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Superior Seeds

FARM and GARDEN SUPPLIES



Manns

BALTIMORE-2. MD.

ENSOR and FORREST STS.

AT BELAIR MARKET

MANNS' SUPERIOR SEEDS

Ensor & Forrest Sts.

At Belair Market
(South end of Greenmount Ave.)

Baltimore-2, Md.

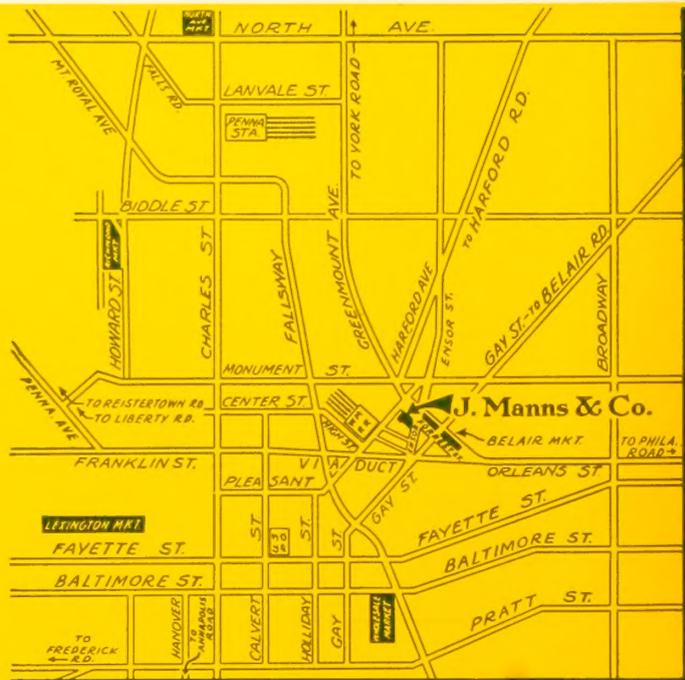


A Convenient, Complete, Modern Seed Store

Plenty of free parking space

Manns is the most accessible seed store in the city. Here you can conveniently buy **Superior Seeds**, Farm and Garden supplies at reasonable prices—backed by 63 years of reputable service.

ALWAYS EASY PARKING



MANNS' SUPERIOR SEEDS

Continuously Successful Since 1887

Our 63rd Year

Serving Critical Market Gardeners and Florists

Varieties for Quick Freezing

Asparagus
Stringless Beans (Green and Wax)
Lima Beans, Fordhook 242, Impr. Challenger
Brussels Sprouts
Broccoli, Calabrese types
Carrot
Cauliflower
Corn, Hybrid yellow varieties
Peas, Wrinkled varieties
Rhubarb
Squash
Spinach

IN THIS CATALOG

How and When to Plant Vegetables, page 2.
Practical Cultural Directions for Vegetables.
Number of Days to Maturity.
Field Seed Chart, pages 40-41.
Flower Seeds for Particular Purposes and
Various Growing Conditions, page 42.
Spray Guide, page 60.
Plant Food Elements, page 78.
How to Make and Maintain Lawns, page 81.

Seeds, Bulbs, Plants, Farm and Garden Supplies Are Not Side-Lines With Us But the Very Items Which Determine Our Success. They Must Be Good. They Must Be Dependable. Sow the Best for Best Results.

Phone Plaza 1460 • Prompt, Courteous, and Intelligent Attention Always • Suburban Delivery

MAIL ORDERS: We pay Parcel Post or Express Charges on all vegetable and flower seeds, except Beans, Corn, Peas, and Seed Potatoes. This enables distant customers to use Manns' Superior Seeds at no additional expense.

PLEASE READ—Non-Warranty

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 we sell, and we will not be responsible for the crop. Our liability, in all instances, is limited to the purchase price of the Seeds, Plants or Bulbs.

Parcels may not exceed 70 lbs., nor measure more than 100 in. combined length and girth.

Approximate Domestic Parcel Post Rates Within the U. S. and Possessions	For First Pound	For Ea. Addit'l Pound
Local	\$0.10	\$0.01
First & Second Zones within 150 miles	.12	.02
Third Zone within 150 to 300 miles	.13	.03
Fourth Zone within 300 to 600 miles	.14	.04½
Fifth Zone within 600 to 1000 miles	.15	.05½
Sixth Zone within 1000 to 1400 miles	.16	.07½
Seventh Zone within 1400 to 1800 miles	.17	.09½
Eighth Zone over 1800 miles	.18	.11½

Prices Subject to Change Without Notice

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 INCHES	SPACE BETWEEN ROWS	SP. PLANTS OR THIN OUT TO INCHES	TIME REQUIRED TO PRODUCE CROP	NUMBER OF RUNNING FEET FOR FAMILY OF 5	SPECIAL NOTES
		FIRST	LAST						
Asparagus	1 oz. or 50	Mar. 20	Aug. 1	Seeds 1 in.	3 to 4 ft.	12 in.	Seeds 4 years	50 ft.	A well-cared for bed improves with age and lasts for many years. Select, early, midseason and late in both green and wax podded kinds. Select early and late, green and wax pod. Select early, midseason and late kinds for winter storage.
Beans (Bush)	2 qts.	April 20	Aug. 15	Plants 4 in.	2 ft.	3 to 4 in.	Plants 2 years	200 ft.	
Beans (Pole)	½ pt.	May 5	Aug. 1	2 in.	3 to 4 ft.	3 ft. (hills)	60 to 90 days	80 to 100 hills	Select early, midseason and late kinds for winter storage. Sow during July for fall use. Handle exactly like Cauliflower. The most delicate of all the cabbage tribe. Set out 2 doz. early, 1 doz. midseason and 2 doz. late kinds. Sow only on August 1st for fall use only. Sow short rows often. Sow on August 1st for winter storage. Treat very much like Cabbage. Select an early and a late variety. Sow in blocks of short rows, for perfect pol- lenization. When picking, cut stems; do not pull vines. Needs lots of heat and frequent hoeing. To bleach, tie plants into cone shape. Should be used when roots reach a diameter of 2½ in. Grow like Onions and hill to bleach stalks. Should be thinned out to stand a foot apart. Select an early and a late variety in both classes. See note on Cucumbers. Weeding and hoeing are their chief require- ments.
Beet	2 oz.	Mar. 20	Aug. 15	½ to 1 in.	18 in.	2 to 3 in.	90 to 120 days	80 ft.	
Borecole or Kale	1 pkt.	April 20	Sept. 1	¼ in.	2½ ft.	12 in.	80 to 100 days	20 ft.	
Broccoli	1 pkt.	April 5	Aug. 10	½ to 1 in.	2½ ft.	24 in.	120 days	20 ft.	
Brussels Sprouts	1 pkt. or 15	May 5	Aug. 10	Seed ½ in.	2½ ft.	24 in.	100 to 150 days	20 ft.	
Cabbage	36	April 20	Sept. 15	Seed ½ in.	2 to 3 ft.	18 to 24 in.	100 to 150 days	60 ft.	
Chinese Cabbage	1 pkt.	July 20	Aug. 1	¼ in.	2½ ft.	12 in.	80 to 100 days	20 ft.	
Carrot	½ oz.	Mar. 20	Aug. 1	½ in.	1½ to 2 ft.	2 to 3 in.	45 to 60 days	40 ft.	
Cauliflower	24	April 5	July 10	Seed ¾ in.	2 to 3 ft.	2 ft.	120 to 150 days	20 ft.	
Celery	½ oz. or 60	Mar. 20	July 10	2 in.	3 ft.	6 in.	100 to 120 days	60 ft.	
Corn (Sweet)	1 pt.	April 20	July 15	2 in.	3 ft.	12 in.	80 to 120 days	200 ft.	
Cucumber	1 pkt.	April 20	Aug. 5	¾ in.	4 to 5 ft.	(3 to hill)	60 to 80 days	10 hills	
Eggplant	12	May 20	Aug. 5	¾ in.	2½ ft.	36 in.	100 to 120 days	20 ft.	
Endive	1 pkt.	April 5	July 25	¼ in.	2 ft.	24 in.	60 to 80 days	40 ft.	
Kohl-Rabi	1 pkt.	April 5	Aug. 10	¼ to ½	1½ to 2 ft.	12 in.	60 to 80 days	60 ft.	
Leek	1 pkt.	Mar. 30	July 15	½ in.	2 ft.	4 in.	100 days	20 ft.	
Lettuce	2 oz. (4 kinds)	Mar. 20	July 15	¼ in.	1½ to 2 ft.	10 to 12 in.	45 to 60 days	150 ft.	
Lima Beans (Bush)	1 pt.	June 1	July 10	1 in.	3 ft.	2 ft. (hills)	100 days	100 ft.	
Lima Beans (Pole)	1 pt.	June 1	July 10	1 in.	3 ft.	3 ft. (hills)	120 days	100 ft.	
Melons	1 oz.	May 10	July 10	½ to 1 in.	4 ft.	4 ft. (hills)	100 to 120 days	10 hills	
Onions	1 oz.	Mar. 20	Aug. 10	¼ to ½ in.	18 in.	3 or 4 in.	80 to 110 days	80 hills	
Onion Sets	1 qt.	Mar. 20	Aug. 10	¼ to ½	12 in.	2 in.	30 to 60 days	40 ft.	
Parsley	1 pkt.	Mar. 20	June 1	½ to 1 in.	15 to 18 in.	2 to 4 in.	100 to 120 days	50 ft.	
Parsnips	1 pkt.	April 5	Aug. 10	2 in.	15 to 18 in.	2 to 4 in.	150 days	50 ft.	
Peas	3 pts.	Mar. 20	Aug. 10	2 in.	2½ ft.	1 in.	60 to 100 days	200 ft.	
Pepper	12	May 5	Aug. 20	4 in.	3 ft.	6 in.	100 days	20 ft.	
Potatoes	15 lbs.	Mar. 20	July 1	½ in.	3 ft.	2 ft. (hills)	100 days	200 ft.	
Pumpkin	1 pkt.	May 20	Sept. 15	½ in.	4 to 6 ft.	1 to 4 in.	100 to 120 days	12 hills	
Radish	3 pkts.	Mar. 20	July 1	½ in.	18 in.	1 to 4 in.	30 to 60 days	50 ft.	
Rhubarb	6	Mar. 20	Oct. 1	¼ in.	3 ft.	3 ft.	60 days	20 ft.	
Rutabaga	1 pkt.	Mar. 20	July 20	1 to 1½ in.	15 to 19 in.	2 to 4 in.	90 to 100 days	40 ft.	
Salsify	½ oz.	April 5	June 1	1 to 1½ in.	15 to 19 in.	2 to 4 in.	100 to 150 days	25 ft.	
Spinach	1 oz.	Mar. 20	Aug. 10	½ in.	12 in.	2 to 4 in.	60 days	75 ft.	
Squash	1 pkt.	April 20	Aug. 10	½ to 1 in.	4 to 6 ft.	4 ft. (hills)	100 to 120 days	12 hills	
Swiss Chard	½ oz.	Mar. 20	July 1	½ to 1 in.	1½ to 2 ft.	6 in.	90 to 100 days	40 ft.	
Tomato	1 pkt. or 43	Seeds Feb. 18 indoors Plants May 5	July 1	Seed ½ in.	3 to 4 ft.	3 ft.	100 to 120 days	150 ft.	
Turnips	1 pkt.	Mar. 20	Aug. 31	¼ in.	15 to 20 in.	2 to 4 in.	60 to 80 days	60 ft.	

NUMBER OF WEEKS BETWEEN SOWINGS FOR CONTINUOUS HARVEST

Beans	4 weeks	Cucumbers	4 weeks	Kohlrabi	3 weeks	Sweet Corn	2 weeks	Radishes—Early	2 weeks
Beets	6 weeks	Endive	6 weeks	Turnips	4 weeks	Onion Sets	4 weeks	Radishes—Midseason	2 weeks
Carrots	8 weeks	Lettuce	4 weeks	Spinach	2 weeks	Peas	2 weeks	Radishes—Winter	6 weeks

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 MANN'S SUPERIOR SEEDS

Sow again in August for winter use.

ARTICHOKE

GREEN GLOBE—Tender perennial producing edible flower buds the second year.

ASPARAGUS

1oz. to 60 ft.; 1 lb. per acre; 3,000 plants per acre

Sow in drills about 18 in. apart and two in. deep in light, rich soil. Thin to about one inch apart and give frequent and thorough cultivation during the summer.

Next season transplant roots to 4 in. deep and 18 in. apart in rows four feet apart. The following season the bed may be cut over two or three times. After the final cutting, give a good dressing of manure, or fertilizer.

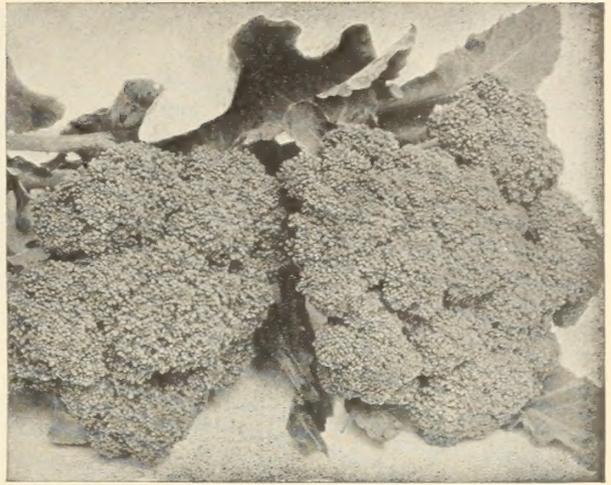
Home gardeners are advised to snap off the shoots rather than cut them. A top dressing of nitrate of soda about March 1st promotes growth and increases yield.

MARY WASHINGTON—Resistant to disease, large, early and produces remarkably tender dark green stalks.

ASPARAGUS ROOTS

From one to two years may be saved by planting roots.

MARY WASHINGTON—Choice, 2-year-old roots. 25 for 85c; \$2.75 per 100; \$20.00 per 1000.



Broccoli Calabrese Heading

Broccoli

1 oz. to 2,000 plants

De Cicco (60 days) An extra early strain capable of producing large heads followed by quantities of side shoots excellent for bunching or freezing. Highly recommended as the earliest maturing Broccoli obtainable.

Calabrese Heading (80 days) Popular market gardeners variety making a good large central head and a fairly good crop of side shoots. Can be grown in the east as perfectly as any shipped into this section. There is now greater public demand for this delicious vegetable making it more than ever a profitable local crop.

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

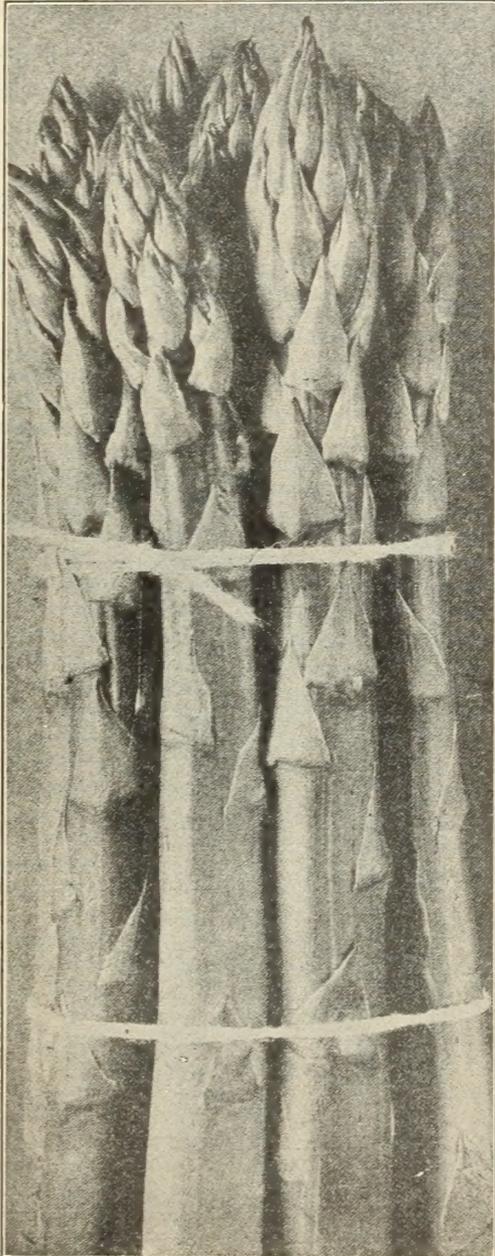
Italian Green Sprouting (Turnip Salad Broccoli.) Known in the South as Salad Broccoli, grows more "greens" than seven top turnip and is fairly hardy in Maryland, making a profitable cover crop. Sow in August broadcasting two to three pounds per acre and the sprouts will be ready for market during February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

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 stand considerable frost without protection.

Early Morn (90 days) 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.



PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
ARTICHOKE				
Green Globe	\$.10	\$.85		
ASPARAGUS				
Mary Washington .....	.10	.10	\$.50	\$1.50
BROCCOLI				
Calabrese Heading .....	.10	.30	.85	2.50
De Cicco (ex. early Calabrese) .....	.10	.50	1.50	4.50
Green Sprouting (Turnip Salad) .....	.10	.15	.40	1.25
40 Day .....	.10	.20	.60	1.75
BRUSSELS SPROUTS				
Early Morn .....	.10	.55	1.60	5.00



Full Measure

New Stringless Green Pod (55 days) 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.

Tendergreen —See New Stringless Green Pod.

Dwarf Horticultural or Dwarf Cherry

(56 days) 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.

Longreen (56 days) Pods larger than New Stringless-Tendergreen, round, straight, dark green, stringless and of excellent quality. An outstanding canners variety.

Full Measure Stringless (60 days) A very prolific second early round-podded, stringless bean. The pods are straight, meaty, and dark green in color, entirely stringless and measure 6 to 8 inches in length.

Top Crop (50 days) Awarded All-America Selections Gold Medal for 1950. Very prolific and vigorous. Resistant to mosaic disease. Pods round, very straight, medium green.

FLAT GREEN PODDED

Bountiful (50 days) Extra early, good cropper, hardy, prolific; pods long, straight, thick-flat, entirely stringless, good quality.

Increased yields result from Nitragin Inoculation

Bush Beans

1 pt. to 100 ft. of drill; 1 to 1½ bu. 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 begin to blossom. Disturbing the roots after the blossoms are formed will cause them to drop resulting in a greatly reduced crop. 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.

ROUND GREEN PODDED Asgrow Stringless Black Valentine

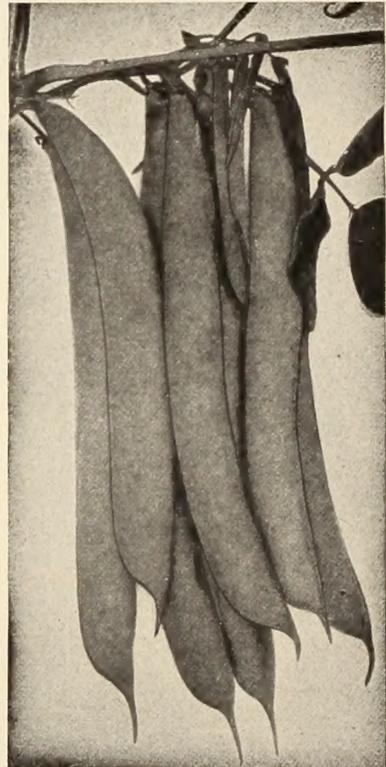
(Oval Pod) (50 days) Fully as hardy and early as the original Black Valentine but producing exceptionally long, oval or nearly round pods. Extremely prolific, entirely stringless, and of highest quality.

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

Black Valentine Stringless (Round Pod) (54 days) 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)

(54 days) 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.



Burpee's Stringless Improved



Block of Selected Pedigreed Stock Seed on Idaho Breeding Farm

Bush Beans

USED AS SHELL BEANS

White Kidney (100 days) Excellent late variety, green, shelled or dry. Seeds are large, white, kidney shaped, and of fine quality.

White Marrowfat (100 days) This is a very prolific variety and has become a choice family sort suitable 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.

Pole Beans

EDIBLE PODDED

For Cultural Directions See Pole Limas

Kentucky Wonder (65 days) 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.

White Kentucky Wonder (65 days) Bears large, brittle, stringless pods of excellent flavor, dark green in color. It resembles the Kentucky Wonder in form of pod but is more productive and bears longer. Seeds white, fine for baking.

Yard Long, Celestial (70 days) 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.

Horticultural Cranberry (72 days) Also known as Pole Cherry, Corn Field 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 (75 days) 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 mild, sweet flavor. Seed pure white, 6 to 8 in each pod.

Wax Beans

Pencil Pod Wax (55 days) 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.

Puregold (58 days) Golden yellow 6 in. slim, round pods, seed white with light brown color around eye. Excellent canning variety.

Round Pod Kidney Wax (62 days) (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, canning or freezing.

Sure Crop Wax (62 days) The most popular flat podded wax. Pods are of a rich yellow color, stringless at all stages of growth. Plant vigorous, hardy, and very productive.

PRICES

Let us quote large quantities

GREEN PODDED	Pt.	Qt.	Pk.
Asgrow—Black Valentine,			
Stringless, Oval	\$.45	\$.80	\$5.00
Black Valentine, Stringless,			
Round .....	.45	.80	5.00
Bountiful .....	.45	.80	5.00
Burpee's Stringless Improved...	.45	.80	5.00
Dwarf Horticultural or			
Dwarf Cherry .....	.55	1.00	6.00
Full Measure Stringless.....	.45	.80	5.00
Giant Stringless .....	.45	.80	5.00
Landreth's Stringless .....	.45	.80	5.00
Longreen .....	.55	1.00	6.00
New Stringless .....	.45	.80	5.00
Plentiful .....	.45	.80	5.00
Streamliner .....	.45	.80	5.00
Supergreen .....	.55	1.00	6.00
Tendergreen .....	.45	.80	5.00
Top Crop .....	.65	1.25	7.00

WAX VARIETIES

Pencil Pod Wax .....	.45	.80	5.00
Puregold Wax .....	.50	1.00	5.50
Round Pod Kidney Wax.....	.45	.80	5.00
Sure Crop Wax .....	.45	.80	5.00
Unrivalled Wax .....	.45	.85	4.50

POLE BEANS

Horticultural Cranberry .....	.60	1.15	7.00
Kentucky Wonder .....	.45	.85	5.00
Lazy Wife .....	.45	.85	5.00
Potomac (All American Winner)	.45	.85	5.00
White Kentucky Wonder .....	.45	.85	5.00
Yard Long, Celestial..Pkt., 10c; oz., 15c; lb., \$1.00			

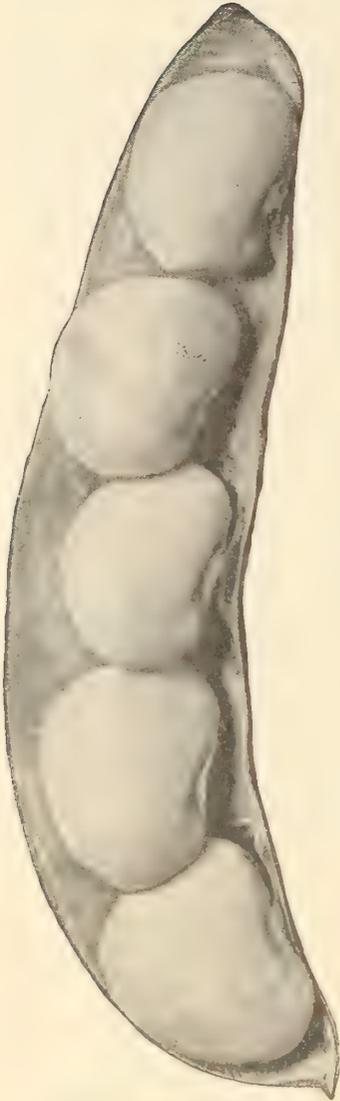
BUSH BEANS

Red Kidney .....	.40	.75	4.50
White Kidney .....	.40	.75	4.50
White Marrowfat .....	.40	.75	4.50
White Navy .....	.40	.75	4.50

Bush Lima Beans

1 pt. to 100 ft.; 1 bu. per 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 or sow in a row and thin to 8 in. apart.



King of the Garden Pole

Baby Fordhook (70 days) Pods 2½ in. by ¾ in. plump, having 3 to 4 tightly packed beans, plant about 15 in., bushy, very prolific.

Fordhook 242 (75 days) Heaviest yielding high quality bush lima. Recent U. S. Dept. of Agr. tests at 15 locations throughout the country proved Fordhook 242 more prolific than any of the other four popular commercial varieties. The average yield was 8505 lbs. per acre, nearly 25% better than the second best and far ahead of all the other varieties.

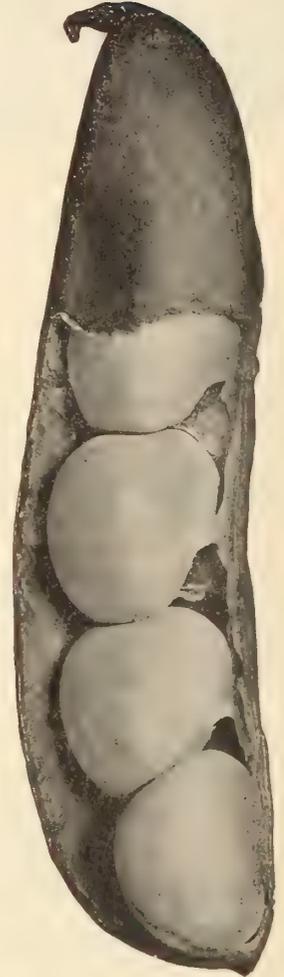
Burpee's Improved Bush

(76 days) A very prolific mid-season variety of very hardy, vigorous and true bush growth, bearing clusters of 5 to 8 pods measuring about 5 inches long. The pods are borne abundantly and well filled.

Pole Lima Beans

1 pt. to 100 ft.; 8 to 10 qts. 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 about 2 feet apart, in rows 4 ft. apart. 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.



Burpee's Improved Bush

Improved Challenger (95 days) Vigorous and very productive. Pods and beans resemble Fordhook Bush Limas. Therefore also known as Fordhook Pole. We quote Mr. Bruce H. Gallup who is a very successful gardener. "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 has been picked several times during the season."

King of the Garden (90 days) Popular main crop variety. Vines 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.

Giant Podded (95 days) The largest podded lima in cultivation; extremely vigorous in growth, mid-season. Pods are borne in clusters of 6 to 8 and measure 6½ inches long and 1¼ inches broad. The beans are extra large and of excellent quality.

PRICES

BUSH LIMAS	Pt.	Qt.	Pk.
Baby Fordhook	\$.60	\$1.15	\$6.50
Burpees Improved Bush .....	.50	.90	5.50
Fordhook, 242 Bush .....	.50	.90	5.50
Henderson's Bush .....	.50	.95	5.00
Wood's Prolific .....	.50	.95	5.00
FAVA BEANS			
Giant Seville .....	.45	.80	4.50
POLE LIMAS			
Burpee's Best .....	.50	.90	5.50
Improved Challenger .....	.50	.90	5.50
Giant Podded Pole .....	.50	.90	5.50
King of the Garden .....	.50	.90	5.50
Sieva (small white).....	.50	.95	5.00

Table Beets

1 oz. to 50 ft. of drill; 5 lbs. per acre

The soil for beets should be non-acid 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 part, firming the soil about the seeds. This should be done as soon as the ground can be worked and for table use, plantings should be made every three weeks. Thin 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 August 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.

Detroit Dark Red—Long Top (68 days) Our stock is unsurpassed in quality and appearance. The tops are tall and strong 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 (58 days) Popular bunching variety in some sections where a light-colored beet is desired, and white zones are not objectionable.

Green Top Bunching Tall (58 days) Roots round, smooth, glossy, slightly flattened when full grown, of fine texture, bright blood-red. Large tall green top.

Crosby's Egyptian (60 days) Smooth, flattened, globe shaped roots with small tap root. Color, deep purplish-red in the dark strain and bright crimson in the lighter strain. Tops large and tall.

Perfected Detroit (70 days) An All American Winner, of genuine quality and real beauty. 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 top for bunching and is also an excellent canners variety.

Half Long Lentz (78 days) Bright red outside, flesh pale pinkish white, sweet, about 2½ by about 4 inches top shaped.

Beets—Mangel (or Stock)

1 oz. to 100 feet of drill, 6 lbs. per acre in drills or 15 to 20 lbs. per acre if sown broadcast.

