oz., 35c; 4 oz., $1.00.

SNAROL

A ready prepared bait meal that means sure death for cut-worms, snails, slugs, sowbugs, and other garden pests. Harmless to vegetation, safest to use, not affected by rain or sprinkling. **1 lb. pkg., 25c; 2½ lb. pkg., 50c; 10 lb. pkg., $1.35.**

STRAWBERRY DUST

85-15 Mixture successfully used for many years to stop clippers cutting off the blossoms. Apply when plants first begin to blossom. **1 lb., 15c; 10 lbs., $1.25; 25 lbs., $2.50; 100 lbs., $8.00.**

SULPHUR

Commercial Flour of Sulphur. **1 lb., 6c; 10 lbs., 50c; 25 lbs., $1.00; 100 lbs. $2.70.**

Superfine Dusting Sulphur. **10 lbs., 75c; 25 lbs., $1.25; 100 lbs., $4.00.**

DRITOMIC SULPHUR

Lb., 20c; 5-lb. bags, 75c.

SULFOCIDE

(1 quart to 50 gallons water.)

Sulfocide is a highly concentrated non-poisonous liquid sulphur fungicide — entirely distinct from lime sulphur.

Pt., 60c; qt., $1.00; gal., $2.50; 5 gals., $8.25; 15 gals., $20.35; 30 gals., $36.30; 50 gals., $55.00.

TARTAR EMETIC

(Control for Thrips)

Use 2 oz. (4½ teaspoonfuls) and 8 oz. brown sugar (1⅔ cups) added to 3 gallons of water. Spray gladiolus after leaves are 6 inches tall every week until buds are formed. **Lb., $1.00.**

Especially recommended for the fall treatment of roses. **10 lbs., $4.75; 25 lbs., $11.00; 100 lbs., $40.00.**

TOBACCO DUST

Excellent insecticide and fertilizer combined, extensively used against black and green aphis, fleas, beetles, etc. Finely powdered and high in nicotine content.

1 lb., 10c; 10 lbs., 50c; 100 lbs., $3.50.

TOBACCO STEMS—Valuable as fertilizer and humus—**10 lbs., 50c; 100 lbs., $2.50.**

TOPTOX—formerly called HITOX

(1 qt. makes 48 to 144 gallons)

A complete Rotenone and Pyrethrum spray for practically all insects. Does not stain or burn delicate flowers or foliage. Non-poisonous to humans. **6 ozs., $1.00; quart, $3.00; gallon, $9.75.**

TREE BANDING COMPOUND

ACME STOP — Used to band trees, shrubs and vines; prevents insects from crawling up to the foliage. **6 oz., 35c; 1 lb., 65c.**

TRI-OGEN

The all-purpose spray

A highly concentrated insect spray and fungicide for garden and greenhouse plants. Stimulates plant growth and is harmless to foliage or blooms.

Small kit (makes 16 quarts), $1.50.
Medium kit (makes 64 quarts), $4.00.
Large kit (makes 32 gallons), $6.00.

VOLCK

For Safe and Sane Control of Nursery, Garden, and Greenhouse Insects

VOLCK is one of the most powerful insecticides known. Even mildews and rusts are prevented and stopped by VOLCK. Not only does VOLCK give effective control of pests, but it also prevents reinfestation for a considerable period; is odorless, colorless and non-poisonous

Volck Does Not Burn the most tender foliage. Coleus, cyclamen, evergreens, ferns, orchids and many other types of plants can be sprayed with safety.

Nursery and Garden, 4 oz., 35c.

Nursery, qt., 75c; gal., $2.25; 5 gals. $8.50.

WEED KILLERS

WEEDEX

The SCIENTIFIC CHEMICAL WEED-KILLER

Easy and economical to use. One gallon of Weedex added to 49 gallons of water makes sufficient treating liquid to effectively cover about 1000 sq. ft. Successfully used in destroying weeds, wild grass, and undesirable growth on tennis courts, driveways, walks and gutters and will not injure or discolor marble, brick, cement or stone but cleans and brightens them. (Not Mailable.) **1-gal. can, $1.65.**

ACME

Quart, 55c; 1 gallon, $1.65.

ZOTOX

Zotox is absorbed through the leaves into the circulatory system of the Crab Grass plants, where its toxic effect causes the plants to die. All Crab Grass seeds contacted by the Zotox solution are rendered non-viable and will not germinate. **8 oz., $1.00; 16 oz., $1.50; 32 oz., $2.50; 5 lbs., $4.50.**

MEO-181

Destroys dandelion, crab grass, and other common weeds. One spraying does the trick—yet only temporarily browns lawn grass. Complete instructions with every package. 1 gallon treats 200 sq. ft.
Qt., 65c Gal., $1.55
5 Gal., $7.25

SPRAYERS

SINGLE ACTION

Low-cost sprayers, made of heavy tin for general purposes. One quart capacity.

No. 452 Misty ..... $ .45
No. 452B Misty Brass 1.35
No. 222 Vapor ..... .25
No. 440 Handy ..... .35
No. 14 ..... .40
No. G2½—3½ oz. Glass ..... .15

Vapor

HARCO

Efficient, easy to use, for indoors or outdoor plants. $2.35.

BOTTLE SPRAYERS

Bronx No. 8P. Pint size, $1.50.

Bronx No. 8Q. Quart size, $1.75.

BLIZZARD

Solid copper tank, seamless brass pump, continuous type, 1 qt. capacity. $2.75.

HAYS JR. SPRAY GUN

All-purpose sprayer, will hold sufficient material at one filling to make 3 gallons of spray. Sprays liquid and most wettable powders up, down, sideways. Attaches to garden hose. $5.95.

CONTINUOUS SPRAYERS

No. 432—1 Quart Tin ..... .80
No. 315—1 Quart Tin ..... .95

No. 335—Brass pump and copper tank. $1.95.

HUDSON PERFECTION

This is the most powerful machine in its class. The barrel is 7½ inches in diameter and 20 inches high. The pump is 1¾ seamless brass tubing. The valves are metal and work automatically from 8 to 15 minutes, and may be recharged in 12 seconds. **No. 210G, Galvanized Steel, $7.25. No. 210B, Copper, $11.75.**

HUDSON JUNIOR

Capacity about 2½ gallons. Shipping weight 8 pounds. **No. 240G, Junior with galvanized tank, $5.75; No. 240B Junior with brass tank, $9.00.**

HUDSON FLAME SPRAYER

An economical and efficient Weed Burner that keeps weeds and other growths out of pasture, lawn and garden. Burns kerosene or stove oil, has a burning area of 12 inches. 3¾ gal. Galv. tank; seamless brass pump.. **No. 200W $16.00.**

HUDSON LEADER

A real value in the compressed air sprayer field. Well constructed throughout. 3½-gal. capacity galvanized tank fitted with funnel top. **No. 192G, $5.00.**

HUDSON CLIMAX

3½-gallon capacity. **No. 235G, Galvanized, $6.00. No. 235B, Copper, $10.00.**

HUDSON BOOSTER

An inexpensive compressed air sprayer, well constructed. 3½ gal. capacity. **No. 191-C, Galvanized, $3.90.**

BROWN'S FUNNEL TOP

No. 250-D—Galv. 2½ gal. capacity ..$4.50

"CCC" BUCKET SPRAYER

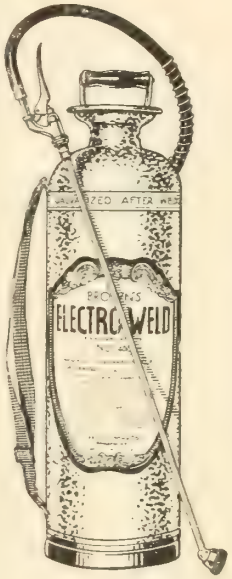
Price $7.20

BROWN'S OPEN-HED

Electrically welded seams and galvanized after fabrication. Double acting pump lock, tank opening 5 in. in diameter, can easily be wiped dry to lengthen life of sprayer, tank guaranteed for 100 lb. pressure, rubber double grip pump handle.

No. 4B—Brass, Temporarily Discontinued.

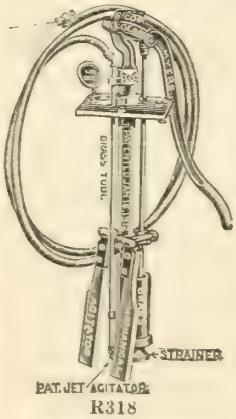
No. 4D—Galv. Temporarily Discontinued.



BROWN'S No. 400

A sprayer designed to give maximum service, electrically welded seams, funnel shaped filler opening for easy filling, 2-inch diameter solid brass pump cylinder, 4-gallon capacity. Galvanized, $6.40.

COG-GEAR BARREL SPRAY PUMP

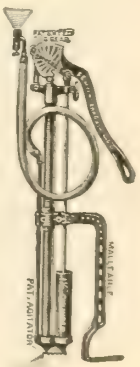


R318

No. R305B, $16.00. No. R318B, $17.00. No. R308B, $28.50.

MYERS LEVER BUCKET SPRAY PUMP

No. R324, $7.25. 8-foot extension pipe, 80c.

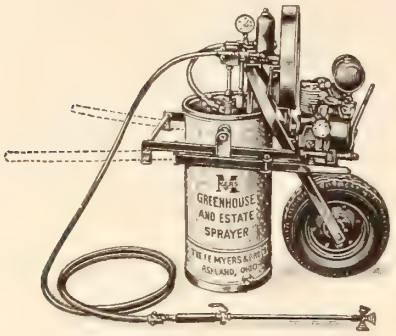


R324

HUDSON BARREL SPRAY PUMP No. 4S, $10.50.

HUDSON BUCKET FIRE PUMP No. 142 A.R.P., $9.50.

MYERS GREENHOUSE AND ESTATE SPRAYER



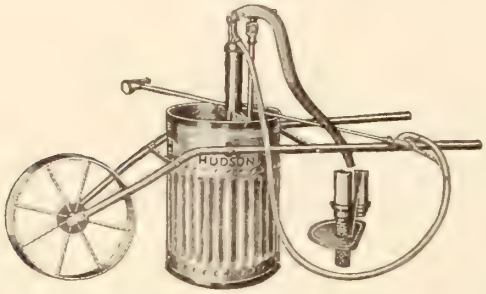
Motor or engine powered, rubber tire or steel wheel, folding handles, 12½ gal. galv. tank, 225 lb. pressure porcelain lined pump.

No. 806MGHS—Motor driven ¼ H. P.—110 volt 60 cycle with 50 feet of cord, steel wheel **$90.00.**

No. 806MGHR—Motor driven ¼ H. P.—110 volt 60 cycle with 50 feet of cord. Temporarily Discontinued.

No. 806EGHS—Engine driven ½ H. P. steel wheel **$112.50.**
No. 806EGHR—Engine driven ½ H. P. rubber tired. (Illustrated.) Temporarily discontinued.

IDEAL PORTABLE SPRAYER



An ideal wheelbarrow type sprayer with 18-gallon galvanized tank and operated with a large removable barrel pump. The frame is made of heavy steel tubing reinforced with channel iron cross braces. Discharge equipment consists of 6-foot spray hose, 4-foot extension pipe, an Ideal angle nozzle, and leakless shut-off. **No. 34** (Illustrated), **$22.50.**

MYERS TRACTION SPRAYER

No. 1078—An economical one horse, two-row traction sprayer for row crop, well balanced, for easy handling. 25 gal. galvanized tank, maximum pressure 150 lbs; rotary agitator, adjustable boom, nozzles, lever shut-off and relief. Temporarily Discontinued.

ARNOLD GARDEN HOSE INSECTICIDE SPRAYER

Complete Sprayer consists of non-leak shut-off, transparent cartridge chamber with metal threaded ends, and 12-inch angle spraying nozzle. All metal parts chromium plated. **$4.00**

Accessories

36-inch Angle Extension Nozzle, chromium finish....**$1.75**

36-inch Straight Extension, chromium finish **$1.75**

Sub-Surface Feeder and Irrigator, Dulux finish **$1.75**

Extra Transparent Cartridge Chamber with metal threaded ends, chromium plated, and chromium plated Coupling to form double chamber for dual spraying.....**$1.75**

Cartridges

Arsenate of Lead, Bordeaux Mixture, Dormo-Spray, Fertilizer, Nicotine, Pyrethrum, Rotenone, Sulphur, Vitamin B-1—**35c each.**
Vitamin B-1 Cartridge with Arnold Midget Sprayer—**$1.50.**

ROOT DUSTERS

CHALLENGER TWO ROW TRACTION (Illustrated). Easy to operate and does twice the amount of work in half the time and with better results than hand models. Feed adjustment per acre 1 to 20 lbs. Hopper capacity 7½ lbs. **No. T3, $36.30.**

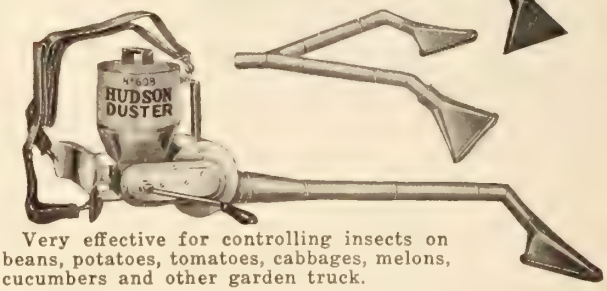
No. P2, JUMBO—Plunger type, dusts both top and underside of plant foliage. 2½ in. dia., 32½ in. long, **$2.75.**

C-2—A sturdy and economical crank type duster, built of heavy steel, gears enclosed in dust proof steel housing, well balanced for easy operation. Hopper capacity 7½ lbs. **$15.40.**

C-3 — (Illustrated). Hopper capacity 7½ lbs. Feed adjustment per acre 1 to 20 lbs. **$19.80.**

C-3

HUDSON DUSTERS



Very effective for controlling insects on beans, potatoes, tomatoes, cabbages, melons, cucumbers and other garden truck.

All parts are pressed from lead coated sheet steel, attractively painted and finished. Gears are steel, machine cut, housed in a dust proof case filled with oil. All bearings are self lubricating. Discharge equipment consists of two nozzles, two elbows, a Wye connection, and four 15-inch tubes. Can be used with one or two nozzles, arranged for dusting from above or under surface of low lying plants, shrubs, etc.

No. 608—Develops unusually powerful air blast and has two agitators, one rotary and one oscillating. Capacity 5 to 10 pounds, depending upon the material used. **$14.00.**

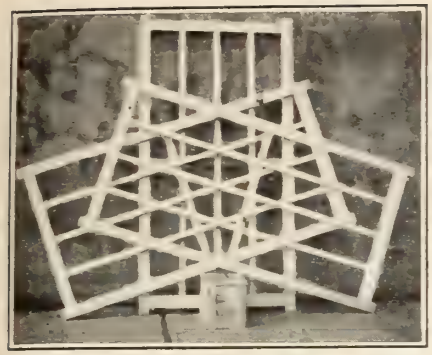
CRYSTAL DUSTER
Temporarily Discontinued.

HUDSON DUSTERS

Patrol, as illustrated, **$1.00.**

Cadet, Powder Reservoir, 3x4 inch, **40c.**

Major, Powder Reservoir, 4x4½ inch, **90c.**



HOT BED SASH

Finest quality; free from knots, substantially made (unglazed). Size, 3 ft. 2 in. by 6 ft.

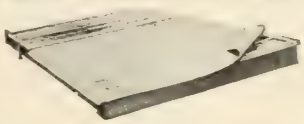
WHITE PINE (Rabbeted for putty), **$2.25 each; 10, $20.00.**

CYPRESS (Grooved for glass to lap), **$2.75 each; 10, $25.00.**

HOT BED GLASS

1 box will glaze 3 sash, 8x10 and 10x12, **$3.85 per box.**

MICO WATERPROOF HOT BED MATS



Made from heavy weight burlap, absorbent pulp and felt cemented together with a specially prepared waterproof compound. This combination forms a covering both airtight and waterproof. 40x78 inch, $2.10 each.

PEERLESS GLAZING POINTS

Pound box, 85c. PINCERS, 70c pair.

TWEMLOW'S OLD ENGLISH GLAZING PUTTY

Semi-Liquid

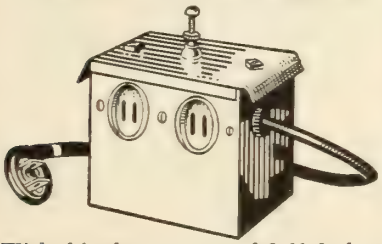
For bedding glass in sash and filling cracks or seams in roof joints or frames of greenhouses or hotbeds.

16-pound can (1 gallon capacity), $2.35

PUTTY BULBS

For applying liquid Putty to sash or greenhouses. **12-oz. size, $1.25.**

ELECTRIC HOT BED HEATER



With this thermostat and 2-60 ft. heating cable, four sash, or a total surface 6 ft. by 12 ft., can be economically heated.

Temporarily Discontinued.

WOODEN LABELS	Painted	Plain
4 inch pot, per 1,000	$2.20	$1.80
5 inch pot, per 1,000	2.40	2.00
6 inch pot, per 1,000	2.75	
3½ inch Tree, copper wired	2.50	2.00
8 inch Garden, per 1,000	5.00	..
10 inch Garden, per 1,000	6.25	..
12 inch Garden, per 1,000	8.50	..

Prices, per 100—3½ to 6 in., 40c; 8 in., 85c; 10 in., $1.10; 12 in., $1.25.

GALVANIZED WATERING POTS "WIDE SPOUTS"

4 qt.	6 qt.	8 qt.	10 qt.	12 qt.	16 qt.
....	....	....	$1.10	$1.30	....

WOTHERSPOON LONG SPOUT WATERING POTS

6 qt.	8 qt.	10 qt.
$5.50	$6.25	$7.00

CEDAR PLANT TUBS

(Richmond Style)

Made of Selected Virginia White Cedar, bound with electric welded hoops, painted green.

No.	Inside Top Dia.	Inside Bot. Dia.	Inside Depth	Price
5	10	7½	9	$ .95
7	12	9	11	1.45
9	14	11	13	2.10
11	16	12½	15	2.55
13	18	14½	17	3.60

TWIST-EMS

The new handy plant tie, simply put around the stem, twist and it is tied. Green.

4 inch—250 in box	**25c**
8 inch—125 in box	**25c**
16 inch—125 in box	**50c**

RAFFIA

Natural color in braided hanks of about 2 pounds. **50c lb.**

FLOWER POTS

A complete line of regular pots, azalea pots, bulb pans and saucers.

Size	Each	Dozen	100	1,000	Saucer Each
2 in.	$ .02	$ .20	$1.15	$9.20	....
2½ in.	.03	.25	1.60	12.00	....
3 in.	.03	.30	1.90	15.50	....
4 in.	.05	.45	2.90	24.00	$ .04
5 in.	.08	.75	5.15	....	.05
6 in.	.10	1.00	7.45	....	.06
7 in.	.16	1.60	....	....	.08
8 in.	.25	2.50	....	....	.10
9 in.	.35	3.50	....	....	.15
10 in.	.50	5.00	....	....	.20
11 in.	.75	7.50	....	....	.30
12 in.	.90	9.00	....	....	.35

NEPONSET FLOWER POTS

Dia.	Red Shipping per 100	per 1000	Green Growing per 100	per 1000
2 in.	$ .40	$3.45		
2¼ in.	.45	3.60	$ .80	$6.25
2½ in.	.50	3.75	.85	6.85
3 in.	.55	4.30	1.00	8.10
3½ in.	.65	5.50	1.35	10.25
4 in.	.80	6.75	1.50	11.80
5 in.	1.15	9.00	2.25	17.00
6 in.	1.45	11.80	2.75	22.00

WATERPROOF PLANT BANDS

Ready-to-use Plant Bands.

Size	Depth	Per 5,000	Per 1,000	Per 250
2x2 in.	2½ in.	$14.50	$3.10	$1.00
3x3 in.	3 in.	17.95	3.90	1.30

B-B WATERPROOFED PLANT BOXES

Strong waterproofed plant box contains 12 craft board pots, makes plant starting and growing easy and economical. **20c each; 2 for 35c.**

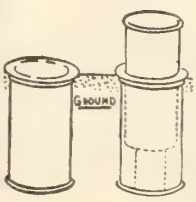
BAMBOO PLANT STAKES

5 ft. Heavy **$1.00 per doz. $7.00 per 100**

CYPRESS PLANT STAKES

Pointed, smooth sawn 1 in. x 1 in.

5 ft. **$1.00 per doz.**	**$7.00 per 100**
6 ft. **$1.15 per doz.**	**$8.00 per 100**



HYACINTH STAKES

—Green Ground level, Aluminum finish, **$1.00.**

12 in., **35c** 100; **$1.90** per 1,000. 18 in., **45c** 100; **$2.75** per 1,000.

CEMETERY VASE

FLOWER BOXES

Galvanized, green. 8½ inches wide and 6 inches deep.

PERFECTO—Green. 26 in., **$1.65**; 32 in., **$1.90**; 38 in., **$2.75.**

SEED FLATS (METAL)

Has drain screw. Size 15 in. x 13 in. x 2½ in. deep, **$1.50.**

SEED FLATS (Wood)

Made of finest quality cypress, sides and bottoms ⅜ in. thick, ends ¾ in. Size 20x14x2¾ in. K.D. with nails. **35c each; lots of 10, $3.00.**

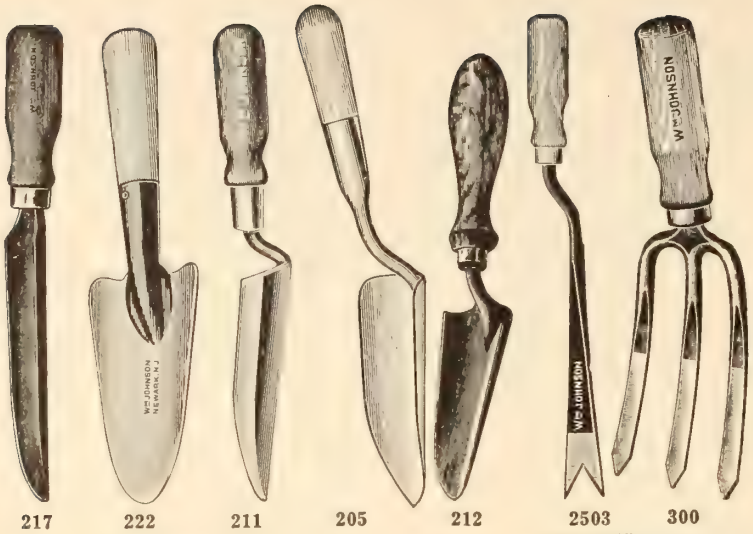
GALVANIZED HARD STEEL WIRE PLANT STAKES

No. 8 gauge.

Height	Doz.	100	1,000
3½ ft.	.50	2.50	21.90
4 ft.	.55	2.95	25.00
4½ ft.	.58	3.15	28.50
5 ft.	.60	3.45	31.25

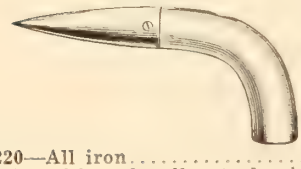
GARDEN LINE REELS

Finished in blue enamel, **$1.75.**



217 222 211 205 212 2503 300

DIBBLES



No. 220—All iron ..... $ .55
218J—Wood bent handle, steel point .70
Steel Points only ..... ea. .40

HOLE-IN-ONE TOOL

60c

LOPPING SHEARS

No. 5406—20-in. hdl. $1.95
No. 5403—22-in. hdl. (drawcut) illustrated 3.60

PORTER POINT CUT No. 1—20-inch steel handles, adjustable drawcut. $4.75. 24-inch, $5.10.

THERMOMETERS

5126—6 inch, Walnut $1.10
5132—6" Metal, cream ..... .85
5316—8½" Window; White Enameled 1.10
5440—6" Tin, painted green ..... .35
Mushroom Bed and Hot Bed, Brass Point 2.00

GARDEN GADGET (Illustrated) 50c

GRAFTING WAX Trowbridge Brand
¼ lb., 25c; ½ lb., 35c; lb., 55c.

FRUIT PICKER Without pole 60c.

WEEDER

No. A—3 Tines, 9¼-in. handle (illustrated) ..... $ .15
No. B—3 Tines, 22-in. handle ..... .20
No. BB—3 Tines, 40-in. handle ..... .30
No. C—4 Tines, 10-in. handle ..... .25
No. D—4 Tines, 10¼-in. handle, with blade ..... .40
No. G—4 Tines, 57-in. handle ..... .90
402J—5 prongs, plug handle ..... .15
Doo Klip No. 4—Long handle 2.00
Rifle Weeder, long handle 2.85

GRASS SHEARS

V-2 *(Out of Stock)* 800

No. V-4—Polished blade, orange enameled malleable handle ..... $ .50
No. V-2—(Illustrated) ..... .55
No. 800—(Wiss) Illustrated ..... .89
Snip-Itt. Similar to No. 800 ..... 1.00
No. C-4—(Wiss) Flower and thinning shear 1.40
No. 700—(Wiss) Cadmium plated blade, red grip guard handles 1.35
Doo-Klip—Cadmium plated blade, green enameled handle 1.50
No. A-350—6" Progress 1.50
No. T126STRA—6" 1.50

PRUNING SAW

No. 118—18 inch $1.15

THE RODERICK MOLE TRAP

(Illustrated) $1.25

OUT-O'-SIGHT MOLE TRAP

$1.25

ASPARAGUS KNIFE

2503J—Short handle ..... $ .20
No. 223V—Long handle ..... .45
251J—Long handle ..... .40
ASPARAGUS BUNCHER 3.85

GARDEN TROWELS

T4V—6-in. Pressed Steel ..... $ .15
400J—6½-in. Blade, Plug Hdl ..... .15
212J—6-in. Extra Strong ..... .25
T20V—6-in. Steel Blade ..... .30
2120J—6-in. Steel Blade ..... .35
211J—6-in. Forged Steel ..... .65
T10V—6-in. Solid Shank ..... .75
205J—6-in. Forged Steel ..... .85
222J—5½-in. Strawberry ..... .15
217J—5-in. Transplanting ..... .10
217J—7-in. Transplanting ..... .20
DSGT—6¼-in. Blade, Offset Handle 1.00

HAND GARDEN FORKS

No. 300—3 Tine ..... $ .40
No. 401J—4 Tine, plug handle ..... .15

HANGING BASKETS

Enameled green
10 in. 30c

HINGED HANGING BRACKETS

15c each

TREE PRUNER

8 ft. $2.10
10 ft. 2.25
12 ft. 2.50

PRUNING HOOKS

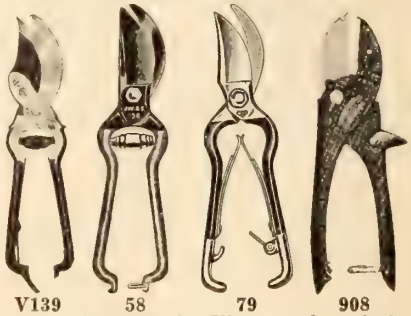
Without Pole

No. 11—Telephone ... $2.50
No. 166—Pruning shear and hook 1.75
No. 167—Pruning, curved saw, shear and hook 2.50
No. 168—Pruning, straight saw, shear and hook 2.50

HEDGE SHEARS

Serrated		Plain	
VSTO8—8 in.	$2.25	260—6"	$1.50
VSTO9—9 in.	2.50	016—9"	1.75
6½B—6½ in.	2.00	With Oil Cup	
8½A—8½ in.	2.75	K101—9"	2.40
9½A—9½ in.	3.00	K101—10" ...	2.60
8½E—8½ in.	3.50	K101T—9" ...	2.70
9½E—9½ in.	3.75		
9R—9 in.	3.75		
218—8½ in. .	3.00		

PRUNING SHEARS



V139 58 79 908

No. 58—(Wiss) 8 in. Illustrated .... $ .89
No. V179—9 in. Similar to No. 58 .. 1.00
No. 79—(Wiss) 9 in. Illustrated 1.75
No. V139—9 in. Illustrated 1.55
No. 908—8 in. Nickel finish with bronze anvil and phosphor bronze spring 2.25
No. 309B—Extra thin interchangeable hammer forged blades with wide bevel, forged handles, brass spring 3.75
No. 9 Porter (Twin Cut Professional) Drop forged from selected tool steel, blades, heat treated and entire head polished 3.75

RHS14 YSC14 RHB14

LEVEL HEAD STRAIGHT TOOTH RAKES

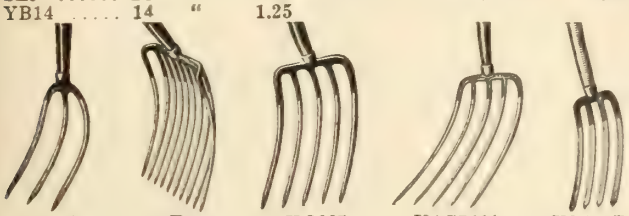
S12	12 Teeth	$ .80	RHS14	14 Teeth	$ .70
YS12	12 "	.80	YS16	16 "	1.00

LEVEL HEAD CURVED TOOTH RAKES

FR	8 Teeth	$ .75	YSC14	14 Teeth	$1.00
YSC12	12 "	.90	RHLSC	16 "	.80
SL10	14 "	1.00	YSC16	16 "	1.15
RHLSC	14 "	.70			

ROUND BOW CURVED TOOTH RAKES

RHB14	14 Teeth	$ .90	RHB16	16 Teeth	$1.15
SL9	14 "	1.00	YB16	16 "	1.40
YB14	14 "	1.25			



YA36 E10 HOM5 YAS54½ YSAHD

HAY FORKS

No.	Tines	Price
RHA36	3-12 in.	$1.50
YA36	3-12 in.	1.75

MANURE FORKS

No.	Tines	Price
RHA44½	4-12 in.	$1.40
YA44½	4-12½ in.	1.60
YAS54½	5-12½ in.	1.90
RHA64½	6-12½ in.	1.95
YAS64½	6-12½ in.	2.15
A64½	6-12½ in.	2.70

ENSILAGE FORKS

No.	Oval Tines	Price
E8	8-16 in.	$3.45
E10	10-16 in.	3.70

SPADING FORKS

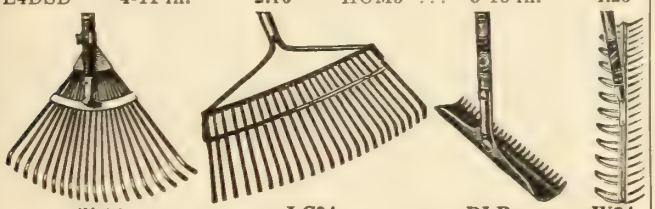
No.	Flat Tines	Price
BAAD	4- 8 in.(boys)	1.20
YSAHD	4-11 in.	1.50
YS5AD	5-11 in.	2.35
S5AD	5-11 in.	2.60

HEAVY FORKS

No.	Diamond Tines	Price
HDM4	4-14 in.	$3.00
EHDM4	4-16 in.	3.20
EHDM5	5-16 in.	4.00
HDM6	6-14 in.	4.50

No.	Square Tines	Price
E4DSD	4-11 in.	2.10

No.	Oval Tines	Price
HOM5	5-15 in.	4.25



SL14 LC24 DLR W24

BROOM RAKES

No.	Teeth	Price
BRF22	22-14 in.	$1.20
SL14	22-14 in.	1.20

DANDELION RAKES

No.	Teeth	Price
DLR	26-3½ in.	$1.15
DLRW	38-3½ in.	1.25

LAWNCOMB RAKES

LC24 24-9½ in. Teeth $1.85
BAILIE, $1.90

WIRE LAWN RAKES

W24 24-4½ in. Teeth $1.00

WOOD LAWN RAKE

3 Wire Brace, 24 teeth, 80c; 1 Wire Brace, 20 teeth, 65c.

WOOD HAY RAKE. 2 Wire, 10 teeth, 50c

BAMBOO RAKES. 35c

SWKS (Out of Stock) (Out of Stock)

WEED CUTTERS

SWKS $1.00

LAWN EDGE CLIPPER

Planet Jr. No. 2 ..... $1.25

WEED SLUGGER No. 7G. 17 in. sharp all around, polished blade, 36 in. handle, $2.00.

YSG W7S SL4 BCH6 2PWF *(Out of Stock)*

GARDEN HOES

SL8	8 in. Blade	$1.00
YSG	6, 6½, 7, 7½, 8	1.20

WARREN HOES

SL6	4¾ in. Blade	$1.15
W7S	4¾ in. "	1.15

NURSERY HOES

SL4 ... 2½ in. Blade $1.00

BEEBE CULTIVATOR HOE

BCH6 .... 6 in. Blade $1.30

TWO PRONG HOES

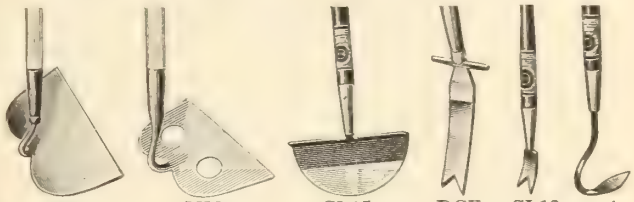
2PWF . 3⅝ in. Blade $1.15

SIDEWALK SCRAPERS

RHSC 7x4½ in. Blade $ .70
SSC ....7x6 in. " 1.25

PUSH PULL HOE

SL13 ..... $1.00



MR9 MM9 SL15 DCF SL12 *Out*

MORTAR HOE

MR9 ..... $2.00

MORTAR MIXER

MM9 ..... $2.00
MM10 ..... 2.25

TURF EDGERS

No.	Size	Price
SL15	9 in.	$1.00

DANDELION WEEDERS

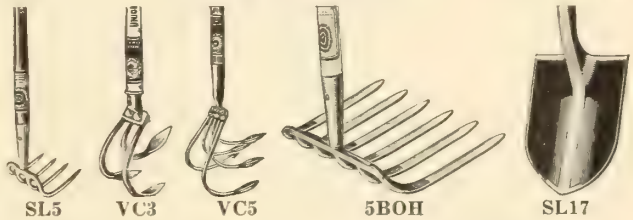
DCF $1.85
DCFDV 2.10

DANDELION WEEDERS

SL12 $ .45

SNOW PUSHER

Q18—18" $1.00
H15—15" 1.40
H22—22" 1.65



SL5 VC3 VC5 5BOH SL17

SPEEDY CULTIVATORS

No.	Tines	Price
SL5	4	$1.20

VICTORY CULTIVATOR

No.	Tines	Price
VC3S Short Hdl.	3	$ .70
VC3	3	1.15
VC5	5	1.45

POTATO HOOKS

No.	Tines	Price
5BOH	5-6½ in.	$1.85

SPADES

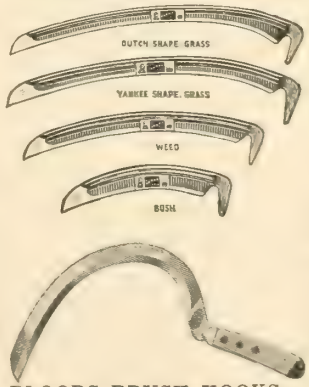
GSUD Razor Back "D" Handle $1.45

SHOVELS

Rd. Pt. Long Hdl.
No. 0-717L Ladies..... $1.25
CSL Ladies 1.15
SL17 ..... 1.25
R248 Razor Back..... 1.45
Sq. Pt. Long Hdl.
HAUL Handy Andy.... .85
No. 2-701 Ingersoll.... 1.45
Sq. Pt. "D" Hdl.
No. 2-700 Ingersoll.... 1.45
R2UD Razor Back ... 1.45
No. 6 Scoop 1.45
Rd. Pt. "D" Hdl.
No. 2-703 Ingersoll.... 1.45

CHAMPION POTATO SCOOP

Heavy wire, D Handle $2.85



SCYTHES

Best American Grass..... $1.95
Bush or Brier Scythes.... 1.80
Weed Scythes, 24 in..... 1.75

SNATH or SCYTHE HANDLES

Patented Fasteners..... $1.85
Bush Snath, heavy..... 1.85

SCYTHE STONES

Darby Creek (Flat)..... $ .30
English Talacre (Round).. .35

GRASS HOOKS OR SICKLES

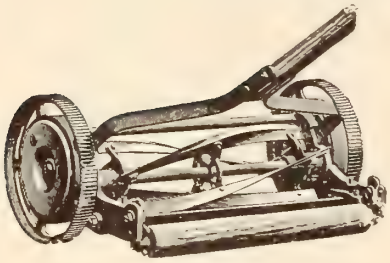
No. V5..$ .45 No. V3 $ .75
No. V4.. .50 No. V35. .85
No. V2 .65
Badger Detachable Blade. .85
No. V6. Long Handle..... 1.05

BLOODS BRUSH HOOKS..... $2.35

QUALITY LAWN MOWERS

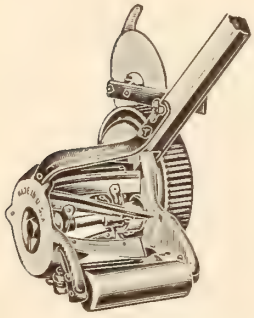
All reliable, successful brands on which repairs are always easily obtained.

LEADER BALL BEARING



4 blades. Very light running. Wheels 9 inches high; self-sharpening; high speed.

18 in. $9.60



NOBRAKO BALL BEARING

5 blades, 10½ inch dia. wheel. **16 in., $19.80; 18 in., $20.90.**

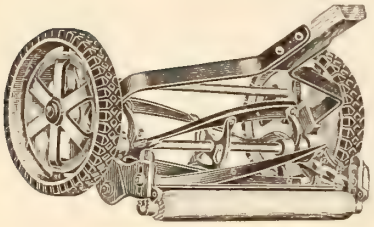
KING HIGH BALL BEARING

5 blades, 10 in. dia. wheel. **14 in., $18.70; 16 in., $19.80.**

DIAMOND BALL BEARING TRIMMER

4 blades, 8 in. wheel. **12 in.,** Temporarily Discontinued.

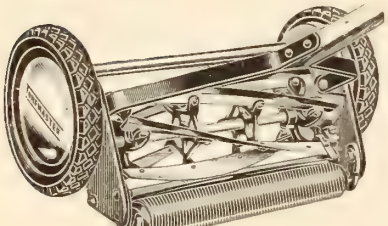
GLIDE BALL BEARING



Wheels 10 in. diameter, with solid rubber, non-skid tires; ball bearing; 5 heat treated crucible steel blades; 6 in. diameter revolving cutter.

16 in. $11.50

QUIET TURFMASTER BALL BEARING



Oversize semi-pneumatic rubber tires, rubber roller, chromium hub caps, smart streamline design.

5 blades, 10 in. dia. wheels.

18 in. $17.60

ECLIPSE MODEL "L" STANDARD

5 blades, **18 in., $23.10.**

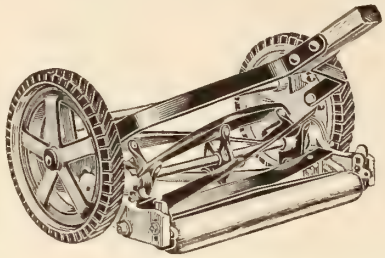
ECLIPSE MODEL "L" DELUXE

5 blades, semi-pneumatic. **16 in., $23.10; 18 in., $24.75.**

HIKUT MOWER BRACKETS

Mow your lawn high. **Set $1.25.**

Roto Cutter Attachment. **$7.95.**

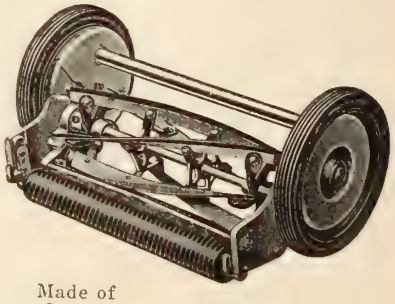


SPECIAL BALL BEARING

A reliable low priced, light weight, easy running mower. 5 blades, 10 in. dia. wheels, solid rubber tires. **16 in., $11.20.**

GRASS GROOMER BALL BEARING

An inexpensive, attractive streamlined mower. 5 blades, self-sharpening, 10 in. dia. wheels, semi-pneumatic rubber tires. **18 in., $15.40.**



Made of Canvas

SOIL-SOAKER

Temporarily Discontinued.

SKINNER SPRAY WAVE SPRINKLER

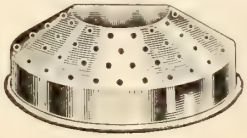
Waters up to 40x50 ft. (illustrated). **$19.50.**

ROTO-SPRAY

Waters up to 75 ft. diameter on 30 lb. pressure. **$15.75.**

SPRINKLERS

No. 1100. 75c.



(Out of Stock)

No. 5040. All brass. $1.25.

HOSE NOZZLES

No. 140 ..... **$ .50**
No. 860—Plastic .... **.65**
Delux Flex-Neck ... **.85**

FAUCETS

(Chromium Plated)

No. 600—½" Plain Spout .. **$1.50**
No. 601—½" Hose Spout .. **1.50**

HOSE CLAMPS

No. 130—⅜" ..... **.05**
No. 130—⅝" ..... **.05**

HOSE COUPLINGS

No. 22—⅝" ..... **30c Set**
No. 22—¾" ..... **30c Set**
No. 77—⅞" ..... **20c Set**

HOSE MENDERS

No. 821—⅝" Plastic ..... **.10**

National Eezy Wear Garden Gloves

A popular type of glove—for **MEN** and **WOMEN**—specially designed for garden wear.

All - Leather **DIRT-PROOF**
SOFT AS KID **Easy to Wear**

Sizes: Small, Medium, Large for Women; Medium and Large for Men, **75c pr.; 2 prs. $1.40** postpaid.

KREME-SKIN—Leather, cream treated, very durable, pliant and washable. 3 sizes, ladies small, medium and large. **$1.00 pair.**
HANDYMAN—Black Cadet. **65c pair.**

GRASS COLLECTORS

No. 165. For mowers 16 to 22 inches, painted stripe, square type. Temporarily Discontinued.

No. 12G. (Illustrated.) Rounded base for mowers 18 to 22 inches, easy emptying handle attached, white. **$1.85.**

No. 60. Rounded base for mowers, 12 to 18 inches. Temporarily Discontinued.

GRASTRIMMERS

USGT—Double edged detachable blade long handled grass cutter. Use it like a golf club. Cuts rapidly on both the forward and backward swing. **95c.**
V-70—Riveted steel blade, short handle. **55c.**

PICK-UP GARDEN CART

Light, strong, welded all-steel body, steel axle and wheels with solid rubber tires. 18 in. wide, 27 in. long; capacity 2¾ cubic feet. Temporarily Discontinued.

WATER BALLAST LAWN ROLLERS

Equipped with ball bearings and scraper.

No. 11—14x24, Empty 72 lbs.; Filled 182 lbs.....**$10.50**
No. 601—14x24, Empty 70 lbs.; Filled 175 lbs..... **10.50**
No. 603—24x24, Empty 110 lbs.; Filled 420 lbs..... **15.50**
Plain Bearings—No Scraper
No. 605—14x24, Empty 68 lbs.; Filled 175 lbs..... **9.00**

ECLIPSE ROCKET POWER MOWER

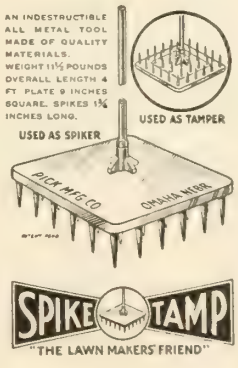
Temporarily Discontinued.