Mammoth Long Red (110 days) 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. High feeding quality.



Beet—New Model

New Model (56 days) Perfect in shape with strong abundant tops for bunching and roots of a beautiful solid red color, very uniform in size, the entire crop maturing during the same week. This variety fills a definite need among market gardeners and has met with continuing 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.
25 lbs. and 50 lbs., \$1.85 lb.; 100 lbs., \$175.00

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.	10 Lbs.
Crosby's Egyptian— Dark	\$.10	\$.20	\$.50	\$1.50	\$14.00
Crosby's Egyptian— Light .....	.10	.20	.50	1.50	14.00
Detroit Dark Red (Long Top) .....	.10	.20	.50	1.50	14.00
Early Wonder Tall Top	.10	.20	.50	1.50	14.00
Early Wonder (Regular) .....	.10	.15	.50	1.50	14.00
Extra Early Flat Egyptian .....	.10	.20	.50	1.50	14.00
Green Top Bunching Tall .....	.10	.20	.50	1.50	14.00
Lentz (Ex. Early Light Red) .....	.10	.20	.50	1.50	14.00
Mammoth Long Red..	.10	.15	.40	1.10	9.00
New Model .....	.10	.20	.60	2.00	18.50
Perfected Detroit .....	.10	.15	.40	1.50	14.00

Cabbage

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

Yellows Resistant Varieties marked*

Number of days indicates time from setting plants to heading.

CULTURE—The best results are obtained from a well-drained, deep rich loam. The very early varieties should be sown about September 15 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

(POINTED HEADS)

Selected Jersey Wakefield (63 days. 5 in. dia. 2½ lbs.) 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. Stem short. Heads of medium size, very solid, uniformly pointed and of excellent quality.

***Jersey Queen** (66 days. 5 in. dia. 2½ lbs.) The yellows resistant Jersey Wakefield.

Charleston Wakefield (74 days. 6½ in. dia. 4 lbs.) Produces larger and heavier heads than Jersey. A week or two later in maturity.

(ROUND HEADS)

Golden Acre (63 days. 6 in. dia. 3 lbs.) Matures as early as Jersey Wakefield, forming a large round, solid head. Very uniform and compact, having a few outer leaves which permits close planting. Golden Acre usually commands high prices because it is the first round head variety on the market.

Copenhagen Market (69 days. 6½ in. dia. 3½ lbs.) 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 3½ pounds, and the stems are very short.

Detroit—Yellows Resistant Golden Acre (68 days) About a week later than Golden Acre. Plant slightly larger. Heads have creamy white interior.

Early Round Dutch (71 days. 7½ in. dia. 4½ lbs.) Nearly globe shaped, solid, of good quality, short stemmed. Relatively non-bolting. Splendid for home and market gardens.

Green Acre (73 days. 6½ in. dia. 3½ lbs.) A selection from Copenhagen Market for a more attractive deep green color and larger heads. Valuable for shipping as it holds a fresh appearance longer when marketed.



Selected Heads of Golden Acre for Stock Seed Production



Selected Jersey Wakefield



Copenhagen Market

Cabbage

SECOND EARLY

Glory of Enkhuizen (77 days. 8 in. dia. 5 lbs.) Large sure heading, dark green variety, globular, very hard and solid, few outer leaves, excellent quality. A desirable all-purpose mid-season variety for shipping, local markets and sauerkraut.

All Head Early (78 days. 9 in. dia. 6 lbs.) Remarkably solid and uniform in color as well as in shape and size, its sure heading qualities and tenderness make it a favorite. 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 and shipping.

Early Flat Dutch (78 days. 9 in. dia. 6 lbs.) Excellent large early flat sort, producing good solid heads. The stem is short and it has comparatively few outer leaves.

***Marion Market** (79 days. 6½ in. dia. 4½ lbs.) Yellows Resistant Copenhagen.

***Wisconsin All Season** (90 days. 10 in. dia. 9 lbs.) Yellows Resistant. A reliable variety equally as good for fall and winter as for summer use. Shows considerable resistance to drought.

FALL AND WINTER

Pointed Head Winter (84 days. 6 in. dia. 3½ lbs.) Sow the seed in time to set out plants about July 15th. 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.

Chieftain Savoy (88 days. 8 in. dia. 6 lbs.) The finest and earliest of the Savoy class and very distinct from all other sorts. Best for either early or late crops. The leaves are heavily crimped or savoyed and grow closely about the medium size, 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.

Premium Late Flat Dutch (100 days. 12 in. dia. 12 lbs.) The earliest, most profitable late variety, possessing all the qualities a winter keeper should have. It is hardy, vigorous, and high in quality. The heads are flat, very large, heavy and keep well for winter use. A favorite with the private gardener as well as the trucker.

Danish Ball Head (103 days. 7½ in. dia. 6½ lbs.) A very hardy sure heading, heavy variety, which has proven to be the best keeper and the most desirable for distant markets. Exceedingly hardy, standing dry weather very well and may be stored successfully until late spring. Heads almost globe shaped, very hard, interior very compact, tender texture, of good flavor. Ideal for high quality kraut.

***Wisconsin Hollander Yellows Resistant** (105 days. 7½ in. dia. 8 lbs.) A disease resistant strain of the Danish ball head type, very large, hard, sure heading.

Penn State Ball Head (105 days. 7½ in. dia. 5½ lbs.) Hard flattened globe heads. Desirable for kraut and winter storage.

Cantaloupe

See Muskmelon Page 23



Chinese Cabbage

1 oz. to 150 ft. of row; 2 lbs. per acre

Chinese or Celery Cabbage belongs to the cabbage family but more closely resembles lettuce. For best results plant the seed 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.

Chihli (or Improved Pekin) (75 days) A long slender type 3 to 4 in. thick, 16 to 18 in. long. Now the most popular strain in Baltimore, New York and Washington markets. Solid, crisp, well blanched, tender heads of excellent quality.

*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.

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
All Head Early.....	\$.10	\$.30	\$.85	\$2.50
American Drumhead Savoy .10	.45	1.35	4.00	
Charleston Wakefield ....	.10	.30	1.00	3.00
Chieftain Savoy .....	.10	.45	1.35	4.00
Copenhagen Market .....	.10	.60	1.00	3.00
Danish Ball Head.....	.10	.40	1.15	3.50
Early Flat Dutch.....	.10	.30	.85	2.50
Early Round Dutch.....	.10	.35	1.00	3.00
Glory of Enkhuizen.....	.10	.30	.85	2.50
Golden Acre (Original)....	.10	.40	1.15	3.50
Green Acre .....	.10	.50	1.50	4.50
Jersey Wakefield (Selecd'd)	.10	.40	1.15	3.50
Large Late Flat Dutch... .	.10	.30	.85	2.50
Mammoth Rock Red.....	.10	.55	1.65	4.85
Penn State Ball Head....	.10	.40	1.15	3.50
Pointed Head Winter... .	.10	.35	1.00	3.00
Premium Late Flat Dutch .10	.30	.90	2.75	

*YELLOWS RESISTANT VARIETIES

All Head Select.....	.10	.45	1.35	4.00
Detroit (Res. Golden Acre) .10	.50	1.50	4.50	
Globe (Resistant Glory)..	.10	.45	1.35	4.00
Jersey Queen.....	.10	.45	1.35	4.00
Marion Market .....	.10	.40	1.15	3.50
Racine Market .....	.10	.50	1.50	4.50
Wisconsin All Seasons... .	.10	.45	1.35	4.00
Wisconsin Hollander No. 8 .10	.50	1.50	4.50	

CHINESE CABBAGE

Improved Pekin—Chihli .10	.20	.60	2.00	
Michihli .....	.10	.45	1.35	4.00

Carrots

1 oz. 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, slightly alkaline 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 12 to 18 inches apart, finally thinning the plants to 2 to 3 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.

Coreless or Scarlet Nantes (68 days, 6 in. x 1 1/4 in.) The earliest of its type; size and shape uniform; bright orange in color; smooth skin; small top. Fine quality home garden variety.

Chantenay (Long) (70 days, 7 in. x 2 in.) A most excellent, medium early, half-long variety. Very uniform, stump-rooted but tapering slightly. Smooth, deep orange-red in color and the flesh 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.

Danvers Half Long (75 days, 7 in. x 1 1/4 in.) 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.

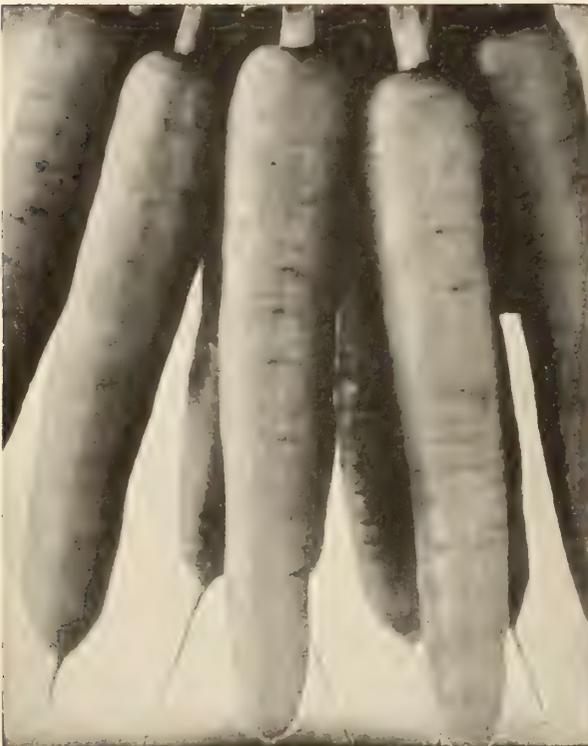


Chantenay

Sunrise (75 days, 7 in. x 2 in.) 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.

California Bunching (78 days, 7 in. x 1 1/2 in.) Developed especially as a bunching carrot for long distance shipping. Roots about 1 1/2 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.

Improved Long Orange (85 days, 10 in. x 2 in.) 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.



California Bunching

PRICES

	Pkt.	Oz.	1/4 Lb.	Lb.
California Bunching	\$.10	\$.20	\$.60	\$1.75
Chantenay (Long)	.10	.20	.60	1.75
Danvers Half Long	.10	.20	.60	1.75
Imperator	.10	.20	.60	1.85
Improved Long Orange	.10	.20	.60	1.75
Louisiana Danvers	.10	.25	.75	2.25
Nantes Coreless (Special)	.10	.25	.75	2.25
No. 92—Large Busheling	.10	.25	.75	2.25
Oxheart	.10	.25	.75	2.25
Red Cored Danvers	.10	.20	.60	2.00
Sunrise	.10	.25	.75	2.25
Supreme Danvers	.10	.25	.75	2.25



Cauliflower

1 oz. to 2,000 plants

For a successful early spring crop sow the seed during the last week in September. The young plants are shaded from excessive heat, protected from high winds and given just a moderate amount of moisture. Any plants showing signs of black stems or mildew are destroyed. When about 5 in. tall the plants are transplanted into 3" to 4" pots and protected from freezing until March. They are then removed to the field into rows 3 ft. apart and 2 ft. apart in rows, setting the plants so that the first leaf or eye is at ground level. As soon as the heads have attained a size of 2 to 2½ in. the surrounding leaves are gathered over the small heads and tied with a wooden peg or nail to keep them blanched a clean pure white. The crop is ready for home use or market about June 1st.

Some growers prefer to make their first sowing in hot-beds during January or February and transplanting them 2 to 3 in. apart, assuring vigorous growth before being set out in March.

A second sowing the first week in May transplanted to the field the last week in June will make a very satisfactory crop before heavy frost.

Sow SNOWBALL for Spring Crop and WHITE MOUNTAIN for Fall.

Early Snowball (55 days) Smaller than White Mountain, grown mainly for a late spring crop from seed sown in Fall or Winter. Sure heading if planted out very early in March.

White Mountain (60 days) The most dependable uniform heading variety for the vicinity of Baltimore. Produces 1½ to 2 lb. heads, 6½" to 7" in diameter about 60 days after setting plants. For best results sow seed May 15th to June 1st.

Cauliflower Plants See Page 39.

PRICES				
CAULIFLOWER	Pkt.	Oz.	¼ Lb.	Lb.
Early Snowball	\$.25	\$3.50	\$10.00	...
White Mountain	.25	3.50	10.00	...
CHARD (SWISS)				
Common Green (Spinach Beet)	.10	.15	.40	\$1.25
Fordhook Giant	.10	.15	.40	1.25

Chard (Swiss)

1 oz. to 150 ft. of row; 8 lbs. per acre

Sow seeds the same as ordinary beet seed but thin out at first to 6 inches apart, later to 1 foot apart.

Common Green (Spinach Beet) (55 days) Also known as Perpetual Spinach. Light green smooth leaves with small midrib. A particularly good garden item in hot weather when true spinach is out of season.

Fordhook Giant (55 days) The best Swiss Chard in cultivation, producing extremely large, heavily savoyed leaves of a beautiful glossy, very dark green color. Ribs broad, thick, white.



Swiss Chard—Fordhook Giant

Celery

1 oz. 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 covered only about 1/16 inch 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 2 1/4 to 3 feet apart. Cut off some of the root and set the plants 6 to 8 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.

Number of days indicates time from setting plants. Add 60 days for days required from sowing of seed.

Cornell No. 19 (100 days) 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 prevailing 10 1/2 to 11 inches to joint with an overall 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.

Easy Bleacher (100 days) Blanches readily, vigorous in growth and a splendid.

Utah Pascal No. 99 (125 days) 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.

Winter Queen (130 days) 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.

Giant Pascal (140 days) A superior quality and excellent 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. Fine home garden variety.



Golden Plume

Golden Plume (85 days) This new strain of Golden Self-Blanching, pronounced by authorities to be one of the best of all the early varieties. It matures two or three weeks earlier than other sorts, blanches more quickly and shows tendency to blight or crown-rot. The crisp, tender stalks are broad and the large full plumed centers are displayed to advantage.

Tall Non-bolting Golden Plume (90 days) Grows taller and faster than the original Golden Plume. Withstands low temperatures when planted out without bolting. It is the most satisfactory Golden Plume strain for an early crop.

CELERY	PRICES			
	Pkt.	Oz.	1/4 Lb.	Lb.
Cornell No. 19.....	\$.10	\$1.00	\$3.25	\$10.00
Easy Bleacher .....	.10	.95	2.85	8.50
Full Heart .....	.10	1.00	2.85	8.50
Giant Pascal (Special)...	.10	.95	2.85	8.50
Golden Plume .....	.10	.95	2.85	8.50
Tall Non-bolting				
Golden Plume .....	.25	1.50	4.50	14.00
Utah Pascal No. 99.....	.10	.85	2.50	7.50
Winter Queen .....	.10	.85	2.50	7.50
CELERY—LETTUCE				
Burpee's Lettuce, pkt, 15c; 1/4 oz., 35c; oz., \$1.25				

CELERY BLEACHERS			
No.	Size	Per 100	Per 500
B-3	7x14 in.	\$4.50	\$20.00

CELERY SETTERS	
No. H-2—Tin	.....\$1.35

CELERY PLANTS
 All Leading Varieties
 Ready During July and August
 SEE PAGE 58

USE A FELINS VEGETABLE TYING MACHINE



Large Smooth Frange Celeriac

Celeriac

1 oz. to 200 ft. of row; ¼ lb. per acre

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 (120 days) One of the largest, very smooth and almost round with very few side roots. Plants are vigorous, with large dark green foliage.

Cress

1 oz. to 150 ft. of row; 3 lbs. per acre

Dwarf annual and perennial plants of mild to pungent flavor used for salads and garnishing. They require moist soils, thrive during the cool seasons in well shaded places where an ample supply of moisture is constantly available.

Garden (Curled or Pepper) (45 days) Dwarf fast growing annual having finely curled deep green foliage. Used for garnishing and salads.

American Upland (45 days) Dwarf plant with notched oval leaves resembling true water cress. Of a mild flavor, grown in this area as a fall and winter crop. Sown in July or August; requires a fertile moist soil.

True Water (100 days) Hardy perennial with long stems and small thick divided leaves having a sharp pungent flavor. Thrives along moist banks or in soil covered with shallow fresh water.



Chicory—Witloof

Chicory

1 oz. to 80 ft. of row; 4 lbs. per acre

Witloof (French Endive) (95 days) A very choice winter salad forced in hotbeds from roots previously grown outdoors; producing solid oblong heads blanchd ivory white.

Chives

1 oz. to 150 ft.

Small hardy perennial ready for use in 85 days, resembling the onion in appearance and growing in clusters. Grown for the young leaves which give a mild onion flavor to sausage, salads and various dishes.

Collards

Broadcast 1 lb. to 2 lbs. per acre—1 oz. to 300 ft. row

Cabbage or Heading (60 to 80 days) Produces compact plants 1½ to 2 ft. high. Large clusters of leaves often show a tendency to form a head.

Corn Salad

1 oz. to 20 sq. ft.; 6 lbs. per acre

Large Seeded Dutch (50 days) Used as a salad. Sown in the early spring in rows 1 foot apart, it is fit to use in 6 or 8 weeks. If wanted in early spring, sow in September and cover with straw as soon as cold weather sets in. Can also be grown in protected cold frames and used any time during the winter.

PRICES				
CELERICAC	Pkt.	Oz.	¼ Lb.	Lb.
Large Smooth Frange....	\$.10	\$.65	\$2.00	\$6.00
CHICORY				
Witloof .....	.10	.50	1.50	5.00
CHIVES				
.....	.10	1.50	...	...
CORN SALAD				
Large Dutch .....	.10	.35	1.00	3.00
COLLARDS				
Cabbage Collards .....	.10	.15	.50	1.50
Georgia or Southern .....	.10	.15	.50	1.50
Morris Improved Heading .....	.10	.30	.85	2.50
Winter Hardy .....	.10	.30	.60	2.00
CRESS				
American Upland .....	.10	.20	.60	1.75
Garden (Curled or Pepper) .....	.10	.20	.60	2.00
True Water .....	.10	.90	2.75	5.25



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

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. 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 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.

Lincoln Hybrid (83 days) All America winner for 1942—ears 7½ in. 12 to 16 rows, color bright yellow; stalks 6 ft.

Golden Cross Bantam (Hybrid) (85 days) 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 very uniformly it should be planted at intervals of a week or ten days to assure a continuous supply.

Ioana Hybrid (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 (95 days) 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 Hybrid Stowell's. The ears are large, well filled, of beautiful appearance and excellent quality.

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 to a hill. The size of the variety and the richness of the soil should determine the distance of planting. Hybrid corn because of its deeper rooting character may be planted closer than open pollinated varieties. Cultivate frequently but shallow until the tassels appear.

Manns' No. 56 (65 days) The best most salable 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.

Improved Early Adams (74 days) A distinct improvement over the Old Early Adams, fully as hardy; ears measure from 7 to 8½ inches in length, with 12 or more rows to the ear. Grains are narrow and deep, of good table quality.

Early Superior (83 days) This new variety is of remarkable size considering its earliness. The ears are 8 inches long and have 14 to 18 rows of rather narrow deep grains. The quality is excellent and the attractive appearance of the rich, tender, well-fitted ears make it a very desirable sort for the Market Gardener.

Early Evergreen (85 days) Ripens 10 to 12 days in advance of Stowell's Evergreen, and is equally as good in quality. Ears 6½ to 8½ in. Kernels sweet and tender; cob small, with irregular rows.

Stowell's Evergreen Extra Selected

(90-95 days) Grown more extensively than any other; a favorite with canners and market gardeners for late use. Ears of large size, 7½ to 9½ in., kernels very deep, tender and sugary, very productive and remains for a long time in fit condition for table use.

Country Gentleman (95 days) Very deep grains, small cob and exceedingly rich flavor. Often produces 3 to 4 6½ to 8 in. ears to the stalk. The grains are "staggered" on the cob, leaving no signs of rows.

White Evergreen (98 days) A pure white strain of the popular Stowell's Evergreen. Ears 7½ to 9½ in. Well filled from butt to tip with long, slender, pure white grains.

PRICES

	Pt.	Qt.	Pk.	50 Lbs.
Adams Early	\$.25	\$.45	\$2.00	\$7.00
Black Mexican	.40	.75	4.00	12.50
Country Gentleman (Shoe Peg)	.40	.75	4.00	12.50
Early Evergreen	.40	.75	4.00	12.00
Early Superior	.40	.75	4.00	12.50
Golden Bantam	.40	.75	4.00	12.00
Golden Evergreen	.40	.75	4.00	12.00
Improved Early Adams	.25	.45	2.00	7.00
Manns' No. 56	.50	.95	4.50	...
Stowell's Evergreen Ex. Selected	.40	.75	4.00	12.00
White Evergreen	.40	.75	4.00	12.00
Pop Corn—South American Giant—25c lb.				

HYBRIDS

Aristogold	.65	1.25	6.25	22.50
Golden Bounty	.65	1.25	6.25	22.50
Golden Cross Bantam Hybrid	.55	1.00	5.00	16.50
Golden Grain	.65	1.25	6.25	22.50
Golden Rocket	.65	1.25	6.25	22.50
Ioana	.60	1.15	6.00	22.50
Lincoln	.60	1.15	6.00	22.50
Marcross C6-13 (72 days)	.60	1.15	6.00	22.50
Stowell's Evergreen Hybrid	.60	1.15	6.00	22.50
Stowell's Hybrid-14x5	.75	1.50	7.50	27.50
Top Cross Country Gentleman	.60	1.15	6.00	22.50

Field Corn

We carefully follow Maryland Agricultural Experiment Station's reports in selecting for you the Hybrids best suited for Maryland



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.

OPEN POLLINATED VARIETIES

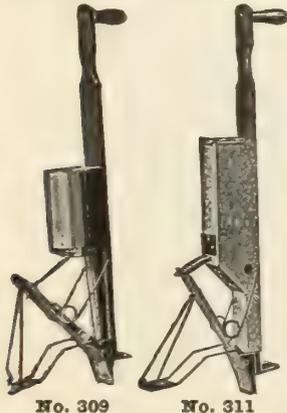
Clark's Early Smoky Dent The earliest Dent Corn in cultivation, maturing in 75 to 80 days; a good yielder, grows strong, quick, and has 7 to 8 foot fodder.

Iowa Silver Mine (90 days—Roasting ears 75 days) Deep grained, pure white, rough-topped, with a small white cob. Ears 9 to 12 in. long with 16 to 20 rows of pure white kernels. Stalks medium height, very leafy, with broad blades.

Lancaster County Sure Crop A favorite with dairy-men as a silage variety and also extremely valuable as a husking sort. Matures for silage in 90 days and for grain in 100 days producing long ears of deep large grains.

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

Ried's Yellow Dent (118 days) Probably the most popular open pollinated yellow variety.



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. \$3.00.

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. \$3.85.

HYBRID YELLOW VARIETIES

Iowa 939 (90-100 days) Plants are of medium height. The ears are rough, medium long, and have about 16 rows of medium deep reddish yellow grain. Yields well in average soils. Very popular with cattle feeders because of its non-flinty kernels.

U. S. 13 (100-110 days) Well adapted to this area and still used as the standard variety for comparing other hybrids. The deep green plants are tall, with medium high ears. Ears are large, carrying 20 to 22 rows of deep rich yellow medium soft grains. One of the highest yielding of all hybrids for both grain and silage.

Gold Line 378 (115-120 days) Dependable main crop. Variety somewhat resembling Ried's Yellow Dent. Ears 10 to 12 in. having 20 rows of rich golden yellow kernels. The strong, sturdy fodder stays green while the ears mature making it an excellent silage variety. Exceptional strong, sturdy root growth.

PRICES

	Qt.	Pk.	Bu.
Big Golden Silo Filler	\$.35	\$1.85	\$6.50
Boone County White .....	.35	1.85	6.50
Clark's Early Smoky Dent .....	.35	1.85	6.50
Enreka Ensilage .....	.35	1.85	6.50
Iowa Silver Mine .....	.35	1.85	6.00
Lancaster County Sure Crop.....	.35	1.85	6.50
Leaming Improved Dent .....	.35	1.85	6.50
Pride of the North.....	.35	1.85	6.00
Ried's Yellow Dent .....	.35	1.85	6.50

HYBRIDS

Gold Line 378 .....	.50	2.85	9.00
Iowa 939 (Certified) .....	.40	2.65	8.00
Ohio M-15 .....	.40	2.65	9.00
U. S. 13 (Certified) .....	.40	2.65	8.00
Kentucky 203 (Certified) White..	.50	2.85	9.00

Cucumbers

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

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 thin to 4 plants to the hill. Another very successful method is to sow the seed in rows, thinning to stand 12 in. apart in the row. For pickles, plant from the first of June to the first of August. Whether growing slicers or picklers the fruit should be gathered when large enough, for if left to ripen on the vines, it destroys their productive uses.

Gherkins or Burr (60 days) Very small, quite distinct from all others, grown exclusively for pickling, and should be picked when young and tender.

Klondike (64 days) An old favorite with market gardeners and shippers. The handsome dark green cucumbers average 7 inches long and 2 to 3 inches in diameter.

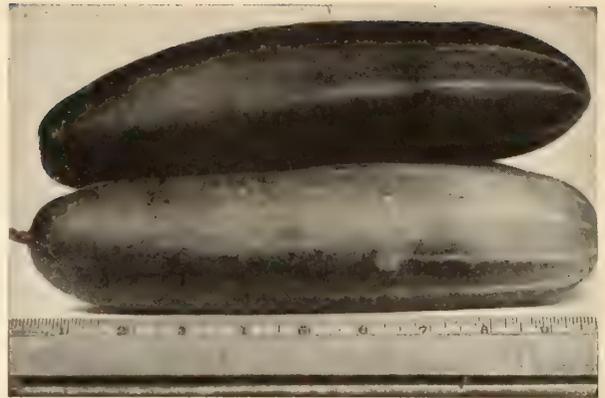
Marketer (65 days) Vines very vigorous and prolific; fruits very dark green, slightly tapered at ends. Notably uniform and attractive.

Straight 8 (66 days) All American Gold Medal Winner 1935, producing symmetrical fruits, well rounded at both ends. Regularly eight inches in length and from 1 3/4 to 2 inches in diameter, deep green and free from pale striping and tipping. Vines are vigorous and remarkably productive.

Long Green (Improved) (67 days) Under favorable conditions, produces fruit averaging from 10 to 12 inches in length. Skin is a deep rich green, flesh solid, crisp and of excellent quality.

A & C (68 days) An All American Winner in 1935, now a leading market and shipping variety. 9 to 11 inches long by 2 3/4 inch diameter, blunt at both ends, very dark. In some sections A & C has now replaced all other varieties.

Cubit (68 days) An All American Winner in 1935, crop variety of uniform dark green color. Long, blunt at both ends, crisp, and holds its fresh quality well for shipping or market.



A & C

Japanese Climbing (70 days) Vines are extra strong, vigorous; being a climbing sort, can be grown on trellises, etc.; valuable in small gardens. Very prolific. Fruit 2 in. by 7 in. of fair quality.

Longfellow Straight Pack (70 days) This 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.

PRICES			
	Pkt.	Oz.	1/4 Lb. Lb.
A. & C.	\$.10	\$.25	\$.75 \$2.25
Black Diamond (or Stays Green) .....	.10	.25	.75 2.25
Boston Pickling or Green Prolific .....	.10	.20	.60 1.75
Cubit .....	.10	.25	.75 2.50
Davis Blend .....	.10	.35	1.00 3.00
Early Fortune .....	.10	.20	.60 1.75
Gherkins or Burr.....	.10	.20	.60 2.00
Highmoor .....	.10	.30	1.00 2.75
Japanese Climbing .....	.10	.20	.60 2.00
Kirby Stays Green Long Type .....	.10	.25	.75 2.25
Klondike .....	.10	.20	.60 1.75
Longfellow or Straight Pack .....	.10	.25	.75 2.50
Long Green (Improved) ..	.10	.20	.60 2.00
Marketer .....	.10	.25	.75 2.50
National Pickling .....	.10	.20	.60 1.75
Packer .....	.10	.30	.90 2.75
Straight 8 .....	.10	.25	.75 2.25



Cucumber—Marketer



Straight Eight

Dandelion

1 oz. to 200 ft.; 2 lbs. per acre

Arlington (95 days) The best market garden strain, forming large, glossy, stocky, thick-leaved plants, white-ribbed.