OK-TRIM ELECTRIC HEDGE TRIMMER

$9.50

GARDEN HOSE

SURPRISE—Double braid molded, black, ⅝ inch, corrugated. Temporarily Discontinued.
1 BRAID—Black, ⅝ inch, corrugated. **8c ft.; 25 ft. lengths, $2.35; 50 ft. lengths, $4.35.**
REMNANTS—Single braid, ⅝ inch, with couplings, **7c ft.**



SPRAY HOSE

⅜ inch .....**20c ft.**
½ inch .....**30c ft.**

PORTABLE HOSE HOLDER

No. 5074.....**75c each**

SPIKE-TAMP

A wonderful lawn tool for use when seeding or top dressing. For spiking hard areas. Saves money on seed, plant food and water. For use in pulverizing clods in the garden. Perpetually guaranteed against breakage. **$4.75.**

HOTKAPS—An Individual Hothouse for Every Plant!

HOTKAPS can make many extra dollars for you this season by assuring you of earlier, bigger crops, and higher early-to-market prices. A patented wax paper cone which completely covers the plant and protects them from frost, rain, wind, ground-crusting and insects.

25 Hotkaps with Cardboard Setter.....$ .50
100 Hotkaps with Garden Setter and Tamper..... 2.85
250 Hotkaps with Garden Setter and Tamper..... 4.25
1000 Hotkaps.....**$11.00 per 1000; 25,000, $10.25 per 1000**
Steel Hotkap Setter and Tamper.....**$1.60**

MOUNTED GRINDSTONES

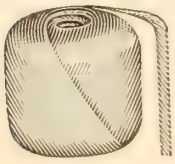
VICTOR. Tubular steel frame, adjustable steel seat, treadle type, ballbearing journals and crank attachment. Stone 19 to 22 inches in diameter by 1¾ to 2¼-in. face. **$10.75.**

WESTERN. Angular Steel frame, adjustable steel seat and equipped with treadles, ballbearing, strong and rigid. Stone 19 to 20 inches in diameter by 1¾ to 2-inch face. **$8.30.**

KING. The frame is constructed of tubular steel, very rigid, ball bearing, adjustable seat, and equipped with treadles. Stone is 20-22 inches in diameter by 2-inch face..**$11.50**

CYCLE. Of angular steel, well braced, with sliding seat, ball-bearing bicycle treadles. Stone is 20-22 inches in diameter by 2-inch face of the best Berea grit.....**$10.50**

Loose Grindstones, 6c per pound. (40 to 200-lb. stones.)



Asparagus Tape
Jute Cord
Cotton Cord
Hay Rope
Plow Lines
Binder Twine
Fodder Yarn
PRICES ON REQUEST
State Quantity Wanted.

WHEELBARROWS

Substantially made of seasoned wood, firmly bolted and braced.

No. 1. Size of body 30 inches long, 24 to 25 inches wide. Sideboards 12 inches high. **$9.00.**

No. 2. Size of body 28 inches long and 20 to 24 inches wide. Side-boards 12 inches high. **$8.25.**

No. 3. 26 inches long, 19 to 22 inches wide. Sideboards 12 inches high. **$7.50. No. 3RTW.** With roller bearing rubber tired wheel, **$14.75.**

No. 4. Boys' Barrow, body 22 inches long, 15 by 18 inches wide, side-boards 9 inches high. **$6.95.**

No. 67. Greenhouse size. **$9.50.**

No. 6B. Steel wheel, wooden body. **$5.00.**

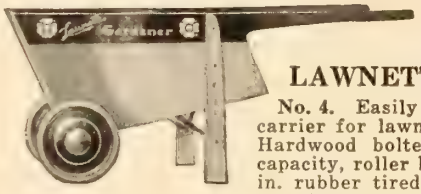
No. 20
Steel Pan, 3 cubic feet capacity. Wooden Handles. Temporarily Discontinued.

No. 20RTW
Temporarily Discontinued.

No. 17-B
Size of tray 32 by 27 inches; capacity 3½ cubic ft. Temporarily Discontinued.

No. 25

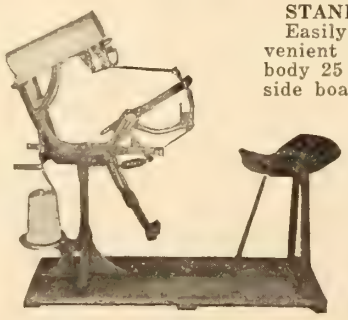
No. 25. All steel, tubular handles, riveted tray, high front to prevent spilling. Specially built for heavy work and rough usage. 3½ cubic ft. capacity.
Temporarily Discontinued



LAWNETTE GARDNER

No. 4. Easily handled all purpose carrier for lawn, garden and home. Hardwood bolted body of 2½ bu. capacity, roller bearings, two 1 7/16 in. rubber tired disc wheels.
Temporarily Discontinued

STANDARD FOLD-A-BARROW
Easily folded and portable, convenient carrying handle. Size of body 25 in. long, 18 to 23 in. wide, side boards 9½ in. high. **$12.25.**



FELINS VEGETABLE TYING MACHINE
Save Hours of Labor with this Machine.
Bigger and Better Than Ever.
$75.00

Planet Jr. Garden Tools

CATALOG ON REQUEST

SEEDER AND CULTIVATOR

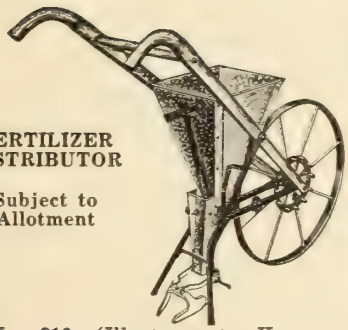
Subject to Allotment

SINGLE WHEEL HOE

Subject to Allotment

DRILL SEEDER

Subject to Allotment



FERTILIZER DISTRIBUTOR

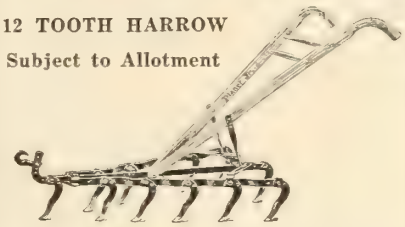
Subject to Allotment

No. 219—(Illustrated.) Hopper 30 pound capacity, will distribute 100 to 1400 lbs. of commercial fertilizer per acre. **$11.50.**

No. 220—Six adjustable spouts spread from 4 to 30 inches. Hopper 1 bu. capacity, will distribute 100 to 2000 lbs. of commercial fertilizer per acre. **$31.50.**

12 TOOTH HARROW

Subject to Allotment



No. 92D—(Illustrated.) Light, but effective cultivator for fine work. Weight 45 lbs. **$10.95.**

No. 90D—The fruit, berry and vegetable grower's favorite. Does fine, thorough cultivation. Expands to 32 inches, contracts to 12 inches. Weight 54 lbs. **$12.25.**

CULTIVATOR STEELS

No.	Size	Price
4064	1 x 8	$ .19
1156	1¼ x 8	.20
2367	1¾ x 8	.21
2368	2¼ x 8	.24
2369	3 x 8	.30
2370	4 x 8	.37
1888	1¼ x10	.24
1249	1¾ x10	.25
1199	2¼ x10	.30
1200	3 x10	.35
1201	4 x10	.40

IMPROVED SWEEPS

1494	5″	$ .40
1495	8″	.50
1496	10″	.60
1497	12″	.80
1498	15″	1.00
1499	18″	1.35
2731	3″	.30

FURROWERS

1161	10″	$1.00
2621	12″	1.50
1162	15″	1.90

SHOVEL STEELS

2539	7″	$ .40
2540	8″	.45

HOES

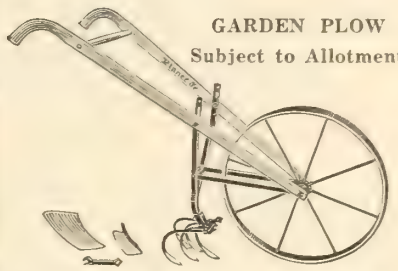
4059/60	4½″	$1.20 pr.
4061/62	6″	1.30 pr.

TURNING SHOVELS

3822/3	5″	$ .75 pr.
3580/1	6″	.85 pr.
3824/5	7″	1.10 pr.

HILLERS AND PLOWS

1167/8	6″ Hiller	$1.30
495/6	7″ Plows	1.60



GARDEN PLOW

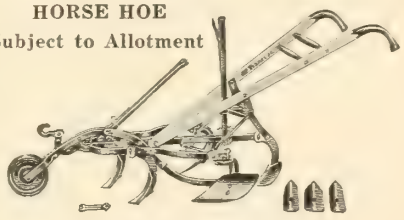
Subject to Allotment

DOUBLE WHEEL HOE

Subject to Allotment

HORSE HOE

Subject to Allotment

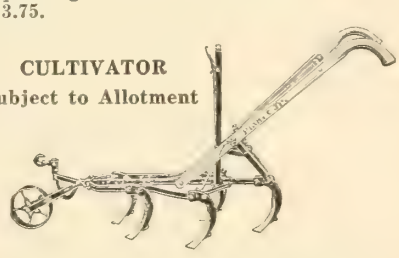


No. 8—(Illustrated.) **$17.50.**

No. 9D—Same as illustrated, less the depth regulator and steel lever wheel. **$13.75.**

CULTIVATOR

Subject to Allotment



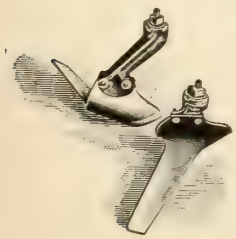
No. 101—(Illustrated.) Weight 51 lbs. **$10.75.**

No. 101D—As illustrated, less wheel, weight 44 lbs. **$9.50.**

No. 100D—As illustrated, less lever expander and wheel, weight 38 lbs. **$8.75.**

No. 4D—As illustrated, less wheel and lever expander, weight 49 lbs. **$9.50.**

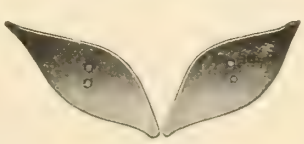
No. 9D—As illustrated, less wheel, weight 56 lbs. **$11.75.**



HOES

SHOVEL STEEL

IMPROVED SWEEP



HILLER

3825 3824

TURNING SHOVEL

FURROWER

VULCAN No. 43 TRACTOR PLOW

Subject to Allotment

VULCAN STEEL BEAM CHILLED PLOWS

Subject to Allotment

VULCAN STEEL BEAM DOUBLE SHOVEL PLOW

Subject to Allotment

One of the handiest tools on the farm, not only for light plowing but for rapid cultivation as well. With heel slides. **$8.00.**

SHOVEL PLOWS

Subject to Allotment

No. 3, Single, with 10 inch blade, **$6.50. No. 2, Malta-Triple, $9.25.**

BACK BANDS

Plain G-56	$ .45
Padded E-56	.55
351-L	.65
DeLux	1.15

TRACE CHAINS

Subject to Allotment

Lucky Mule, electric welded.

7-10-2	$1.10 pr.
7½-10-2	1.20 pr.

TIE OUT CHAINS

Subject to Allotment

20 ft.	$ .75 each	30 ft.	$ .95 each

COW TIES

Subject to Allotment

4½ ft. Electric Welded ..... $ .50 each

HALTER CHAINS

Subject to Allotment

4½ ft. ..... $ .35 each

SINGLE AND DOUBLE TREES

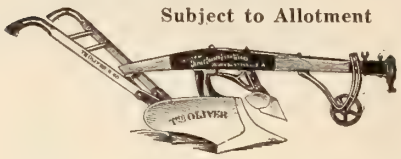
Single, 2 hooks, 26 inch **65c**; 28 inch **70c.**
Single, 3 hooks, 26 inch **70c**; 28 inch **75c.**
Double, 36 inch **$1.10,**
Neck Yoke, 40 inch **$1.40.**

Cultivator Handles. rough, **90c** pr.

Plow Handles, rough, **$1.00** pr.

OLIVER PLOWS AND REPAIRS

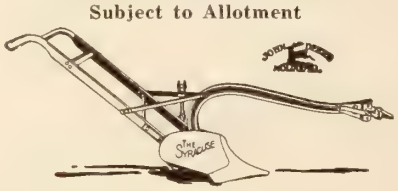
Subject to Allotment



	Stl.Beam Plows	Wd.Beam Plows	Mould-boards	Land-sides	Solid Shares	Slip Shares
AC-2	$11.35	....	$1.75	$ .70	$ .35	$ .45
BC	13.45	$13.45	2.20	.90	.45	.55
10	15.95	15.95	2.50	1.00	.50	.65
13	17.45	17.45	3.20	1.15	.60	.75
19	18.40	18.40	3.85	1.25	.70	.85
20	20.25	20.25	4.10	1.40	.75	.90
E	....	22.95	4.50	1.50	.90	1.05
40	22.95	22.95	4.50	1.50	.90	1.05
83	....	....	5.40	...	1.00	1.15
84-88 12 in.	....	....	5.95	...	1.10	1.25
SLIP POINTS						20c

SYRACUSE CHILLED PLOWS

Subject to Allotment



One-Horse Plows

No. 50. Right, wood beam, light, one horse, making furrow 2 to 5 inches deep and 8 to 10 inches wide, **$10.20;** with wheel and jointer, **$15.95.**

No. 52. Right, wood beam, medium, one horse, making furrow 3 to 5½ inches deep and 9 to 11 inches wide, **$15.40;** with wheel and jointer, **$21.20.**

No. 53. Right, wood beam, heavy, one horse or light two horse, making furrow 3 to 6 inches deep and 9 to 12 inches wide, **$17.35;** with wheel and jointer, **$23.10.**

No. 1464. Right, steel beam, **$17.60;** with wheel and jointer, **$23.50.**

No. 1465. Right steel beam, **$16.25;** with wheel and jointer, **$22.10.**

Two-Horse Plows—Wood Beam

No. 603. Right, wood beam, light two horse, making furrow 4½ to 6½ inches deep and 10 to 12 inches wide, **$20.65;** with wheel and jointer, **$27.15.**

No. 602 Right, and No. 502 Left. Wood beam, medium, two horse, making furrow 5 to 7 inches deep and 11 to 14 inches wide, **$21.75;** with wheel and jointer, **$28.25.**

No. 601 Right, and No. 501 Left. Wood beam, heavy, two horse or light three horse, making furrow 5½ to 8 inches deep and 12 to 16 inches wide, **$23.10;** with wheel and jointer, **$29.60.**

Two-Horse Plows—Steel Beam

No. 1462 Right, and No. 1362 Left. Steel beam, similar to No. 602 wood beam plow, **$21.75;** with wheel and jointer, **$27.60.**

No. 1461 Right, and No. 1361 Left. Steel beam, making furrow 5 to 8 inches deep and 12 to 16 inches wide, **$23.10;** with wheel and jointer, **$29.00.**

SYRACUSE REPAIRS

	Mould-boards	Land-sides	Solid Shares	Slip Shares
50	$2.37	$ .72	$ .50	$ .65
53	3.25	.94	.66	.81
603	3.58	1.10	.61	.76
602	4.02	1.20	.65	.80
601	4.18	1.30	.75	.90
1462	4.02	1.20	.65	.80
1461	4.18	1.30	.75	.90
SLIP POINTS				20c

CHATTANOOGA REPAIRS

No.	Mould-board	Land-side	Solid Share	Slip Share
65	$4.10	$1.40	$ .75	$ .90

INTERNATIONAL SOLID SHARES

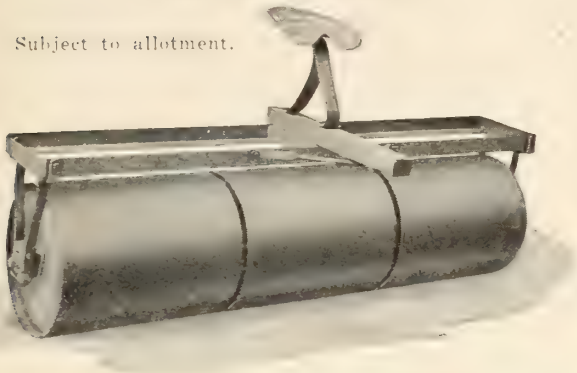
No. 6002DS ..... $ .95 No. 6007DS $1.00

BOSS REPAIRS

No.	Mouldboard	Landside	Share
1½-2	$ .70	$ .55	$ .35
2½-3	.80	.55	.40
20	1.30	..	.50

STEEL LAND ROLLERS

Subject to allotment.



Drums of Heavy Tank Steel. Angle Steel Tops—Angles 3x3x5/16 inches—Extra Strong. Axles—1⅝-inch Round Steel. Closed Pressed Steel Heads. Hardwood Boxings—Acknowledged by all to be the best. Tractor or Horse Hitch.

No. 102½	—8 ft., 2 sec., 26 in. diameter; 550 lbs.	$50.00
No. 103½	—8 ft., 3 sec., 26 in. diameter; 600 lbs.	53.50
No. 105½	—8 ft., 2 sec., 24 in. diameter; 510 lbs.	48.00
No. 106½	—8 ft., 3 sec., 24 in. diameter; 535 lbs.	50.00
No. 120½	—9 ft., 3 sec., 24 in. diameter; 585 lbs.	54.50
No. 118½	—4⅔ ft., 2 sec., 24 in. diameter; 370 lbs.	44.50

Extra for Eveners, $2.75.

BUCH SOIL PULVERIZER

Subject to allotment.

Simple in construction. Strong rigid frame. Angles—2½x3x5/16 inches with Heavy Cast Hangers, 1⅝-inch Axle. Inclosed Dust-Proof Wood Bearings with Hard Oil Cups.

Solid one-piece Discs 4-inch face, 15-inch front, 12-inch rear. Pulverizer so constructed that Discs must alternate and impossible to get out of alignment. End Discs closed to keep out stones and dirt.

With our Trailer Arm, both front and rear Gang work independent. No division of weight, both front and rear gang pulverizing the soil under all conditions in uneven ground. This feature makes our pulverizer light in draft.

No.	Length	Rolling Capacity	Weight	Price
625	6 ft.	62 inch	800	$76.00
626	7 ft.	74 inch	900	78.00
627	8 ft.	84 inch	1000	81.00
628	9 ft.	98 inch	1100	92.00
630	11 ft.	122 inch	1350	117.00

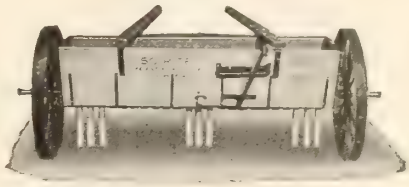
Foretruck, $11.25; Eveners, $2.75; Tractor Hitch in addition to Pole and Seat, Extra $3.00.

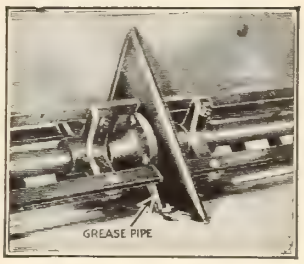
DRAG SCOOPS

No. 1,	100 lbs.,	$9.95
No. 2,	90 lbs.,	9.50
No. 3,	80 lbs.,	8.95

"SO-RITE" UNIVERSAL FERTILIZER AND LIME SOWERS

Subject to allotment.





Interior View of Hopper

Bottom View of Outlet

No Belts to Replace

As a Fertilizer Drill—Rubber spouts are attachable to any desired points three inches apart under the entire machine; adjustable to any width rows. The quantity to be sowed is regulated by adjustment of lever on back of machine.

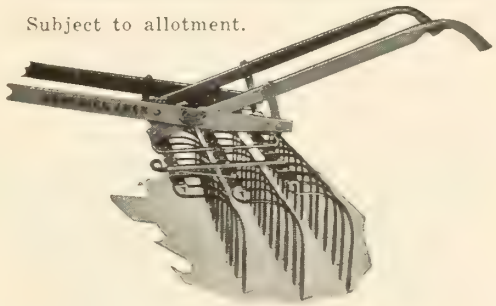
As a Broadcaster—Remove all stoppers and spouts.

Width	No. Spouts	Weight	Price
3 ft. 1-Horse	6	225 lbs.	$43.50
6 ft. 1-Horse	9	325 lbs.	63.00
7 ft. 1-Horse	9	350 lbs.	68.50
8 ft. 1-Horse	9	375 lbs.	74.00
9 ft. 2-Horse	9	400 lbs.	79.50
10 ft. 2-Horse	9	425 lbs.	85.00

Extra Spouts Complete 90c Each

RODERICK LEAN WALKING WEEDER

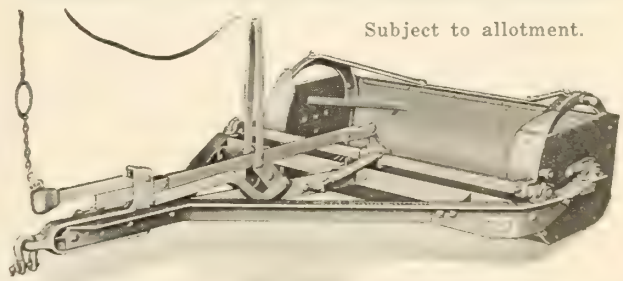
Subject to allotment.



7½ ft., 39 teeth	$13.44
Runners additional if desired	1.38

RODERICK LEAN REVOLVING TRACTOR SCRAPER

Subject to allotment.



SPEED — ECONOMY — EFFICIENCY for Quicker, Cheaper Dirt Moving

Automatic Operation—Tractor does the work.
Strong Construction—Bowl revolves freely.

No.	Capacity	Cuts	Weight	Price
4RC	⅜ yd.	4 ft.	635 lbs.	$128.75
5RC	¾ yd.	5 ft.	685 lbs.	136.88

RODERICK LEAN "SPEEDISK" AUTOMATIC TRACTOR DISC HARROW

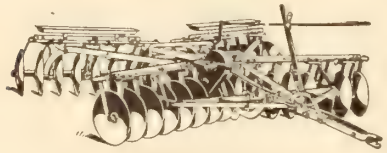
Subject to allotment.

Equipped with scrapers, round disc blades, front and rear weight frames, special rear gang angling lever, gang bolt 1⅛ inch, all discs spaced 7⅛ inches.