Dill

Long Island Mammoth (90 to 100 days) Sow in rows and thin out to stand 8 or 10 in. apart. We offer an excellent market garden strain.

Egg Plant

1 oz. will produce 1,000 plants

Sow in March in hotbeds, and transplant when 2 inches high to 4 inches apart. When the weather becomes settled, transplant into the open ground 3 feet apart each way. Work the ground deep, make it rich with well-rotted manure and hoe often.

Black Beauty (80 days) Large globe to oval shaped fruits, smooth, glossy, very dark purple. Holds color well after picking.

Florida High Bush (85 days) Very vigorous and productive; resistant to drought and root rot. Of upright growth holding the fruit well off the ground; elongated, tapering toward stem, good shipper.



Black Beauty Egg Plant

Herbs

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
Caraway	\$.10	\$.15	\$.40	\$1.20
Chives .....	.10	.75	2.50	...
Marjoram, sweet .....	.10	.60	2.00	...
Sage .....	.10	.50	1.50	4.50
Summer Savory .....	.10	.60	2.00	...
Sweet Basil .....	.10	.50	1.50	4.50
Thyme .....	.10	.85	2.50	7.50

Endive

1 oz. to 100 ft. of drill; 3 lbs. per acre

Full Heart Batavian (Escarolle) (90 days) 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 (95 days) This is the hardest 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) (110 days) In great demand with Italian trade. 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.



Endive—Full Heart

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
DANDELION				
Arlington	\$.10	\$.95	\$2.85	\$8.50
Italian (Ciccoria Catalogna) .....	.10	.50	1.50	4.50
DILL				
Long Island Mammoth .....	.10	.15	.30	1.00
EGG PLANT				
Black Beauty .....	.10	.60	2.00	7.00
Florida High Bush .....	.10	.60	2.00	7.00
ENDIVE				
Full Heart Batavian .....	.10	.20	.50	1.50
Green Curled .....	.10	.20	.50	1.50
FENNEL				
Florence .....	.10	.30	1.00	3.00

Kale

Borecole Scotch Kale

1 oz. for 2,500 plants

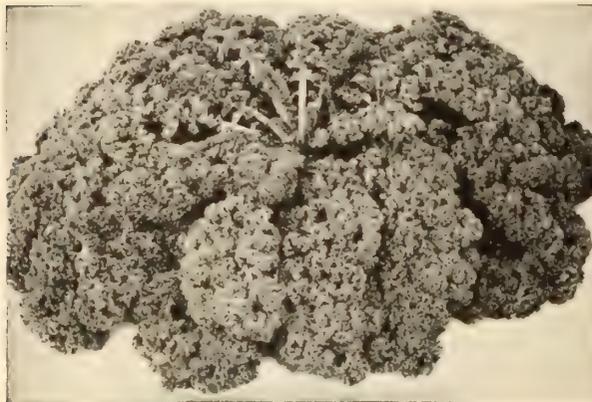
Extensively grown in this section for marketing during the winter and early spring months, when other vegetables are scarce. Borecole should be grown like cabbage, the seed being sown from early spring to the middle of August. It is customary to pull off the lower leaves and let the plant grow on to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



Borecole—Dwarf Green Scotch

Blue Curled Scotch (55 days) Hardy as Hardy Winter and having very curly dark blue-green leaves.

Curled Perfection (55 days) 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 (55 days) This excellent sort is low spreading and compact in its nature of growth, forming a mass of leaves which are beautifully curled. The color is an attractive bright green and the quality is excellent.

Hardy Winter (60 days) 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.



Borecole—Superior Extra Curled

Superior Extra Curled Green Scotch

(60 days) 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.

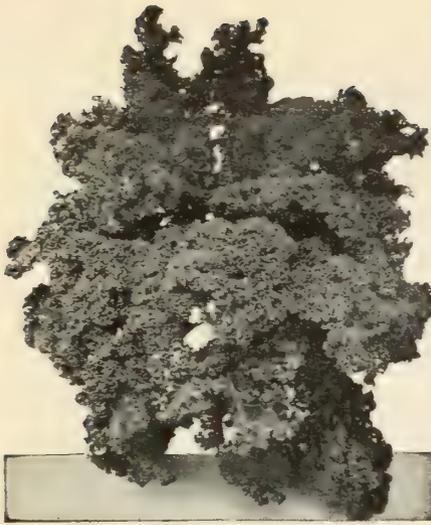
PRICES

BORECOLE	Pkt.	Oz.	¼ Lb.	Lb.
Blue Curled Scotch	\$.10	\$.20	\$.50	\$1.50
Curled Perfection .....	.10	.25	.75	2.25
Dwarf Green Scotch .....	.10	.20	.60	1.75
Hardy Winter		Not Available		
Superior Extra Curled ...	.10	.30	1.00	3.00

KALE

Extra Curled Long				
Standing .....	.10	.20	.50	1.50
Manns' No. 640 .....	.10	.30	.85	2.50
Siberian Kale				
(Extra Early) .....	.10	.15	.40	1.25
Spring Smooth Leaf				
(Hanover) .....		.10	.20	.50
Hanover Late Seeding....	.10	.15	.25	.75

Number of days indicates time from setting plants to first cutting



Kale, Extra Curled—Long Standing



Monstrous Carentan Leek



Early White Vienna

Kale (Siberian)

Broadcast, 2 to 3 lbs. per acre; 1 oz. to 200 ft. 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. For later use sow in April or May.

Extra Curled Long Standing (65 days) 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 (60 days) Ready for cutting earlier in spring than Long Standing.

Manns' No. 640 (65 days) The longest standing of any Kale we know, beautifully curled and having a distinct bright green color.

Spring Smooth Leaf or Hanover Salad (30 days) Quick-growing, very hardy smooth leaf sort, tender when young.



Kale—Early Siberian

Kohlrabi

1 oz. will produce 1,500 plants

This forms a bulb above the ground, and has a distinct fresh green delicious flavor. Sow in April in rows 18 inches apart, thinning out to 8 inches between the plants. Also grown as a fall crop by sowing August 1st.

Early White Vienna (55 days) 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 (50 days) Extremely early forcing variety, winner in "All-American" trials.

Leek

1 oz. to 150 yds. of drill; 4 lbs. per acre

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.

Monstrous Carentan OR SCOTCH CHAMPION. (150 days) Of extra large size; leaves fan-shaped, dark green; the edible stem is 6 to 8 inches long and 3 inches in diameter.

Special Big No. 7 (150 days) Improved large variety with unusually long thick white stalk.

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
KOHLRABI				
Early White Vienna	.10	\$.50	\$1.35	\$4.00
Triumph-Prague	.10	.50	1.35	4.00
LEEK				
Large American Flag	.10	.55	1.65	5.00
Monstrous Carentan	.10	.55	1.65	5.00
Special Big No. 7	.10	.60	2.00	6.00



Imperial Iceberg No. 847

Lettuce

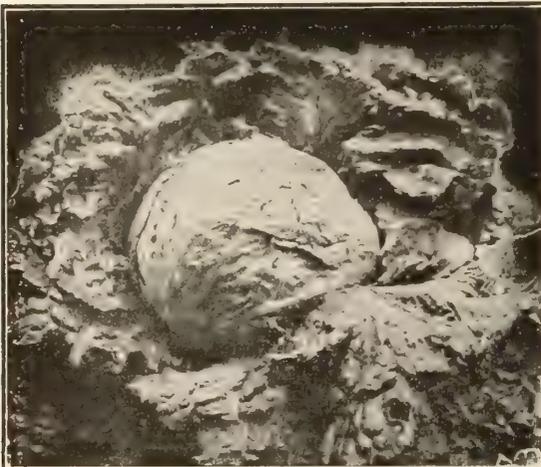
1 oz. to 2,500 plants; 3 lbs. per acre

Days given represent time for growing marketable heads from date of sowing seed.

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 16 inches apart in the rows according to variety and the rows should be about 18 inches apart. Heading varieties particularly should be well spaced to afford plenty of air circulation which helps materially in preventing bolting to seed.

Grand Rapids (43 days) U. S. No. 1. Tip Burn Resistant. Popular loose-leaf strain, very satisfactory for both market and home gardens.



Imperial Iceberg No. 44

Slobolt (45 days) An excellent high quality, crisp loose leaf variety developed by the U. S. Dept. of Agr. A Grand Rapids type, remaining in perfect edible condition for a long period.

Bibb (57 days) Finest quality home gardeners extra early head lettuce; forms small very dark green head. Must be grown to head very early in summer or very late as it readily bolts to seed in hot weather.

May King (65 days) Extremely early, compact, 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.

All Seasons (70 days) 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-blanch 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.

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
All Seasons	.10	.20	.60	\$2.00
Bibb	.10	.35	1.00	3.00
Big Boston	.10	.20	.60	2.00
Cos, or Romaine (White)	.10	.20	.60	1.75
Cos, Extra Dark Green	.10	.20	.60	2.00
Grand Rapids	.10	.20	.60	1.75
Great Lakes	.10	.50	1.65	5.00
Iceberg	.10	.40	1.00	3.40
Imperial No. 44	.10	.40	1.00	3.40
Cornell No. 456	.10	.60	1.85	5.50
Imperial Iceberg No. 847	.10	.35	1.00	3.00
May King	.10	.20	.60	2.00
Oakleaf	.10	.40	1.15	3.50
Pennlake	.10	.85	2.50	7.50
Premier Great Lakes	.10	.85	2.50	7.50
Progress (2428)	.25	1.00	3.00	10.00
Slobolt	.10	.35	1.00	3.00
Unrivalled	.10	.20	.60	1.75
White Boston	.10	.20	.60	1.75



Manns' Lettuce Seed is used by the largest commercial growers

Lettuce

Unrivalled (75 days) Medium sized, nearly globular heads; outer leaves pale green, interior nearly white, tender and sweet. A dependable header.

White Boston (75 days) We offer the Cornell No. 43 large, heavy, light green type. Entirely free from red edge and popular among market gardeners.

Cornell No. 456 (80 days) A very sure heading Imperial type, resistant to early bolting and to tip burn. Frame and head slightly smaller than Great Lakes and of lighter color. Particularly adapted for muck soils.

Pennlake (77 days) Developed at Penn State College for an early, large, firm-heading type. Tipburn resistant and sure heading on both muck and upland soils.

Premier Great Lakes (80 days) An All American winner for 1949. Upland variety with sure heading tendency and stands summer heat even better than original Great Lakes. Has broad fringed leaves forming well rounded, crisp, solid heads of excellent quality.

Progress (82 days) Developed by the U. S. Dept. of Agr. and the N. J. Exp. Sta. An ideal Iceberg type for eastern weather conditions. Resembles Imperial 44 but with a distinct bright green color and greater tip burn resistance. Has been thoroughly tested before being released.

Great Lakes (82 days) One of the most satisfactory of the Imperials. Large and vigorous, attractive color, resistant to tip burn and stands up well in hot weather.

Imperial Iceberg No. 44 (82 days) 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. Its 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 (84 days) Black seeded strain grown successfully in the east and south for several years. Produces large size, solid, well rounded heads under conditions where other Iceberg types do not succeed.



White Boston

COS (ROMAINE) LETTUCE

White Cos (68 days)

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

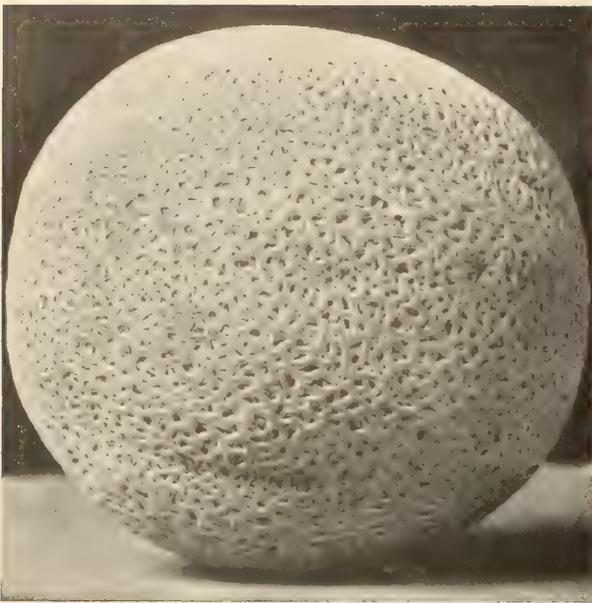


Cos Lettuce

Cos, Extra Dark Green (68 days) Similar to White but darker in color.

LETTUCE PLANTS

FRESH DAILY IN SEASON—See Page 58



Texas No. 1

Long John (100 days) Very large, oblong, green fleshed, sweet.

Honey Ball (105 days) Possesses characteristics that make it one of the finest melons that has ever been offered to the grower, the shipper and the consumer. Exceedingly prolific, individual plants producing as many as fifteen to twenty 5 in. dia. cantaloupes to the plant.

Honey Dew (112 days) 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.

SALMON FLESHED VARIETIES

Hale's Best Jumbo (83 to 88 days) A leading variety for market gardeners and shippers. Fruits oval, about 7½ x 6 inches, weighing 5 to 6 lbs., heavily netted and with ribbing somewhat prominent. Flesh is thick, sweet and of excellent quality.

Hale's Best No. 45 (85 to 90 days) An important shipping and home garden variety, resistant to powdery mildew, having thick, firm, sweet flesh with very small seed cavity. Fruits oval about 6½ x 5 inches and weighing 3 to 4 lbs., indistinct ribs, can be picked for shipment when nearly full ripe.

Sugar Rock (85 days) A valuable distinct type. Sweet as sugar and solid. Has marvelous flavor and can be thoroughly ripened before picking. A remarkably heavy yielder.

Texas No. 1 A cross between Porto Rican Rocky Dew and Hale's Best, developed by the Texas Exp. Sta.; extremely prolific, resistant to downey mildew and aphids, fruits about 7 in. long by 6 in. in dia. with very thick flesh.

Muskmelon

CANTALOUPE

1 oz. for 50 hills; 3 lbs. 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. Many large growers produce potted plants in hotbeds, thereby assuring an earlier crop to set out in May or earlier under Hotkaps. 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

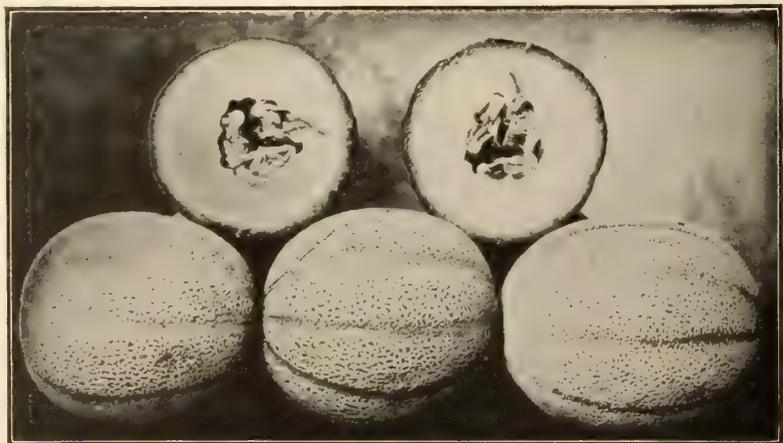
Knight's Early Maryland (82 days) An extremely early medium sized melon. Fruit oblong, skin deep green, turning to golden at maturity, well covered with a close gray netting and distinctly ribbed; flesh fairly thick and very sweet; color medium green blending to light pink near the center. The earliest high quality green flesh melon and a good shipper.

Jasper (90 days) 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.

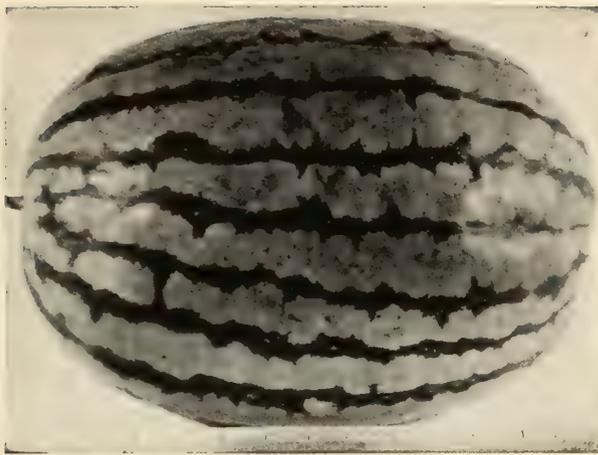
Improved Rocky Ford, Jr. (90 days) A large wilt resistant type of Rocky Ford. Fruit oval, slightly ribbed, densely covered with coarse netting. Flesh light green, very thick and highly flavored.

PRICES

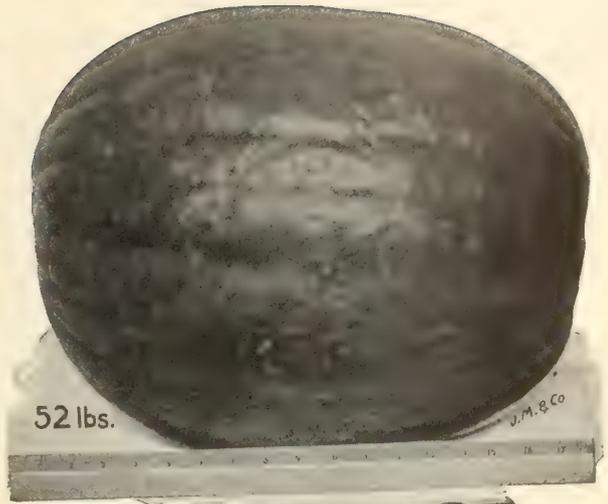
	Pkt.	Oz.	¼ Lb.	Lb.
Benders Surprise	\$.10	\$.20	\$.60	\$2.00
Golden Honey Dew	.10	.20	.65	2.00
Hale's Best Jumbo	.10	.20	.65	2.00
Hale's Best No. 45	.10	.20	.65	2.00
Hearts of Gold	.10	.25	.65	2.00
Honey Ball	.10	.20	.60	1.75
Honey Dew	.10	.20	.60	2.00
Jasper	.10	.30	.85	2.50
Knight's Early Maryland	.10	.20	.60	2.00
Long John	.10	.30	.90	2.75
Pride of Wisconsin	.10	.30	.85	2.50
Rocky Ford Improved, Jr.	.10	.30	.85	2.50
Schoon's Hard Shell	.10	.25	.80	2.40
Sugar Rock	.10	.25	.75	2.25
Texas No. 1	.10	.40	1.15	3.50



Imperial—Hale's Best



Dixie Queen



Stone Mountain

Watermelon

1 oz. for 30 hills; 3 or 4 lbs. per acre

Cultivate exactly as for Cantaloupe, except that the hills should be 8 to 10 feet apart.

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

Blacklee (85 days) Developed at Florida Exp. Sta. Vigorous, very resistant to Fusarium Wilt. Fruits long dark green, flesh bright red of sweet flavor. Weight 35 lbs.

Dixie Queen (85 days) A fine-flavored, early round melon; skin striped dark green and greenish ivory, flesh bright red, solid and sweet. Shipped as White Seeded Cuban Queen. Weight 30 lbs.

Kleckley's Sweet (85 days) 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. Weight 30 lbs.

Stone Mountain (90 days) The outstanding introduction in the last few years. Can be shipped long distances and its edible qualities are distinctly superior to any other shipping variety. Weight 35 to 40 lbs.

Florida Giant (95 days)—Vigorous and prolific; fruits very large, nearly round, flesh bright red, crisp and sweet. Weight 40 to 50 lbs.

Tom Watson (95 days) A large long melon with dark green rind and light crimson flesh of excellent quality, and a splendid shipper. Weight 35 to 40 lbs.

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

	Pkt.	Oz.	¼ Lb.	Lb.
Fordhook Fancy...	.10	\$.15	\$.40	\$1.25
Giant Southern Curled...	.10	.15	.40	1.25
Tendergreen (Mustard Spinach) .....	.10	.15	.30	1.00
WATERMELON				
Blacklee (Wilt Resistant) .....	.10	.20	.60	2.00
Dixie Queen .....	.10	.20	.60	2.00
Early Canada .....	.10	.25	.75	2.25
Florida Giant .....	.10	.20	.60	1.75
Garrison (90 days).....	.10	.35	1.00	3.00
Kleckley's Sweet .....	.10	.20	.60	2.00
Stone Mountain .....	.10	.20	.50	1.50
Tom Watson .....	.10	.20	.50	1.50

Mustard



1 oz. to 200 ft. of drill; 4 lbs. per acre
 Sow the seed early in the spring thinly in rows about a foot apart. For fall use sow in August.

Fordhook Fancy (65 days) Darker green and leaves more curled at the edges than any other sort.

Giant Southern Curled (65 days) The largest variety, forming a mass of finely curled leaves of good flavor; hardy and vigorous.

Onions

To grow large bulbs 1 oz. to 100 ft. of drill; 4 to 5 lbs. per acre. To grow sets 10 oz. to 100 ft. of drill; 50 lbs. per 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. Harvest while tops are partially green and just after they fall over. This is indication of proper maturity for best storage results.



White Silver Skin Onion

Southport White Globe (110 days) Pure white, true globe form with very crisp flesh, exceedingly mild and fine grained.

Yellow Globe Danvers (110 days) Grows to a good size, slightly flattened globe shape, with thin yellow skin, white flesh, fine grained and excellent quality. Ripens early, keeps well and is very productive.

Prizetaker (115 days) Produces extra 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.

Golden Globe (Bottle Neck) (118 days) Very good storage or market type, medium light, deep globe bottle neck shape, skin dark golden, flesh creamy yellow, crisp, firm and mild.



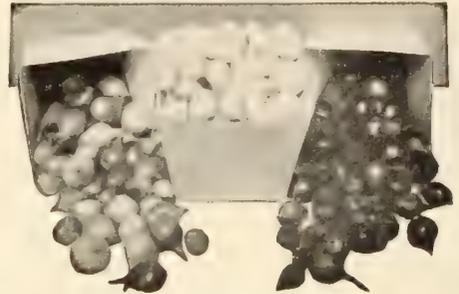
Early Yellow Globe

White Queen (90 days) Used extensively for a bunch onion, solid flesh of a mild flavor.

Early Yellow Globe (100 days) Matures medium large uniform globe-shaped bulbs which keep exceptionally well.

White Silver Skin, or Portugal (100 days) Used for growing sets and picklers. 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.

Use a FELINS TYING MACHINE FOR BUNCHING SPRING ONIONS



ONION SETS

FINE QUALITY MARKET GARDENERS STOCK

25c qt.—Pk. (8 lbs.) \$1.50

Subject to change. Postage Extra

Let Us Quote Larger Quantities

	PRICES			
	Pkt.	Oz.	¼ Lb.	Lb.
Danvers—Yellow Globe ..	.10	\$.40	\$1.15	\$3.50
Early Yellow Globe.....	.10	.50	1.50	4.50
Golden Globe .....	.10	.55	1.65	5.00
Prizetaker .....	.10	.45	1.35	4.00
Southport White Globe...	.10	.45	1.35	4.00
White Bunching .....	.10	.55	1.65	5.00
White Ebenezer .....	.10	.50	1.50	4.50
White Queen .....	.10	.55	1.65	5.00
White Silver Skin, or Portugal .....	.10	.45	1.35	4.00
Yellow Sweet Spanish ...	.10	.55	1.65	5.00



Okra

Okra or Gumbo

1 oz. to 30 ft.; 10 lbs. per acre

Sow in drills during April and May. Thin plants to 12 inches apart and draw earth to the stems for support.

Clemson Spineless (55-60 days) Introduced by Clemson Exp. Sta. An All-American Winner. Plant about 3 foot tall, extremely prolific producing straight tender spineless deep green pods of excellent quality.

Dwarf Green Prolific (50-55 days) A distinct variety, growing about 14 inches high; very prolific.

Parsley

1 oz. to 150 ft. 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 (70 days) The large leaves are very heavily crimped and curled. Very productive and most attractive, dark green color and fine mossy appearance.

Green Castle (85 days) An extremely hardy, late or main crop variety which grows rather slowly early, but is tall and densely curled.

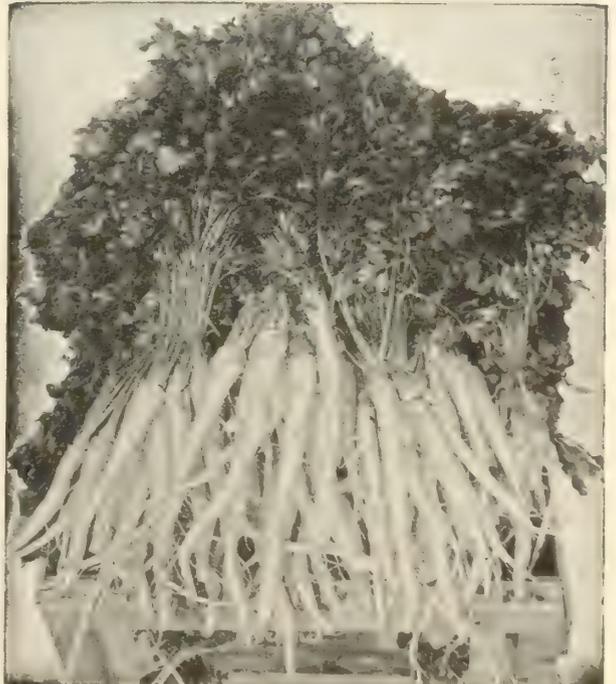
Hamburg or Turnip-Rooted (90 days) The large fleshy root, which resembles the root of a Parsnip, and is highly esteemed for flavoring soups, stews, etc.



Champion Extra Dark Moss Curled



Parsley grown in N. J., under Irrigation



Hamburg Parsley

PRICES

OKRA OR GUMBO	Pkt.	Oz.	¼ Lb.	Lb.
Clemson Spineless	\$.10	\$.20	\$.50	\$1.50
Dwarf Green Prolific				
Longpod .....	.10	.15	.40	1.25
White Velvet (60 days) ..	.10	.15	.40	1.25
PARSLEY				
	Pkt.	Oz.	¼ Lb.	Lb. 10 Lb.
Champion Extra Dark Moss Curled	\$.10	\$.15	\$.40	\$1.25 \$10.00
Green Castle .....	.10	.15	.40	1.25 10.00
Paramount .....	.10	.15	.40	1.25 10.00
Plain or Single (72 days) .....	.10	.15	.50	1.50 12.50
Hamburg .....	.10	.15	.50	1.50 12.50

Peas

1 quart to 100 ft. 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.



Early Bird

FIRST EARLY SMOOTH VARIETIES

Extra Early Alaska (57 days) 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. Seed round, blue, slightly pitted. Matures crop very evenly.

Early Bird (60 days) 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 (60 days) 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 (60 days) 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.



California Mammoth

Variety	PRICES		
	Pt.	Qt.	Pk.
Alaska—Wilt-resistant .....	.30	\$.55	\$3.00
Early Bird .....	.40	.75	4.00
Extra Early Alaska .....	.30	.55	3.00
Long Podded Alaska .....	.35	.65	3.50
Mammoth Podded Extra Early..	.30	.55	3.00

Peas

WRINKLED VARIETIES

Gradus (Prosperity) (62 days) 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.

Laxtonian (62 days) This is one of the finest dwarf early peas. The vines grow 18 to 20 inches high and produce an enormous crop of 4 in. dark green pointed pods.

Little Marvel (62 days) 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.

Thomas Laxton (62 days) One of the highest quality freezing and garden varieties. Pods blunt, dark green, 3½ in. long. Vine 2 ft., slim.

Blue Bantam (63 days) 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.

Freezonian (63 days) All American Winner. Improved Thomas Laxton type, 3½ in. dark green blunt pods, wilt resistant.

Early Wonder (65 days) 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.

California Mammoth (70 days) 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 (75 days) 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.

Dwarf Telephone (75 days) 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.

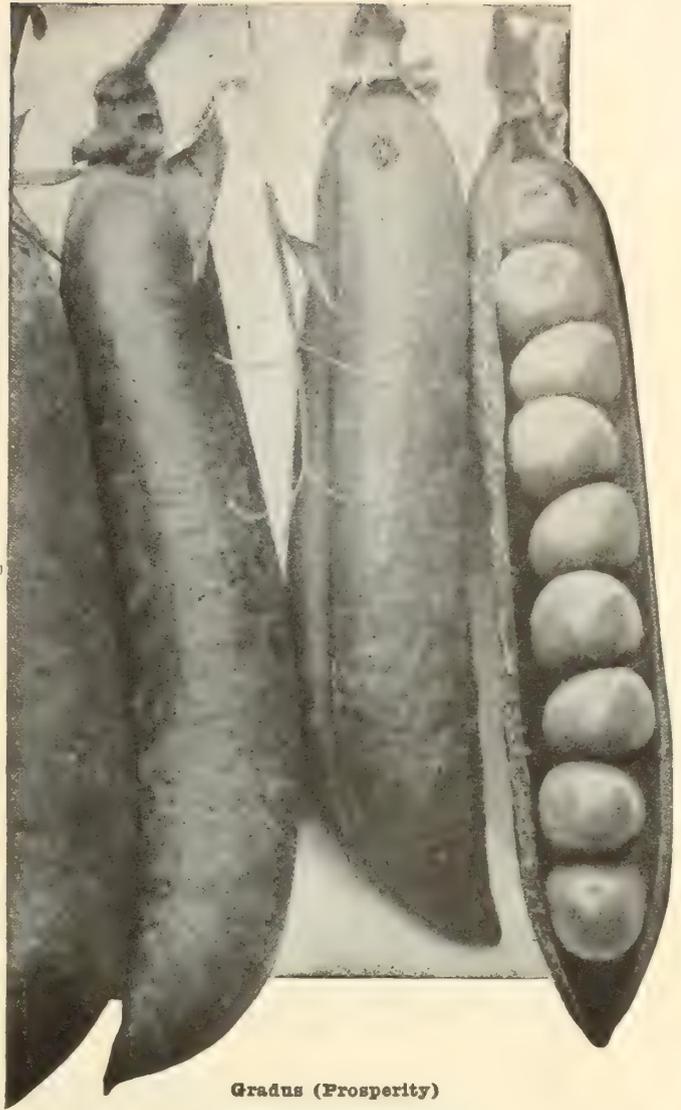
Dark Green Telephone (75 days) A tall-growing, late sort, 3½ to 4 feet in height, having beautiful dark green pods of very large size, containing 6 to 7 large peas of delicious flavor. Continues in bearing for quite a long time.

EDIBLE PODDED PEAS

Dwarf Grey Sugar (62 days) Vines 24 in. bearing 2¾ in. light green-pointed pods with small gray peas.

PEANUTS

Virginia Bunch (145 days) Earliest, most prolific and easiest cultivated variety. **Lb., 35c; 10 lbs., \$3.00.**



Gradus (Prosperity)

	PRICES	Pt.	Qt.	Pk.
Alderman—Wilt resistant	\$.40	\$.75	\$4.00
Black Eyed Peas (100 days)40	.75	4.00
Blue Bantam40	.75	4.00
California Mammoth40	.75	4.00
Dark Green Telephone—W.R.40	.75	4.00
Dwarf Grey Sugar50	.95	5.75
Dwarf Market40	.75	4.00
Dwarf Telephone—W.R.40	.75	4.00
Early Giant (66 days)40	.75	4.00
Early Wonder40	.75	4.00
Freezonian45	.85	4.50
Gradus (Prosperity)40	.75	4.00
Laxtonian (Hundredfold)40	.75	3.75
Little Marvel40	.75	4.00
Thomas Laxton40	.75	3.50
World's Record (58 days)40	.75	4.00

Peppers

1 oz. to 1,500 plants
6 to 8 weeks to produce 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.



World Beater

Long Red Cayenne (70 days) 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.

World Beater (70 days) 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, four lobed and the color good. The flesh is very thick, making distant shipment possible.

California Wonder (75 days) 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 (75 days) 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 (80 days) Red conical pod, about 2 inches long, very hot. Fine for pepper sauce and seasoning.

Cherry Red (82 days) Fruit small, round, color rich scarlet, very hot.

Chinese Giant (85 days) This desirable variety is one of the largest sweet peppers ever offered. The flesh is quite thick, very mild and remarkably sweet.

Pepper Plants See Page 58.



Chinese Giant



California Wonder

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
California Wonder	.10	\$.80	\$2.50	\$7.50
Calwonder (67 days)	.10	.80	2.50	7.50
Chinese Giant	.10	.80	2.50	7.50
Cherry Red (Hot)	.10	.60	2.00	6.00
Chili, Small (Hot)	.10	.60	2.00	6.00
Half Long Cayenne	.10	.55	1.65	5.00
Long Red Cayenne (Hot)	.10	.60	2.00	6.00
Pimento or Perfection	.10	.80	2.50	7.50
Sunnybrook or Cheese	.10	.60	2.00	6.00
World Beater	.10	.60	2.00	6.00

Parsnips

1 oz. to 150 ft.
4 lbs. per acre



All American Hollow Crown

Sow in early spring in deeply prepared well drained soil. Thin to stand 3 to 4 in. apart. It is sometimes sown late in the summer for early spring use.

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. The roots can be left in the ground all winter and improve in quality by the continued freezing.

Special Market Garden Strain (110 days) A smooth perfectly shaped selection privately held for many years. It produces roots nearly 100% true hollow crown, an extremely important characteristic always indicating highest edible quality.

All American Hollow Crown (110 days) A specially selected stock, developed for uniform well-shaped smooth roots of excellent quality.

Pumpkins

1 oz. to 15 hills; 4 lbs. per acre

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.

Cushaw, or Crookneck (110 days) Grown for pies and stock feeding. Fruits 2 feet in length, with long, solid neck. Flesh rich, creamy yellow, tender and of exceptionally fine flavor. Weight 15 to 25 lbs.

Sweet Potato (110 days) Excellent for pies, pear-shaped, creamy white, sweet and delicious; first-class keeper. Weight about 15 lbs.

Sugar Pie Pumpkins (115 days) Best of all Pumpkins for pies. Small to medium size, solid and fine grained, and a splendid keeper.

King of Mammoths (115 days) Enormous, deep yellow. Often weighs 75 to 100 lbs.

Squash Pumpkin—Boston Marrow

See Squash, Page 33.

PARSNIPS	PRICES			
	Pkt.	Oz.	¼ Lb.	Lb.
All American				
Hollow Crown	\$.10	\$.15	\$.50	\$ 1.50
Special New Market				
Garden Strain .....	.10	.30	.85	2.50
PUMPKINS				
Connecticut Field .....	.10	.15	.40	1.25
Cushaw, or Crookneck				
Golden .....	.10	.20	.50	1.50
Cushaw, Green Striped ...	.10	.20	.50	1.50
King of Mammoths .....	.10	.20	.60	2.00
Sugar Pie Pumpkins .....	.10	.15	.45	1.25



Sugar Pie Pumpkin

Radishes

1 oz. for 100 ft. of drill; 10 lbs. per acre.



Extra Early Scarlet Globe Outdoor Forcing

Greenhouse Scarlet Globe (22 days) 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.

Extra Early Scarlet Globe (23 days Outdoor Forcing) The popular commercial variety often called "Button Radish." Roots olive shaped, bright scarlet, flesh white and crisp. By selecting the most desirable type of this variety based on market demands we offer a strain having correct uniform shape and color plus exceptionally good tops for bunching.

PRICES

	Pkt.	¼ Lb.	Lb.	10 Lb.
Comet	\$.10	\$.30	\$1.00	\$9.50
Crimson Giant	.10	.30	1.00	9.00
Greenhouse Scarlet Globe	.10	.30	.90	8.00
Long Black Spanish	.10	.40	1.25	11.50
Long Scarlet	.10	.30	.90	8.00
Round Black Spanish	.10	.40	1.25	11.50
Scarlet Globe	.10	.30	.90	8.00
Scarlet Globe Round	.10	.30	1.00	9.50
Scarlet Globe No. 8	.10	.30	1.00	9.00
Scarlet Turnip	.10	.30	.90	8.00
Sparkler	.10	.30	.90	8.00
White Chinese or Celestial	.10	.40	1.25	11.50
White Icicle	.10	.30	1.00	9.00
White Strasburg	.10	.30	1.00	9.00

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

(23 days)

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. Market gardeners find it a money maker, as it is just right in every respect.

Comet (24 days) Distinctly a round or ball shaped sort of longkeeping quality. Has outstanding brilliant crimson color, with extra good tops for bunching. An All-American winner.

Sparkler (Round White Tipped)

(25 days) One of the most attractive for early planting outdoors. Color very deep scarlet with 1/3 white at the tip; flesh white and of the best quality.

White Icicle Radish (27 days) 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.



White Strasburg

Radishes

Crimson Giant (28 days) A variety combining earliness and extra size. It does not become pithy even when fully twice as large in diameter and a week older. Crimson-carmine; turnip-shaped; flesh firm, crisp and tender.

Long Scarlet (28 days) This is the standard extra early long scarlet market variety, short top, long scarlet roots; crisp, fine flavor.

White Strasburg (40 days) A very desirable summer variety. Skin and flesh both white. Of excellent quality and a quick grower.

WINTER VARIETIES

Long Black Spanish (55 days) Roots tapered cylindrical 7 to 10 in. long and about 2 1/4 in. in diameter. Skin black, flesh white, exceptionally good keeper, strong pungent flavor.

Round Black Spanish (55 days) Characteristics similar to Long Black Spanish, except that it grows top-shaped, 3 to 4 in. in diameter.

White Chinese or Celestial (55 days) 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.



White Icicle



Long Scarlet

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.

Crimson Winter Crimson stems of the finest color and quality, very early and continuing bearing over a long period.

RHUBARB ROOTS—See Page 58.

Sorrel

BROAD LEAVED (60 days)

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

Slow growing, hardy; requires 150 to 180 days; better if frosted.

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 1 1/4 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.



Mammoth Sandwich Island Salsify

PRICES

RHUBARB		Pkt.	Oz.	1/4 Lb.	Lb.
Crimson					
Winter	..	\$.10	\$.50	\$1.50	\$5.00
SALSIFY					
Mammoth Sandwich Island					
Island	...	.10	.45	1.35	4.00
SORREL					
Broad Leaf		.10	.35	1.15	3.50
Narrow Leaf		.10	.50	1.50	5.00

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.

Chippewa Introduced by the U.S.D.A. Seven to ten days later than Irish Cobblers. Disease resistant and a heavy yielder of medium size tubers, very uniform, oblong in shape, shallow eyes, skin smooth and clean white, excellent cooking quality.

Red Bliss, or Bliss Triumph 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.

Cobblers Popular early white, disease resistant, excellent quality. Medium to large in size, smooth, nearly round in shape, blunt ends, eyes very strong. A good keeper and a heavy cropper.

Green Mountain A dependable medium late main crop variety. Yields big crops of large, smooth white skin tubers of flatish oval form. Ripens slowly and is a good keeper. Cooks white, dry and mealy.

Kathadin Developed by the U.S.D.A. Matures a little earlier than Green Mountain, of oval shape, white skin and white flesh, shallow eyes. Very productive and a good keeper.



Sebago A cross of Chippewas and Kathadins developed by the U.S.D.A. Disease resistant, tubers are large, oval to oblong in shape. Ivory white, thin-skinned with shallow eyes. Excellent early shipper.

Seed Sweet Potatoes

Prices subject to market fluctuation—Let us Quote
Elzey's Improved Grows well in light sandy soil. This variety is a good yielder and keeper. It is a dry potato with light-yellow skin and flesh.

Maryland Golden The most popular of all yellow varieties on the market. Has golden yellow skin and flesh which is a deep yellow at the stem end. It has a moist flesh and is moderately sweet.

Sweet Potato Plants See Page 58.

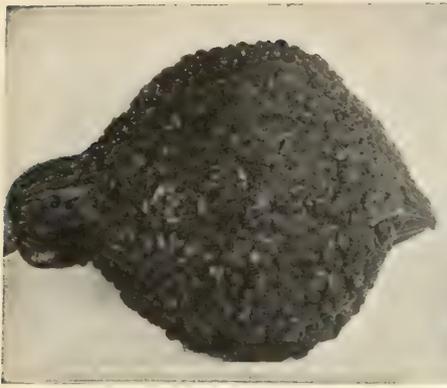
NEW IMPROVED SEMESAN BEL
 1 oz. treats 5 bushels



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 handi- caps and repelling the attacks of soil-borne organisms so that yields are greatly increased.
 2 ozs., 35c; 1 lb., \$1.83; 4 lbs., \$6.33.



Increase Your Profits
 Dust or Spray with
RED RIVER POTATO MIX
 With D.D.T.
 (1 to 1½ lbs. make 12½ gallons
 or as dust)
 Lb., 60c; 4-lb. bag, \$1.90.



Green Warty 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 bush varieties 4 ft. apart and the running varieties in hills 7 to 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 deeply.

Early Prolific Straightneck (50 days) 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.

Green Tinted Bush Scallop (50 days) Preferred by many market gardeners by reason of true decided light green color, even when fully matured.

Early Golden Summer Crookneck

(52 days) A superior strain of summer crookneck, heavily warty, of a very deep orange color, 9 inches long, of excellent quality and highly productive.

Cocozelle Extra Long Italian (65 days) Produces fruit alternately striped dark and light green in the edible stage becoming dark green at maturity, about 20 inches long and 3 to 4 inches in diameter; very straight.

Table Queen or Acorn (New Mammoth Type) (80 days) Dark green, thin shelled, smooth, ribbed fruits with yellow flesh; favorite variety for baking.

Boston Marrow (or Squash Pumpkin)

(95 to 100 days) 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.

Green Warty Hubbard (110 days) Densely warty, much larger than Golden Hubbard; flesh exceptionally thick, deep orange, dry and of excellent quality.



Green Tinted Bush Squash

PRICES

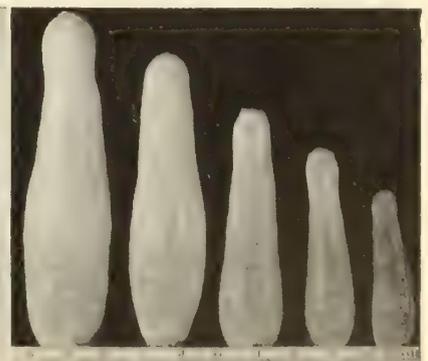
	Pkt.	¼ Lb.	Lb.
Acorn or Table Queen (Mammoth)	\$.10	\$.50	\$1.50
Blue Hubbard	.10	.60	2.00
Boston Marrow	.10	.40	1.25
Boston Marrow A & C	.10	.50	1.50
Butternut	.10	1.15	3.50
Cocozelle, Extra Long Italian	.10	.50	1.50
Cocozelle, Vining	.10	.50	1.50
Early Golden Summer Crookneck	.10	.50	1.50
Early Prolific Straightneck	.10	.60	1.75
Golden Hubbard	.10	.60	2.00
Green Tinted Bush Scallop	.10	.50	1.50
Green Warty Hubbard	.10	.60	2.00
Jersey White Bush Scallop	.10	.50	1.50
Top of the Market	.10	.60	2.00
Zucchini (Extra Dark)	.10	.50	1.50



Table Queen



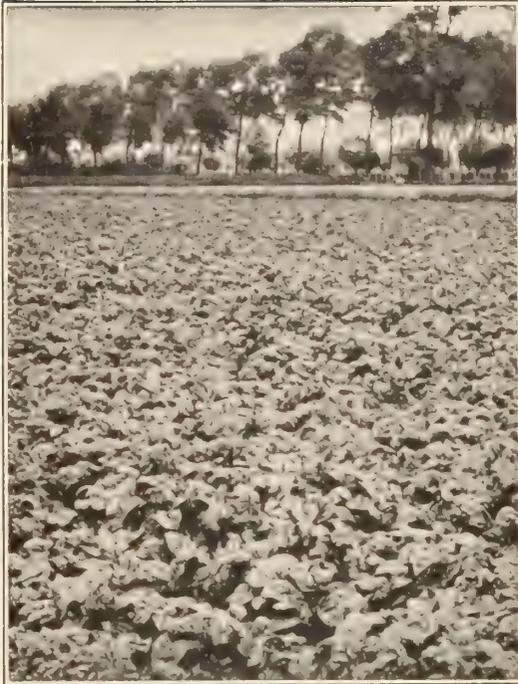
Cocozelle



Early Prolific Straightneck

Spinach

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



Extra Dark Green Savoy

Virginia Blight Resistant (39 days) 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.

Reselected Bloomsdale Savoy (40 days) For either fall or late winter sowing, a truly reselected strain developed by a Holland Plant Breeder for uniformly curled large heavy plants.

Old Dominion (41 days) 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.

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.

Number of days indicated shows time required from sowing to earliest cutting date. Long Standing varieties remain in marketable condition 10 days to 2 weeks longer.

Extra Dark Green Savoy (42 days) 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.

Presto Savoy (42 days) 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 harder than any other variety and will stand cold and unfavorable weather conditions better than round seeded sorts.

PRICES						
	¼		10	25	100	
	Oz.	Lb.	Lb.	Lbs.	Lbs.	Lbs.
Extra Dark Green	\$.10	\$.25	\$.60	\$5.00	\$10.00	\$26.00
Heavy Pack ...	.10	.25	.60	5.00	10.00	26.00
Long Standing .10	.25	.60	5.00	10.00	27.50	
Old Dominion .10	.25	.60	5.00	10.00	26.00	
Presto .....	.10	.25	.60	5.00	10.00	27.50
Reselected .....	.10	.25	.60	5.00	10.00	25.00
Special Summer Savoy .....	.10	.25	.75	6.00	12.50	32.00
Virginia B. R. ...	.10	.25	.60	5.00	10.00	25.00
New Crop Seed Available about September 1 }	LET US QUOTE					
			Pkt.	Oz.	¼ Lb.	Lb.
New Zealand	\$.10	\$.15	\$.30	\$1.00		
Tampala (Dark Green) ...	.25				(¼ oz. \$1.00)	



Special Summer Savoy



Field of Early Long Standing Savoy for Seed

Early Long Standing Savoy (42 days) 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.

Heavy Pack (44-46 days) A leading canning variety. Very vigorous, large spreading plants with broad thick heavy leaves. Very productive and extremely slow in bolting to seed.

Special Summer Savoy (50 days) 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 (70 days) (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.

J. Manns & Co.,
Baltimore 2, Md.

Dear Sirs:

We made two summer plantings of your Long Standing Savoy Spinach this year. One came in the end of June and the other the end of August. Both times the spinach withstood excessive heat and humidity and stayed green longer under these conditions.

Both the buyers and other growers noted the largeness of the individual plants and large crumpled leaves stating that it resembled Adirondack spinach.

Very truly yours,
H. Lindner & Sons,
Long Island, N. Y.



Spinach, Isolated Plants Caged for Stock Seed



Tomatoes

Improved Advance

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 varieties before offering them in our catalog, and can 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. Set out May 5th to 10th according to weather (or 3 weeks earlier if protected with Hotkaps) spacing 3 to 5 ft. apart. 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.

Days indicated represent approximate time from setting of plants to first picking. It takes 4 or 5 weeks to grow plants.

Improved Advance (64 days) 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.

Scarlet Dawn (70 days) Winner of a Gold Medal in the 1934 All American Trials. This cross of Clark's Early with Marglobe has the shape and structure of Marglobe, but a brighter scarlet color and very prolific. Excellent shipping variety and also desirable for home growing.

Sioux (70 days) Developed at Nebraska Exp. Sta. from cross of All Red and Stokesdale. It is extra early, globe shaped, medium size, thick walled and juicy. Plant relatively open with finely divided leaves; ripens uniformly. Does well in hot dry seasons.

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
Beef Steak	\$.10	\$1.00	\$3.00	...
Bounty .....	.10	.85	2.50	\$7.50
Earliana .....	.10	.85	2.50	7.50
Early Red .....	.10	.40	1.25	4.00
Garden State .....	.10	.85	2.50	7.50
Greater Baltimore (Ind.) ..	.10	.40	1.25	4.00
Improved Advance .....	.10	.65	2.00	6.00
Jubilee Golden .....	.10	1.50	...	...
Marglobe (Certified) .....	.10	.50	1.50	4.50
Oxheart .....	.10	1.50	4.50	...
Fan America .....	.10	.75	2.25	7.00
Ponderosa .....	.10	1.00	3.50	10.00
Pritchard's Scarlet Topper ..	.10	.40	1.25	4.00
Rutgers (Certified) .....	.10	.50	1.50	4.50
Scarlet Dawn .....	.10	.50	1.50	5.00
Sioux .....	.10	1.00	2.85	8.50
Southland .....	.25	1.35	4.00	12.00
Stokesdale (Certified) .....	.10	.65	2.00	6.00
Stone (Improved) .....	.10	.50	1.50	4.50
Valiant .....	.10	.75	2.25	6.50

SMALL FRUITED

Pear Shaped Yellow .....	.10	.75	2.50	...
Red Cherry .....	.10	1.15	3.50	...
Red Plum .....	.10	1.35	4.00	...
San Marzano (Paste) Red ..	.10	1.50	4.50	...
Yellow Plum .....	.10	.75	2.50	...



Marglobe Certified

Tomatoes

Stokesdale Certified (70 days) Similar to Rutgers in shape and color, with fruits averaging slightly larger. Plant is open in habit with medium heavy foliage. Recommended for home gardeners, canners and shippers. Produces large crops when fertilized liberally.

Valiant (70 days) One of the best early round, large, smooth varieties. Very profitable where it can be matured without too much danger of sunburn.

Marglobe Certified (75 days) Our stock of this 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 (75 days) Introduced by the U. S. Dept. of Agr. All American Gold Medal award 1934. Extremely productive, especially on heavy soils; wilt resistant. Fruits large, firm, globe shaped and of fine quality.

Indiana Baltimore (80 days) Large, smooth, solid, bright scarlet; second

early Tomato; a very prolific bearer and fine canning variety.

Southland (80 days) Developed by the U. S. Regional Vegetable Breeding Laboratory as a main crop shipping, canning, home and market garden variety. Nearly globe shaped with thick solid flesh and good scarlet color. Outstandingly resistant to many diseases including some forms of late blight.

Garden State (80-85 days) A main crop canner's variety, developed by Campbell Soup Co., partially resistant to fusarium wilt and late blight. Somewhat similar to Rutgers in size and season with fruits slightly flatter and the vines more compact and upright. It ripens uniformly, scarlet red throughout, firm, thick walled, mild and of a very desirable quality.

Rutgers Certified (80 days) Developed under the direction of Prof. L. G. Schermehorn 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.

Improved Stone (85 days) One of the most productive of the large flat varieties; fruits bright scarlet, smooth and solid. Fine market or canners variety.



Pritchard's Scarlet Topper

Rutabagas

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

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 (90-100 days, 5 in. dia.) Our 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.

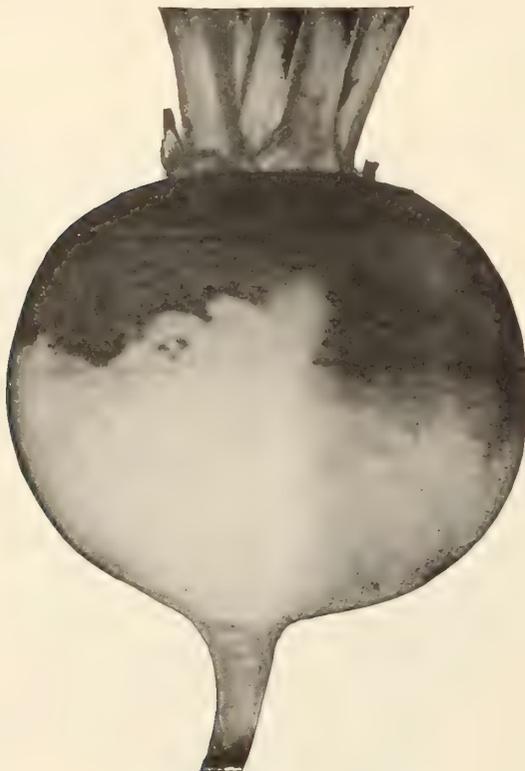
Special Market Gardeners (90-100 days, 5 in. dia.) Grown for a number of years in the North and held very closely by private individuals, the seed of this variety has always been extremely difficult to procure in a true and reliable type and most profitable. After years of searching and checking in our trial grounds, we have found the correct strain and offer it with every assurance that it is the best Rutabaga to grow in this section.

Turnips

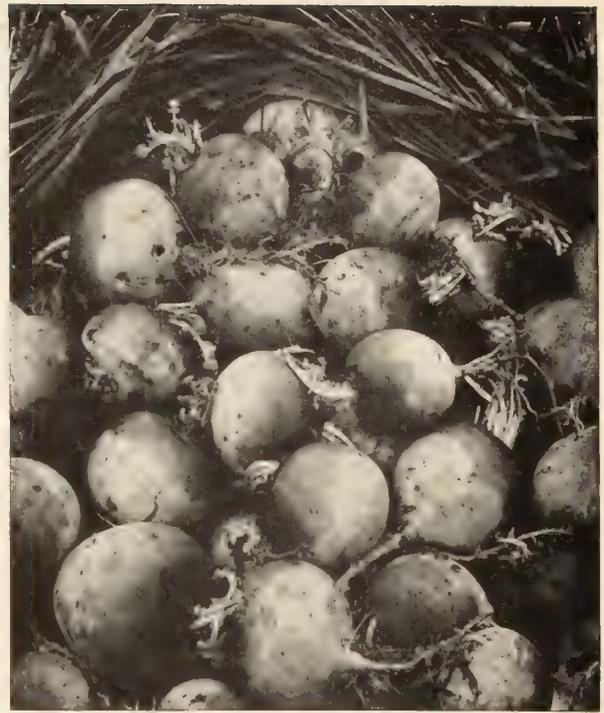
1 oz. to 150 feet of row; 1 lb. per acre.

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.

Autumn King (75 days, 4½ in. to 6 in. dia.) A high quality stock feed variety, also very popular with Market Gardeners because of its excellent table quality when young. Roots smooth, globular, clear yellow with bronzy green tinged top, flesh pale yellowish white, fine grained, sweet and tender.



Purple Top White Globe Turnip



Turnip—Autumn King

Double Duty (30-40 days) Roots approximately 3 x 2 in. tops 18 in. tall, strap-leaved fast growing heavily set, practically aphid resistant and of excellent quality. 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.

Purple Top White Globe (55-60 days, 3 in. to 6 in. dia.) This excellent turnip is decidedly 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, or rapid growth, and one of the best for winter storage.

Golden Ball (60-65 days, 3½ in. dia.) One of the best yellow varieties for general crop; flesh firm and sweet; splendid for table or stock.

Seven Top This variety planted exclusively for the green tops which are produced very abundantly. They are excellent for table use and for stock grazing.

Turnip Greens—See Broccoli—Page 11.

RUTABAGA PRICES			
	Pkt.	Oz.	¼ Lb. Lb.
Neckless Purple Top	.10	\$.15	\$.50 \$1.50
New Canadian	.10	.30	1.00 2.85
Special Market Gardeners	.10	.55	1.65 5.00
Walsham (Yellow Globe)	.10	.30	1.00 3.50
TURNIP			
Autumn King	.10	.15	.40 1.25
Double Duty	.10	.15	.40 1.25
Early Snowball	.10	.15	.40 1.25
Golden Ball (Orange Jelly)	.10	.15	.40 1.25
Mammoth Shogoin	.10	.15	.40 1.25
Purple Top White Globe	.10	.15	.40 1.25
Seven Top	.10	.15	.25 .75
Yellow Aberdeen Purple Top	.10	.15	.40 1.25

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.)
60c per 100.

CAULIFLOWER PLANTS. (Ready in May.)
50c per doz.; \$2.25 per 100.

BORECOLE PLANTS. (Ready in July.)
\$1.25 per 100.

CELERY PLANTS. (Ready in July.)
Easy Bleacher Golden Plume Winter Queen
\$1.25 per 100.

EGG PLANTS. (Ready in May.)
25c per dozen; \$1.25 per 100.

LETTUCE PLANTS. (Ready in March, April, September and October.) \$1.00 per 100.

PEPPER PLANTS. (Ready in May and June.)
25c per doz.; \$1.25 per 100.

SWEET POTATO PLANTS. (Ready in May and June.)
\$1.25 per 100.

TOMATO PLANTS. Hotbed Grown. (Ready in April.)
\$1.00 per 100.

Southern field-grown. \$1.00 per 100.

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 85c; \$2.75 per 100.

HORSERADISH ROOTS

Maliner Kren. (Bohemian.) Doz., 45c.

RHUBARB ROOTS

Victoria. 20c each; \$2.00 per doz.