Discs	Diameter	Width	Weight	Price
20	16 in.	6 ft	881 lbs.	$137.50
24	16 in.	7 ft.	986 lbs.	156.25
28	16 in.	8¼ ft.	1056 lbs.	168.75
28	18 in.	8¼ ft.	1126 lbs.	179.25

J. I. CASE POWER CONTROL DISK HARROWS

Subject to allotment.



Double Cut

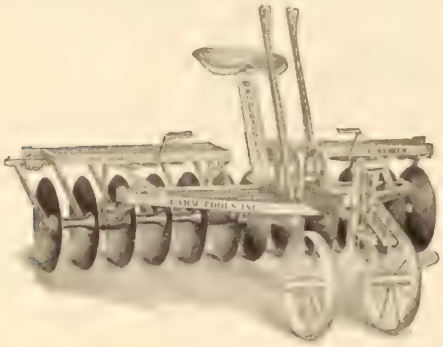
No. 76, 6 ft., 24 16-inch disks $133.00
No. 77, 7 ft., 28 16-inch disks 145.00
No. 78, 7 ft., 28 18-inch disks 155.00

Single Cut

No. 78S, 8 ft., 16 16-inch disks $85.00

RODERICK LEAN "FT" SERIES DISC HARROWS WITH DOUBLE WHEEL FORETRUCK

Subject to allotment.



Electric heat treated round discs; flexible center foot pressure lever replaces unhandy third lever. Furnished with oscillating scrapers and with weight pans. No neckyoke, pole or pole irons.

No.	Discs	Diam.	Hitch	Width	Weight	Price
FT-416	8	16	2HH	4 ft.	378 lbs.	$59.38
FT-516	10	16	2HH	5 ft.	403 lbs.	63.75
FT-616	12	16	3HH	6 ft.	465 lbs.	69.38

ROYAL GRASS AND CLOVER SEEDER

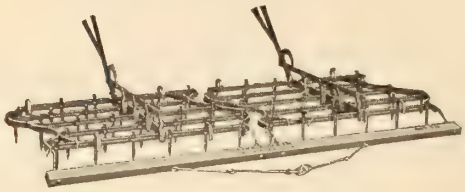
Easily sows 40 acres a day. Broadcast this sure way and save seed.

No. 11, 14 ft. single hopper, chain feed, hopper capacity ½ bu., $19.50; No. 11, 16 ft., $20.50.

No. 10, 10 ft. double hopper, chain feed, for all grass seeds, grain, cowpeas and soybeans, hopper capacity 1 bu., $22.00.

RODERICK LEAN SPIKE TOOTH HARROWS "VO" LEVER HARROW

Subject to allotment.



Diamond teeth, 5-bar guarded end adjusted lever.

25 tooth section, no drawbar, 3½ ft. cut, weight 77 lbs. $9.13.

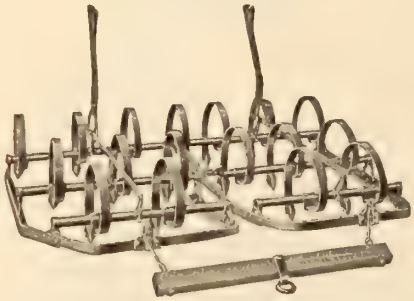
30 tooth section, no drawbar, 4½ ft. cut, weight 88 lbs. $10.69.

No. 14VO—50 teeth, two section, with drawbar, 7½ ft. cut, weight 172 lbs. $20.63.

No. 15VO—60 teeth, two section, with drawbar, 9 ft. cut, weight 197 lbs. $23.69.

RODERICK LEAN SPRING TOOTH HARROWS ALL STEEL—"SPB" SERIES

Subject to allotment.

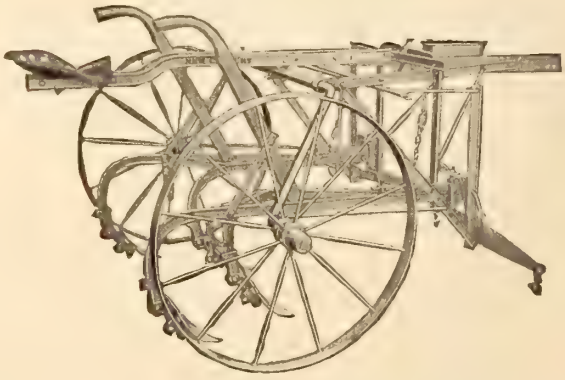


PIPE BAR—Adjusting Lever—Low Frame—Adjustable Teeth—One Short Center Runner.

No.	Teeth	Section	Weight	Price
5SPB	15	2	236 lbs.	$27.88
7SPB	17	2	256 lbs.	29.56
23SPB	23	3	370 lbs.	41.75

RODERICK LEAN No. 3 IMPROVED NEW CENTURY LEVERLESS CULTIVATOR

Subject to allotment.

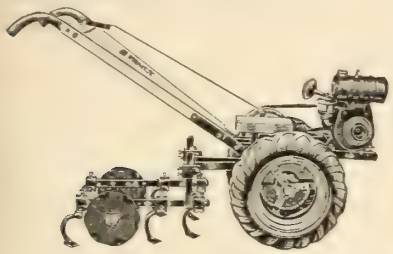


Staggered Spoke, 34 inch Wheel

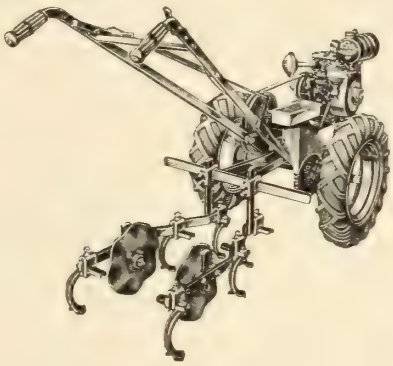
Shovels		Weight	Price
4	Pin Break, 320 H Gang	312 lbs.	$50.00
4	Spring Break, 320 H Gang	328 lbs.	53.75
6	Pin Break, 321 H Gang	331 lbs.	53.13
6	Spring Break, 321 H Gang	363 lbs.	61.38

PLANET JR. TRACTORS

Economical for Garden or Lawn. Powered by Briggs and Stratton Motor. Seeder, lawn mower, field mower attachments available for all models. 6 inch plow and 24 inch disc harrow attachment available for B-1 model.



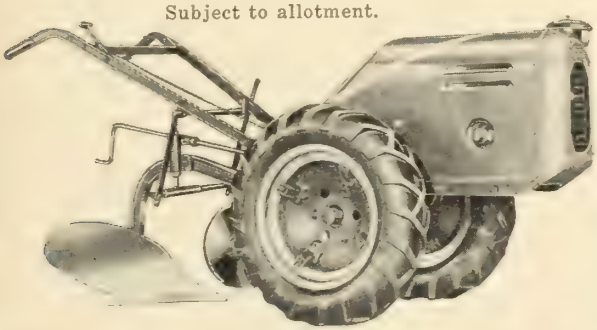
A-1. 1 H. P. Complete with cultivator gang and 6 No. 4183 teeth. Subject to allotment.



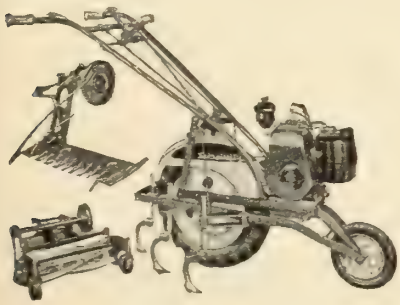
B-1. 1½ H. P. Complete with cultivator gang and 6 No. 9509X teeth. Subject to allotment.

SIMPLICITY GARDEN TRACTOR

Powered by 3 H. P. Briggs and Stratton Motor.
Subject to allotment.



MODEL C—TRACTOR ONLY ($275.00 December, 1941)
8 in. plow, 42 in. sickle mower, 1, 2 or 3 row cultivator, 7 tooth spring harrow, 15 tooth spike harrow, six 14 in. disc harrow, 1, 2 or 3 row seeder attachments available. Tool carriage extra. (1942 prices on application.)



SIMPLICITY MODEL A—1 H. P. TRACTOR ONLY
Subject to allotment.
$89.50
24 in. Sickle Bar Attachment **$35.75**
30 in. Sickle Bar Attachment **40.50**
19 in. Rotary Mower **42.50**
1 Row Cultivator Rubber Tire **19.50**

NEW IDEA TRANSPLANTER

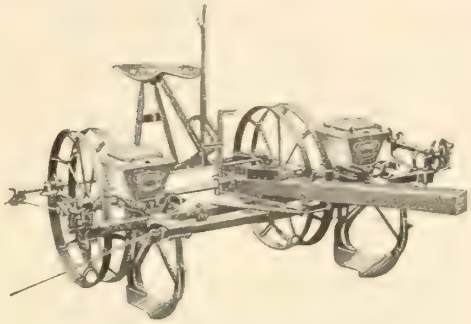
Subject to allotment.

No. 5 with regular 5 inch furrow opener, 2 horse hitch, neckyoke and press wheels; weight 689 lbs. **$126.25.**

No. 5 same as above but with deep 8 inch furrow opener instead of regular; weight 695 lbs. **$131.25.**

HAYES No. 26 2-WHEEL CORN PLANTER

Subject to allotment.



For Horse Drawn Operation
Round or Stub Runners, Std. Adj.

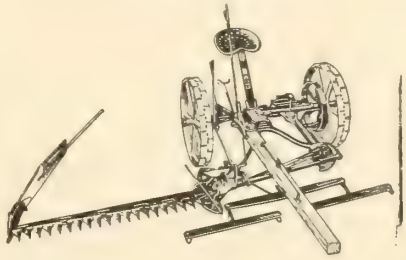
30 in., less drill, weight 520 lbs. **$88.44.**

30 in., with drill, weight 537 lbs. **$91.56.**

No. 26 FERTILIZER ATTACHMENT—Two wheel. Weight 100 lbs. **$31.25.**

J. I. CASE MOWERS

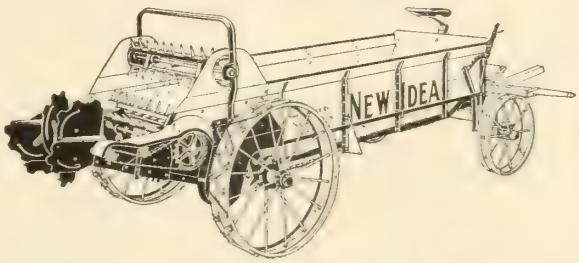
Subject to allotment.



No. 55, 5 ft. cut, plain lift, final drive gears running in oil **$105.00**

NEW IDEA MANURE SPREADER

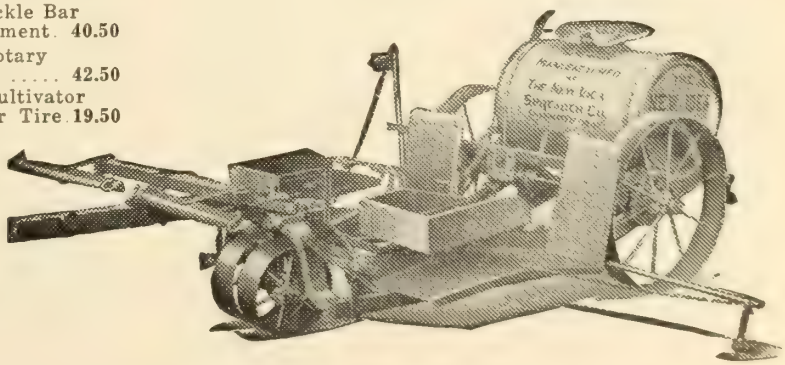
Subject to allotment.



Let the spreader earn you profits. A New Idea Spreader will enable you to get the full worth out of your manure. Four different and positive conveyor speeds which enable the operator to spread just as thin or as heavy as the soil requires. Capacity 60-65 bushels.

No. 10 with oil gun, two horse hitch and neckyoke. **$197.50.**

Lime Spreader Attachment for No. 10, **$32.50.**



BLOOD TESTED FOR B. W. D. BY ANTIGEN METHOD

MANNS' Quality-Bred CHICKS

WE GUARANTEE DELIVERY

100% LIVE VIGOROUS CHICKS

With Profit Producing Characteristics Bred Into Them

MAIL ORDERS

It is very important that you let us have your order as early as possible. Just as soon as you have read this page is the very best time. You can in this way specify a definite delivery date and we can serve you direct from the hatchery with strong chicks full of vitality. Should there be a decline in the market price of chicks, we will make an adjustment to equal the reduction.

Customers not having charge accounts with us are requested to send at least one-fourth of the price when placing orders; remittance for balance to reach us before shipment is made. No chicks sent C.O.D. No orders accepted for less than 25 chicks of any one variety.

DELIVERIES

Chicks are forwarded postpaid and brief instructions are sent with each order, suggesting best methods of care and feeding. Be prepared; see that hovers are in good condition, and have a ready supply of grit, charcoal and Buttermilk Starting Feed.

Please Note—Inspect chicks immediately upon arrival. If full count live chicks are not received, have postman sign a statement showing number dead, mail this to us and a satisfactory adjustment will be made.

White Wyandotte

Barred Plymouth Rock

Manns' chicks are produced from hand selected, Blood-Tested, hens mated to large, true-to-type Blood-Tested, well bred cockerels. These breeders are continually culled for egg production and vigor to insure you of chicks that will not only live, but will grow uniformly, rapidly and profitably for meat or egg production. Upon maturity you will have strong and healthy pullets capable of making money.

Only standard size or larger eggs are set, and all chicks are graded before shipment.

All Leghorns are hatched from outstanding two to five year old hens.

These SUPERIOR Chicks are offered at moderate prices and are available every week in the year.

CROSS BREEDS

Our Barred Crosses have exceptional vitality, livability, growth and egg producing qualities. Cross-Breeding produces vigor.

SPECIAL MATINGS

18c each; $16.25 per 100.

In White Leghorns, New Hampshires, R. I. Reds, Barred Rocks and White Rocks we offer chicks produced from special matings. Stock from nationally known breeders is used for the production of these famous chicks. Only extra large eggs are set. A real special mating that enables you to obtain these blood lines economically and without the risks of distant shipment. They are capable of outstanding growth and unusually good egg production. We know they are as fine as any Special Mating chicks offered even at much higher prices.

ORDER EARLY—SPECIFY DATE WANTED

Barred Rocks Rhode Island Reds White Leghorns (Large) White Rocks White Wyandottes	**$12.50**	**Per 100**
Barred Crosses Buff Orpingtons New Hampshire Reds	**$13.50**	**Per 100**
White Crosses White Giants	**$15.00**	**Per 100**

300 or more 50c per 100 less.
Less than 100 lots add 1c each.
Order Early—You will be given full benefit of any reduction in prices until shipping date.

DUCKS

WHITE PEKIN DUCKS are the largest type, fastest growing obtainable. Hatched in special incubators they are 100% perfect. **25c each; $22.50 per 100.**

TURKEY POULTS

MAMMOTH BRONZE TURKEYS from well bred, Blood-Tested stock. All eggs purchased from farms specializing in Turkey breeding. Their livability and vigor will surprise you. Let us quote.

Rhode Island Red

White Leghorn

FOR ECONOMY
Give Your Chicks The Best
FEED THEM
Conkeys

(The Original)

Let Us Quote

YO STARTING FEED
YO BROILER MASH
YO GROWING MASH
YO EGG MASH
RED SEAL GROWING MASH
CHICK GRAINS
GROWING GRAINS
SUPERIOR SCRATCH
CRACKED CORN
WHOLE CORN
PIGEON FEED
RABBIT FEED

CONKEYS Y-O

1 lb., 50c; 2 lbs., 90c; 5 lbs., $1.60; 25 lbs., $5.45; 50 lbs., $9.25; 100 lbs., $15.50.

CONKEYS POULTRY REMEDIES

Be Prepared
Keep A "Conkey Corner" In Your Poultry House

OLD RELIABLE POWDER
(Formerly Conkeys Roup Remedy)
Oz., 25c; 2½ oz., 50c; 7 oz., $1.00

DIA TABBS
25 Tablets, 25c; 55 Tablets, 50c; 125 Tablets, $1.00

NOXICIDE
Powerful disinfectant and germicide
Pt., 40c; qt., 60c; ½ gal., 90c; gal., $1.50

POULTRY TONIC
1½ lbs., 25c; 3⅛ lbs., 50c; 6½ lbs., $1.00; 12-lb. pail, $1.90; 25 lbs., $3.10

STOCK TONIC
Lb., 25c; 2¾ lbs., 50c; 6 lbs., $1.00

COLD PILLS
75 pills, 35c; 175 pills, 75c; 500 pills, $1.75

100 TO 1 POWDER
4 oz., 30c; 1 lb., $1.00

LICE POWDER
12 oz., 25c; 6 lbs., $1.50

PIC-END BITTERS
(Anti-Cannibalistic Paste)
2¾ oz., 25c

INHALENT
Soothing aid for mucous membranes of mouth, throat, nostrils. 4 oz., 65c.

CHARCOAL, 50 lbs., $1.50.
GRIT, coarse and fine, 100 lbs., 75c.
OYSTER SHELL, coarse and fine, 100 lbs., 85c.

DOG FOODS

CONKEYS Y-O DOG RATION—Contains yeast and cod liver oil.

PERFECTION—A well balanced dog food containing meat and cereal plus the proper vitamins and minerals.

1 lb., 10c
5 lbs., 45c
25 lbs., $2.00
100 lbs., 7.00

AVICOL
TRADE MARK

For White Diarrhea Stops Chicks Dying

Avicol is positively guaranteed for both prevention and treatment. Easy to give. Simply drop it in the drinking water. 60 tablets, 50c; 180 tablets, $1.00.

"T. S. F." Kills Chicken Lice

This is the method endorsed by the U. S. Department of Agriculture for killing all poultry lice. ½ lb., 35c; lb., 60c.

DON SUNG
Makes HENS LAY GUARANTEED

A wonderful tonic that makes chickens healthy, keeps them developing, and gets the eggs. 45 tablets, 50c; 135 tablets, $1.00.

The sure way to treat Colds, Roup and Canker. Used and endorsed by leading poultrymen everywhere. 3 oz., 50c; 8 oz., $1.00.

Group-Over

"BLACK LEAF" WORM POWDER
Mixed with mash for flock treatment of round worms.
4 oz., 100 birds.....75c
1½ lbs., 600 birds.....$3.00
3 lbs., 1200 birds.....$5.60

TOXITE
Disease Control Spray—Controls poultry Coccidiosis, Round Worms and Red Mites which are transmitted by contaminated litter. Qt., 50c; gal., $1.50.

LEE'S POULTRY REMEDIES

Germozone three times a week in the drink destroys disease germs taken in with the food or water. Corrects diarrhea; also recommended for Roup, Colds, Canker, Swelled Head, etc. 4 oz., 40c; 12 oz., 75c; 32 oz., $1.50; ½ gal., $2.50. gal., $4.50.

A Triple Combination Worm Medicine containing Kamala (for Tape Worms), Nicotine Sulphate (for Round Worms) and Pyrethrum (for Pin Worms), all in an Insoluble Capsule.

	50	100
Adult	$ .75	$1.25
Pullet	.50	1.00
Chick	.40	.75

ACIDOX
An acid preparation for the control of Coccidiosis. 12 oz., $1.00; 32 oz., $2.00.

LIQUID DIP
Disinfectant—Qt., 60c; ½ gal., 90c; gal., $1.50.

PICKPASTE
For cannibalism in poultry. 2 oz. tube, 25c; 6 oz. tube, 60c.

TONAX
Tonic and Conditioner—2 lbs., 75c.

VAPO-SPRAY
An effective medicine for colds, coughs, flu and pneumonia, at the first cough, treat the entire flock. Pt., 50c; qt., 75c; ½ gal., $1.25.

LEEMULSION
An effective companion of Vapo-Spray is stirred in the drinking water and acts exactly as a cough medicine does on humans. 4 oz., 50c; 12 oz., $1.00; 32 oz., $2.00.

STAR FOUNTAIN AND FEEDER

Made of a single piece of rust-resisting metal. No solder, no seams, no loose parts. Suitable for feed as well as water. Fits any Mason jar.

(Glass jar not included)

No. CG6—Crystal ..... .15
WOG—Crystal ..... .15

GRILL TOP CHICK FEEDER

Has a hinged wire roost proof grill, galv. steel trough 4¼ in. wide by 2¼ in. deep with turned in edges to prevent waste. Adjustable legs.

(Temporarily Discontinued)

REEL TOP CHICK FEEDER

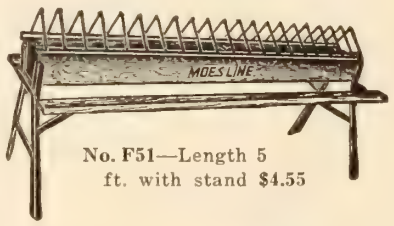
No. 337—Length 24 inches ..... .30
No. F14—Length 40 inches ..... .50

REEL TOP FEEDER

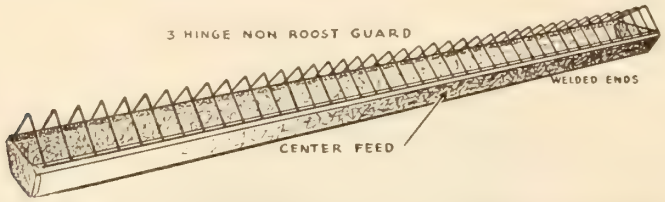
Broiler Feeder, 3 adjustments, galv. iron, adjustable legs.

No. 257S—Length 36 inches $1.40
No. 258S—Length 48 inches 1.70

FLOCK FEEDER



No. F51—Length 5 ft. with stand $4.55



CHICK FEEDERS AND WATERERS

F2-G—Designed for day old chicks to eight weeks. 4 inches wide, 2 inches high, 28 inches long, weight 2 lbs. 40c

GROWING FEEDERS

Model	Length	Grid Spacing	
F-40	40 in.	2½ in.	1.30
F-4-D	48 in.	2½ in.	1.75

No. F62G—Length 60 inches; grid spacing 2½ inches; with Galvanized Iron Legs, $2.50.