PLANT SETTER

No. 15—Automatic, positive and accurate operation, rigid construction, cadmium plated, no rust, removable water spout. \$7.25.

Lynchburg Setter \$4.85.



FRUIT TREES

APPLES. 5-6 ft. \$1.75 each; \$15.00 per 10. Delicious, Yellow Delicious, Double Red Delicious, Winesap, York, Red Rome, Grimes Golden, Jonathan, Yellow Transparent, Hyslop Crab, etc.

PEARS. 5-6 ft. \$2.50 each. Bartlett, Kieffer, Seckel.

PEACHES. 5-6 ft. \$1.75 each. Belle of Georgia, Carman, Crawfords Early, Crawfords Late, Elberta, Heath Cling, J. H. Hale, Shippers Late.

CHERRIES. 9/16 to 11/16 cal. \$2.50 each.

SOUR—Early Richmond, English Morello, Montmorency.
SWEET—Bing, Black Tartarian, Napoleon, Yellow Spanish.

PLUMS. 5 to 7 ft. \$2.50 each. Abundance, Burbank, Red June.

GRAPE VINES (2 yr. No. 1)

CONCORD. Blue. 55c each.

DELAWARE. Red. 75c each.

NIAGARA. White. 55c each.

SMALL FRUITS AND BERRIES

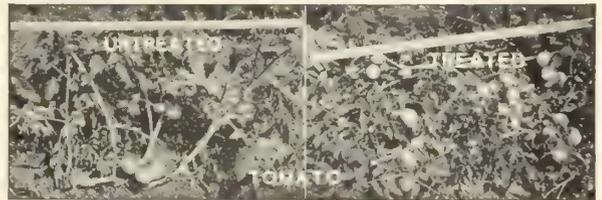
BLACKBERRIES. Blowers, Eldorado.
10, \$2.25; 100, \$12.50.

DEWBERRIES. Lucretia. 10, \$1.30; 100, \$7.50.

RASPBERRIES. Cumberland-black; Latham-red; St. Regis-red, everbearing; Indian Summer-red, everbearing.
10, \$2.25 100, \$12.50.

BLUEBERRIES. 2 yr. 12-18 in. Burlington, Concord, Jersey, Rancocas, Rubel, \$1.75 ea.; 10, \$12.50.

BOYSENBERRIES. Thornless. 10, \$2.00; 100 \$12.50.



TRANSPLANTONE

For all plants and trees. No set-back from transplanting, insurance against replanting and an aid to earlier production. See page 77.

FRUITONE

The hormone spray for stopping premature drop of fruit, flowers and leaves. See page 77.

STRAWBERRY PLANTS

MARCH 1st 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-Fairfax-Premier. Early varieties. \$2.25 per 100; 500 for \$7.50.

Big Joe-Catskill. Midseason. \$2.25 per 100; 500 for \$7.50.
Chesapeake. Late. \$2.25 per 100; 500 for \$7.50.

BERRY BOXES

Pints	.....	100	
Quarts	.....	\$1.50	Let us
2 qt. Tills	.....	1.50	quote
3 qt. Tills	.....	3.75	quantity
	.....	4.00	price.

(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 basal 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 Sept.	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.	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. Thrives best on well drained heavy soil, rich in organic matter and all fertilizing elements.
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 root-stocks 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 phosphorus 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.	Harvest when kernels well glazed and dented, shuck and bottom leaves dry and upper leaves $\frac{1}{4}$ to $\frac{1}{2}$ green. For ensilage harvest in early glaze stage, shucks yellow.
Clover Alsike	60	5-8	Aug.-Sept. Feb.-Apr.	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 $\frac{1}{2}$ to 1 ton hydrated lime is beneficial.	Primarily a forage crop. Largely used in hay mixtures but frequently sown by itself for hay.	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, and 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.	Pasture, furnishes early grazing.	Use about 2 lbs. per acre in pasture mixture. Tolerant to acid soils but responds to lime.
Cowpeas	60	1 $\frac{1}{2}$ 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.	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 Sept.	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 Sept.	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.	For hay sow on fertile moist land. 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.
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 Sept. 15 Spring Feb.-Mar.	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	Mar.-Apr. Aug.-Sept.	Heavy feeder and responds to manure and fertilizer. Requires lime for best results.	Pasture for hogs and sheep.	Thrives on rich, moist loamy soil.
Red Top Grass	32	5-10	August-Sept.	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.	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	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. 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. 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.-Apr. 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 sipping 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. Rye	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.

Inoculate all Legume Seeds with

NITRAGIN

1898—FIFTY-TWO YEARS OF SERVICE—1950

When ordering, Always state name of seed.

ALFALFA (A) Swt., Bur, Hubam Clovers Size Retail 1 bu. each...\$.50 2½ bu. each... 1.00	SOYBEANS (S) Size Retail 2 bu. each.....\$.30 5 bu. each..... .50 25 bu. each..... 2.25 (One can) 30 bu. each..... 2.95 (6-5 bu. cans)
CLOVERS (B) Red, Alsike, Crimson, White and Ladino. 1 bu. each...\$.50 2½ bu. each... 1.00	BEANS (D) Navy, Pinto, Wax, String, Kidney and Great Northern 1 bu. each.....\$.50
COMBINATION (AB) 1 bu. each .....\$ .50	PEANUTS, COW PEAS (E) 2 bu. each.....\$.30 5 bu. each..... .50
LESPEDEZA (L) 100 lb. size (Inoculates up to 100 lbs.) ..\$.50	
PEAS, VETCHES (All Varieties) 100 lb. size (Inoculates up to 100 lbs.) ea.\$.50	

GARDEN SIZE—Peas, Beans, Sweet Peas, Lupines, Lima Beans and Edible Soybeans
 Enough for 8 lbs. seed — Retail Price 15c each

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

BIRD SEED

FRESH, RECLEANED STOCK
 Postage Extra

Canary ..lb. 20c	Lettuce Seed ..lb. 25c
Rape ..lb. 25c	Mixed Canary Seed ..lb. 20c
Millet ..lb. 15c	Cuttle Fish Bone ¼ lb. 40c
Hemp ..lb. 30c	
Sunflower 4 lbs. \$1.00	

Wild Bird Seed, lb., 15c; 25 lbs., \$3.50; 100 lbs., \$12.00.



THE "CYCLONE" SEED SOWER
 THE SOWER THAT SCATTERS EVENLY

Cyclone illustrated\$3.75

MANNS' PERMANENT PASTURE MIXTURE

\$15.75 Per Acre

10 VARIETY SPECIAL (UPLAND)

Contains re-cleaned 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., 57c; 100 lbs., \$52.50. (Low Lands—sow 25 lbs. plus 5 lbs. Red Top per acre.)

MANNS' SUPERIOR FLOWER SEEDS

12—10c Packages \$1.00—Your selection—pages 43-55



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 Iberis, Sempervirens
- Lobelia
- Nasturtium
- Marigold
- x Nierembergia
- Pansy
- x Papaver, Nudicaule
- Petunia
- x Phlox, Subulata
- Portulaca
- x Sedum

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
- 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, Drummondii
- Salpiglossis
- Scabiosa
- Snapdragon
- Stocks
- Strawflower
- Xeranthemum
- Zinnia

TALL VARIETIES

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

WINDOW BOXES

- Ageratum
- Alyssum
- Begonia
- Centaurea
- Lobelia
- Nasturtium
- Pansy
- Petunia
- Phlox
- Portulaca
- Salvia Splendens
- Thunbergia
- 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.

For very vigorous young plants in early spring the following may be sown outdoors in November: *Ageratum*, *Alyssum*, *Baby's Breath*, *Calendula*, *Calliopsis*, *Candytuft*, *Clarkia*, *Cornflower*, *Cosmos*, *Cynoglossum*, *Dianthus*, *Larkspur*, *Nigella*, *Shirley Poppies*, *Snapdragons* and *Sweet Peas*.

Annuals bloom more profusely than biennials or perennials, but it is advisable to cut the flowers before going to seed so that the plants continue to bloom freely.

For Variety, Color, Fragrance, Economy Sow Annuals

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 Mixed.** Height 1½ feet. Pkt., 10c; ¼ oz., \$1.00. **Dwarf Mixed.** Height 6-8 inches. Pkt., 10c; ¼ oz., \$2.00.

DWARF COMPACTUM BLUE CAP.
Miniature. Pkt., 15c; ½ oz., 85c.

DWARF COMPACTUM MIDGET BLUE.
Rich blue. Pkt., 15c; ½ oz., \$1.25.

DWARF COMPACTUM PURPLE PERFECTION.
Deepest blue. Pkt., 15c; ¼ oz., \$1.00.

SEMI-DWARF BLUE PERFECTION.
Medium blue. Pkt., 15c; ¼ oz., \$1.00.

ALYSSUM

LITTLE GEM. Very popular border flower, coming into bloom six weeks after sowing 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., \$1.50.



Crego Aster

Varieties marked * suitable for Rock Gardens.

POTTED PLANTS

The following varieties are usually available at our store after May 10th. Regret we cannot mail, deliver or ship potted plants.

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

Chrysanthemums—See page 52

ANNUAL FLOWER GARDEN MIXTURE (2 to 3 ft. tall). Pkt. 15c, Oz. 65c, Lb. \$6.50.

PROCUMBENS SNOW-CLOTH. Compact mass of pure white flowers. 3-4 inches high by 8 inches wide. Pkt. 15c; ¼ oz., 40c.

VIOLET QUEEN. Dwarf compact free flowering rich violet; does not fade in hot weather. Height 4 inches. Pkt., 15c; ¼ oz., 45c.

ANTIRRHINUM OR SNAPDRAGON (Rustproof)

This border and bedding plant of long blooming season is one of the best perennials suitable for flowering as an annual. Very desirable for cutting as the blooms are borne well above the dark glossy leaves and keep fresh for a long time.

SEPARATE COLORS. Crimson, White, Yellow, Pink. Pkt., 25c; ½ oz., \$1.15.

TALL MIXED. 2½ to 4 ft. Pkt., 10c; ¼ oz., 85c.

TETRAPLOID MIXED. 2½ to 4 ft. Commercial florist strain. Vigorous grower. Florets huge, mostly ruffled, twelve inch flower spikes are usual. Full range of colors, majority of flowers richly veined. Pkt., 10c; ¼ oz., \$2.50.

SEMI-DWARFED MIXED. 1 to 1½ ft. Pkt., 10c; ¼ oz., \$1.00.

ASTERS (Wilt Resistant)

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.

PRINCESS. Flowers 3 in. in dia. Deeply quilled cushion centers; branching habit, ideal for bedding and cut flowers.

Mixed, Pkt., 15c; ¼ oz., \$1.00.

AMERICAN BRANCHING. A handsome and very distinct variety resembling Japanese *Chrysanthemums*. The plants grow 2 feet in height and width and the large full petaled blossoms are borne on long stems or branches. Comes into flower in July or early August.

Mixed, pkt., 10c; ¼ oz., 50c.

CREGO. Flowers of immense size, 4 to 5 inches in diameter with very long stems during late summer and fall. Plants are of strong branching growth, 2 to 2½ feet high. Separate colors, Pkt., 10c; ¼ oz., 50c. Mixed, Pkt., 10c; ¼ oz., 50c.

CALIFORNIA SUNSHINE. Flowers measure 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. Fine for cutting midseason, height 3 ft. Mixed, pkt., 10c; ¼ oz., \$1.00.



Centaurea

AMARANTHUS

Very useful in borders among shrubs, or in centers of large beds. Thrives best in a warm, sunny location and a soil that is not too rich but contains an ample supply of lime. Blooms June to frost.

CAUDATUS. (Love Lies Bleeding.) Plants of erect growth 2½ feet high producing numerous feathery sprays of rich crimson color. **Pkt., 10c; ¼ oz., 25c.**

MOLTEN FIRE. Very ornamental and beautiful; 3 feet tall; easily grown, leaves dark bronze, top of plant brilliant Poinsettia red. **Pkt., 15c; ¼ oz., 65c.**

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, June to October. **Pkt., 10c; ¼ oz., 50c.**

ANCHUSA (Summer Forget-Me-Not)

BLUE BIRD. Vivid indigo blue, plants compact and of even growth. 18 in. Blooms throughout the summer. **Pkt., 15c; ½ oz., 60c.**

BALSAM OR LADY SLIPPER

Quick growing annual, producing numerous flowers resembling tiny roses. Blooms throughout the summer and early fall. An old favorite for beds and borders. 2 feet. **Splendid double mixed, pkt., 10c; ¼ oz., 40c.**

BARTONIA (Golden Yellow)

AUREA. Large, showy flowers, 3 inches in diameter; deep golden yellow. Blooms early, 18 inches. **Pkt., 15c; oz., \$1.00.**

CANDYTUFT

Hardy annual clusters of small flowers, beautiful and useful for beds, borders, rock gardens and cutting. Height 12 inches. Blooms May to July.

FINEST HYBRID MIXTURE OF ALL COLORS.
Pkt., 10c; oz., 60c.

CALENDULA—POT MARIGOLD

Effective in beds or potted; showy, free-flowering, hardy annuals. Blooms continuously from June until frost. 15 to 24 inches.

EXTRA DOUBLE ORANGE KING. Rich orange red. **Pkt., 10c; ½ oz., 50c.**

FINEST MIXED. **Pkt., 10c; oz., 60c.**

BALL'S, IMPROVED GOLDEN ORANGE. Long stemmed extra double, excellent for forcing. **Pkt., 15c; ¼ oz., 30c.**

LEMON QUEEN. Light golden-yellow flowers, light center, showy for bedding and borders. **Pkt., 10c; ½ oz., 50c.**

ORANGE SHAGGY. Very distinct type having long narrow fringed petals. Flowers 3 in. across. Somewhat resembling rich deep orange Chrysanthemums, long stems, grows 18 in. high. **Pkt., 10c; ½ oz., 50c.**

RADIO. Medium sized, clear orange, closely set petals, attractively quilled. **Pkt., 10c; ½ oz., 50c.**

CAMPANULA—CANTERBURY BELLS

An old-fashioned favorite, stately, showy, and easily grown. Bell-shaped flowers on long upright stems. Plants form perfect pyramids about 2 ft. high and bloom in early summer. **Mixed, pkt., 10c; ¼ oz., 60c.**

CARNATION (Marguerite)

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

CELOSIA OR COCKSCOMB

Excellent for cutting. Blooms June to frost.

PLUMOSA. Feathered varieties, fiery red, scarlet-carmine, yellow or mixed, height 2 to 3 ft. **Pkt., 15c; ¼ oz., 35c.**

DWARF EMPRESS COCKSCOMB. Dark-leaved, bright crimson. Height 10 in. **Pkt., 15c; ¼ oz., 75c.**

TALL EMPRESS COCKSCOMB MIXED. Height 1½ ft. **Pkt., 15c; ¼ oz., 30c.**

CHILDSII. (Chinese Woolflower.) Crimson. Height 2½-3 ft. **Pkt., 15c; ¼ oz., 80c.**

CENTAUREA

CENTAUREA CYANUS; 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.** Height 2-2½ ft. Blooms from mid-summer until frost. **Pkt., 10c; oz., 60c.**

CENTAUREA MOSCHATA OR SWEET SULTAN. Beautiful, sweet scented flowers borne on long stems, when cut will last for several days. Height 2½-3 ft. **Mixed. Pkt., 10c; ¼ oz., 50c.**

CORNFLOWER, JUBILEE GEM.—Dwarf plants, 1 foot, freely blooming, vivid blue. **Pkt., 10c; ¼ oz., 35c.**



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. Height 2 ft. Blooms from summer until frost.

Single, Mixed. Pkt., 10c; ¼ oz., 25c.

CLARKIA

Very pretty, profuse flowering annuals. Useful for hanging baskets. Height 2 ft. Blooms June until frost.

Double mixed. Pkt., 10c; ¼ oz., 35c.

CALLIOPSIS

Showy plants with numerous flowers, excellent for bouquets. Thrive well in any soil. Height 2-3 ft. Blooms all summer. Pkt., 10c; ¼ oz., 30c.

COSMOS

One of the most satisfactory hard annuals, flowering in late summer. Fine for cutting and easily grown. Can be sown anywhere and transplanted.

EARLY KLONDIKE ORANGE FLARE. Bright vivid orange, very free flowering. 2-3 ft. Pkt., 10c; ¼ oz., 25c.

RADIANCE. All American Winner 1948. A striking new color combination never before seen in Sensation Cosmos. Deep rose petals overlaid with large well-defined zone of rich crimson. Pkt., 15c; ¼ oz., 50c.

SENSATION. Extremely early free blooming, flowers 4 to 5 inches, plants 4 ft. with rather heavy foliage. White, Pink and Mixed. Pkt., 15c; ¼ oz., 25c.

DOUBLE EARLY FLOWERING MIXED. Blooms 3 in. Height 4 ft. Pkt., 10c; ¼ oz., \$1.00.

CYNOGLOSSUM

(Chinese forget-me-not)

AMABLE. Dwarf sweet scented, blue. Pkt., 10c; ½ oz., 25c.

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.

TETRAPLOID HEDDENSIS. Large long stemmed hybrids, very large double flowers. Plants 10-12 inches. Pkt., 10c; ¼ oz., 40c.

HEDDEWIGI LACINIATUS SINGLE GAIETY MIXED. 10 to 12 in. Large lacy flowers in a brilliant range of colors. Pkt., 15c; 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. Orange-gold daisy-like blooms on long stems. Bushy plants 12-15 inches tall. Bloom until frost. Pkt., 10c; ¼ oz., 80c.

EUPHORBIA

VARIEGATA (Snow on the Mountain). Bright green foliage veined and margined with white, top leaves snow white. Height 2 ft. Pkt., 10c; ½ oz., 50c.

GILIA

Exceedingly graceful and attractive, with azure blue starlike flowers, borne profusely on plants 3 ft. tall; a good cut flower. Blooms from July until frost. Tall mixed. Pkt., 15c; ¼ oz., 35c.

GLOBE AMARANTH-GOMPHRENA

One of the best "Straw flowers." Perfect globe shape. Fine for borders and cutting. Height 2 ft. Blooms mid-summer until frost. Mixed colors. Pkt., 10c; ¼ oz., 30c.



Cosmos Radiance

Varieties marked * suitable for Rock Gardens.



Dimorphotheca



Larkspur



Gilla

GOETIA (Satin Flower)

DOUBLE-DWARF MIXED. Azalea flowered. Plants grow 1 foot high, and bloom from June to August. Flowers 3-4 inches across. Excellent for cutting and easily grown. Pkt., 10c; ¼ oz., 70c.

GYPSOPHILA (Baby's Breath)

Graceful plants with light fairy-like growth. A quick growing annual with myriads of small open bell-shaped single flowers, excellent for their delicate effect in bouquets. Height 2 ft. Pkt., 10c; oz., 50c.

HELIANTHUS

CHRYSANTHEMUM FLOWERED. Golden yellow double blooms 6 to 8 inches across. Used as backgrounds or screens on account of their stately growth. Thrives in almost any soil exposed to the sun, blooms until frost. Height 6-7 ft. Pkt., 10c; ¼ oz., 25c.

HELICHRYSUM (Everlasting Flower)

MONSTROSUM. The center of the double pompon-like flower is nearly covered by the still overlapping petals. Height 2 ft. Blooms from June to November. Mixed. Pkt., 10c; ¼ oz., 45c.

HOLLYHOCK

SINGLE ANNUAL FINEST MIXED. Pkt. 10c; ¼ oz., 35c.

KOCHIA—SUMMER CYPRESS

Quick growing hedge plant. Very symmetrical and attractive, the bushes taking on a distinctive red tinge late in the summer; for this reason often called Mexican Fire Bush. Height 2-3 ft. Pkt., 10c; ½ oz., 25c.

LARKSPUR

For Perennial Larkspur see Delphinium.

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.

GIANT IMPERIAL DOUBLE. Height 3-4 ft. White, Carmine Rose, Blue, Pink, or Mixed. Pkt., 10c; ¼ oz., 35c; 1 oz., \$1.10; ¼ lb., \$3.50; 1 lb., \$10.00.

REGAL. Tremendously long thick spikes, full Delphinium-like florets, compact, basal branching habit; vigorous and early. Height 3-4 ft. Dark blue, Rose, White or Mixed. Pkt. 15c; ¼ oz., 90c.

ROSAMOND. Tall double stock flowered, early, free flowering, pure deep pink. Height 3-4 ft. Pkt., 15c; ¼ oz., 50c.

LANTANA

DWARF HYBRIDS MIXED. Pkt., 10c; ¼ oz., 60c.

LOBELIA

CRYSTAL PALACE COMPACTA. Desirable for edgings, bedding and pot culture. Dark blue flowers, dark foliage throughout the summer. Height 4 inches. Pkt., 10c; ½ oz., 65c.

CAMBRIDGE BLUE COMPACTA. Light blue, large flowered, green foliage. Pkt., 15c; ½ oz., 90c.

LUPINUS

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

HARTWEGII GIANT KING MIXED. Height 2-3 ft. Pkt., 10c; ¼ oz., 35c.

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. Excellent for cutting. Blooms July to frost.

AFRICAN (TALL) VARIETIES

AFRICAN. Mixed. Double. Pkt., 10c; ¼ oz., 45c.

MAMMOTH MUM. Large double fluffy light sulphur-yellow flowers resembling Chrysanthemums. Plants bushy, erect and strong. Height 3 ft. Pkt., 15c; ¼ oz., \$1.25.

GUINEA GOLD. Orange flushed with gold, flowers semi-double. Height 2 to 2½ feet. Pkt., 10c; ¼ oz., 35c.

CROWN OF GOLD. Collar type, rich golden yellow, chrysanthemum formed, fragrant, double. 2½-inch blooms. Height 2 ft. Pkt., 10c; ¼ oz., 45c.

SUNSET GIANTS. Largest known Marigolds, measuring 5 inches or more, ranging in color from deep orange to lemon-yellow, and a new delightful shade of primrose. Fragrant. Height 3-4 ft. Pkt., 10c; ¼ oz., 45c.

FRENCH (DWARF) VARIETIES

BUTTERBALL. Extra dwarf double, soft butter yellow. Height 6 to 8 in. Pkt., 15c; ¼ oz., 45c.

FLASH. Extra early, free flowering, single orange-red profuse blooms. Height 1½ ft. Pkt., 10c; ¼ oz., 30c.

FRENCH. Dwarf double mixed. Height 1 ft. Pkt., 10c; ¼ oz., 40c.

MELODY. Dwarf French double, solid bright orange. Height 1 ft. Pkt., 15c; ¼ oz., 25c.

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. Height 2 ft. Mixed. Pkt., 10c; oz., 80c.

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. Height 12-15 inches. Pkt., 15c; ¼ oz., 30c.

MATHIOLA (Evening Scented Stock)

BICORNIS. Lilac, 2 ft. Pkt., 10c; ¼ oz., 25c.



Lobelia



Lupins



Nigella

NASTURTIUM

Popular plants of the easiest culture. Will bloom most prolifically if given a rather poor soil and an open sunny location. Fine for edgings, beds or borders. Blooms June to frost.

DWARF MIXED. Very brilliant in all shades of yellow, red and purple. Height 9 in. Pkt., 10c; oz., 25c; ¼ lb., 75c.

DOUBLE GLEAM HYBRIDS. Large well-formed, sweet-scented double flowers in an extremely wide range of colors. Height 15 in. Golden, Scarlet or Mixed. Pkt., 10c; oz., 25c.

TALL TRAILING—CHOICE MIXED. Height 10 ft. Pkt., 15c; oz., 25c; ¼ lb., 75c.

NICOTIANA

AFFINIS. Gives a continuous display of very fragrant flowers through the summer and autumn. Height 2-3 ft. Mixed. Pkt., 10c; ¼ oz., 30c.

NIGELLA OR LOVE-IN-A-MIST

Free-flowering plant, producing curious flowers surrounded by the finely cut foliage. Easily grown; useful for cutting. Height 1½ ft.

DOUBLE BLUE. Pkt., 10c; ¼ oz., 40c.

ORNAMENTAL GRASS

Vigorous plants, grown for their gray ornamental seeds which when dried are used for beads. Height 2-3 ft.

COIX LACRYMA. (Job's Tears.) Pkt., 15c; oz., 40c.



Nasturtium

PANSIES

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. For summer flowers however partial shade will greatly prolong the blooming season. Height 8 in.

MAMMOTH EXHIBITION MIXTURE. True round and solid pansy form of giant size, each color an attraction. Pkt., 10c; ½ oz., \$1.00; oz., \$6.00.

BOGGLI'S GIANT MIXED. Swiss Giant type but a freer bloomer in a fine range of colors. Pkt., 15c; ½ oz., \$1.00.

TRIUMPH OF THE GIANTS. (Fruited.) Finest for commercial use. Blooms enormous, most striking in brilliancy and beauty of color. Pkt., 10c; ½ oz., \$1.00.

SWISS GIANT ALPENGLOW. Rich garnet and ruby red shades with dark blotches. Pkt., 15c; 1/16 oz., \$1.75.

SWISS GIANT CORONATION GOLD. Large golden yellow, without blotches or marking. Pkt., 15c; 1/16 oz., \$1.75.

SWISS GIANT ULLSWATER. Marine blue with darker blue blotches showing through. Pkt., 15c; 1/16 oz., \$1.75.

PETUNIAS

Of easy culture. For beds, borders, window boxes or hanging baskets.

GIANTS OF CALIFORNIA. Huge blooms in light and dark colors, fringed and ruffled, with attractive deep throats. Height 12 in. Mixed. Pkt., 10c; 1/16 oz., \$6.00.

HOWARD'S STAR. Rose-crimson with a five-pointed white star. Height 18 in. Pkt., 10c; ¼ oz., \$1.60.

DWARF BEDDING VARIETIES (Height 12 in.)

BLUE BEDDER. Mid-blue. **ROSY MORN.** Pink white throat.
ROSE OF HEAVEN. Deep brilliant rose. **SNOW QUEEN.** Large white.

Separate colors or Mixed. Pkt., 15c; ¼ oz., \$1.60.

DWARF ELK'S PRIDE. Deep Purple. Pkt., 25c; 1/16 oz., \$6.00.

FIRE CHIEF. All American, brilliant red. Pkt., 25c; ½ oz., \$1.25.

FLAMING VELVET—Rich, brilliant, velvety crimson, hybrida type. Height 18 in. Pkt., 10c; ¼ oz., \$1.70.

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. Height 18 in. Mixed. Pkt., 10c; ¼ oz., \$1.60.



Stocks



Schizanthus



Salpiglossis

PHLOX

Phlox makes a magnificent 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. Height 15 in. Pkt., 10c; ¼ oz., \$1.50.

***STAR PHLOX.** (Cuspidata.) With star-shaped flowers, dwarf growth. Height 12 in. Pkt., 10c; ¼ oz., \$1.50.

POPPIES

TULIP POPPY. One of the most brilliant annuals, the flowers are 3 inches in diameter and of a scarlet color, greatly resembling tulips. Height 20 in.

Pkt., 10c; ¼ oz., 60c.

THE SHIRLEY. Special strain mixed; fine for bedding or cutting; single annual. Height 20 in.

Pkt., 10c; ¼ oz., 25c.

ESCHSCHOLTZIA. (California Poppy.) Spreading plants 1 foot high, suitable for beds and borders, blooming from June until frost. Mixed. Pkt., 10c; ¼ oz., 25c.

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. Height 6 in.

***LARGE-FLOWERING EXTRA DOUBLE MIXED.**

Pkt., 10c; ¼ oz., \$1.10.

***LARGE-FLOWERING SINGLE MIXED.** All colors. Pkt., 10c; ¼ oz., 55c.

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. Height 6-8 ft.

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., 90c.

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. From midsummer until frost. Height 3½ to 4 feet.

IMPERIAL HYBRIDS MIXED. Pkt., 10c; ½ oz., 75c.

IMPERIAL GIANT BLUE MOON. Deep lavender blue.

Pkt., 15c; ¼ oz., 45c.

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., \$1.25.

BLAZE OF FIRE. Begins blooming 10 days earlier than any other early flowering Salvia. Dwarf type. Height 12 in. Pkt., 15c; ½ oz., \$2.75.

HARBINGER. Dwarf compact plants with bluish green foliage and a profusion of scarlet flowers. Height 16 in. Pkt., 15c; ½ oz., \$1.50.