REEL GUARD FEEDER

Galvanized, one piece, square bottom with tapered sides.

F1—18 inch ..... $ .20
F2—24 inch ..... .30
F7—48 inch 1.05

GRIT BOXES

No. G12—12 inch, one compartment $1.15

INDIVIDUAL LAYING CAGE

No. B311 ..... $1.40

SPIRAL BANDS. Available in ten colors.

Size	Per 100
¼ inch	$ .20
⅜ inch	.25
9/16 inch	.40
11/16 inch	.45
¾ inch	.50

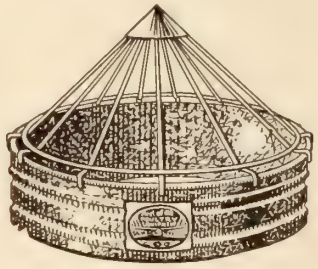
ADJUSTABLE LEG BANDS
Aluminum

Nos. 1 to 25, box	$ .20
Nos. 1 to 75, box	.50
Nos. 1 to 100, box	.60
Nos. 1 to 500, per 100	.55
Nos. 1 to 1000, per 100	.50

POULTRY PUNCHES

No. 38—Standard ..... $ .20
No. 39—Scissor type ..... .35

FEEDER AND WATERER



W-5—14 in. dia., 4¼ in. high, 10 qt. capacity. $1.15.
W-6—16 in. dia., 4½ in. high, 16 qt. capacity. $1.60.
G5L—16 in. dia., 4½ in. high, 16 qt. capacity. $1.75.

"LAWN PARK" BROOD COOPS

Size when extended, 18 inches wide, 19½ inches high, and 48 inches long. Not mailable. $3.95.

ROACH EXTERMINATORS

Roach Nots, pkg. of 9, 25c; pkg. of 60, $1.00.

Hellers $1,000.00 Guarantee, 4 oz., 35c.

MOUSE EXTERMINATORS

Mouse Nots, pkg. of 9, 25c; pkg. of 60, $1.00.

Black Eagle, 2 oz. pkg., 25c.

RAT EXTERMINATORS

Rat Nots, pkg. of 9, 25c; pkg. of 60. $1.00.

Ratfinish, plain, pkg. of 7, 15c.

Ratfinish, chocolate, pkg. of 12, 25c.

Not a poison, will not kill livestock, dogs, cats or poultry.

2 oz. (Mix with 2 lbs. bait) ..... $ .75
Ready Mixed—6 oz. ..... .35

FOUNTAINS

W2—4 qt. . .60 W3—8 qt . . .95

FLOAT FOUNTAINS

No. W13—2½ gal. $1.75
No. W14—5 gal. 2.65
No. W15—8 gal. 3.95
No. S24—Stands for above extra . . . 1.85

TOP FILL FOUNTAINS

No. W22S—2 gal., with stand $1.60
No. W23—3 gal. 1.85
No. W25S—5 gal., with stand 2.90

GALVANIZED CAPS

No. N14—4 in. . . . $ .30
No. N15—5 in. 30
No. N19—5 in. revolving 65

GALVANIZED PIPE

4 in. 2 ft. lengths $.25
5 in. 2 ft. lengths .30

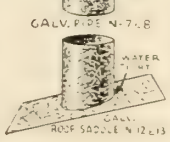
GALVANIZED ELBOWS

4 inch . . $ .25
5 inch . . .30

ROOF SADDLE ADJUSTABLE

No. 440—4 inch . . $1.70
No. 441—5 inch . . 1.75

Non-adjustable
N12—4 inch 60
N13—5 inch 60



DELLINGER HAMMER MILLS

No. 80 **$99.50**

Subject to Allotment

These highly efficient yet inexpensive mills are constructed of substantial plate steel; electrically welded throughout; equipped with S-K-F double row self-aligning ball bearings, reversible swinging hammers with four cutting edges; Rockwood Pulley.

Has 12 inch feed opening, low, wide tapered feed table with adjustable slide to regulate flow of grain.

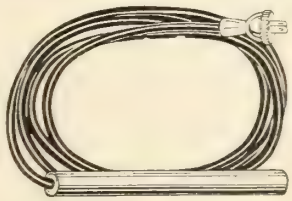
Horsepower required 10 to 30. Cylinder 10 in. wide, 21 in. dia. Screen area 287 sq. inches. 4 in by 8 in. pulley. Fan on main shaft. Shipping weight 500 lbs.

LET US QUOTE LARGER SIZES

AUTOMATIC FOUNTAIN

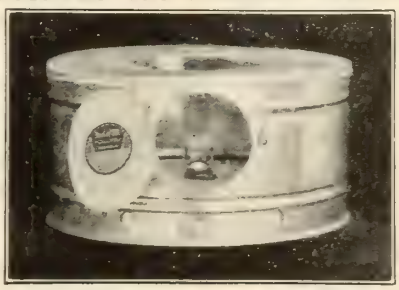
No. 904—Automatic Valve and Float only . . . . . $ .95

ELECTRIC WATER HEATER



No. 11 . . . . . $1.75

FOUNTAIN AND BROODER HEATER



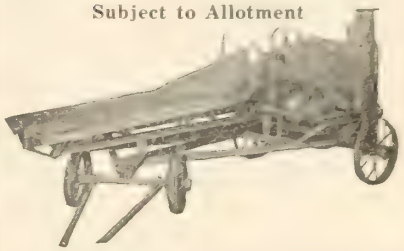
Can be used with all styles of fountains, and effectively prevents water from freezing. It is also an excellent heater for small brooders.

No. W9H—(Illustrated) $2.00
No. 426—Without top 1.95
No. 428—Without top 2.25

DELLINGER COMBINATION HAY CHOPPER AND SILO FILLER

No. 3C **$416.00**

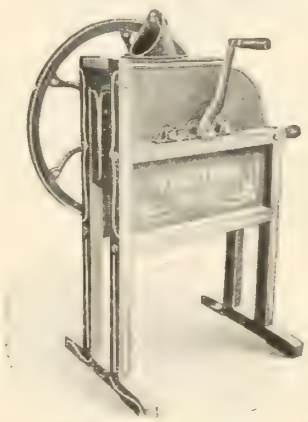
Subject to Allotment



Price includes complete machine with steel self-feed table including finger feed roll mounted on four-wheel steel truck. thirty feet of blower pipe, deflector for top of pipe, tilting connection, two lengths curved pipe and an extra set of cutting knives.

Size of throat, 13 in by 8 in. Four knives. Capacity 4 to 6 tons per hour. Horsepower required 10 to 20. Lengths of cut in inches with standard knife equipment: 3/16, 5/16, ½, ¾. 14 in. by 7 in. pulley. Speed 650 to 850 R.P.M. Shipping weight 1900 lbs.

BUCH CORN SHELLER



No. 3—(Illustrated) $17.95

RED CHIEF HAND CORN SHELLER

$2.25

RED CHIEF RAPID GRINDING MILL

(Temporarily Discontinued)

No. 1—For small poultry raisers. Capacity 1 to 2 bushels per hour. $3.95.

No. 2—Capacity 2 to 3 bushels per hour. $5.25.

No. 5—Capacity 2 to 4 bushels per hour. $7.25.

No. 10—(Illustrated.) Capacity 2 to 4 bushels per hour. $8.95.

Poultry Waterer

Ten gallon capacity, Kerosene or Electric Heated, with perch and legs.

No. L10—Fountain only. **$5.40.**

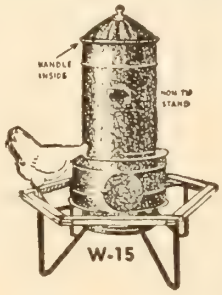
No. L10HB—With single burner flueless lamp, weight 31 pounds. **(Temporarily Discontinued)**

No. L10EB—Base insulated and ready to receive electric light socket, weight 30 pounds. **(Temporarily Discontinued)**

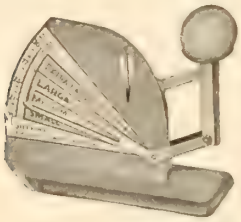
Fountain and Heater

(Temporarily Discontinued)

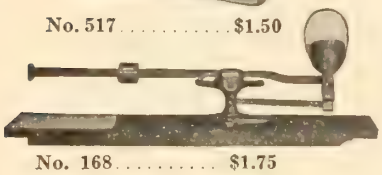
W25HS—5 gal., with stand . **$6.40**
W15HS—8 gal., with stand . **7.90**



Egg Grading Scales



No. 517 . . . . . $1.50



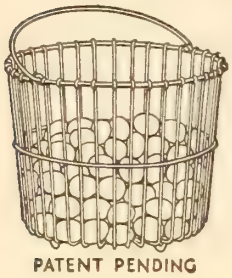
No. 168 . . . . . $1.75

Egg Candler

No. 700

No. 700—Complete including cord, socket and bulb for 110 voltage. **$1.40**

Wire Egg Baskets



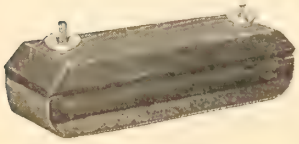
PATENT PENDING

Heavy galvanized wire, electrically welded, capacity 12 to 15 dozen.

No. 44 . . . . . $.95

China Nest Eggs

White opal glass, natural in appearance, and uniform in sizes. **30c dozen.**



HUMANE POULTRY KILLER

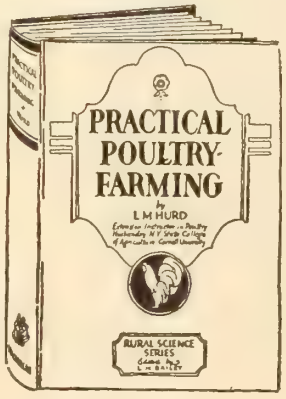
$1.85

No. 13

Egg Cleaners

No. 13 . . . . . $ .35
No. 14—10 ft. Cleaning Cloth 80

PRACTICAL POULTRY FARMING, by L. M. Hurd. Here are practical, useful, and money-making ideas on raising poultry for profit. Complete in every detail. The only book which tells the vitamin content of poultry feeds. 149 illustrations, 405 pages. **$2.50.**



Poultry and Produce Scale

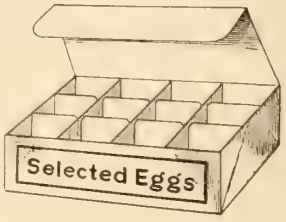
812A

8910

No. 812A — Capacity 20 pounds by ounces; adjusted by set screw at top, 6½-inch dial; figures in black on white enamel. Finish Black Japan and decorated in gold. Heavy galvanized scoop and chains. Height overall 28½ inches. Scoop 18 by 14 inches. (Weight 5 pounds.) **$3.50.**

No. 8910—Spring balance. Capacity 100 lbs. by 1 lb. **$2.75.**

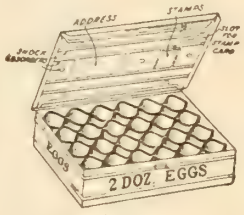
Egg Cartons



These pasteboard egg cartons are just the thing for safely and quickly packing eggs in one dozen lots for delivery to your retail customers. The appearance and convenience of the package will increase your sales. **12c doz.; $1.10 per 125; $1.85 per carton of 250; $6.85 per 1000** (weight 27 lbs.). Postage extra.

Metal Egg Crates

For Selling Eggs By Mail



Indestructible; pays for itself in a few shipments; lasts years; makes interchangeable shipping easy. Buy yours now and realize more money for your eggs. Your friends want them.

1-dozen size	$1.00	6-dozen size	$2.50
2-dozen size	1.50	9-dozen size	3.25
3-dozen size	1.75	12-dozen size	4.00
4-dozen size	2.00	15-dozen size	4.75

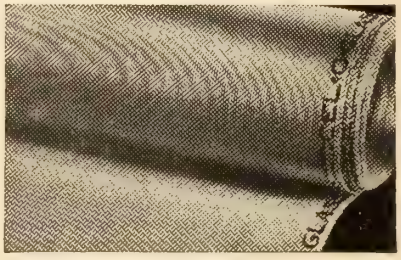
Postage Extra

EGG PRESERVATIVE

Mix 1 part with 9 parts of water. **Qt., 30c; gal., $1.00.**

CEL-O-GLASS

Now guaranteed for 5 years. Unbreakable weather proof, transmits violet rays (Glass does not). Ideal for poultry house, fronts, windows, and doors, and many other uses. **Standard Roll, 28 inches wide, 100 feet long, 28c per running foot.**



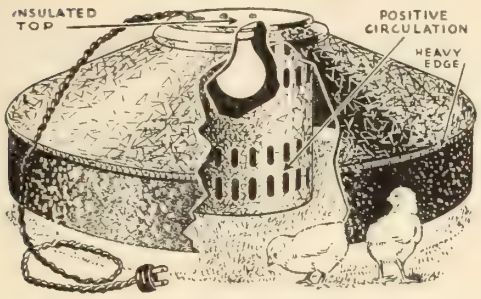
VIO-RAY WINDOW FABRIC

Scientifically processed white cloth, thin enough to admit violet rays, and yet strong enough for all weather. **Sq. yd., 30c; 10 sq. yds. or more, 27c.**

R-V-LITE VITAPANE

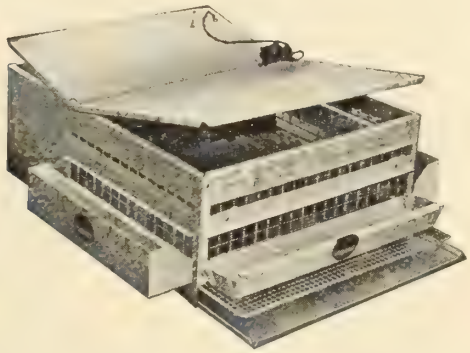
36 inches wide . . . . . **18c lineal foot**

C-1 FLOOR BROODER



Fitted with socket for light bulb, 6 ft. of cord and curtain. 22 in., 75-100 chick capacity. (Bulb not furnished.) **$3.25.**

B-1 JUNIOR BATTERY BROODER



B-1 (illustrated). Designed for the raiser of small flocks. Note the open sides and ample ventilation. This brooder has a 150-watt "Beacon cement coated" heating element controlled by a quick make and break non-radio interfering Thermostat.

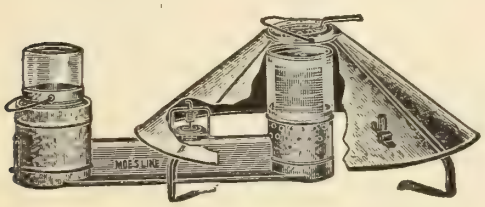
Dimensions: 24x30 inches. Capacity, 80 day-old chicks. **$10.75.**

B-2—20x24 inch, bulb heated, with feed and water pans, **$5.50.**

LIV-AN-GRO BROODER

No. LG2	$1.95

AUTOMATIC OIL BROODER



Brazed Oil Assembly, Wire Edged Canopy. Attractive Steel Shell, Thermostat Control. Unexcelled Wickless Blue Flame Burner. Entire Simplicity.

No.	Canopy	Capacity	Weight	
3	42 in.	250 chicks	38 pounds	$14.50
5	52 in.	500 chicks	50 pounds	16.00
227 (Illustrated)	52 in.	500 chicks	52 pounds	16.00

WAFER THERMOSTATS

T-3—3-in. Plain Stud	$ .30
T-4—3-in. Male Stud	.30
T-7—3-in. Female Stud	.30
T-12—DeLuxe 3-in. Dual Stud	.35
T-434—4-in. Female Stud	.45

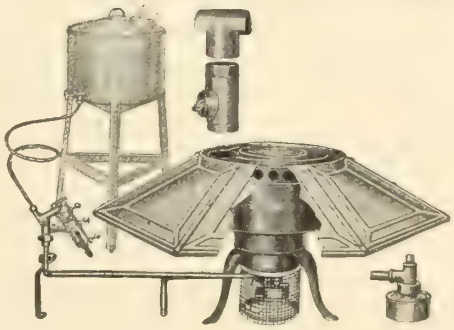
No. 128—BROODER THERMOMETERS	**$ .35**
No. 5776—INCUBATOR THERMOMETERS on stand	**.85**
LITTLE PUTNAM STOVE	**2.00**
PUTNAM BROODER STOVES	**4.75**

ELECTRIC CANOPY BROODER

B-9 (illustrated). Equipped with two controlled ventilators to give a cross flow of heated air for perfect ventilation. Has a special 200 watt black radiator, "BESTOF ALL" quick break switch, also thermometer and long cord. Capacity 200 chicks. 30 in. dia. **$9.95**

B-13—A steep pitch canopy which prevents roosting, ventilator furnishes a continuous circulation of air without drafts. Made of 26 gauge galvanized; heavy curtains, adjustable legs, has two independent heating circuits of 500 watts each—1,000 watts. Capacity 500 chicks, size 50 in.

HUDSON OIL BROODERS



No. 256B—Completely enclosed in a 54-inch Hexagon-shaped Hover. Drum 22 inches in diameter, 8 inches deep. Combustion chamber 11 inches in diameter, 18-gauge. 8-gallon fuel tank. Recommended for houses up to 14x16 for 700 chicks. Without Fuel Stand. **$22.00.**

No. 269B—With 66-inch Hexagon-shaped Hover. Recommended for houses up to 16x16 feet for 800 chicks. Without Fuel Stand, **$26.00.**

OIL BROODERS

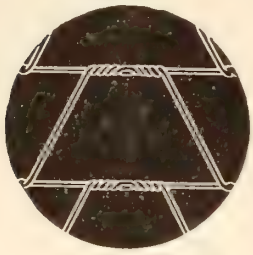
No. 237—42-in. canopy, 5-gal. fuel tank, no stand	$18.95
No. 238—54-in. canopy, 10-gal. fuel tank, with stand	21.95
No. A26—60-in. canopy, 5 gal. fuel tank, no stand	18.90
No. AS28—Stand for No. 26	1.35

COAL BURNING BROODERS

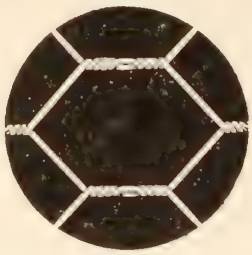
	No. A-15	No. A-16
Capacity	500 chicks	750 chicks
Diameter of Hover	52 inches	56 inches
Price	$19.95	$24.00

POULTRY NETTING

GALVANIZED AFTER WEAVING 150-FOOT ROLLS



Straight Line

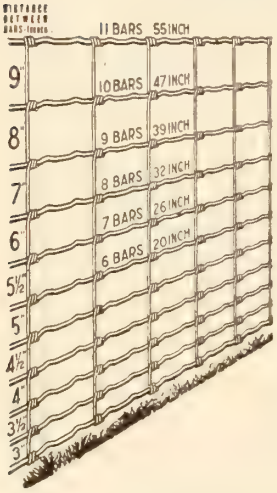


Hex-Cel

Subject to Allotment

	2-inch Mesh		1-inch Mesh
	19 gauge	20 gauge	20 gauge
12-inch	$1.45	$1.30	$2.50
24-inch	2.60	2.25	3.60
36-inch	3.50	3.10	4.60
48-inch	4.60	4.15	6.90
60-inch	5.70		
72-inch	6.70		

25 to 150 foot lengths.
2-inch mesh 1½c per sq. ft.
1-inch mesh 2½c per sq. ft.



AMERICAN FARM FENCE

Subject to Allotment

Thoroughly galvanized, with hinge joint patent lock knot.

Let us send descriptive folder.

No. 635—6 strands, 35 inches high, 12-inch stays, per rod, **40c.**

No. 845—8 strands, 45 inches high, 12-inch stays, per rod, **55c.**

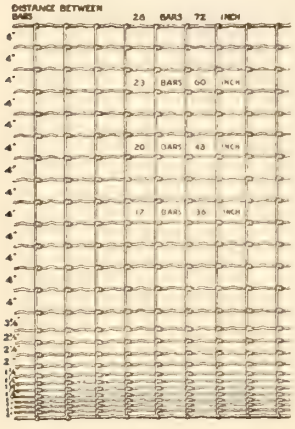
No. 832—8 strands, 32 inches high, top and bottom wires No. 9, intermediate and stay wires No. 11, 6-inch stays, per rod, **75c.**

No. 1047—10 strands, 47 inches high, top and bottom wires No. 9, intermediate and stay wires No. 11, 12-inch stays, per rod, **72c.**

No. 1047—As above, but with 6-inch stays, per rod, **95c.**

Put up regular in 20-rod Rolls.

10-Rod Rolls, 25c per Roll Extra.



PIONEER POULTRY FENCE

Subject to Allotment

No. 1948—48 inches high, top and bottom wires No. 11, intermediate and stay wires No. 14½, 6-inch stays, per roll of 165 feet, $7.50.

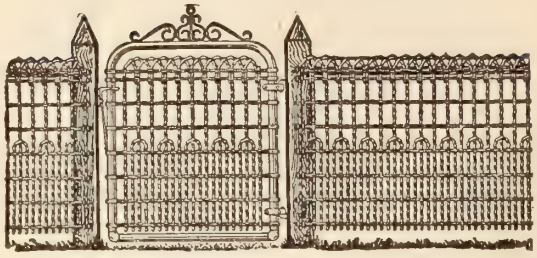
No. 2158—58 inches high, top and bottom wires No. 11, intermediate and stay wires No. 14½, 6-inch stays, per roll of 165 feet, $8.50.

No. 2672—72 inches high, top and bottom wires No. 11, intermediate and stay wires No. 14½; 6 inch stays, per roll of 165 feet, $10.25.

HARDWARE CLOTH

2x2	$ .06 sq. ft.	4x4	$ .07½ sq. ft.
3x3	.06½ sq. ft.	8x8	.08½ sq. ft.

ORNAMENTAL LAWN FENCE



Subject to Allotment

Very attractive and we believe the most durable wire lawn fence made. Heavy galvanized. Spaces, 1½ inches; wire, No. 9½ Crimped Pickets in No. 13 Tw. Cables.