SCHIZANTHUS

***MONARCH HYBRID MIXED.** A plant noted for its wonderful variety of coloring and butterfly-like blossoms, fine for cutting, graceful fern-like foliage, height about 18 inches. Blooms May and June. Pkt., 10c; ¼ oz., \$1.00.

SNAPDRAGON

See Antirrhinum, page 43.

STATICE (Annual)

Suitable for growing in rock gardens and when dried used for winter bouquets. Splendid clusters of colorful, strawy blooms on stiff stems. Blooms all summer. Height 2 ft.

***SINUATA CHOICE MIXED.** Pkt., 10c; ¼ oz., 25c.

STEVIA

SERRATA. Grown outdoors or as a home plant for its dainty, fragrant, tiny white, star-shaped flowers produced profusely. Excellent cut flower for combining with other varieties. Height 2½ ft. Pkt., 15c; ½ oz., 65c.

STOCKS-10-WEEKS

Deliciously-scented flowers like small rosettes are produced in a wide range of soft and distinct shades. Fine for bedding, borders and cutting. Blooms May to July.

DOUBLE EARLY GIANT IMPERIAL. (Improved Bismarck.) Height 26 in. Mixed. Pkt., 10c; ½ 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. Height 20 in. Pkt., 15c; ¼ oz., 85c.

DWARF DOUBLE LARGE FLOWERED MIXED. Height 12 in. Pkt., 10c; ¼ oz., 75c.

***VIRGINIA.** Very early bedding variety. Bearing a profusion of small flowers continuously during cool weather. Height 6 in. Mixed. Pkt., 10c; ½ oz., 75c.

Varieties marked * suitable for Rock Gardens.

SWEET PEAS

CALIFORNIA GROWN SUCCESSFUL EVERYWHERE

One Ounce for 30 to 40 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. Fall sowing has proven very desirable in the vicinity of Baltimore by preparing the ground in October and sowing the seed in November. Plant about 4 in. deep and after the ground is frozen hard, mulch with 3 or 4 in. of light litter. Remove the mulch very early in the spring.

Early Flowering Spencer

(FLORISTS WINTER FLOWERING)

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

HARMONY. Clear lavender.

MARINER. Best clear blue.

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.
Pkt., 15c; oz., 50c; ¼ lb., \$1.50; lb., \$5.00.

Cuthbertson Garden Varieties

An ideal strain for gardeners. Superior to other types in vigor, profusion of large fragrant flowers, and longer stems. The chief advantage outdoors is their longer blooming period, due to their ability to withstand warm weather.

COLINE. Intense Vivid Scarlet.

EVELYN. Salmon Cream Pink.

FRANK G. Rosy Lavender.

JANET. Large Frilled White.

LOIS. Clear Rose Pink.

TOMMY. Clear Medium Blue.

Pkt., 15c; oz., 45c; ¼ lb., \$1.25; lb., \$3.75.



Spencer Sweet Peas

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.

CUTHBERTSON. Finest Mixed.

Pkt., 15c; oz., 35c; ¼ lb., 95c; lb., \$2.75.

MANN'S SUPERB SPENCER MIXTURE.

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

SUMMER POINSETTIA

See *Amaranthus Molten Fire*.

TITHONIA

SPECIOSA GRANDIFLORA FIREBALL. Brilliant orange-scarlet single dahlia-like flowers 3 to 4 inches across, dark green foliage, blooms in fall, depending on soil and climate. Height 6 ft. Pkt., 10c., ¼ oz., \$1.20.

Varieties marked * suitable for Rock Gardens.

VERBENA

One of the finest bedding plants and also suitable for borders, with its heads of brilliantly colored flowers, producing a 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. Height 1½ ft. Pkt., 10c; ¼ oz., 90c.

HYBRIDA GRANDIFLORA. Dwarf mixed. Pkt., 15c; ¼ oz., \$1.75.

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. Height 1 ft. Choice mixed. Pkt., 10c; ¼ oz., \$1.00.

ZINNIAS—DOUBLE

DAHLIA FLOWERED IN SEPARATE COLORS
 Height 2½-3 ft.

CRIMSON MONARCH. Deep crimson.

DREAM. Deep lavender purple.

GOLDEN DAWN. Golden yellow.

ILLUMINATION. Deep soft pink.

POLAR BEAR. Pure white.

WILL ROGERS. Scarlet.

Pkt., 15c; ¼ oz., 35c.

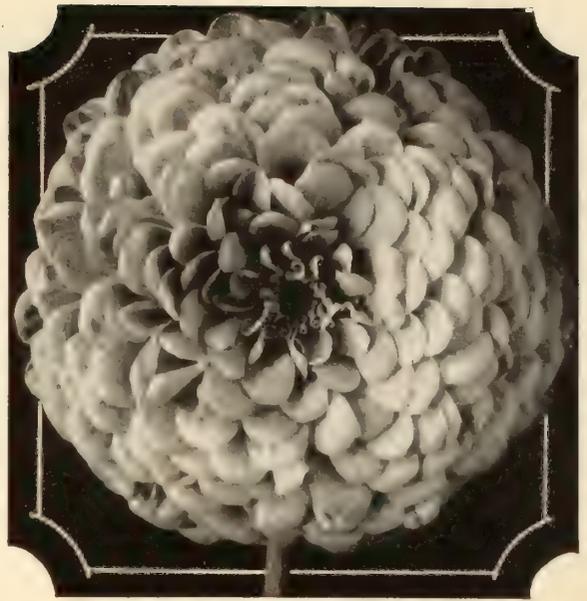
DAHLIA FLOWERED MIXED. Pkt., 10c; ¼ oz., 35c.

GIANT FLOWERED MIXED. Height 3-4 ft. Pkt., 10c; ¼ oz., 35c.

PASTEL GIANTS MIXED. Pkt. 10c; ¼ oz., 35c.

EARLY WONDER FINEST MIXED. Earliest of all Zinnias. 3 to 4 in. flowers on long wiry stems. Plants have no laterals and practically no leaves. Bred for cut flower use. Height 1½ to 2 ft. Pkt., 15c; ¼ oz., 50c.

CROWN O'GOLD PASTEL TINTS. Large well formed flowers each petal tipped with gold. Pkt., 15c; ¼ oz., 35c.



Dahlia Flowered Zinnia

FANTASY. Large, well-rounded, informal graceful Chrysanthemum shaped blooms on long stems in the usual range of zinnia colors. Height 2½-3 ft. Pkt., 10c; ¼ oz., 35c.

DOUBLE LILLIPUT. Dainty profuse blooming type; flowers 1 inch in diameter, very popular. Orange, Salmon Rose, Lilac, Pink, Scarlet, Mixed. Height 1½-2 ft. Pkt., 15c; ¼ oz., 35c.

TOM THUMB FINEST MIXED. Well formed flowers of the Lilliput type, for pot plants and borders. Height 6 to 8 in. Pkt., 15c; ¼ oz., 65c.

Vines

BALLOON VINE. (Cardiospermum.) Very graceful, rapid grower. Climber with clusters of small white flowers followed by large, inflated balloon-shaped seed pods. Height 10 ft. 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 in a carmine covering. (10-12 ft.) Pkt., 10c; ¼ oz., 50c.

CARDINAL CLIMBER. (Ipomoea 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 Maple. (15-25 ft.) Pkt., 10c; ¼ oz., \$1.50.

COBAEA SCANDENS. Of rapid growth, with fine foliage and large bell-shaped flowers of a beautiful violet blue color. (10-20 ft.) Pkt., 10; ¼ oz., 90c.

CYPRESS VINE. (Ipomoea quamoclit.) Beautiful and very popular, slender vine, with fern-like foliage and a mass of small star-shaped flowers. (10 ft.) Scarlett. Pkt., 10c; ¼ oz., 85c.



Gourds

GOURDS. A large and interesting class producing a great variety of curious fruits, many of which are peculiarly marked. (12 ft.) Pkt., 10c; oz., 40c.

HYACINTH BEAN (Dolichos.) Of extra rapid growth, introduced from Japan and very much superior to the old-fashioned flowering bean. (15 ft.) Mixed. Pkt., 10c; oz., 40c.

KUDZU VINE. Pkt., 15c; ¼ oz., 35c.

MOON FLOWER. (Ipomoea mexicana.) Very pretty, rapid growing vine, with handsome trumpet-shaped flowers. (15 ft.) Pkt., 10c; ¼ oz., 20c.

MORNING GLORY

Giant Japanese Imperial Mixed. (10 ft.) Pkt., 10c; ¼ oz., 30c.

Double Rose Marie. Deep rose. Pkt., 15c; ½ oz., 65c.

Scarlet O'Hara. Rich dark wine red or deep rosy crimson, 3½ inch diameter. (10 ft.) Pkt., 10c; ¼ oz., 50c.

Heavenly Blue. Sky blue, shading golden yellow in throat, 4 inch diameter. (10 ft.) Pkt., 10c; ¼ oz., 30c.

Pearly Gates. Enormous flowers, 4½ inches across, clear shining white. (10 ft.) Pkt., 10c; ¼ oz., 35c.

PASSION FLOWER. (Passiflora.) A most interesting and well known climber, bearing singularly beautiful flowers. Blue and white mixed. Pkt., 10c; ¼ oz., \$1.00.

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. (5 ft.) 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. (20 ft.) Pkt., 10c; oz., 15c.

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:

ALYSSUM

***SAXATILE—Compactum.** An excellent border and rock garden plant covered with bright sulphur-yellow flowers during early spring. Height 9 in.

Pkt., 10c; ¼ oz., 40c; oz., \$1.25.

ANEMONE

***CORONARIA ST. BRIGID.** Semi-double and double flowers in a wonderful array of brilliant colors. Blooms in June. Height 18 in. Pkt., 10c; ¼ oz., \$1.25.

AQUILEGIA OR COLUMBINE

LONG SPURRED GIANT HYBRIDS. Very hardy, blooming profusely early in the season and during the summer a dainty cut flower and an attraction in the perennial border. Height 3 ft. Pkt., 10c; ½ oz., \$1.50.

MRS. SCOTT ELLIOTT HYBRIDS. The world's finest strain, consisting of the most wonderful colors, with very long spurred flowers. Height 3 ft. Pkt., 15c; ½ lb., \$1.25.

***COERULEA—The Rocky Mountain Columbine.** Blue, blooms during June. Height 2 ft. Pkt., 10c; ½ oz., \$1.25.

ARABIS—Rock Cress

***ALPINA.** An excellent early blooming dwarf perennial, covered with a mass of white flowers. It makes a fine border for taller perennials. Blooms during April. Height 6 in. Pkt., 10c; ¼ oz., 30c.

ARMERIA—Sea Pink

***FORMOSUM HYBRIDS.** Dwarf plants with grassy leaves and clover-like flower heads from May until July in various shades of pink. Height 1½ ft. Pkt., 10c; ¼ oz., 60c.

BOSTON IVY

AMPELOPSIS VEITCHIL. Popular wall ivy with three lobed leaves which turn to bright red late in the fall. Attains a height of 20 to 30 feet in 2 or 3 years. Pkt., 15c; ¼ oz., 40c.

CACTUS

MIXED VARIETIES. All kinds and forms mixed including rare sorts. Easily and quickly grown; very interesting pot plants. Pkt., 10c; 1/16 oz., 75c.



Anemone

BELLIS (Double English Daisy)

Dwarf plant which bears very double aster-like flowers. Useful for border or for cut flowers. Blooms April to July. Height 6 inches.

MONSTROSA. Doubled Red. Pkt., 10c; ½ oz., \$1.50.

MONSTROSA. Double Mixed. Pkt., 10c; ¼ oz., \$1.60.



Aquilegia

Varieties marked * suitable for Rock Gardens.

CAMPANULA—CANTERBURY BELLS

CALYCANTHEMA. Hardy Biennial. Tall, erect growing plants, completely covered with large cup and saucer shaped flowers during May and June. Height 3 ft. Mixed. Pkt., 10c; ¼ oz., 70c.

CANDYTUFT

***IBERIS SEMPERVIRENS.** Large heads of white flowers. Height 1 ft. Pkt., 10c; ¼ oz., \$1.30.

GIBALTARICA. White flushed lilac. Blooms during June and July. Height 10 in. Pkt., 15c; ¼ oz., 60c.

QUEEN OF ITALY. Rosy lilac. Pkt., 15c; ¼ oz., 60c.

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. Carnations like lime. Compact plants about a foot tall, displaying an excellent range of bright colors. Height 1 ft. Mixed Dwarf. Pkt., 10c; ¼ oz., \$3.50.

MARGUERITE. Half Dwarf. Height 15 to 18 in. Choice double mixed. Pkt., 10c; ¼ oz., \$1.30.

PERPETUAL (Famous Chaudaud Type). White. Height 2 ft. Pkt., 15c; ¼ oz., \$2.15. Choicest mixture. Pkt., 10c; ¼ oz., \$1.30.

CHRYSANTHEMUM PLANTS

Hardy Garden Varieties

40c Each \$4.50 Per Doz.

LARGE FLOWERED

AVALANCHE , white	MRS. P. D. DUPONT , peach
CHARLES NYE , yellow	ORIENTAL GLORY , red
EMBER , bronze	SEPT. DAWN , lavender
MRS. FINDLAY , yellow	TIFFANY ROSE , rose

NEW LARGE ENGLISH

(Tall Early Flowering)

ALABASTER , white	GOLD STANDARD , yellow
CONQUEROR , red	LEDA , pink

POMPOMS AND BUTTONS

BURGUNDY , wine	IRENE , white
CAROLYN YOSICK , lavender	JUDITH ANDERSON , yellow
EARLY WONDER , pink	RED FLARE , red
MANDALAY , bronze	ZANTHA , yellow

SINGLES

EUREKA GIANT , bronze	MR. ANDREWS , pink
GALAHAD , yellow	RED HUSSAR , late
KRISTINA , rose	SILVER MOON , white

DWARF AND CUSHION VARIETIES

BREECE'S RED CUSHION	JOAN HELEN , purple
EARLY BRONZE , bronze	MAJOR CUSHION , pink
GOLDEN GLORY , yellow	RED GOLD , red

Varieties marked * suitable for Rock Gardens.



Carnation

COLEUS (Tender)

HYBRID MIXTURE. Attractive and richly colored foliage plants for house or garden culture. Easily grown bedding plant for any shady or partially shady location. Height 2 ft. Pkt., 10c; 1/16 oz., \$2.00.

COREOPSIS—Golden Wave

GRANDIFLORA. (Mayfield Giants.) Double and semi-double broadly expanded golden yellow flowers. The plants bloom freely during late spring and summer affording a constant supply of cut flowers. Height 3 ft. Pkt., 10c; ¼ oz., 25c.

DOUBLE SUNBURST. Large, golden yellow, fully double, early blooming fine cut flowers. Height 3½ ft. Pkt., 15c; ¼ oz., 35c.

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 vermiculite in a cool place.

DOUBLE FINEST MIXED. Many rich colors. Height 4 ft. Pkt., 10c; ½ oz., \$1.25.

COLTNESS HYBRIDS. Small, neat single flowers on very dwarf plants, for bedding. Pkt., 15c; ¼ oz., 90c.

SINGLE MIXED. Height 3½ ft. Pkt., 15c; ¼ oz., 60c.

UNWINS DWARF HYBRID IDEAL BEDDING MIXED. Double and semi-double flowers in a wide range of color. Flowering within four months from sowing. Height 1½-2 ft. Pkt., 10c; ½ oz., 60c.

DELPHINIUM

One of the finest summer flowering hardy perennials. 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.

PACIFIC GIANTS BLACK KNIGHT SERIES. Very dark blue. Pkt., 15c; 1/16 oz., \$1.25.

PACIFIC GIANTS BLUE BIRD SERIES. Clear medium blue, white bee. Height 5 ft. Pkt., 15c; 1/16 oz., \$1.25.

PACIFIC GIANTS GALAHAD SERIES. Clear hugh white. Mildew resistant. Height 5 ft. Pkt., 15c; 1/16 oz., \$1.75.

PACIFIC GIANTS LANCELOT SERIES. Clear lilac self, a rare color, white bee. Height 5 ft. Pkt., 15c; 1/16 oz., \$1.25.

PACIFIC GIANTS MIXED. Florets 2½ to 3½ in. across. Mildew resistant. Height 5 ft. Pkt., 10c; 1/16 oz., \$1.25.

DIANTHUS—Hardy Pinks

FLORISTS' PERPETUAL. Large clusters, fragrant, very useful for cut flowers. Height 1½ ft. Double and Single Mixed. Pkt., 10c; ¼ oz., \$1.25.

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

***PLUMARIUS—Double Mixed.** Of very compact growth, double flowers in many colors, during May and June. Height 1 ft. Pkt., 10c; ¼ oz., 85c.

FEVERFEW (Matricaria)

BRIDAL ROSE. Beautiful, small, white button-like double flower heads, from June to October. Plants of bushy growth with finely cut dark green foliage; desirable for bedding. Height 2 ft. Pkt., 15c; ¼ oz., 90c.

DOUBLE GOLDEN BALL. 8 in. dwarf. Pkt., 15c; ¼ oz., \$1.50.

FORGET-ME-NOT—Myosotis

***BIENNIAL ALPESTRIS.** Popular plants for massing in beds or borders. Succeeds best in moist, shady locations. Vivid blue flowers from May to July. Height 1 ft. Pkt., 10c; ¼ oz., \$2.00.

FOXGLOVE OR DIGITALIS

In stately appearance the Foxgloves occupy a prominent place among our hardy plants. They succeed well in an average garden soil. Blooms June and July.

MONSTROSA FINE MIXED. This mixture of the Giant Foxgloves is sure to please every gardener. Produces long spikes of beautiful, tubular-shaped flowers in a wide range of rich colors. Height 4-5 ft. Pkt., 10c; ¼ oz., 50c.

GAILLARDIA

BURGUNDY. Easily grown, will flower the first year if sown early. Thrives in full sun, will stand drought and hot weather. Long stemmed daisy-like flowers bloom in profusion from June to October. Height 2½ ft. The reddest Gaillardia—shining wine-red petals sometimes tipped yellow. Pkt., 10c; ¼ oz., 90c.

GRANDIFLORA, FINEST MIXED. Pkt., 10c; ¼ oz., 65c.

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

GERBERA (Jamesoni Hybrids)

NEW AFRICAN TRANSVAAL 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. Height 12 to 18 inches. Pkt., 10 seeds, 10c; 100 seeds, 75c.

Varieties marked * suitable for Rock Gardens.



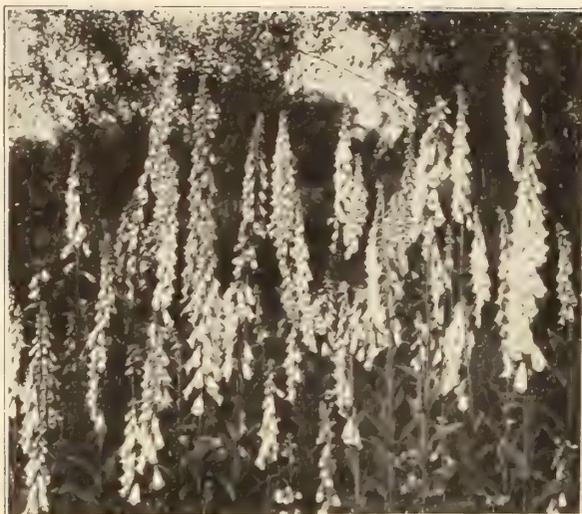
Delphinium



Gerbera



Feverfew



Foxglove



Gaillardia



Sweet Rocket

Varieties marked * suitable for Rock Gardens.

GEUM—Coccineum

***MRS. BRADSHAW.** Graceful, double orange-scarlet flowers produced on long stems from June to September. Valuable for cutting; excellent for border. Height 2 ft. Pkt., 10c; ½ oz., 50c.

GYPSOPHILA—Baby's Breath

SINGLE (PANICULATA). Tiny white flowers borne on slender stems. The plants are covered with blooms during June and July. Height 3 ft. Pkt., 10c; oz., 30c.

DOUBLE BABY'S BREATHE. Small, double, white flowers, carried on slender wiry stems. Makes a fine show during June and July. Height 3 ft. Pkt., 15c; ¼ oz., \$2.50.

***REPENS.** An excellent variety for rock gardens. The plants are covered with small white flowers during June and July. Height 6 in. Pkt., 15c; ¼ oz., \$1.65.

HELIOTROPE (Half Hardy)

Excellent bedding plants in summer, desirable pot-plants during winter. Succeeds in any good soil and sunny location. Fragrant. Height 2 ft.

GIANT FLOWERED. Mixed. Pkt., 15c; ½ oz., \$1.00.

HESPERIS MATRONALIS

(SWEET ROCKET)

Old fashioned garden plants. Bears during the summer, snowy white, lilac and purple fragrant flowers. Height 2-3 ft. Excellent for planting in a border or among shrubbery. Mixed. Pkt., 10c; ¼ oz., 35c.

HOLLYHOCKS

Excellent for a background to dwarfier plants. Succeeds best in deep rich, well drained soil. Sunny location. Blossoms from late spring until midsummer. Height 5-6 ft.

CHATERS DOUBLE CHOICE MIXTURE. Pkt., 10c; ¼ oz., 90c.

CHATERS SINGLE MIXED. Large, very artistic blooms. Pkt., 10c; ¼ oz., 30c.

IBERIS—See Candytuft (Perennial)

LATHYRUS—Perennial Sweet Peas

A showy, free-flowering hardy climber. Blooms from midsummer until frost. Excellent for cutting. Height 5-6 ft.

FINEST MIXED. Pkt., 10c; ¼ oz., 65c.

LINARIA—Kenilworth Ivy

***CYMBALARIA.** Small lilac blue flowers, are borne on a charming neat trailing plant. Height 4 to 6 in. Pkt., 10c; ¼ oz., \$1.00.

LINUM—Perennial Flax

***PERENNE.** Beautiful light blue flowers from July until August. The blooms last only one day but they are produced continuously. Height 2 ft. Pkt., 10c; oz., 90c.

LUNARIA—Honesty

Biennial plant having round, silvery white, paper-like seed-pods which are dried for winter bouquets. Height 1½ to 2½ ft. Mixed. Pkt., 10c; ¼ oz., 50c.

LUPINS

Elegant spikes of pea-flower-like blooms during May and June. Height 3 ft.

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

NIEREMBERGIA (Tender Perennial)

PURPLE ROBE. Rich deep violet purple dwarf compact, does not fade, free flowering. Height 6 in. Pkt., 10c; 1/32 oz., \$1.50.

PENTSTEMON

HYBRID GLOXINIOIDES (Beard Tongue). Beautiful bell-shaped flowers. Height 2½ ft. Choice mixed. Pkt., 15c; ¼ oz., \$1.65.

PHLOX

DECUSSATA—New Hybrids. Flowers in all bright colors; sow seeds late in fall and they will germinate in the spring. Height 2-3 ft. Pkt., 10c; ¼ oz., 85c.



Platycodon



Saponaria



Wallflower

PLATYCODON—Chinese Bellflower

GRANDIFLORA. Large showy, deep blue flowers, are produced all summer. A splendid plant for the hardy border. Height 1½ ft. **Pkt., 15c; ¼ oz., \$1.00.**

POPPIES

ORIENTAL SCARLET. The blooms are an intense shade of scarlet red having a conspicuous black blotch on each petal, during June and July. Height 2½ ft. **Pkt., 10c; ¼ oz., \$1.30.**

PRINCESS VICTORIA LOUISE. Salmon pink. **Pkt., 15c; ¼ oz., \$1.50.**

POPPY NUDICAULE—Iceland Poppies

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

***SUNBEAM MIXED.** Embracing all the graceful, gaily, colored flowers in white, yellow and orange found in Iceland Poppies. **Pkt., 10c; ¼ oz., \$1.25.**

PRIMULA—Primrose

***AURICULA.** Many bright colors, including orange, copper, brown, and other pastel shades. An excellent hardy Primrose for the border. Blooms during spring. Height 6-9 in. **Pkt., 15c; ½ oz., \$1.80.**

PYRETHRUM—Painted Daisy

SINGLE MIXED. A showy perennial with daisy-like flowers, blooming during May and June. Height 2 ft. **Pkt., 10c; ¼ oz., \$1.50.**

DOUBLE MIXED. This mixture contains many bright showy colors, shading from white to deepest red. The blooms are elegantly doubled. Height 2 ft. **Pkt., 10c; ¼ oz., \$1.50.**

RUDBECKIA—Cone Flower

MY JOY. Brilliant golden yellow daisy-like flowers with brown centers. Blooms from July until October. Height 3 feet. **Pkt., 15c; ¼ oz., 60c.**

SAPONARIA—Rock Soapwort

***OCYMOIDES.** Splendid hardy rock plant, with rose pink flowers during spring and summer. Height 6 to 9 in. **Pkt., 15c; ¼ oz., \$1.40.**

SCABIOSA

CAUCASICA. Charming perennials for border and cut flower culture. The large lavender blue flowers are borne profusely on fine long stems. Height 2 ft. **Pkt., 10c; ¼ oz., \$2.25.**

SHASTA DAISY

ALASKA. Splendid hardy perennial plants, having large white flowers with yellow center, 4 to 5 in. across, borne singly on long, stiff, wiry stems; excellent for cutting and borders. Height 2 to 2½ ft. **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. Height 2 feet.

LATIFOLIA. Large deep-blue flowers. **Pkt., 15c; ¼ oz., 90c.**

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 May and June. Height 1-1½ ft.

SINGLE MIXED. All shades of white, pink and red. **Pkt., 10c; ¼ oz., 35c.**

SINGLE NEWPORT PINK. **Pkt., 15c; ¼ oz., 50c.**

SINGLE SCARLET BEAUTY. Scarlet. **Pkt., 15c; ¼ oz., 80c.**

DOUBLE MIXED. Very fine; all colors. **Pkt., 10c; ¼ oz., 45c.**

DOUBLE EXTRA DWARF MIXED. **Pkt., 10c; ¼ oz., \$2.00.**

TRITOMA—Poker Plant

EARLY HYBRID. Massive orange-scarlet flowers, for border and cutting. Blooms August to October. Needs winter protection. Height 3-4 ft. **Pkt., 10c; ¼ oz., 90c.**

VALERIANA (Coccinea)

Very showy red flowered border plant. Does well in poor soil. Height 2 to 3 ft. **Pkt., 15c; ¼ oz., \$1.00.**

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. Height 6 in.

LUTEA SPLENDENS (Yellow). **Pkt., 10c; 1/16 oz., 70c.**

HYBRIDA. Choice mixed. **Pkt. 15c; ½ oz., \$1.25.**

VIOLET

ODORATA SEMPERFLORENS. Blue. **Pkt., 25c; 1/16 oz., 70c.**

WALLFLOWER

Showy plants, sweet-scented flowers in bright oriental red and yellow colors in May. Good cut flower. Height 1½ to 2 ft.

DOUBLE MIXED. **Pkt., 10c; ¼ oz., \$1.50.**

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. \$1.00 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. \$1.00 per doz.

HUNGARIA. 3½ ft. Peach blossom pink. Very compact. Foliage green. \$1.00 per dozen.

KING HUMBERT. 4 ft. Leaves are purple-brown over bronze. Crowned with immense heads of velvety orange-scarlet. \$1.00 per dozen.

PRESIDENT. 4 ft. The most wonderful green leaved, red flowered canna in cultivation. \$1.00 per dozen.

YELLOW KING HUMBERT. 4 ft. Green leaves, golden-yellow flowers blotched red. \$1.00 per dozen.

IRIS

	Each
ALCAZAR. Reddish bronze and purple.....	\$.25
AMBASSADOR. Reddish violet.....	.25
BLUE VELVET. Velvety, best dark blue.....	.30
CALIFORNIA GOLD. Tall golden yellow.....	.35
GEORGE YELD. Combination of colors, standards bright apricot shaded rose, falls brilliant rose crimson.....	.25
GOLD IMPERIAL. Chrome yellow throughout.....	.25
MOTHER OF PEARL. Pale bluish lavender.....	.25
PEACHES. Peach, apricot blend.....	.25
PINK SATIN. True pink.....	.35
WHITE AUTUMN KING. Pure white.....	.25

HYACINTHUS CANDICANS

An ornamental midsummer flowering plant, producing from 20 to 100 large bell shaped flowers of a creamy white color on spikes 3 to 5 feet high. 15c each; \$1.50 doz.

PERUVIAN DAFFODIL

(Ismene Calathina)

Summer-flowering bulb with large, amaryllis-like, pure white, fragrant blossoms. 2½-in. size. 30c each.

GLOXENIA

Mixed. 1½ to 2 in. bulbs. 20c ea.; \$2.00 doz.



Hardy Iris



Hardy Lilies

LILIES

Each Doz.

Estate. Hardy pure white Easter lily type, 24 in. tall, blooms Aug. and Sept. 6 to 7 in. cir. bulbs. 50c ea.; 3 for \$1.35; \$4.50 doz.	
Regale. White, shading to yellow in the center with pink tinge on outer edge. Height 3 to 5 ft. Bulbs 8-9 inch size.....	\$.40 \$4.00
Rubrum. Pink, spotted red-white center. 8 to 9 in. cir. bulbs.....	.40 4.00

PEONIES

Each

(Plant shallow, just barely covering the eyes.)	
Baroness Schroeder (9.0)M. Immense white fragrant.....	\$1.00
Duchesse de Nemours (8.1)E. Sulphur white.....	.85
Felix Crousse (8.4)M. Ruby red, blooms profusely...	.90
Festiva Maxima (9.3)E. White, spotted carmine....	.90
Mons. Jules Elie (9.2)E. Glossy lilac pink, shading to a deeper rose at the base.....	.90
Karl Rosenfeld (8.8)M. Brilliant crimson, free flowering, one of the best reds for cutting.....	1.00
Sarah Bernhardt (9.0)L. Free flowering deep pink tipped with silver. Fragrant.....	1.00
Therese (9.8). Pale old rose—pink, very large.....	1.25

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. Red, 3 inches up, 90c. Mixed colors, 3 inches up, 60c each.

TUBEROUS ROOTED BEGONIAS

Especially adapted to window or conservatory culture. Sizes 1 to 1½ inch in diameter. Scarlet, pink, yellow. Single or double. 35c each; \$3.50 per dozen.

BLEEDING HEARTS

A beautiful hardy garden plant of graceful habit, 2 to 3 feet high. The foliage is of a highly ornamental fern-like 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. 90c 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. 10c each; \$1.00 per dozen.

CALADIUM ESCULENTUM OR ELEPHANT'S EAR

Large bulbs, 9-11 inch. 25c each; \$2.50 per dozen; medium sized bulbs, 5-7 inch, 15c each; \$1.50 per dozen.

FANCY LEAVED CALADIUMS

1½ to 2 inches. 25c each; \$2.50 per dozen.



Gladioli in Mass Planting

GLADIOLI

Plant Manns' Gladioli Bulbs. They are strictly 1 1/4 inches or more in diameter, sound, true to name, and can be absolutely depended upon to produce large, beautiful well-formed blooms. (We recommend planting bulbs not over 2 in. in diameter for best 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.

BLUE

AVE MARIA. (Medium—85 Days.) Medium blue with darker blotch. Opens 8 well placed blooms.

BLUE BEAUTY. (Large—85 Days.) Medium light blue with edges overlaid violet blue.

LAVENDER

ELIZABETH THE QUEEN. (Giant—90 Days.) Beautiful clear mauve with darker lines in the throat.

***LAVENDER DREAM.**

MINUET. (Large—80 Days.) Beautiful pinkish lavender.

ORANGE

***ACCA LAURENTIA.**

BIT O'HEAVEN. (Medium—90 Days.) Beautiful orange color with yellow throat. 9 to 12 medium sized blooms on a tall straight spike.

PURPLE

***ABU HASSAN.** Deep purple.

CHARLES DICKENS. (Medium—75 Days.) Purple violet. Tall strong grower with long spike of blooms.

KING LEAR. Ruffled, dark velvety purple.

***PAUL REUBENS.** Light purple.

SMOKIES AND OTHER COLORS

BAGDAD (Large—90 Days.) Smoky old rose, 6 to 8 immense blooms at a time.

VAGABOND PRINCE. (Large—75 Days.) Mahogany brown with a glowing flame scarlet blotch on lip petal.

PINK

DEBONAIR. (Large—90 Days.) La France shrimp pink, shading shrimp pink toward center with a creamy throat. 6 to 8 blooms on an extremely long head.

ETHEL CAVE COLE. Massive light pink.

MARGARET FULTON. (Medium—70 Days.) Clear soft rich dark salmon. 6 to 8 perfectly placed florets open.

PICARDY. (Giant—85 Days.) Soft shrimp pink. A blotch of light flesh pink shading to shrimp pink at edges. 7 to 10 florets open at a time.

***PINKIE.** Rose pink.

ROSA VAN LIMA. (Large—75 Days.) Fine light rose pink with a few white lines in throat. 8 or more large well placed blooms open on a tall strong spike.

RED

DREAM OF BEAUTY. (Medium—80 Days.) Large rose red. Tall, strong grower.

FLAMING SWORD. (Medium—70 Days.) Scarlet red, medium sized blooms 6 to 7 open on a tall straight stem.

JULES AMOTT. (Large—90 Days.) Glistening deep red, 6 to 8 florets open at a time.

***MRS. MARK'S MEMORY.** American beauty red.

***MONSOER.** Maroon.

NEW EUROPE. (Large—85 Days.) Vivid scarlet red with a small purple stripe in the throat.

***VINCENT VAN GOGH.** Cerise.

WHITE

MARGARET BEATON (Large—80 Days.) Pure snow white with small orange scarlet blotch in the throat. 6-8 well placed blooms on long flowerhead.

***SALMAN'S GLORY.**

***SNOW PRINCESS.**

VREDENBURG. (Large—75 Days.) Early large pure white. Perfect form and placement.

YELLOW AND CREAMS

FASHION PLATE. (Large—90 Days.) Large cream with light red line on lower petal. Tall, straight, and stately growing variety.

GATE OF HEAVEN. (Medium—75 Days.) Beautiful ruffled deep yellow. 5 to 6 flowers open on a head of greenish yellow buds.

GOLD EAGLE. (Medium—70 Days.) Extra early light yellow of medium size.

***HOPMAN'S GLORY.** Clear bright yellow.

***MASKERADE.** Amber yellow-red blotch.

SHIRLEY TEMPLE. (Large—75 Days.) Immense heavily ruffled cream with cream yellow throat.

SPOT LIGHT. Large, ruffled deep yellow.

PRICES

Variety	Each	Doz.	Per 100
Ave Maria	\$.10	\$1.00	\$7.00
Bagdad .....	.07	.70	5.00
Bit O'Heaven .....	.07	.70	5.00
Blue Beauty .....	.10	1.00	7.00
Charles Dickens .....	.10	1.00	7.00
Debonair .....	.07	.70	5.00
Dream of Beauty .....	.10	1.00	7.00
Elizabeth the Queen .....	.15	1.50	10.00
Ethel Cave Cole .....	.10	1.00	7.00
Fashion Plate .....	.09	.90	6.00
Flaming Sword .....	.07	.70	5.00
Gate of Heaven.....	.10	1.00	7.00
Gold Eagle .....	.07	.70	5.00
Jules Amott .....	.12	1.20	8.00
King Lear .....	.10	1.00	7.00
Margaret Beaton .....	.07	.70	5.00
Margaret Fulton .....	.07	.70	5.00
Minuet .....	.14	1.40	9.00
New Europe .....	.12	1.20	8.00
Picardy .....	.07	.70	5.00
Rosa Van Lima .....	.09	.90	6.00
Shirley Temple .....	.10	1.00	7.00
Spotlight .....	.14	1.40	9.00
Vagabond Prince .....	.10	1.00	7.00
Vredenburg .....	.10	1.00	7.00
*Holland Grown Varieties.....	.07	.70	5.00

GLADIOLUS MIXTURES

MANNS' SPECIAL VARIETY MIXTURE:

25 Bulbs (mixed) 1 of each listed \$1.85
100 Bulbs (mixed) 4 of each listed \$6.85

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.

50c per doz.; \$3.65 per 100



Books for better Gardens

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. 4,176 illustrations, 3,639 pages, 3 volumes, fabrikoid binding. (M) \$37.50.

BOOK OF PERENNIALS

By Alfred C. Hottes. Among amateur gardeners there is a decided preference for perennial plants, because they require but little care. For those desiring a continuous show of color from early spring to early frost in their gardens, this book will be extremely valuable, discussing over 125 separate species individually, with their culture and requirements. 280 pages, 103 illus. (D) \$2.75.

GARDEN GUIDE

By 28 Authorities. One of the most practical and informative garden books ever published for the average home owner. Every phase of gardening in connection with the home grounds is covered, including flowers, fruits, vegetables, a fine lawn, shrubs and trees; also related subjects, insects, diseases, bees, birds, fish, etc. 576 pages, over 300 illus. (D) \$3.50.

BOOK OF ANNUALS

By Alfred C. Hottes. The author opens up many new possibilities to garden makers in this book, which is exceedingly complete and a most useful manual dealing with annual flowers. Over 100 separate species of annuals are described, with full directions for their culture and uses. 180 pages, 158 illus. (D) \$2.00.

GARDEN AND GREENHOUSE CHRYSANTHEMUMS

By Alex Laurie and D. C. Kiplinger. A revised, rewritten and reset edition of "Chrysanthemums Under Glass and Outdoors." Covers the culture and care of 'Mums for both commercial and amateur growers. Based on practical experience, experimental work, and personal observations of the author. 124 pages, 26 illus. (D) \$2.50.

THE "HAVE-MORE" PLAN

By Ed and Carolyn Robinson. Profusely illustrated. The now-famous story of a young couple's successful search for health, happiness, and security on a two-acre farm. The "Have-More" Plan is the result of their own experiences. With it, you can turn an acre or so of land and a small cash income into the best kind of living. 326 pages. (M) \$3.49.

THE GARDEN ENCYCLOPEDIA

Completely revised and contains many new features. Three hundred fifty thousand copies have been sold of the older edition.

\$5.00

VEGETABLE ENCYCLOPEDIA AND GARDENER'S GUIDE. 307 pages,

by Victor A. Tiedjens (G) \$1.00

FLOWER ENCYCLOPEDIA AND GARDENER'S GUIDE. 525 pages, by

Albert E. Wilkinson (G) \$1.98



THE FOOD GARDEN

By Edna and Lawrence Blair. Here's a garden book that's different! Twenty double-page spreads of line drawings accompanied by instructions both show and tell you how to raise vegetables, herbs, fruits, and berries. All the steps in cultivating each plant—from seed-sowing to marketing and storing—insect and disease control, and hundreds of other problems are described and discussed. 148 pages; 58 illustrated. (M) \$2.49.

PLANNING AND PLANTING YOUR OWN PLACE

By Louis Van de Boe. The most satisfactory guide to what a small-home owner can accomplish on his grounds without the help of a landscape architect. This is a thorough and readable text for amateur's use. 209 pages. (M) \$2.95.

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By L. H. Bailey. This comprehensive, one-volume, encyclopedic manual of gardening is now available at half its former price and with a beautiful, new four-color jacket. This handbook, on ever phase of growing flowers, shrubs, vegetables and fruits, indoors and out, from Abutilon to Zinnia, is as easy to use as it is satisfactory. It also has special advice on such topics as annuals, borders, rock-gardens, lawns, window-gardens, glass houses, hotbeds and control of insects and diseases. 292 pages. (M) \$2.49.

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 rewritten edition of America's most popular rose book. 132 pages, 32 pages full color illus. (M) \$2.49.

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By L. W. Ramsey. Step by step, with photographs and plans, this book shows just how to develop your home grounds for greatest beauty. (M) \$3.00.

QUICK FREEZING AND FAMILY FOOD GARDENING

By Gordon Morrison. Here's the book home gardeners have been waiting for ever since the advent of Quick Freezing. Shows you exactly how to garden, grow and freeze so efficiently that your family can enjoy more nutritious, delicious meals all year 'round. Contains 220 pages, scores of photographs, many step by step drawings, tables, charts and diagrams. (D) \$2.75.

Spray Guide

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 Corn Earworm Drops	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.	Semesan Formaldehyde	Treat seed or soil.
Downy Mildew	White, down 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 ¾ 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—V	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—V	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—V	When pests first appear. Repeat as necessary.

LIST OF MATERIALS INDICATED IN ABOVE CHART

A—Arsenate of Lead.	G—Grape Dust.	P—Paris Green, Red River Potato Mix
B—Bordeaux, Kopper King, Kopper Queen.	J—D-X and G & O Plant Spray.	Q—Sulfocide.
C—Aphis Spray, Black Leaf 40, G & O Plant Spray.	K—Kryacide.	R—Scalecide.
D—20-60-20 Dust.	L—Lime and Sulphur Solution.	S—*Slug Shot.
E—*D-X, Red Arrow, G & O Plant Spray.	M—Garden Guard.	T—Emo, Emo-Nik and Selocide.
F—Dusting Sulphur, Fungtrogen.	N—*Rotenone Dust.	V—Volck.
	O—*Fish Oil Soap.	X—Nicotine-Pyrox, G & O Plant Spray.

Materials marked (*) are non-poisonous when used as directed. Pyrethrum and Rotenone base materials such as DX and Red Arrow are contact sprays and must strike the insects to be effective.

D.D.T. Controls: Flies, Mosquitoes, Gnats, Horn Flies, Lice, Fleas, Sheep Ticks, Ants, Wasps, Hornets, Codling Moth, Mealy Bug, Japanese Beetle, Leaf Hoppers, Oriental Fruit Moth, Peach Borer, Rose Shafer, Cabbage Worm, Flea Beetles, Onion Thrips, Tomato Fruit Worm, Caterpillars, Boxwood Leaf Miners and many others. Ask for special DDT folder and use with caution.

SPRAYS INSECTICIDES DUSTS



ALL ROUND SPRAY

For roses, azaleas, shrubs, vegetables, vines, other flowers. A carefully formulated multi-purpose product designed to provide protection against both insects and fungi such as rose chafer, azalea flower spot, thrip, black spot, downy

mildews, leaf spot, many rusts, aphids, cabbage worm and many others. For dusting as well as spraying. Lb. 95c; 4 lbs., \$3.00.

ANTROL SET

Set 40c
Individual feeders
Each 10c
ANTROL SYRUP
4-oz. bottle 20c



ANTROL ANT TRAPS

15c Each
ANT-X
25c Each
ANT-X JELLY
1 oz., 35c
MAGIKILL JELLY
1 oz., 40c;
3 oz., \$1.00



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. 1-lb., 60c; 4-lb., \$1.40.



ARSENITE OF ZINC

(1 lb. makes 50 gals.)

Ranks next to Paris Green in strength. 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 Sulphur solution which is used to combat psyllid on potatoes. 1 lb., 40c; 4 lbs., \$1.15.



"BLACK LEAF 40"

(1 oz. makes 6 gallons)

Kills Aphids, 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., \$4.15; 5 lbs., \$7.40; 10 lbs., \$12.65.



AZOFUME No. 10 DUST

A dust for dusting plants indoors or out; not a fumigant. Dusted on plants it slowly gives off its fumes. Recommended for red spider on roses, phlox and most other flowers. 4 lbs., \$2.40.

BEETLE TRAPS

(Jar not included)

No. 4 Trap (without cage) \$1.10
Liquid Bait 50
Dry Bait, 1 oz. 15
G & O Beetle Traps with Dry Bait, 85c each.
G & O Perforated Metal Containers, 25c ea.
G & O Green Painted Rods, 35c ea.

No. 4

BENZO-FUME POWDER PRESSURE FUMIGATORS

Especially recommended for control of greenhouse red spider. ½ lb. size for 5,000 cubic feet of air space.

½ lb., 40c ea.; 6 for \$1.80; 12 for \$3.20
1 lb., 60c ea.; 6 for \$3.15; 12 for \$5.50

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. 45c; 4 lbs., \$1.15.



CALCIUM ARSENATE

(1 to 2 lbs. makes 50 gals.)

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., 35c; 4 lbs., 60c.



CARBOLA—WITH D.D.T.

Carbola applied to the walls, ceilings, partitions, nests, etc., of your poultry houses will help to prevent contagious diseases among your flock. 5 lbs., 85c; 10 lbs., \$1.35; 50 lbs., \$5.50.

CARBOLINEUM—AMERICA

Kills chicken mites and blue bugs in poultry houses, makes wood Termite proof and Stops Rots. Gal. \$2.15.

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., 50c; 5 lbs., \$1.65.



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., 75c.

6% CHLORDANE DUST

Do not use on food crops
1 lb., 50c; 4 lbs., \$1.40.

COPPER ARSENATE

(Basic) 4 lbs., \$2.00

COPPER—LIME—ARSENATE
20—60—20 Dust. \$9.50 per 100 lbs.

COPPER SULPHATE

(Blue Stone)

Powdered; 20c lb.; 5 lbs., 75c; 10 lbs., \$1.25.

CORN EAR WORM DROPS

(2 ozs. treats 100 ears)

2 oz. 35c

CROW REPELLENT

NO-CROW—Treat corn and other seeds to repel crows, birds, moles, etc. Economical and easy to use. Liquid, ½ pt., 50c; pt., \$1.00.

CUCURBIT DUST

(10 to 15 lbs. to acre)

COPPER AND CALCIUM ARSENATE MIXTURE

Controls disease and insects on cucumbers, melons and squash. 5 lbs., 85c; 50 lbs., \$6.45.



CYANOGAS ANT KILLER—A gas-producing powder. 4-oz. spout can is enough to treat ant nests in average lawn. 39c.

CYANOGAS A-DUST—Kills rats, moles, woodchucks (groundhogs) and other rodents instantly. "It's the gas that kills 'em." 1 lb., 98c; 5 lbs., \$3.75.

CYANOGAS G-FUMIGANT—Most widely used greenhouse insecticide. Regular use insures insect-free house all season. 5 lbs., \$3.75; 25 lbs., \$12.50.

D.D.T. (Liquid)

Pratts 25% (Garden). 1½ oz., 35c; 8 oz., 75c.

Conkeys 25%, I. K. Residual Spray (Household). Qt., \$1.40; gal., \$4.95.

Accotex Water Dispersible Powder with 50% D.D.T. (Garden). One tablespoon makes 1 gallon. 1 lb., 75c.

D.D.T. (Dust)

CCC—10%, (Household). Lb., 50c.
CCC—25%, (Garden). Lb., 75c.

DE-K-PRUF

A compound that makes wood and fabrics immune to attack against mildew, rot, termites and other wood destroying insects. One gallon covers 400 sq. ft. wood, 20 lbs. fabric. Color green. Gal., \$2.85; 5 gallons, \$13.50.

Dusting and Spraying Materials (Continued)

DISINFECTANTS (Seed)



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. $\frac{1}{2}$ oz., 20c; 2 oz., 60c; 12 oz., \$2.40; 4 lbs., \$11.00.

SEMESAN, JR. — For corn, 2 ounces to 1 bushel corn. 12 oz., 62c.

SEMESAN BEL — For potatoes. 1 lb. to 60-80 bu. potatoes. 2 oz., 50c; 1 lb., \$2.00; 4 lbs., \$6.33.

CERESAN (New Improved) — For wheat. $\frac{1}{2}$ oz. for 1 bu. seed. 4 oz., 45c; 1 lb., \$1.00; 4 lbs., \$3.40.

DITHANE Z-78

A versatile fungicide that can be used as spray or dust on potatoes, tomatoes, celery, cantaloupes, cucumbers, beans, azaleas, gladiolus and for the control of blue mold on tobacco seedlings. 3 lb. pkg., \$3.00.

DOG REPELLENTS



KEEP AWAY
I'm Chaperoned



CHAPERONE. 4 oz., 60c; 12 oz., \$1.25; qt., \$3.00.

DOG CHECK. 3 oz., 60c; 8 oz., \$1.00.

DOGZOFF. 3 oz., 60c.

FUMEOGEN. 8 oz., 50c.

DORMATONE

A hormone sprout inhibitor for potatoes and other root crops. Prevents sprouting, softening, and shriveling in storage. Easy to use; simply dust. 12 oz., \$1.00.

DOWFUME (Soil Fumigant)

(1 gal. treats 400 sq. ft.)

A soil fumigant containing Ethylene Dibromide. Very effective in controlling nematodes, wire worms and other soil insects in home gardens. Gal., \$3.50.

DUEADUST (GARDEN)

A ready-to-use dust for home gardens, contains 5% DDT and 9% metallic copper. Effective not only as powerful insecticide but as a fungicide in control of many forms of blight and fungous diseases. Particularly effective on rose chafer, leaf hopper and corn ear worm. Dust or spray. Lb., 75c.



DX SPRAY
(1 oz. makes 6 gallons)
A rotenone-pyrethrum-D.D.T. spray in an active vegetable oil base for control of sucking and chewing insects on fruit trees, shade trees, vegetables and flowers. $\frac{1}{2}$ oz., 50c; $\frac{1}{4}$ pt., \$1.75; qt., \$5.25; gal., \$13.50.

DX NICOTINE SPRAY. $\frac{1}{2}$ oz., 50c; $\frac{1}{4}$ pt., \$1.75.

DX ROTENONE SPRAY. $\frac{1}{2}$ oz., 50c; $\frac{1}{4}$ pt., \$1.50; qt., \$4.75.



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. 8 oz., 30c; pt., 50c; qt., 70c.

EMO-NIX
(1 pt. makes 12 $\frac{1}{2}$ gallons)
Complete contact spray combining nicotine in its most active form with Emo a summer oil emulsion. $4\frac{1}{2}$ oz., 42c; pt., 80c; qt., \$1.20.



KILL PLANT INSECTS

35c
EVER GREEN GARDEN SPRAY

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., \$1.15; pt., \$2.45; qt., \$4.10; gal., \$12.60.

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., 45c.

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., 65c.

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.

FRUIT TREE SPRAY OR DUST

A combined insecticide and fungicide, containing sulfur, DDT and basic lead arsenate for the control of many chewing and sucking insects and fungous diseases on apples, pears, peaches, plums and ornamentals. Lb., 65c; 3 lbs., \$1.25.



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. $\frac{1}{2}$ pt., 75c; pt., \$1.25; qt., \$2.00.

GARDEN AND ROSE DUST

An all-purpose product for controlling the majority of sucking and chewing insects and fungus diseases on all flowers and vegetables—especially effective on roses. 1 lb. Dust Gun, \$1.25; 2 lb. Canister, \$1.35.



GO-WEST

An effective insect bait for weevils, snails, slugs, sowbugs, cut-worms, earwigs grasshoppers and similar leaf eating garden insects. 10 lbs., \$4.00.



GRAPE DUST

A readily diffusible, lightweight powder fungicide, very efficient in destroying mildews and preventing blights. 1 lb., 40c; 5 lbs., \$1.50.



JAPIDEMIC

Milky disease spore control for Japanese Beetle. 1 lb. treats 4,000 sq. ft. Lb., \$4.50.



KOPPER KING

(1 to 2 lbs. makes 50 gals.)
(Basic Copper Sulphate)
1 lb., 60c; 4 lbs., \$1.40.

KOPPER QUEEN (Mildew Spray)

(1 pt. makes 12 $\frac{1}{2}$ gal.)
For control of mildew, leaf spot, and black spot on rose bushes, flowers, and many other kinds of foliage. Stainless, leaves no unsightly residue. $\frac{1}{2}$ pt., 35c; pt., 60c; qt., 95c; gal., \$2.25.



Dusting and Spraying Materials

(Continued)

KRYOCIDE D-50. Dust mixture containing sulphur. 1 lb., 50c; 3 lbs., 85c.
KRYOCIDE C. With copper. Can be used as a dust or spray. If as a spray 3 tablespoons to 1 gallon water. 3 lbs., 90c.

DRY LIME AND SULPHUR

Dormant Season: 12 lbs. to 50 gallons.
 Growing Season: 3 lbs. to 50 gallons.

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., 49c; 10 lbs., \$1.80.



PARIS GREEN
 (1 lb. makes 30 gal.)
 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., 25c; 1 lb., 70c; 5 lbs., \$3.10.

PEACH BORER CONTROLS 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., \$1.25; gal., \$2.90.

PARA-DICHLOROBENZENE

Apply 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, 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.

PESTEX (Pest Repellent)

Does not kill but repels dogs, rabbits, squirrels, moles, rats, mice, starlings, pigeons, crows, etc. 2 lbs., 70c.

PHYGON (Wettable)

A fungicide for the control of all Leaf Blights and Fruit Rot of Tomatoes, Black Spots of Roses, Apple Scab and many other plant diseases caused by fungi. A seed protectant to be dusted on Beets, Tomatoes, Spinach, Swiss Chard, Peppers and other seeds, before planting to prevent decay and "damping-off." 4½ oz., \$1.00.

PLANT SPRAY G & O

An all purpose spray, non-poisonous, kills Japanese beetles, rose bugs, thrips, aphid, corn borer, mealy bug, white fly. Economical dilutes 1-25/30. ½ pt., 35c; pt., 55c; qt., \$1.00.

FOMO-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., 35c; pt., 65c; qt., \$1.17; gal., \$3.75.

PYROX (With Nicotine)

It not only kills leaf-chewing insects, prevents blight and other diseases, but it also kills sucking insects, such as aphid, thrips, and leafhoppers. 20 oz., 60c; 5 lbs., \$2.25; 25 lbs., \$7.00; 50 lbs., \$11.50.

RED ARROW



1 oz. makes 8 gal.
 Economical and efficient contact spray, non-poisonous, will not injure blossoms, foliage or fruit; positive death to almost all types of insects. 1 oz., 35c; 4 oz., \$1.00; 1 pt., \$2.65; qt., \$5.00; gal., \$18.20.

RED ARROW SPECIAL

Highly concentrated pyrethrum spray prepared especially for greenhouses. Qt., \$7.70; gal., \$28.50.

RED RIVER POTATO MIX WITH D.D.T.

(Special Formula for Potatoes Only)

(1 to 1½ lbs. makes 12½ gals., or as dust)
 A 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, 60c; 4-lb. bag, \$1.90.



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. Hammonds—1 lb., 40c.



McCormicks—2-lb. bag, 65c; 5-lb. bag, \$1.25.

Let us quote larger quantities.

ROTENONE

GARDEN GUARD

(1 lb. makes 10 gallons as spray, 15 to 25 lbs. per acre as dust.)

1-lb. sifter carton 45c;
 4-lb bag, 90c.



ROTENONE GARDEN SPRAY

(NNOR) Containing Rotenone kills most common garden bugs of both sucking and leaf eating types.
 1 oz., 35c; 6 oz., \$1.00;
 16 oz., \$2.15.



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.

"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.

½ lb., 55c ea., 6—\$2.80, 12—\$4.60
 1 lb., 85c ea., 6—\$4.60, 12—\$7.95

OPTOX

A well balanced Rotenone-Pyrethrum spray. Safe to use on open blooms, non-poisonous. 1 oz., 35c; 6 oz., \$1.00; gal., \$12.00.

ORTAZOL POWDER (Dinitro)

Use in the dormant period to control aphid eggs, bud moth and other pests. Mixes easily in cold water. Use 1 to 2 lbs. in 100 gallons of spray. 1 lb., 75c.

Dusting and Spraying Materials (Continued)



SCALECIDE
(1 gallon to 15 gallons water.)
Qt., \$1.00; gal., \$2.40;
5 gals., \$8.10; 15 gals.,
\$19.00; 30 gals., \$30.50;
55 gals., \$45.00.

SELOCIDE
1 gallon makes 100
to 400 gallons. Kills
Red Spider. Gal. \$3.00.

SLUG SHOT

Guaranteed to destroy
potato bugs, cabbage
worms, lice, fleas, beetles,
striped bugs, etc., on cur-
rants, egg plants, melons,
turnips, beets, etc.; canker
worms and caterpillars on
fruit and ornamental trees.

1-lb. sifter, 40c; 5-lb.
pkg., \$1.65.

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 gar-
den pests. Harmless to
vegetation, safest to
use, not affected by rain
or sprinkling. 1 lb. pkg.,
35c; 2 1/2 lb. pkg., 75c;
6 lb. pkg., \$1.50; 50 lbs.,
\$10.00.

SPERGON

A seed protectant in powder form
to be applied to seed before planting
to prevent seed decay and "damping-
off," particularly in cold wet weather.
Recommended for Peas, Beans, Lima
Beans, Corn. It is easy to apply to
the seed and non-injurious to the
user. 1 oz., 25c; 5 oz., \$1.00.

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.,
\$8.75.

SULFOCID

(1 quart to 50 gallons
water.)