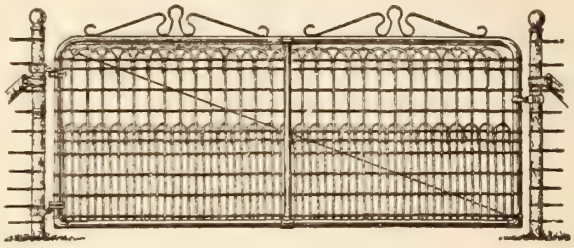
	Single Loop	Double Loop
36-inch	$ .11 ft.	$ .14½ ft.
42-inch	.12 ft.	.16½ ft.
48-inch	.13½ ft.	.18 ft.

FLOWER GUARD

Designed for protecting Flower Beds

16-inch, per foot ..... 7½c 22-inch, per foot 8½c

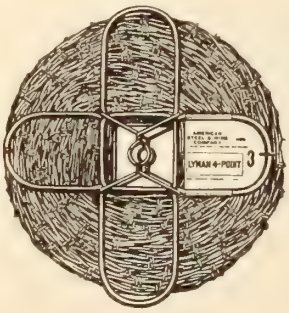
ORNAMENTAL GATES



Heavy steel frames, filled to match the fence; fittings for Jr. 1¾ in. posts included.

Subject to Allotment

	Distance Between Posts			
Height	3 ft.	3½ ft.	4 ft.	8 ft.
36-inch	$5.10	$5.35	$5.85	....
42-inch	5.35	5.50	6.00	$11.50
48-inch	5.50	5.70	6.25	12.00



BARBED WIRE GALVANIZED

Subject to Allotment

Hog—4-point, 12-gauge, 4 inches between barbs, 80-rod $5.50

Cattle—4-point, 12-gauge, 6 inches between barbs, 80-rod $5.10

POST HOLE DIGGERS

$2.25

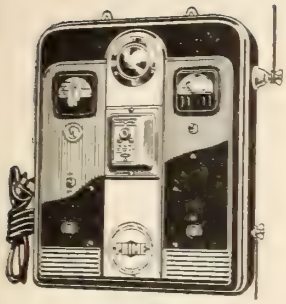
EARTH AUGERS

No. 8—8-14 in. $6.00
No. 10—8-16 in. $6.50

(Prices subject to change.)

PRIME ELECTRIC FARM FENCE

Approved for Safety by Underwriters Laboratories



No. 480A

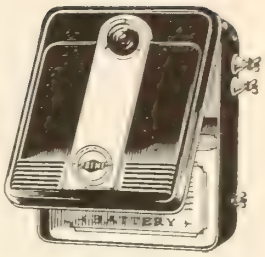
Electric 110-120 Volt

No. 480A—Economical to operate. Equipped with these features: Short Signal Light Soil Selection Switch, Safety Circuit Breaker, On-Off Switch, Double Fuse Plugs, Short Meter, Short Meter Switch, Safety Barrier, Specially Designed Transformer, Moto Chopper, Radio Interference Eliminator, Ground Clamp, Lightning Arrester, Instruction Book. **$42.50.**

No. 420—Same as above but does not have these features: Soil Selection Switch, Short Meter, Ground Clamp, Lightning Arrester. **$32.50.**

Battery Type

No. 680A—The only battery controller that approaches the effectiveness of A.C. current on the fence. Prime does this with "Twin-Shocks" (two shocks) instead of one without additional battery drain. Equipped with these features: Short Signal Light, Battery Meter, On-Off Switch, Specially-Designed Transformer, Super Charger, Short Meter, Short Meter Switch, Soil Selection Switch, Moto-Chopper, Twin Shocks, Ground Clamp, Lightning Arrester, Instruction Book. **$42.50.**



No. 333

No. 333—A rugged, low priced controller. Same as No. 680A but does not have these features. Short Meter, Short Meter Switch, Super Charger, "Twin Shocks." **$17.50.**

No. 630—Same as No. 680A less these features: Ground Clamp, Lightning Arrester, Short Meter, Super Charger. **$32.50.**

No. 200—Very simple construction to make low price possible. **$10.50.**

Accessories

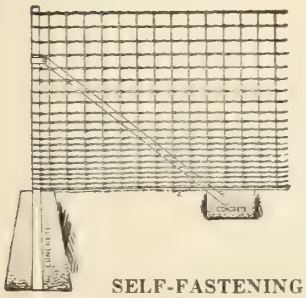
P-1—Standard Insulators, **$2.10 per 100.**
P-2—Weatherproof Insulators, **$2.50 per 100.**
P-23—End and Corner Post Insulators. **5c.**
P-26—End and Corner Post Insulators. **10c.**
P-19—Spring Tie Clips, **45c per 100.**
P-500—7 inch Gate Handles. **25c.**
P-501—Gate Springs, **7c.**
P-244—Lightning Arresters, **30c.**
P-407—Fuse Plug, **8c each; box of 5, 35c.**
P-523—Fuses, **5c each.** **P-363**—Bulbs, **50c.**
P-362—Bulbs, **30c.** **P-364**—Bulbs, **75c.**
No. 255—Battery Cabinet, $2.50.
Let us send descriptive catalog and prices.

TUBULAR STEEL POSTS
Subject to Allotment

	Painted	Galv.
5-foot	..	$ .65
6-foot	$ .55	.70
6½-foot	.60	.75
7-foot	.65	.80
7½-foot	.70	.85
8-foot	.75	.90

Steel Post Fittings
Subject to Allotment

Galv. Ball Tops for Line Posts. 28c.	
Galv. Driving Caps for Line Post, 55c.	
Galv. Hinge Collar	$ .60
Galv. Spring Latch	.60
Galv. Split Hinges	.35



JUNIOR CORNER POSTS
Subject to Allotment

Painted		Galvanized	
6-foot	$2.00	6-foot	$2.50
8-foot	2.65	8-foot	2.95

JUNIOR END POSTS
Subject to Allotment

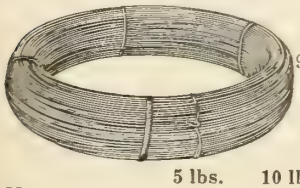
Painted	
6-foot	$1.50
8-foot	1.95
Galvanized	
6-foot	$1.80
8-foot	2.15

SELF-FASTENING U POSTS
Subject to Allotment

3-foot (no anchor)	$.25	6½-foot	$.60
5-foot	.45	7-foot	.63
6-foot	.55	7½-foot	.67
		8-foot	.70

TOWNSEND WIRE STRETCHER

No. 1 has hickory handle and malleable clamp; can be quickly adjusted. $2.25.

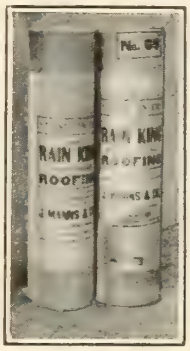


BALE TIES
Subject to Allotment

9½ feet, No. 14 gauge, bdl. 250 ..... $2.50

GALVANIZED FENCE WIRE
Subject to Allotment

	5 lbs.	10 lbs.	25 lbs.	100 lbs.
No. 9	$ .50	$ .80	$1.70	$5.85
No. 12	.55	..	1.75	6.10
No. 14	.60	.85	1.90	6.80
No. 16	.65	.90	2.15	7.80
No. 18	.70	1.10	..	..



ROOFING MATERIAL

SMOOTH SURFACED

	Weight Per Lbs. Roll	
Tomahawk, light	35	$1.20
Tomahawk, medium	45	1.40
Tomahawk, heavy	55	1.60
Rain King, extra heavy (Underwriters' label)	65	2.40

SLATE SURFACED (Green)

Vitex	75	2.30
Balmar	75	2.45

TARRED SLATERS FELT

500 square feet	30	1.25

KURE-A-LEAK

A semi-liquid mastic or cement-like composition, not affected by extreme heat or cold; absolutely water tight and fireproof. It "kures" the leaks in wornout tin, galvanized iron or composition roofings. Gal., 85c; 5 gals., $2.45.

RU-BER-OID

Gray asbestos asphalt coating; contains no tar. **Gal., 60c; 5 gals., $2.12.**

HUDSON MASTER STALLS

Specifications

Horizontal Top Rail, 1½-in. carbon steel tubing.

Partitions and Uprights, 1⅝-in. OD, carbon steel tubing.

Fittings, improved dustproof design.

Anchors, continuous double angle iron.

Width, regular 3 ft. 6 in.; other widths available.

No. 1A—Stall, **$7.75.**

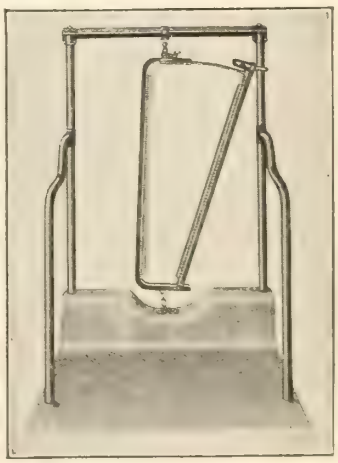
No. 193 — Stanchion, **$4.00.**

No. 1309—Gutter Drain, **$8.25.**

No. 92 — Manger Drain, **$2.90.**

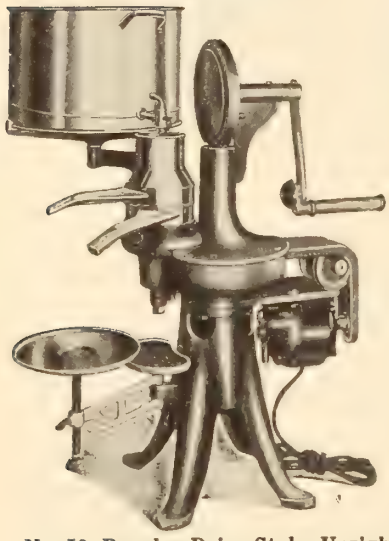
No. 94—Floor Drain, **$2.90.**

No. 96S—Milk Stool, **90c.**



DAIRY SUPPLIES

NEW E-Z AMERICAN SEPARATOR
Subject to Allotment



No other separator gives you the advantages of the newly-developed American. Gets ALL the cream, low speed preventing frothing; bowl needs no rebalancing, new polished stainless steel discs, unmatched for easy turning, only separator with waist-low supply tank; greatest value for price charged. A size for any capacity. We offer the following three models for comparison.

Smaller models at exceedingly low prices. Let us quote.

No. 50, Regular Dairy Style, Upright—Capacity 500 pounds of milk per hour. Skims about 62 quarts in 15 minutes.

No. 50, Electric, with Standard make Motor (illustrated). $112.50.

CROWN CREAM SEPARATOR
4 gallons, capacity 3 to 4 cows.....$5.25

DAIRY THERMOMETERS 40c

PARCHMENT BUTTER PAPER
Is furnished in sizes 6x9, 9x12.....Lb. 25c
Postage Extra.

HAND BUTTER PRINTS
No. 19—½ lb. Round.....45c
No. 20— 1 lb. Round.....55c

DANDELION BUTTER COLORING
Small size to color 500 pounds.....$ .35
Medium size to color 1250 pounds..... .65
Large size to color 2800 pounds 1.00

STRAINER PADS
Plain round rapid-flo filter disks for sanitary milk production.
6-inch, 100 in box.....$ .40
6½-inch, 100 in box ..... .45

TEAT DILATORS for Cows, box of 18, 25c.

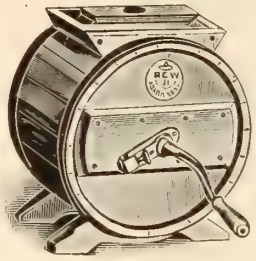
ANTI-COW KICKERS, $1.00.

CALF WEANERS
No. 101 Small.....$ .45 No. 102 Medium.....$ .50

SALT BRICKS
Dr. Blackman's, Medicated Lick-A-Brik.....$ .25
Worcester, Plain ..... .20
Worcester, Sulphurized..... .20

ROCK SALT
2½c per lb.; $1.75 per 100 lbs.

MEAT CURING PRODUCTS
Meat curing made easier, quicker and safer.
Mortons Sugar Cure (Smoke Salt) **10 lbs., $1.00.**
Mortons Tender Quick, 2½ lbs., 50c.
Mortons Sausage Seasoning, 3 ozs., 15c; 10 ozs., 25c.
Mortons Meat Pump, $1.50.
Mortons Meat Thermometer, $1.50.



CYLINDER CHURN
Made of selected white cedar and well put up.

Full Churning Capacity

Number	1	2	3	4
Gallons	1½	2	3½	6
Price..	$5.05	$6.00	$6.95	$8.15

BARREL CHURN
Oak stave; steel top; it works by concussion and will not break the grain of the butter nor make it of a salvy consistency.

Number	0	1	2	3	4	5
Gals. churned....	3	5	7	10	12	17
Price	$8.00	$9.00	$10.00	$12.00	$14.00	$16.00

STANDARD GLASS CHURNS
Specially designed jar with sloping rounded corners and large mouth, perforated strainer built into lid, four blade hard maple dasher.

Size	Churns	Price
2 quart—	1 quart.....	$1.45
4 quart—	2 quart.....	2.40
6 quart—	3 quart.....	2.95
8 quart—	4 quart.....	3.65

STERLING

ICE CREAM FREEZERS
Sturdily built White Cedar Pails with electric welded wire hoops, frames, locks and catches heavily galvanized; tall tin-plated cans.

STERLING.....3 qt., $3.70; 4 qt., $4.15; 6 qt., $6.25
SNOWBALL (Triple Motion).....4 qt., $5.95
DOUBLE QUICK.....2 qt., $1.25

BAG BALM
Soothing, penetrating ointment, especially adapted for serious and annoying troubles known as caked bag, cow pox, chapped, cracked and sore teats, chafing and inflammation of all kinds. 60c.

KOW-KARE
The Great Cow Tonic and Conditioner for toning up the appetite and stepping up milk production through its action as a stomachic of genuine merit, an alterative and general regulator of cows subjected to modern conditions of forced production.
1¼-pound can .....$ .65
2¾-pound can 1.25

CONKEY'S FLY KNOCKER
The best preparation on the market for keeping flies off cattle and horses. Easily sprayed on and retains its strength all day, allowing the cows to pasture without annoyance, and therefore assists in the production of milk. **Qt., 60c; ½ gal., $1.00; gal., $1.50.**

CONKEY'S CALF MEAL
Quality is of more importance in Calf Meal than in any other feed; it pays to buy the best. The advantages in feeding it are many. 1. It saves milk. 2. It costs less to feed. 3. It makes better veals. 4. You can raise your own dairy cows on it cheaper than they can be bought. 5. It leaves more milk to sell, and more profit to you. Satisfaction guaranteed. **25 lbs., $1.65.**

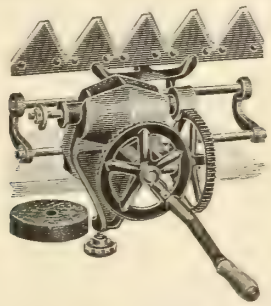
HOG OIL WORMER
12 oz., $1.00; qts. $2.00.

MISCELLANEOUS FARM SUPPLIES

HANDLES

Axe, 19 in. Bobolink, House	$ .20
Axe, 34 in. Bobolink, Bent	.40
Garden Mattock, No. 320, 4½ ft. by 1¾ in. round eye	.55
Hammer, 14 in. Bobolink	.15
Hatchet, 14 in. Bobolink	.15
Hay Fork, No. 78, 6 ft. with ferrule	.70
Hoe, No. 226, 4⅓ ft. light, drilled with ferrule	.50
Hoe, No. 232, 4⅓ ft. socket	.35
Hoe, No. 444, 4½ ft. heavy, drilled with ferrule	.50
IDL, Steel "D" tops only	.30
Manure Fork, No. 103, 4½ ft., with ferrule	.60
Manure Fork, No. 128, 32 in. Jr. Steel top, with ferrule	.70
Manure Fork, No. 170, IDL top, heavy, with ferrule	.85
Mattock, 36 in. Natural, Bobolink	.50
Mattock, 36 in. Walnut Stain, Bobolink	.30
Rake, No. 328, 5½ ft., with ferrule	.50
Shovel, No. 1, 4½ ft., light, single bend	.40
Shovel, No. 1004, Razor Back, 4 ft.	.55
Shovel, No. ABW 1, double bend, long handle	.40
Spade, No. 1, light, double bend, IDL top	.50
Spade, No. 1005, Razor Back, "D" hdl.	.55
Spading Fork, No. 159, 30 in., IDL Steel "D" top, with ferrule	.75
Spading Fork, No. 166, 30 in. Jr. Steel "D" top, with ferrule	.65
Spading Fork, No. IX, 30 in. IDL steel "D" top, drilled with ferrule	.75

No. 82 TOOL GRINDER

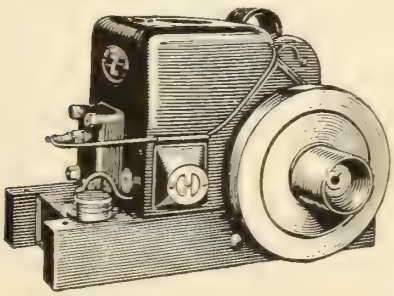


This very useful grinder is especially suited to farm work and can be easily clamped to a mower wheel or bench; compact, simple and serviceable.

82—With Bevel Tool Wheel only	$8.50
83—With both Flat and Bevel Tool Wheels	9.80
171—4½x1½ Dimo-Grit Tool Wheel	2.55
DG3½—Beveled Wheel only	1.85

FAIRBANKS MORSE TYPE "Z" ENGINES

Subject to Allotment

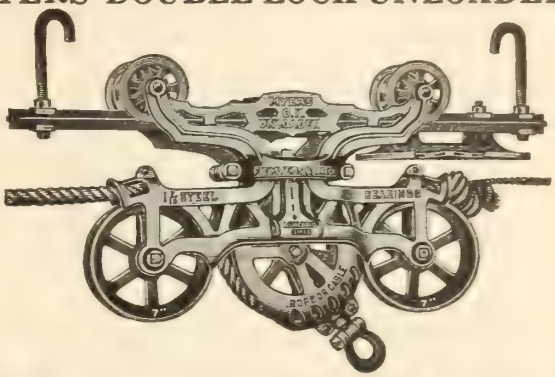


Compact, self-oiling, fully enclosed and yet easily accessible. Designed to meet the present and future demands of users of small engines. Equipped with guaranteed ignition, Type "R" Rotary High Tension Magneto. Easy to start, magneto sealed against dirt, dust, water and oil. Let your next engine be a "Z" and learn what real dependability is.

1½ H. P. ..... $65.75 3 H. P. $105.00

Let us quote larger sizes on request.
1¼ Horse Power Illustrated.

MYERS' DOUBLE LOCK UNLOADERS



No. 208. Has extra long truck, wheel base 16 inches, large steel bearings, 7-inch sheaves, reversible and swivel, for double steel track, designed for heavy work. $16.75.

MYERS' CLOVER LEAF UNLOADER

No. 118. This is the well-known reversible car for double steel track. The locking device grasps the fork pulley on either side and permits it to swing free. $13.25.

Double Steel Track. Per foot, 27½c.
Hanging Hooks. For double steel track. 21c.
Rafter Brackets. Steel. 6c.
Pulleys, 6-inch; wood sheaves; malleable iron frame. 90c.
Pulleys. Knot-passing swivel; 6-inch malleable iron sheave. 95c.
Double Harpoon Forks. All steel. $3.50 to $6.75.
Floor Hooks, ¾-inch wrought iron. 20c.

AXES

Collins, Handled, 3½ to 5 lbs.	$2.50
Kelly, Unhandled, 3½ to 5 lbs.	1.90

MATTOCKS

5 lb. 3½ inch cutter	1.50

(Handles Extra)

BROOMS

Corn and Palm Fibre	$ .60
Palmyrah	.75
Stable Push	.95

RURAL MAIL BOX

Body made of No. 20 gauge galvanized steel, door No. 18 gauge, bottom and rear No. 20 gauge. Inside of box has a corrugated drain board to provide for any water accumulation. Finished in aluminum bronze, flag bright red enamel. Size of box 23½ inches long, 11¼ inches wide, 14 inches high. No. 2—$4.00.

No. 1—18¾ in. long, 6⅜ in. wide, 8¾ in. high, $1.75.

Root QUALITY BEE SUPPLIES

Let Us Send Complete Free Catalog
For Quick Service
Mail Your Orders To Us
Prices F. O. B. Baltimore

HONEY JARS

½ lb. size

No. 5435—Clearline	$ .85 case 2 doz.
No. 5109—Skep	.85 case 2 doz.
No. 6906—Masterline	.85 case 2 doz.

1 lb. size

No. 5436—Clearline	$ .60 case 1 doz.
No. 5931—Skep	1.15 case 2 doz.
No. 6611—Labeline	1.15 case 2 doz.

2 lb. size

No. 6964—Masterline	$ .65 case 1 doz.

5 lb. size

No. 6557—Honey Jar	$1.25 doz.

White coated caps included.

WOOD PUMPS

Porcelain Lined—Ready to Set in the Well

Depth of Well	No. 2 6x6	No. 5 7x7	Depth of Well	No. 6 6x6	No. 4 7x7
8 ft.	$18.20	$20.80	30 ft.	$30.90	$33.15
9 ft.	18.60	21.20	31 ft.	31.90	34.15
10 ft.	19.05	21.55	32 ft.	32.90	35.15
11 ft.	19.40	21.85	33 ft.	33.90	36.15
12 ft.	19.65	22.15	34 ft.	34.90	37.15
13 ft.	20.00	22.45	35 ft.	35.90	38.15
14 ft.	20.25	22.75	36 ft.	36.90	39.15
15 ft.	21.00	23.30	37 ft.	37.90	40.15
16 ft.	21.50	23.90	38 ft.	38.90	41.15
17 ft.	22.50	24.70	39 ft.	39.90	42.15
18 ft.	23.15	25.50	40 ft.	40.90	43.15
19 ft.	23.50	25.80	41 ft.	41.90	44.15
20 ft.	23.80	26.20	42 ft.	42.90	45.15
21 ft.	24.30	27.50	43 ft.	43.90	46.15
22 ft.	25.00	28.00	44 ft.	44.90	47.15
23 ft.	25.70	28.70	45 ft.	45.90	48.15
24 ft.	26.00	29.00	46 ft.	46.90	49.15
25 ft.	26.35	29.35	47 ft.	47.90	50.15
26 ft.	27.30	30.30	48 ft.	48.90	51.15
27 ft.	28.40	30.90	49 ft.	49.90	52.15
28 ft.	29.70	31.25	50 ft.	50.90	53.15
29 ft.	30.30	32.30			

PUMP HEADS

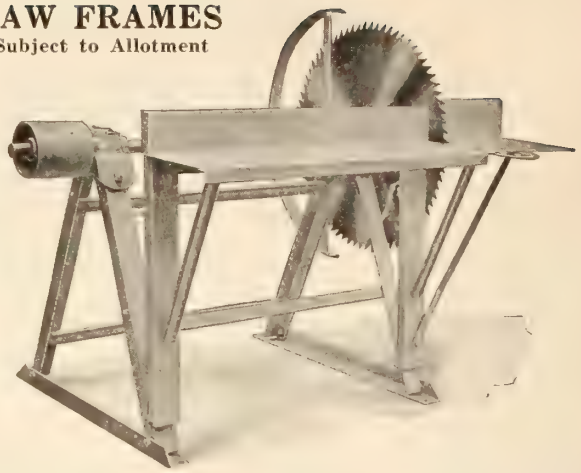
Length	6x6 No. 2 Porcelain-Lined	6x6 No. 6 Deep Well
6 ft.	$13.75	$10.25
7 ft.	14.75	11.25
8 ft.	15.75	12.25
10 ft.	18.25	14.75
12 ft.	20.25	17.25

RED GEM PITCHER PUMPS

No. 2—3 inch	$2.50
No. 3—3½ inch	3.00

SAW FRAMES

Subject to Allotment



(Blades Extra)	No. 9 Steel	No. 5 Wood	No. 4 Pony
Frame Only	$25.95	$24.95	$16.75
With Flywheel	29.95	29.75	19.75

BLADES (Crosscut)—Bore 1⅜-inch
18-inch, $3.95; 24-inch, $6.50; 26-inch, $7.20; 28-inch, $8.40; 30-inch, $9.45.

FARM BELT

Rubber coated canvas transmission belting; 4 in. wide; 4 ply; flat sides; black; 45c ft.

EXTENSION LADDERS

Equipped with automatic locks, rope and pulley. Made of the best select fir or Norway pine. (An allowance of two feet should be made for lap on ladders 20 to 32 ft. and three feet from 36 to 44 feet.)

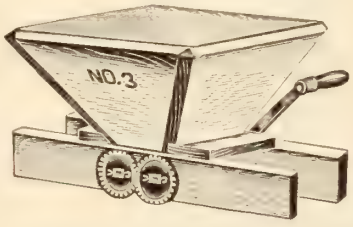
20 ft.	$11.00	24 ft.	$12.00
28 ft.	14.00	30 ft.	15.00
32 ft.	16.00	36 ft.	19.00
40 ft.	21.00	44 ft.	23.00

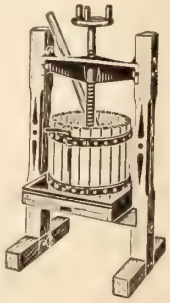
IDEAL STEP LADDERS

Made of southern pine; double U top, steps rodded and trussed, handle spreader, back braces, metal capped. **4 ft., $3.00; 5 ft., $3.75; 6 ft., $4.50 7 ft., $5.25; 8 ft., $6.00.**

RED CROSS FRUIT CRUSHERS

Subject to Allotment





No. 3—(Illustrated.) ½ bu. cap. 16x15x18½ in. **$5.45.**
No. 2—1 bu. cap. 19½x19½x8 in. **$7.70.**
No. 5—1¼ bu. cap. 19x21½x10 in. **$10.75.**
No. 1—1 bu. cap. with balance wheel, 20x20x8 in. **$17.85.**

LARD AND FRUIT PRESS

No. 15—2 quart	$8.00

RED CROSS FRUIT PRESSES

Subject to Allotment

No. 1A	$10.75
No. 2C	14.00
No. 3	22.75
No. 5	32.75

CIDER MILLS

Subject to Allotment

SINGLE CAGE	$22.75
JUNIOR 2-CAGE	29.15
MEDIUM 2-CAGE	34.65
SENIOR 2-CAGE	47.00

SOIL IMPROVEMENT

Look to your Soil for therein lies the very foundation of your farming or gardening success. Does your soil need plant food? If so, what elements are lacking? Does it need lime? How much lime? Or, does it need acid?

Accurate answers to these questions are worth many dollars to every grower because they often mean the difference between a successful crop and a poor crop. Save money and increase your profits by knowing the possibilities of your soil in relation to the chemical requirements of the crop you plan to grow.

The accompanying chart and tabulation of varieties show that most vegetables thrive best in a slightly acid soil. It is very necessary however, to first know the pH (or degree of acidity) of your soil as determined by soil tests, before applying acid or lime, rather than by guesswork. The desired amounts of nitrogen, phosphorus and potash should also be determined as a matter of economy. Use a soil test kit and feed your soil the elements which are needed.

PLANT FOOD ELEMENTS

Plants require nitrogen, phosphorus, potassium (the three most important), oxygen, hydrogen and carbon (obtained from air and water) and the minor elements usually found in the soil in sufficient quantity but also supplied in the better brands of mixed fertilizers.

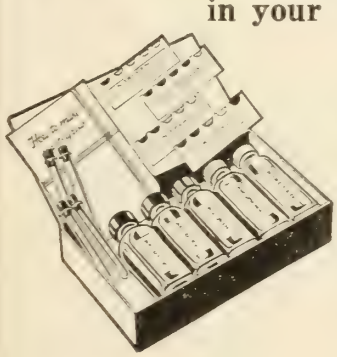
These minor elements are calcium, sulphur, magnesium, manganese, iron and boron. Their functions are largely indirect, but very essential as they aid the chemical changes which render other ingredients more available. Calcium (lime), for example, aids in making the nitrogenous materials more quickly available and changes the physical nature of soils. Sulphur seems to exert a beneficial influence on plant growth and iron is necessary in the formation of chlorophyll.

Nitrogen is the "top growth" element needed for leafy vegetables such as spinach, kale, parsley, etc. Aside from mixed fertilizers, nitrogen can be had in various organic forms as in bone meal, blood meal, tankage, fish meal, cotton seed meal and inorganic forms such as nitrate of soda (tending toward an alkaline reaction), ammonium sulphate (tending toward an acid reaction), urea and potassium nitrate. The organic materials are safest to use as they react slowly and do not burn.

Phosphorus is generally the most needed element, as the continued use of manures possessing such a little of it, combined with the fact that most crops are heavy phosphorus feeders, soils worked for a number of years are practically depleted of this element. A real fertile soil is rich in readily available phosphorus. It is the element which promotes growth and vigor, flowers, fruit and seeds. Beans, corn, cucumber, tomatoes, turnips and rutabagas seem to respond to heavy feedings of phosphorus. It is available in mixed fertilizers, superphosphate, bone meal and tankage.

Potash is the root growing element. Asparagus, beets, carrots, celery, cucumbers, lettuce, potatoes and radish all respond to extra potash feeding. Sulphate of potash is best for tobacco, lettuce and leaf crops, while muriate of potash is most beneficial to carrots, potatoes and root crops.

KNOW which elements are needed in your soil



Practical tests with the Sudbury Soil Test Kit will show the acidity of soil and any possible deficiency in nitrogen, phosphorus, and potash. Each kit is accompanied by complete instructions and tables of plant needs.

MODEL D (as illustrated)—Contains enough soil testing solutions to make 20 individual tests. **$2.00.**

CLUB MODEL—Makes 50 individual tests for nitrogen, phosphorus, potash and acidity. Cased in handsome sturdy imitation leather. **$4.75.**

MODEL B—In permanent metal case. Contains sufficient chemical for 60 individual tests for nitrogen, phosphorus, potash and acidity. Case contains test tube rack, extra test tubes, special glass funnels, color charts and a supply of filter paper. **$9.75.**

TESTING FLUID for refill. Specify whether for nitrogen, phosphorus, potash or acidity. **2 oz., 75c; 6 oz., $1.50.**

FISHER ALKACID SOIL TESTER, $1.00.

ACID OR ALKALINE PREFERENCES

(Letters refer to degree of acidity in chart below)

VEGETABLES, GRAINS, GRASSES, ETC.

Alfalfa	A	Leek	B
Asparagus	A	Lettuce	A
Barley	A	Muskmelons	B
Beans	C	Oats	C
Beets	A	Onions	A
Bent Grass	D	Parsley	A
Blue Berries	E	Parsnips	D
Blue Grass	A	Peas	B
Broccoli	B	Peppers	C
Cabbage	A	Plums	D
Carrots	A	Potatoes	D
Cauliflower	A	Pumpkin	D
Celery	A	Radish	B
Chicory	B	Raspberries	B
Corn	B	Red Clover	B
Clover	A	Rhubarb	B
Cowpeas	C	Rye	C
Cranberries	E	Spinach	B
Cucumber	B	Squash	C
Currants	C	Strawberries	C
Eggplant	B	Tobacco	C
Endive	B	Tomato	C
Gooseberry	C	Turnip	C
Grapes	D	Rutabaga	C
Kale	B	Watermelon	B
Laurel	E	Wheat	A

FLOWERS

Azaleas	E	Hydrangea Blue	E
Anemone	B	Hydrangea Pink	C
Aster	B	Iris	B
Begonia	B	Lady Slipper	E
Bleeding Heart	C	Larkspur	B
Bouvardia	C	Lilac	B
Calendula	A	Lily	C
Candy-tuft	B	Lupine	C
Canna	B	Marigold	B
Carnation	B	Mignonette	B
Centaurea	B	Morning Glory	A
Cineraria	A	Myosotia	B
Chrysanthemum	B	Narcissus	B
Clarkia	B	Nasturtium	A
Clematis	A	Orchid	D
Columbine	B	Pansy	B
Cosmos	B	Peony	B
Cyclamen	C	Primula	B
Dahlia	B	Poinsettia	B
Delphinium	C	Petunia	A
Didiscus	B	Phlox	C
Easter Lily	C	Poppy	B
Euphorbia	C	Rhododendron	C
Feverfew	B	Rose	B
Ferns	C	St. Paulia	B
Forget Me Not	A	Salpiglossis	B
Fuschia	B	Scabiosa	B
Gardenia	E	Schizanthus	B
Genista	A	Snapdragon	B
Geranium	A	Stocks	B
Gerbera	A	Swainsonia	A
Gladiolus	B	Sweet Peas	A
Godetia	B	Tulips	B
Heather	D	Violet	B
Heliotrope	A	Westeria	B
Holly	E	Woodbine	B
Hyacinth	B	Yucca	B
		Zinnia	B

4pH	5pH	6pH	6½	7pH	7½	8pH
E	D	C	B	A		

Acid — Neutral — Alkaline

B, C, D and E indicate degrees of acidity from 7 pH, which is neutral, to 4 pH which is extremely acid. "A" indicates a slightly alkaline condition.—(1000 lbs. Hydrated Lime per acre will change a sandy loam from pH 5 to pH 6.)

FERTILIZERS

These recommendations are made by the University of Maryland Agricultural Experiment Station.

Used in 1941	Analysis	C. O. D. Per Ton	List Price Per Ton	100-lb.	CROPS AND SOILS
All grades previously used on small grains and those with less than 2% N previously used on other crops to be replaced by					
	0-14- 7	$27.27	$30.29	$2.00	ALFALFA, CLOVERS (200-800), SOYBEANS, COWPEAS (200-300). In rotation, on manured land. CORN and GRASS land (200-400) that is heavily manured. WHEAT, RYE, WINTER BARLEY, (200-400) on Piedmont and Mountain Valley soils. For annual legumes on heavy unmanured soils (200-400). Fall applications on PASTURES, TURF GRASSES (200-400) and HOME LAWN (10-20 lbs. per 1000 square feet). Recommended for legume sods in orchards.
	0-12-12	29.23	32.47	2.25	SOYBEANS, COWPEAS (200-300), ALFALFA (300-800), and the fall-planted green manure crops (200-400) on the lighter soils. Fall applications on PASTURES, TURF GRASSES (200-400) and HOME LAWN (10-20 lbs. per 1000 square feet).
For crops other than small grains.					
Those with 2% and 3% N to be replaced by	2- 8-10	$29.71	$33.01	$2.25	SWEET POTATOES (800-1200), CARROTS, PARSNIPS, TURNIPS and other root crops (400-800).
	2-12- 6	29.57	32.85	2.25	FIELD CORN, (200-400) on Piedmont and Mountain Valley soils. For annual legumes on heavy unmanured soils (200-400).
Those with 4% N to be replaced by	3-12- 6	31.64	35.15	2.35	SWEET CORN (200-500), and TOMATOES (500-1000) for canning on heavy soils and where manure is used. FIELD CORN (200-500), on light soils.
Those with 5% N to be replaced by	4-12- 8	34.96	38.84	2.60	TOMATOES (500-1000) in rotation with field crops on light soils. Late POTATOES (500-1000), ASPARAGUS (400-800).
	4- 8-12	34.74	38.60	2.60	For TOMATOES on sandy soils (400-1000). ASPARAGUS (600-1000).
Those with 6% N to be replaced by	5-10- 5	33.94	37.71	2.55	Cannery PEAS and BEANS on heavy soil or well-manured soil (400-800). SWEET CORN (200-600) for market, early and mid-season STRAWBERRIES (300-600). EARLY POTATOES (2000), ASPARAGUS, LEAFY VEGETABLES and other truck crops (400-800).
	3- 8- 7	10 lbs. $ .60 25 lbs. 1.10 50 lbs. 1.85	Per 100 100 to 400 lbs. $3.00 500 to 900 lbs. 2.80 1000 to 1900 lbs. 2.60 2000 lbs. (ton) 2.40		"Victory Garden Fertilizer" For Food Production Only.

Ton prices include delivery to farm. If hauled from factory deduct $1.50 per ton.

FOR SOIL IMPROVEMENT

	Lb.	10 lbs.	25 lbs.	100 lbs.
Aluminum Sulphate	$ .10	$ .50	$1.00	$3.25
Asparagus Salt	...	.25	.45	1.30
Cotton Seed Meal	..	.50	1.00	3.25
Epsom Salts	.10	.65	1.25	4.50
Hydrated Lime (50 lbs., 50c)	..	.20	..	...
Iron Sulphate (Crystal)	.20	..	...	...
Kainit (20%)	.05	.45	.85	...
Land Plaster	..	..	..	1.25
Muriate of Potash	.10	.75	1.15	3.50
Nitrate of Potash	.25	..	...	...
Nitrate of Soda	..	..	...	3.25
Sulphate of Potash	.10	.75	1.15	3.50
Super Phosphate (20%)	.10	.40	.65	1.65
Tankage	...	.50	1.00	3.25
Top Soil (500 lbs. $4.00)	..	.20	.35	1.00
Hard Wood Ashes	...	.50	1.00	2.50
Zinc Sulphate	.20	..	...	...

FULTON'S PLANTABBS
Odorless Plant Food Tablets
Containing Vitamin B_1

30 Tablets, 25c; 75 Tablets, 50c; 200 Tablets, $1.00; 1000 Tablets, $3.50. (By mail add 10%.)

ADCO

Is a powder, which, when mixed with almost any non-woody vegetable waste, and kept wet, gradually converts it into manure.

50 pounds of ADCO makes a ton of manure. Equal to stable manure—Odorless. 7½ lbs., 85c; 25 lbs., $2.00; 150 lbs., $10.50.

ORGANIC PLANT FOODS

	lb.	5 lbs.	10 lbs.	25 lbs.	100 lbs.
Blood Meal (3 lbs., 25c)	$ .10	...	...	$1.50	$4.60
Bone Meal—Raw	..	$ .30	$ .50	.90	3.25
Bone Meal—Steamed	..	..	..	..	3.00
Cow Manure	..	.30	.50	.90	2.75
Sheep Manure	..	.20	.35	.75	2.45
Tobacco Stems	..	..	.50	.90	2.50

INOCULATE ALL LEGUME SEEDS WITH

NITRAGIN

1898—FORTY-FOUR YEARS OF SERVICE—1942

When ordering, Always state name of seed.

ALFALFA, all Clovers

Size	Retail
½ bu. each	$ .30
1 bu. each	.50
2½ bu. each	1.00

PEAS (All Varieties) VETCHES (All Varieties)

½ bu. each	$ .25
1 bu. each	.35
1⅔ bu. each	.50
12½ bu. each	3.50

LESPEDEZA

Size	Retail
Small (Inoculates up to 50 lb. seed)	$ .35
Large (Inoculates up to 100 lb. seed)	.50

SOYBEANS, LIMA BEANS, COW PEAS, PEANUTS

Small, (Inoculates up to 120 lb. seed)	$ .30
*5 bu. each	.55
25 bu. each	2.50
(One can)	
*30 bu. each	3.25
(6-5 bu. cans)	

BEANS—String, Wax and Kidney. ½ bu., 25c; 1 bu., 35c; 1⅔ bu., 50c.

Garden Pkg. for Peas, Beans, Sweet Peas and Lupines—enough for 6 lbs. seeds, 10c each.

Hyper-Humus

Mr. W. E. Hartman of the National Academy of Sciences says: "I believe that Hyper-Humus is responsible for the general excellence of both lawn and plantings." For many years the U. S. Government has used Hyper-Humus in the landscaping and planting of many of its public buildings, Post Offices, and Parks. It made the Government's standard for landscaping, and is approved for Government plantings in Washington and throughout the East.

Humus makes rich loamy garden soil out of common dirt. Added in sufficient quantity it will give the soil the proper texture, help hold the right amount of moisture, and retain plant foods for natural plant stimulation.

FIVE HYPER-HUMUS VALUES

1 Hyper-Humus is literally a workshop for bacterial conversion. The millions of beneficial bacteria in Hyper-Humus gives life and fertility to your soil.

2 Hyper-Humus is a storage-house of soil organics . . . plant food awaiting plant call.

3 Hyper-Humus is a reservoir of normal moisture, assisting food conversion, and coming to the aid of your plants when they need it.

4 Hyper-Humus is a regulator of temperature and air . . . so vital to plant life.

5 Hyper-Humus has perfect friability . . . it is easy and pleasant to use; absolutely free from odor and from weed-seeds.

AMOUNT TO APPLY PER SQUARE FOOT:
NEW LAWNS, 1 to 3 lbs.; OLD LAWNS, 1 to 2 lbs.
GARDENS AND FLOWER BEDS, 2 to 4 lbs.

5 lbs., 25c; 10 lbs., 40c; 25 lbs., 75c; 50 lbs., $1.10; 100 lbs., $1.75; 500 lbs., $7.50; 1000 lbs., $12.50; ton, $22.50. Let us quote 5 ton and carload lots.

NOTE: It is suggested that you add 1 pound of an approved non-toxic plant food to every 10 pounds of Hyper-Humus.

Lōma

A balanced ration of all the Elements science has discovered plants must have to thrive. Clean, odorless, easy to handle. 100% effective. The best thing *on earth* for lawns and gardens.

When Available

25 lb. bag . .	1.50
10 lb. bag . .	.85
5 lb. can . .	.45
1 lb. can . .	.10

AMERICA'S FINEST PLANT FOOD

PEAT MOSS

Promotes Growth by Improving Texture of Soils and Regulating Supply of Moisture
Investigate its Many Advantages

Peat O'Maine peat moss is of sphagnum derivation, comparable in every respect and effectiveness with the imported varieties of pre-war days. An excellent soil improver where organic matter is needed. Recommended for binding and holding moisture in sandy soils, for lightening of heavy clay soils. Also recommended for mulching, both for summer moisture retention and winter protection. Excellent for mixing with potting soils and in seed beds, as it absorbs and holds many times its weight in moisture. Bales contain sufficient material to cover 250 square feet, 1 inch deep when loosened.

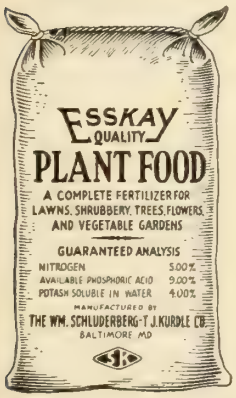
Junior Bale, about 10 bushels $2.50
Large Bale, about 20 bushels 3.85

3 qts., 10c; 1½ pks., 30c; 1 bu., 50c; 3 bu., $1.15.

Special Prices on Larger Quantities

ESSKAY QUALITY PLANT FOOD

(Analysis: 5-9-4)



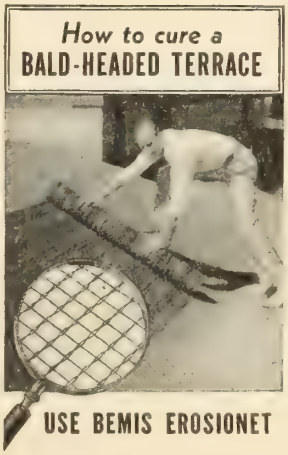
A complete organic fertilizer consisting of blood, bone meal, tankage and potash scientifically blended for Flowers, Lawns, Vegetables, Trees and Shrubs. It builds up the soil and leaves no acid residue.

100-lb. bag	$3.75
50-lb. bag	2.50
25-lb. bag	1.50
10-lb. bag	.75
2-lb. bag	.25

EROSIONET

Now you can grow grass on that stubborn slope. Unroll this mesh blanket and laugh at the rain. Your seeds will not be washed out, and you will get a sturdy stand of grass.

45 in. wide . . . . . 14c per yd.
10 yds. or more . 13c per yd.



EGYPTIAN GROWER

(Analysis: 2.70-1.60-1.28)

A genuine guano, rich in organic matter. A natural plant food and soil builder. Egyptian Grower is a poultry manure. Thoroughly aged and cured before being ground.

2 lbs., 25c; 25 lbs., $1.00; 50 lbs., $1.75; 100 lbs., $3.00.

AGRICO

For Lawns, Trees and Shrubs
(Analysis: 7-7-5)
When Available

100-lb. bag	$4.00
50-lb. bag	2.50
25-lb. bag	1.50
10-lb. bag	.75
5-lb. bag	.45

AGRICO

For Gardens
(Analysis: 4-10-4)
When Available

100-lb. bag	$3.75
50-lb. bag	2.40
25-lb. bag	1.40
10-lb. bag	.75
5-lb. bag	.45

AGRICO

For Broadleaf Evergreens (7-7-5) acid forming
5 lbs., 60c; 10 lbs., $1.00; 25 lbs., $2.00.

Available to farmers and commercial growers who in 1941 used grades of fertilizer with 5% or more Nitrogen. **100 lbs., $4.00.**

ALL THE FOOD YOUR PLANT NEEDS
Plant DINNER

A complete growing compound containing the eleven elements, five vitamins (including Vitamin B-1), and two established plant hormones.

Plant Dinner creates vigorous healthy growth of all varieties of plants whether grown in soil, sand or water. It has been repeatedly tested by expert growers under all kinds of conditions, and proven to yield uniformly gratifying results.

1¾ ozs. makes 112 pints	$ .25
6 ozs. makes 384 pints	.75
1 lb. makes 1024 pints	1.75

ROOTONE
Reg. U. S. Pat. Off.

The New Hormone Powder for dusting seeds, cuttings and bulbs. Requires no solutions nor soaking and is easy to use. Assures better germination of seeds, produces better plants with longer roots, greater top growth and vigor. Rootone kills fungi and prevents dampening off.

¼ oz. will treat 2½ lbs. seed or 400 cuttings, **25c.**

2-oz. size will treat 3 bu. seed or 3,000 cuttings, **$1.00.**

1 lb. will treat 30 bu. seed or 30,000 cuttings, **$5.00.**

TRANSPLANTONE
Reg. U. S. Pat. Off.

Contains Vitamin B-1 and other parts of the Vitamin B fraction, plus plant Hormones which are active in root formation.

This Vitamin-Hormone tonic stimulates the growth of seedlings, plants, trees, shrubs, rose bushes, lawns, etc., by not only forming new roots but by also continuing their growth and making plant food more available. Very beneficial to transplanted seedlings, shaded lawns and backward garden plants. 1 ounce makes 10 gal. transplanting solution or 900 gal. watering solution. **½ oz. pkt., 15c. 3 oz., $1.00; lb., $4.00.**

VITAMIN B-1
(Thiamin Chloride)
Pure Crystalline Powdered Form

Amazing results are being achieved by amateur and professional growers through the use of this growth producing vitamin which causes plant life to gain the greatest possible benefit from the soil. Not a plant food or fertilizer, but a root re-invigorator which materially speeds growth, produces earlier, larger and healthier plant species.

1 milligram (a quantity equal in volume to the head of a small pin) dissolved in 20 drops of water is a basic solution. This is further diluted at the rate of 1 drop to 1 gallon of water for the ordinary minimum concentration. For some varieties stronger concentrations up to a maximum of 20 drops in 1 quart of water have produced best results. 1/10 gram vial makes up to 2,000 gallons, **$1.00.**

VITAMIN B-1 PELLETS

Box 10 Pellets (1 milligram each) makes 200 gallons solution, **25c.**

Box 100 Pellets (1 milligram each) makes 2,000 gallons solution, **$1.00.**

TAT VITAMIN B-1 (Liquid)

½ fluid ounce makes 100 gallons, **25c.**
2 fluid ounces make 800 gallons, **$1.00.**

VITA-FLOR
Vitamin B Solution

A solution containing all Vitamin B growth substances necessary for plant development. Two drops make one gallon solution, **¼ oz., 50c.**

SYPHONETTE VITAMIN AND FERTILIZER DISTRIBUTOR

Unique solid brass device, attached to garden hose enables distribution of Vitamin B-1 soluble fertilizers, fungicides, arsenate of lead for grub control, $1.85.

Hayes Proportioner, $1.75.

HYPONEX
Chemical Plant Food
Contains Vitamin B-1

For growing plants in soil, sand or water. Ideal for "tank farming," a complete and balanced plant food; odorless and keeps indefinitely.

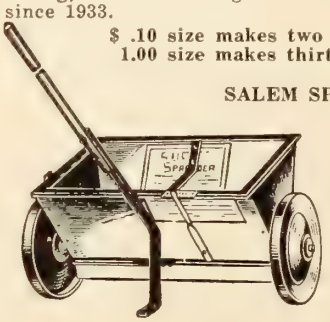
1 oz. makes 6 gallons	$ .10
3 oz. makes 18 gallons	.25
1 lb. makes 100 gallons	1.00
10 lbs. makes 1000 gallons	8.00
25 lbs. makes 2500 gallons	15.00

FLORALIFE "B"

Prolongs life of cut flowers, retards wilting, prevents fading, maintains fragrance. Used by practical florists since 1933.

$ .10 size makes two quarts solution
1.00 size makes thirty quarts solution

SALEM SPREADERS



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30 in. 80 lb. cap.	14.95

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Standard	24 in.,	65 lb. capacity	15.80

INDEX

VEGETABLE SEEDS

Anise 19
Artichoke 3
Asparagus 3

Basil 19
Beets 7
Borecole 10
Broccoli 11
Brussels Sprouts 10
Bush Beans 4, 5
Bush Limas 6

Cabbage 8, 9
Caraway 19
Carrots 12
Cantaloupe 22
Cauliflower 11
Celeriac 16
Celery 13
Celtuce 13
Chicory 16
Chinese Cabbage 16
Chives 18
Citron 22
Collards 10
Corn 14, 15
Corn Salad 18
Cress 16
Cos Lettuce 21
Cucumber 17

Dandelion 18
Dill 19

Egg Plant 18
Endive 18
Escarolle 18

Fennel 18, 19

Gumbo 25

Herbs 19

Kale 19
Kohlrabi 19

Lavender 19
Leek 19
Lettuce 20, 21
Lima Beans 6

Mangel Beets 7
Marjoram 19
Melons 22, 23
Mushroom Spawn 23
Muskmelon 22
Mustard 23

Okra 25
Onion 24
Onion Sets 24

Parsley 25
Parsnips 29
Peanuts 27
Peas 26, 27
Pepper 28
Pole Beans 5, 6
Popcorn 13
Potatoes 32
Pumpkins 29

Radishes 30, 31
Rhubarb 31
Rosemary 19
Rutabagas 38

Sage 19
Salsify 31
Shell Beans 6
Sorrel 31
Spinach 34, 35
Squash 33
Sugar Corn 14
Summer Savory 19
Sweet Potatoes 32
Swiss Chard 16

Thyme 19
Tomatoes 36, 37
Trees 39
Turnips 38

Varieties of Special Merit 3
Vegetable Planting Chart 2

Watermelon 23
Wax Beans 5

FIELD SEEDS, ETC.

Bird Seed 40
Field Seeds 40, 41
Pasture Mixture 40
Wild Bird Seed 40

PLANTS, ROOTS AND NURSERY STOCK

Amaryllis 57
Asparagus Roots 39
Azaleas 59
Barberry 59
Begonias 57
Bleeding Hearts 57
Caladiums 57
Cannas 57
Clematis Vines 50
Daffodil, Peruvian 57
Dahlia Roots 60
Elephant Ears 57
Evergreens 60
Flower Plants 43
Geraniums 43
Gladiolus 57
Hedge Plants 59
Horseradish Roots 39
Iris 57
Lilies 57
Peonies 57
Rhododendrons 59
Rose Bushes 59
Rhubarb Roots 39
Strawberry Plants 39
Trees 39
Tuberoses 57
Vegetable Plants 39

FLOWER SEEDS

Aconitum 51
African Daisy 44
Ageratum 43
Agrostemma 43
Alyssum 43, 51
Amaranthus 44
Anchusa 44, 51
Anemone 51
Antirrhinum 43
Aquilegia 51
Arabis 51
Arctotis 44
Armeria 51
Asters 43, 51
Aubrietia 51

Baby's Breath 46, 54
Balsam 44
Bartonia 44
Bellis 51
Blue Lace Flower 45
Boston Ivy 52

Calendula 43, 44
Campanula 44, 52
Candytuft 44, 52
Canterbury Bells 44, 52
Carnations 44, 52
Castor Oil Bean 48
Celosia 44
Centaurea 44, 52
Cerastium 52
Chinese Bellflower 55
Chinese Lantern Plant 55
Chrysanthemum 45, 52
Clarkia 45
Coccineum 53
Cockscomb 44
Coleus 43, 52
Columbine 51
Coral Bells 54
Coreopsis 43, 52
Cosmos 45
Cyclamen 52

Dahlia 53
Daisy 51
Datura 45
Delphinium 53
Dianthus 43, 53
Didiscus 45
Digitalis 53
Dimorphotheca 45

Euphorbia 45

False Dragon Head 55
Feverfew 53
Flax 54
Forget-Me-Not 53
Four O'Clock 46
Foxglove 53

Gaillardia 53
Gerbera 53
Geum 54
Gilia 45
Globe Amaranth 45
Godetia 46
Grass 97
Gypsophila 46, 54

Helianthus 46
Helichrysum 45
Heliotrope 43
Hesperis Matronalis 54
Heuchera 54
Hibiscus 54
Hollyhocks 54
Honesty 54

Iberis 54

Kenilworth Ivy 54
Kochia 46

Lady Slipper 44
Lantana 43, 46
Larkspur 46, 53
Lathyrus 54
Linaria 54
Linum 54
Lobelia 43, 46
Love-in-a-Mist 47
Lunaria 54
Lupinus 46, 55
Lythrum 55

Mallow Marvels 46, 54
Maltese Cross 55
Marigold 46
Marvel of Peru 46
Mesembryanthemum 46
Mexican Rose 48
Mignonette 46
Mimosa 48
Monkshood 51
Mourning Bride 48

Nasturtium 47
Nicotiana 47
Nierembergia 47
Nigella 47

Ornamental Grass 47

Painted Daisy 55
Pansies 43, 47
Pentstemon 55
Periwinkle 49
Petunias 43, 47
Phlox 43, 47, 55
Physalis 55
Physostegia 55
Pinks 43, 53
Platycodon 55
Poppies 48, 55
Portulaca 48
Primrose 55
Primula 55
Pyrethrum 55
Ricinus 48
Rock Cress 51
Rock Soapwort 56
Rudbeckia 56

Salpiglossis 48
Salvia Splendens 48
Sanvitalia 48
Saponaria 56
Scabiosa 48, 56
Scarlet Sage 43, 48
Schizanthus 48
Sensitive Plant 48
Shasta Daisy 56
Snapdragons 43
Snow in Summer 52
Snow on the Mountain 45
Statice 56
Stevia 48
Stocks 43, 48
Stokesia 56
Summer Cypress 46
Summer Poinsettia 43, 48
Sweet Peas 49, 54
Sweet Rocket 54
Sweet William 56

Tithonia 48
Tritoma 56
Trollius 56
Tufted Pansies 56

Valeriana 56
Venidium 49
Verbena 43, 49
Veronica 56
Vinca 43, 49
Vines 50
Violas 56

Wallflower 43, 49, 56

Xeranthemum 50

Zinnias 43, 50, 54

FIELD SEEDS

Alfalfa 41
Alsike Clover 41

Bokhara 41
Buckwheat 41

Canada Field Peas 41
Clover 41
Creeping Bent Grass 40
Crimson Clover 41
Cow Peas 41

Dwarf Essex Rape 41

Field Corn 15

Hard Fescue 40
Hungarian Millet 40

Japan Clover 41

Kentucky Blue Grass 40

Mammoth Clover 41
Meadow Fescue 40
Millet 40

Oats 41
Orchard Grass 40

Perennial Rye Grass 40

Rape 41
Red Clover 41
Red Top 40
Rhode Island Bent Grass 40

Sheep's Fescue 40
Sorghum 41
Soy Beans 41
Sudan Grass 41
Sweet Vernal 40

INDEX

Tall Meadow Oat Grass.. 40
Timothy 40
White Dutch Clover..... 41
Wood Meadow Grass.... 40

SUPPLIES, IMPLEMENTS, ETC.

Adco 92
Agrico 93
Antrol Ant Sets..... 64
Ant Traps 64
Arsenates 63, 64
Asparagus Bunchers 70
Asparagus Knives..... 70
Axes 89

Baby Chicks..... 80
Back Bands..... 76
Bag Balm..... 88
Barbed Wire..... 86
Barn Door Hangers..... 89
Beetle Traps..... 64
Beetle Spray..... 64
Bee Supplies..... 90
Belting 90
Berry Boxes 39
Black Leaf Forty..... 64
Blood Meal..... 92
Bone Meal..... 92
Books 61
Bordeaux Mixture..... 63
Brooders 85
Brooder Thermometers.. 85
Brooms 89
Brush Hooks..... 71
Butter Coloring..... 88
Butter Paper 88
Butter Prints..... 88

Calf Weaners 88
Carbola 64
Carbolineum 64
Catalizer 64
Celery Bleachers 13
Cemetery Vases..... 69
Chains 76
Charcoal 81
Chemical Plant Food.... 94
Chicks 80
Churns 88
Cider Mills..... 90
Copper Sulphate..... 64
Cordage 74
Corn Planter.....15, 79
Corn Shellers..... 83
Corona Coppercarb..... 64
Crow Repellent..... 64
Cultivator Handles 76
Cultivators 75, 78
Cuprocide 64
Cyano Gas..... 64

DX 64
Dairy Supplies..... 88
Day-Old Chicks..... 80
Dibbles 70
Disc Harrows..... 78
Dog Food 81
Dog Repellents 63
Drag Scoop..... 77
Dry Lime and Sulphur.. 65
Ducks 80
Dusters 68

Earth Augers 86
Egg Baskets..... 84
Egg Candler 84
Egg Carriers 84
Egg Cartons..... 84
Egg Cleaners 84
Egg Grading Scale..... 84
Egg Preservative..... 84
Egyptian Grower..... 93
Electric Hedge Trimmer. 73
Electric Farm Fence.... 87
Electric Hot Bed Heater. 69
Electric Water Systems. 89
Emerson Std. Mowers... 78
Engines 89
Erosionet 93
Esskay Plant Food..... 93
Evergreen 65

Faucets 72
Feeds 81
Fence Posts 87
Fencing 86
Fertilizer 92
Fertilizer Distributors .. 77
Fish Oil Soap..... 65
Flame Sprayer 67
Floralife 94
Flour of Sulphur..... 66
Flower Boxes..... 69
Flower Pots 69
Forks 71
Formaldehyde 65
Fruit Pickers..... 70
Fruit Presses..... 90
Fungtrogen 65

Garden Barrows 74
Garden Cart 73
Garden Gadget 70
Garden Line Reels..... 69
Garden Trowels..... 70
Gasoline Engines..... 89
Glass 69
Glass Churns..... 88
Glass Cloth..... 84
Gloves 73
Grafting Wax..... 70
Grape Dust..... 65
Grass Collectors..... 73
Grass Hooks..... 71
Grass Trimmers 73
Glazing Points..... 69
Glazing Putty 69
Grindstones 74
Grit 81

Halter Chains..... 76
Handles 89
Hanging Baskets..... 70
Hand Cultivators 75
Hand Plows 75
Hand Weeders..... 70
Hardware Cloth..... 87
Harrows 75, 78
Hay Chopper and Silo Filler 83
Hay Forks..... 71
Hay Rakes 71
Haying Tools..... 71
Hedge Shears..... 70
Hoes 71
Hog Oil Wormer..... 88
Honey Jars 90
Hormodin 94
Horse Hoes..... 75
Hose 73
Hose Accessories 72
Hose Holder 73
Hose Spray 73
Hot Bed Glass..... 69
Hot Bed Mats 69
Hot Bed Sash..... 69
Hotkaps 74
Hyacinth Stakes 69
Hydrated Lime 92
Hyper Humus..... 93
Hyponex 94

Ice Cream Freezers..... 88
Inoculation 92
Incubator Thermometers 85
Insecticides 63, 64, 65, 66

Kura Leak..... 87

Ladders 90
Land Plaster 92
Land Rollers 77
Lawn Edge Cutters..... 71
Lawn Grass 97
Lawn Mowers.....72, 73
Lawn Rakes 71
Lawn Rollers..... 73
Lawn Sprinklers..... 72
Leaf Rakes..... 71
Leg Bands..... 82
Lime Spreader..... 77
Lime and Sulphur.....63, 65
Loma 93
Loro 65

Magnesium Arsenate.... 64
Mail Box..... 89
Manure Forks 71
Manure Spreader..... 79
Mattocks 89
Meat Curing Products... 88
Metal Egg Crates..... 84
Mills 83
Mole Nots 65
Mole Traps..... 70
Mologen 65
Mortar Hoe 71
Mortar Mixer 71
Motor Cultivator..... 79
Mouse Exterminators ... 82
Mower Brackets 72
Mowers 72, 73, 79

Napthalene Flakes 65
Neponset Pots 69
Nest Eggs..... 84
Nico Fume 65
Nitragin 92
Nitrate of Soda..... 92
Norcross Cultivators.... 71
Nozzles 72

Oyster Shell 81

Paradichlorobenzene 65
Para-Scalecide 65
Paris Green..... 63
Peat Moss..... 93
Peerless Glazing Points. 69
Pestex 65
Planet Jr. Implements... 75
Plantabbs 92
Plant Bands..... 69
Plant Boxes 69
Plant Dinner 94
Plant Setters 39
Plant Stakes..... 69
Plow Handles 76
Plows 76
Pomo Green..... 65
Pot Labels..... 69
Post Hole Diggers..... 86
Potato Hooks..... 71
Potato Scoop 71
Poultry Feeds 81
Poultry Fencing 86
Poultry Killer 84
Poultry Remedies 81
Poultry Supplies 81, 82, 83, 84
Presses 89
Pruners 70
Pruning Paint 65
Pulverizers 77
Pumps 90
Putty Bulbs 69
Pyrox 65

Raffia 69
Rakes 71
Rat Exterminator 82
Red Arrow 65
Red Chief Mills..... 83
Roach Exterminator 82
Rock Salt..... 88
Rope 74
Roofing Materials..... 87
Rootone 94
Rose Spray 66
Rotenone Dust.....63, 66

Salt Bricks 88
Sash 69
Saw Frames 90
Scalecide 66
Scales 84
Scrapers 71-77
Scythes 71
Scythe Stones 71
S.E.C. Oil..... 66
Seeders 17, 40, 75, 78
Seed Flats 69
Selocide 66
Separators 88
Semesan 64
Shears 70
Sheep Manure 92
Shovels 71
Shovel Plows..... 76
Singletrees 76
Slug Shot..... 66
Snarol 66
Snaths 71
Snow Pushers 71
Soil Improvement..... 91
Soil Soaker..... 72
Soil Tester..... 91
Spades 71
Spading Forks..... 71
Spike Tamp..... 73
Spray Catalizer..... 66
Spray Chart..... 62
Sprayers 67, 68
Spraying Materials.64, 65, 66
Spreaders 77, 94
Spring Tooth Harrows.. 78
Sprinklers 72
Stalls 87
Stanchions 87
Strainer Pads..... 88
Sulphur 63, 66
Sulfocide 66
Syphonette 94

Tartar Emetic 66
Teat Dilators 88
Terogen 66
Thermometers 70
Tobacco Dust..... 66
Tool Grinders..... 89
Toptox 66
Tractor 79
Transplanter 79
Transplantone 94
Traps 64
Tree Labels..... 69
Tree Pruners..... 70
Tree Banding Compound 66
Tree Wound Paint..... 65
Tri-ogen 66
Trowels 70
Turkey Poults..... 80
Turf Edgers..... 71
Twist-Ems 69

Vegetable Tying Mach's. 74
Vigoro 94
Vio-Ray 84
Vitamin B-1 94
Volck 66

Warren Hoes..... 71
Watering Pots..... 69
Weed Cutters 71
Weeders 70, 71, 77
Weed Killer 66
Wheelbarrows 74
Wheel Hoes 75
Window Boxes..... 69
Wire Fencing..... 86
Wire Stretchers..... 87
Whale Oil Soap..... 65
Wine Presses..... 90
Worm Powder..... 81

Y-O 81

Zotox 66

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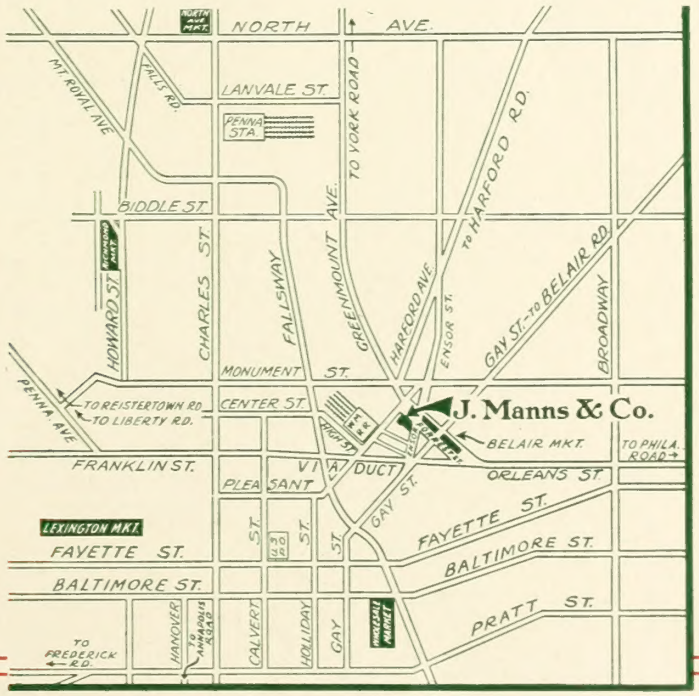

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