Sulfocide is a highly
concentrated non-poisonous
liquid sulphur fungicide—entirely
distinct from lime sulphur.
Pt., \$1.00; qt., \$1.45;
gal., \$3.00; 5 gals.,
\$9.75; 15 gals., \$22.75;
30 gals., \$40.30; 55 gals.,
\$66.00.



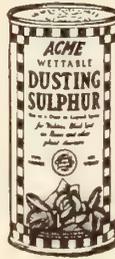
SUMMER SPRA-CREAM

A stabilized 83% summer oil emul-
sion for foliage spraying of fruit
trees, shade trees, and evergreens.
Used as a sticker for arsenate of lead
and bordeaux sprays. (Do not use
with sulphur.) Gal. \$2.00.

TARTAR EMETIC

(Control for Thrips)

Use 2 oz. (4 1/2 teaspoons) and 8
oz. brown sugar (1 1/2 cups) added to
3 gallons of water. Spray gladiolus
after leaves are 6 inches tall every
week until buds are formed. Lb.,
\$1.00.



SULPHUR (DUSTING)
(An Excellent Chigger
Chaser)
(2 lbs. makes 35 gallons;
or as dust)

Recommended to control
mildew, leaf spot,
black spot and rust on
rose bushes, chrysanthem-
ums, snapdragons, car-
nations, also red spiders
on evergreen. 2-lb. car-
ton, 49c.

SULPHUR

Commercial Flour of Sulphur. 1
lb., 7c; 10 lbs., 60c; 25 lbs., \$1.20;
100 lbs., \$3.85.

Superfine Dusting Sulphur. 10 lbs.,
90c; 25 lbs., \$1.80; 50 lbs., \$3.25.

SULPHUR (DRITOMIC)

5-lb. bags, 75c.
SYNKLOE 48-E
1/2 Pt. \$1.25; Qt. \$4.00

TEROGEN

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 aphids, fleas, beetles,
etc. 1 lb., 10c; 10 lbs., 50c; 100 lbs.,
\$3.75.



TOMATO DUST

ACME
1-lb. sifter top, 50c.
1-lb. pump gun, 65c.
4-lb. bag, \$1.15

PRATT'S

1-lb. sifter, 45c.
5-lbs., \$1.00

7% DUO-COPPER DUST

50 lbs., \$4.85.

TREE BANDING COMPOUND



ACME STOP—Used to
band trees, shrubs and
vines; prevents insects
from crawling up to the
foliage. 6 oz., 50c; 1 lb.,
95c.

TRI-OGEN

(Contains FERMATE)

A "Three Way" plant treatment.

Insecticide protection against chew-
ing and sucking insects; fungicide
protection against powdery mildew
and black spot; plus plant stimulants.
Especially recommended for Roses,
Asters, Snapdragons, Chrysanthem-
ums, and many other plants includ-
ing vegetable garden produce.

E Economy Kit (makes 8 qts.) \$1.35
A Small Kit (makes 16 qts.).. 2.25
B Medium Kit (makes 64 qts.).. 6.00
C Large Kit (makes 32 gal.)... 9.00

TRI-OGEN DUST

General purpose three-way insecti-
cide-fungicide dust. 5 lbs., \$3.50.

VEGETABLE DUST OR SPRAY (Pratt's)

Combined insecticide and fungicide
containing rotenone and copper.
Effective and safe. 1 lb., 65c; 3 lbs.,
\$1.25.

VOLCK

Oil spray for use against certain
mealy bugs, scale insects, red spiders,
white flies. 4 oz., 35c; 16 oz., 70c;
gal., \$2.85; 5 gal., \$8.50.

WEED KILLERS

DUPONT AMMATE

Poison ivy weed killer. 1 lb. to 1
gal. water treats 100 sq. ft. 2 lb., 85c;
6 lbs., \$2.25.

HAMMOND'S



Easy and economical to
use. One gallon added to
40 gallons of water
makes sufficient treating
liquid to effectively cover
about 1,000 sq. ft. Not
mailable. Qt., 70c; gal.,
\$2.00.

ACME

Quart, 80c;

1 gallon, \$2.10.



BARWEED

A 2,4-D weed killer and when ap-
plied to weed foliage kills the plant
by starvation without harming com-
mon grasses. Economical and easy
to use.

8 oz. makes 8 gal. treats 1600 sq.
ft., 75c.

WEEDONE (New Improved)

Contains powerful 2, 4, 5-T and 2,
4-D, the two most effective chemicals
for killing lawn weeds, poison ivy,
poison oak, honeysuckle and over 90
other weeds and woody plants with-
out killing the grass. Non poisonous
to animals or humans. Prevents re-
sprouting of tree stumps. 8 oz., \$1.00;
1 qt., \$2.75; 1 gal., \$6.95; 5 gal.,
\$25.00.

Weedone Sprayer 49c ea.

WEEDUST

The new 2,4-D Weed Killer in dry
powder form. No mixing with water,
no spraying, just one shake for each
dandelion, plantain or other ugly
weed. 12 oz., 75c.

WEEDONE BRUSH KILLER 32

Kills a greater range of weeds and
woody plants than either 2, 4-D or
2, 4, 5-T spray used alone. No vapor
injury to nearby susceptible crops.
Prevents re-sprouting of stumps.
1 qt., \$4.00; 1 gal., \$9.25.

WEEDONE Concentrate 48

An economical formula for the
hard-to-kill weeds. It is soluble in
water for ground spraying and mis-
cible with oil for airplane spraying.
Gal., \$6.00; 5 gal., \$29.00.

SELTOX



Seltox a "Selective" Crab
Grass Killer will kill Crab
Grass without injury to
lawn grasses. It is ab-
sorbed through the leaves
into the circulating sys-
tem of the plants, where
its toxic effect causes the
plants to die. All Crab
Grass seeds contacted by
the Seltox solution are
rendered non-viable and
will not germinate.

8 oz., covers 700 to 1000 sq. ft., \$1.00
16 oz., covers 1400 to 2000 sq. ft., 1.50
32 oz., covers 2800 to 4000 sq. ft., 2.50

Sprayers



4D

310G

HUDSON

292G—LEADER. 3½ gal., galv.	.....\$7.95
335G—CLIMAX. 3½ gal., galv.	..... 9.80
341G—CLIMAX, JR. 2½ gal., galv.	..... 9.80
310G—PERFECTION. 4 gal., galv.	.....12.00
347G—DU-MORE. 4 gal., galv.	.....28.40
2, 4-D—ON WHEELS. 3½ gal., copper	.....19.95

FLAME SPRAYERS

711—3½ gal., galv.	.....\$22.80
SMITHS—4 gal., galv.	..... 24.00

BROWN OPEN-RED

3D—3 gal., galv.\$10.95
4D—4 gal., galv. 11.95

SMITH

22GO—BANNER. 4 gal., galv.\$11.50
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SINGLE ACTION

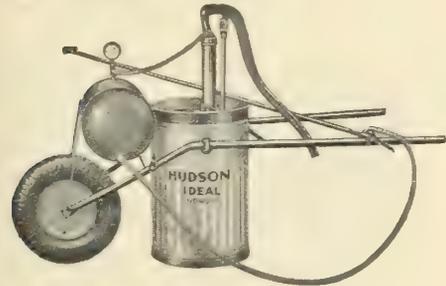
222—Vapor, pint, tin\$.35
403—Master Fog, quart, tin65
3G—Smith, quart, galv.75



Master Fog

CONTINUOUS SPRAYERS

431—Comet, quart, tin	.....\$ .97
433—Mercury, quart, tin	..... 1.25
436—Cardinal, 3 qt., galv.	..... 2.00
26EG—Brown, 1 qt., tin, glass jar	..... 1.95
335—Brown, 1 qt., copper	..... 3.25
14Q—Blizzard, 1 qt., copper	..... 3.50



HUDSON
IDEAL
SPRAYER

3505—Hudson With Pressure Tank. 18 gallon galv. tank and operated with a large removable barrel pump. Discharge equipment consists of 10 ft. spray hose, 3 ft. extension rod and angle spray nozzle. (Illustrated)	\$68.80
3500—Hudson, as above. Steel wheel.	\$51.20
57—Brown With Pressure Tank.	\$49.95
3603—Sunshine, 12½ gal. cap.	\$25.00

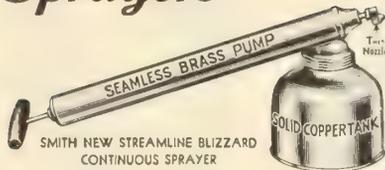
BUCKET PUMPS

122—Modoc\$7.60	CCC\$8.95
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ARNOLD GARDEN HOSE SPRAY CARTRIDGES

Arsenate of Lead, Bordeaux Mixture, Cryolite, D.D.T. Pyrethrum-Rotenone, Rotenone, Sulphur, Vitamin B-1. 35c each; 3 for \$1.00.

Arnold's Victory Cartridge Sprayer, \$1.00.
Brown's Vitamin B-1 Cartridge, with transparent holder, \$1.00.



SMITH NEW STREAMLINE BLIZZARD
CONTINUOUS SPRAYER



INSECT-O-GUN

INSECT-O-GUN

No pumping, attaches to water hose. One filling sprays 3 gallons. \$5.95.

HAYES-HAN-D

\$2.95

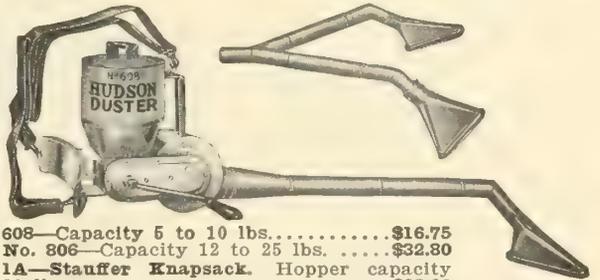
HAYES-ETTE

\$3.45



HAYS, JR. \$6.95

Dusters



608—Capacity 5 to 10 lbs.	.....\$16.75
No. 806—Capacity 12 to 25 lbs.	.....\$32.80
1A—Stauffer Knapsack. Hopper capacity 20 lbs.	.....\$28.00

ROOT WHEELBARROW TRACTION DUSTER

T44—Capacity 15 to 25 lbs. Rubber tire.\$65.00
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673—Cadet\$.58
666—Major 1.20
612—Patrol 1.25
766A—Admiral 1.55
Browns Crystal 2.25

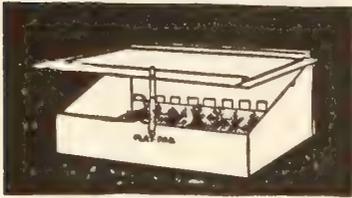
C-3A—(Illustrated). With attachments. Hopper capacity 7½ lbs. Feed adjustment per acre 1 to 20 lbs. \$24.30.



612

C-3A

FLAT-PAX PLANT FORCER



Sturdy, all stainless steel insures protection from all weather-threats. Grooves for electric sunlamp cords in freezing temperature. Plastic, adjustable window admits all beneficial sun-rays, filtering out harmful beams. Resists all chemicals and stains, regardless of plant-food used. Size 26 in. x 36 in. Price \$12.50.

GRO-QUICK ELECTRIC SEED BED HEATER

SEED UP IN 30 HOURS
ROOT CUTTINGS IN 6 DAYS
CUT GERMINATION TIME BY 2/3
TRANSPLANT 2 WEEKS SOONER



Above user reports show what Gro-Quick soil cable will do. 6 cable sizes for 1 flat to large beds. New catalog, plans free. For hot-beds, cold frames, greenhouse benches, flats, cabinets. Uses house current.

- J40A 40' cable & thermo. for 1 sash \$6.75
- S80A for double sash bed (36 sq. ft.) \$9.00
- AT-AIR THERMOSTAT \$4.50
- AUTOMATIC MICRO SWITCH \$3.35

HOT BED GLASS

1 Box will glaze 3 sash. Size 8 x 10; 90 panes, \$6.25; Size 10 x 12; 60 panes, \$6.25.

PEERLESS GLAZING POINTS
Pound box, 85c.

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 gal. capacity), \$4.00

CAULKING GUN

Model D1—Barrel size 9/8 x 2 1/2 in. Capacity, one pint. 1/2 in. nozzle, ratchet rod, breech cap., \$4.50.

PUTTY BULBS

For applying liquid Putty to sash or greenhouses. 12-oz. size, \$1.25.

SPRAY BULBS

C—12 oz. \$1.15

RAFFIA

Natural color in braided hanks of about 2 pounds. 50c lb.

FENCE RODS

\$1.75 doz.

TONKIN CANES

6 ft., 5/8" to 3/4" dia., 20c ea.; \$2.00 doz.; \$15.00 per 100.

BAMBOO PLANT STAKES

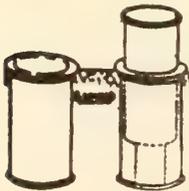
3 1/2 ft. Light 40c per doz. \$1.75 per 100

HYACINTH STAKES—Green

18 in., 80c 100; \$4.75 per 1,000.

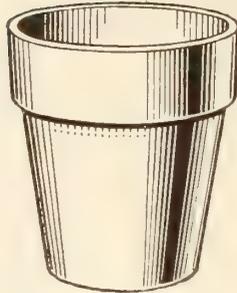
PLANT PROPS

16", 60c doz.; 30", \$1.25 doz.; 42", \$1.50 doz.; 66", \$2.50 doz.; 78", \$3.70 doz.



TRAIN-ETTS
Weatherized trellis netting.
No. 2—60 x 96 in., 85c.
No. 3—60 x 180 in., \$1.25.
CEMETERY VASE
Ground level, Aluminum finish, \$1.50.

FLOWER POTS



A complete line of regular pots, azalea pots, bulb pans and saucers. Size given indicates top diameter.

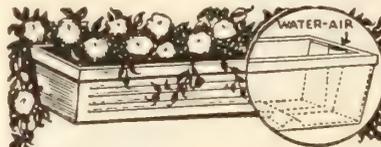
Size	Ea.	Doz.	100	1000	Sauc. Each
2"	\$.03	\$.27	\$1.80	\$14.85	..
2 1/2"	.03	.33	2.20	18.15	..
3"	.04	.45	2.80	23.10	\$.04
4"	.06	.65	4.35	36.30	.05
5"	.12	1.20	7.90	..	.06
6"	.16	1.60	11.85	..	.09
7"	.24	2.40	..	..	.12
8"	.35	3.45	..	..	.18
9"	.53	5.25	..	..	.22
10"	.71	7.10	..	..	.35
12"	1.45	14.50	..	..	.53

NEPONSET FLOWER POTS

Dia.	Shipping		Growing	
	per 100	per 1000	per 100	per 1000
2 in.	\$6.85	\$68.50	\$10.80	\$108.00
2 1/4 in.	6.85	68.50	11.50	115.00
2 1/2 in.	.85	8.50	1.40	14.00
3 in.	.90	9.00	1.60	16.00
3 1/2 in.	..	9.65	..	17.00
4 in.	1.35	13.50	2.40	24.00
5 in.	..	14.15	..	27.60
6 in.	2.15	21.50	4.25	42.50

Let us quote Vita Pots

FLOWER BOXES



Galvanized, green. 8 1/2 inches wide and 6 inches deep. 20 in., \$2.50; 26 in., \$3.00; 32 in., \$3.50.

GALVANIZED WATERING POTS

6 Qt., \$1.45; 8 Qt., \$1.80; 10 Qt., \$1.95; 12 Qt., \$2.30.

WOODEN LABELS

Size	Material	Price
3 1/2 in. x 5/8 in.	Copper Wired	\$3.80
4 in. x 5/8 in.	Wide, Pot, per 1000	3.00
5 in. x 5/8 in.	Wide, Pot, per 1000	3.30
6 in. x 5/8 in.	Wide, Pot, per 1000	3.65
8 in. x 5/8 in.	Wide, Pot, per 1000	3.70
10 in. x 5/8 in.	Wide, Garden, per 1000	9.00
12 in. x 1 1/2 in.	Wide, Garden, per 1000	15.00

Prices, per 100—3 1/2 to 6 in., 50c; 8 in., 85c; 10 in., \$1.25; 12 in., \$1.75.



Spiral wrap expands with plant's growth.
No. 1 Kit. Consists of 24 labels, 1 oz. etchant, one applicator. 85c.



WATERPROOF PLANT BANDS
Ready-to-use Plant Bands.

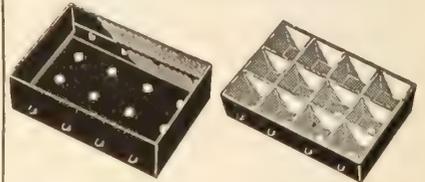
VITA BAND 10 (Fertilized)

Size	100	1000
2x2x2 1/2 in.	\$.50	\$3.65
2 1/2 x 2 1/2 x 3 in.	.65	4.75
3x3x3 in.	.75	5.65
4x4x3 in.	..	7.35

VITA BAND 40 (Fertilized)

2x2x2 1/2 in.—Per 1,000	\$5.40
2 1/2 x 2 1/2 x 3 in.—Per 1,000	\$6.95
3x3x3 in.—Per 1,000	\$8.10

TOM THUMB FLAT AND PLANT BAND COMBINATION



Without Bands

With Bands

With Vita Band 10 fertilized Plant Bands, 500 Sets (500 flats, 6,000 bands, 2x2x2 1/2 in.), \$39.90.

WINDOW SILL GREENHOUSE

RE22—Waterproofed plant boxes for starting seedlings and plants indoors, consisting of a two compartment seed starter and two transplant boxes. Set, 29c.



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	7 1/2	9	\$1.35
7	12	9	11	1.95
9	14	11	13	2.85
11	16	12 1/2	15	3.50
13	18	14 1/2	17	4.85

TWIST-EMS

E—8 in. box of 100, 25c.
D—16 in. box of 100, 50c.



KNEE PADS

KNEEL-EZ. Made of solid black molded rubber. A sponge rubber inner cushion protects the knees; adjustable straps imbedded completely in the rubber. For gardening, laying cement, carpenter work, etc.

Pair \$2.00



SOIL-SOAKER

Made of Canvas

- No. 1, 18 ft. \$1.98
- No. 2, 30 ft. 2.98
- No. 3, 50 ft. 4.75

SOIL-SOAKER

WATER HOSE



- CORNET.** 5/8 in. 1 braid, 25 ft. lengths, \$2.60; 50 ft. length, \$4.95. (Couplings included.)
- SURPRISE.** 5/8 in. 2 braid; red. 25 ft. lengths, \$3.85; 50 ft. lengths, \$7.65. (Couplings included.)
- SURPRISE.** 3/4 in. 2 braid, black, smooth, 50 ft. lengths, \$11.50. (Couplings included.)
- SUPLEX LP.** (Green). Plastic; tested under all climatic conditions and guaranteed for five years. 25 ft., \$3.65; 50 ft., \$5.85; 75 ft., \$8.65.
- QUALASTIC.** Made of rubber and plastic mixture, guaranteed five years. Blue. 25 ft., \$3.35; 50 ft., \$5.85.



- SPRAY HOSE**
3/4 inch, 20c per ft.
- SPRINKLERS**
- 5044 (Illustrated) \$.80
 - Belfont85
 - 156—Tulip 1.25
 - 5040—Ring 1.65
 - 5011—Greenlawn 1.75
 - 100—Lifetime 1.50

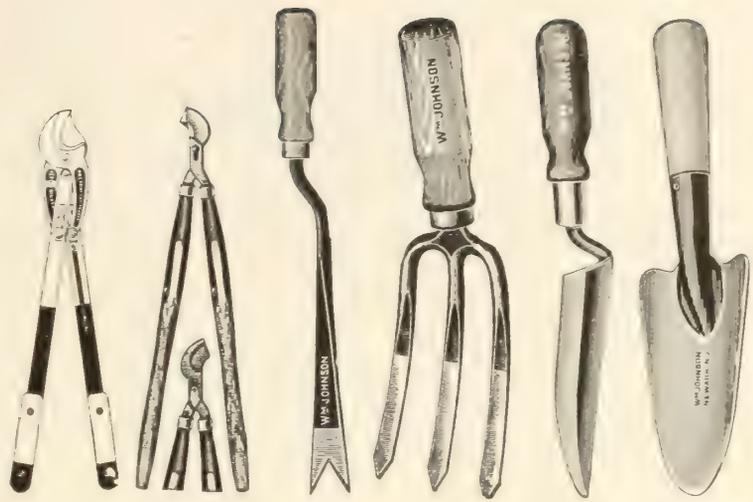
- HOSE NOZZLES**
- 161.....\$.60
 - 155.....\$.90
- SKINNER SPRAY WAVE SPRINKLER**



Waters up to 40x50 ft. (Illustrated). \$18.95.

ROTO-SPRAY. Waters up to 75 ft. diameter on 30 lb. pressure. \$18.75.

- GRAFTING WAX**
- Trowbridge Brand. 1/4 lb., 30c; 1/2 lb., 45c; 1 lb., 70c.
- FRUIT PICKER** — Without pole, 70c.
- MOLE TRAPS**
- 200 Eoddick (Illus.) \$1.65



PORTER 5403 2500 300 211 222

- LOPPING SHEARS**
- PORTER POINT CUT No. 1**—20-inch steel handles, adjustable draw-cut \$7.50
- 5406—20-in. hdl. 3.15
 - 5403—22-in. hdl. (drawcut) illustrated 5.35
- ASPARAGUS KNIFE**
- 2500J—Short handle \$.45
 - ASPARAGUS BUNCHER** \$4.50

- THERMOMETERS**
- 5140—7 1/2 in. indoor, maroon lac. \$.75
 - 5126—6 in. indoor, walnut ... 1.25
 - 5316—8 in. outdoor, white enamel 1.25



- WEEDER**
- A—3 Tines, 9 1/4 in. handle \$.20
 - B—3 Tines, 18 in. handle25
 - BB—3 Tines, 33-in. handle40
 - C—4 Tines, 10-in. handle25
 - D—4 Tines, 10 1/4-in. handle with square blade40
 - E—4 Tines, 10 1/4-in. handle with "V" blade40
 - SL12—V shaped cutting edge, 3 1/2 ft. handle60
 - G—4 Tines, 57-in. handle 1.15
 - H—4 Tines, 48-in. handle with square blade 1.25
 - K—4 Tines, 48-in. handle with "V" blade 1.25
 - Rife Weeder, long handle 3.35



- GRASS SHEARS**
- 5600
 - 801

- 801 (Wiss), Illustrated \$1.40
- Doo-Klip Snip-Itt, Similar to 801 1.65
- Doo-Klip, Standard 1.75
- 5600 (Wiss), Illustrated 2.25
- Doo-Klip, long handle 3.50
- Miracle 2.15

- CORN KNIVES**
- Little Giant \$.40
 - C. C. Brooks50
 - Cumberland Valley50
 - Black Diamond50
 - Nowatoco70

- HAND GARDEN FORKS**
- 300—3 Tine \$.50
- GARDEN TROWELS**
- 217J—6 in. Transplanting20
 - 215J—6 in. Steel Blade30
 - 222J—5 1/2 in. Strawberry30
 - 212—6 in. Steel Blade35
 - MELCO—6 in. Aluminum60
 - MELCO—6 in. Transplanting, alum.60
 - 211J—6 in. Forged Steel90

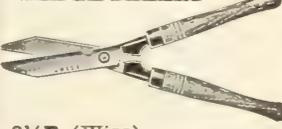


- DIBBLES**
- 218J—Wood bent handle, steel point, Steel Points only ea. 50c



- HOLE-IN-ONE TOOL**
- 75c

- TREE PRUNER**
- 8 ft. \$3.25
 - 10 ft. 3.75
 - 12 ft. 4.25
- PRUNING HOOKS**
- Without Pole
 - 11—Telephone ..\$3.50
 - 166—Pruning shear and hook 2.75
 - 167—Pruning, curved saw, shear and hook 3.75

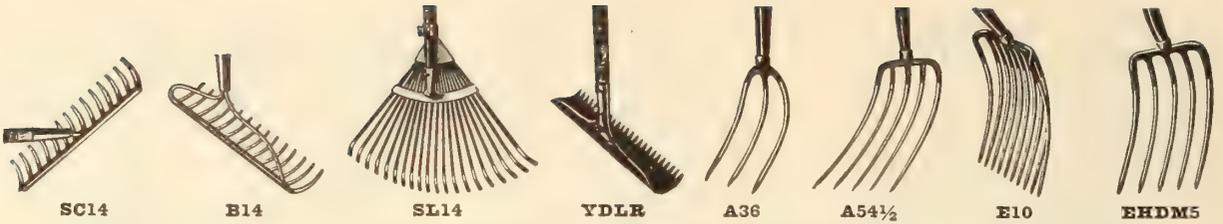


- HEDGE SHEARS**
- 8 1/2 B (Wiss), 8 1/2 in. \$3.50
 - Doo-Klip—9 in. 4.50
 - 8 1/2 E (Wiss), 8 1/2 in. 4.75

- PRUNING SAW**
- 118—18 inch \$1.50
 - 162—20 inch 2.75



- PRUNING SHEARS**
- 615—(Flower) 6 1/2 in. cuts and holds stem in one operation \$1.85
 - 908—(Wiss) 8 in. Anvil 2.50
 - 119—Snap Cut, 8 in. Anvil 2.50



LEVEL HEAD CURVED TOOTH RAKES
 FR-Floral 8 Teeth \$1.00
 RHLSC 14 Teeth 1.10
 SC14 14 Teeth 1.50
 SC16 16 Teeth 1.65

ROUND BOW CURVED TOOTH RAKES
 B14 14 Teeth \$1.70
 B16 16 Teeth 1.80

BROOM RAKES
 Teeth
 BR22 22-14 in. \$1.10
 SL14 22-14 in. 1.20
 Gardex 22-12 in. 1.25
 Disston 18-14 in. 2.00
 Disston 24-14 in. 2.75
 24 Teeth—Wire .75
 33 Teeth—Bamboo .75

DANDELION RAKES
 Teeth
 YDLR 26-3 1/2 in. \$1.50

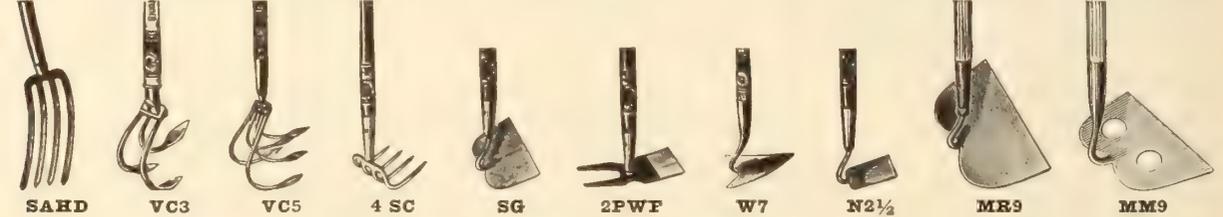
WOOD LAWN RAKE
 24 Teeth, 95c

MANURE FORKS
 Tines
 RHA4 1/2 4-12 in. \$1.85
 A4 1/2 4-12 1/2 in. 2.25
 A5 1/2 5-12 1/2 in. 2.50
 RHA5 1/2 6-12 1/2 in. 2.05
 RHA6 1/2 6-12 1/2 in. 2.25
 A6 1/2 6-12 1/2 in. 2.70

HAY FORKS
 Tines
 A36 3-12 in. \$2.45
 RHA36 3-12 in. 2.00

ENSILAGE FORKS
 Oval Tines
 E8 8-16 in. \$4.15
 E10 10-16 in. 4.60

HEAVY FORKS
 Tines
 HOM4 4-16 in. \$3.90
 EHDMS 5-16 in. 5.05



SPADING FORKS
 Flat Tines
 SAHD 4-11 in. \$2.30
 SALD 4-11 in. 1.95

VICTORY CULTIVATOR
 Tines
 VC3 3 \$1.45
 VC5 5 1.70

SPEEDY CULTIVATORS
 Tines
 4SC 4 \$1.80
 SL5 4 1.80

GARDEN HOES
 L5 (Ladies) 5 in. blade \$1.30
 RHSG—6 1/2 in. blade 1.30
 SG—6 1/2 in. blade 1.60

SHRUBBERY HOE
 SL19—1 1/2 x 6 in. blade \$.65

TWO PRONG HOES
 2PWF—3-9/16 in. blade \$1.60
 SL7—3-9/16 in. blade 1.60

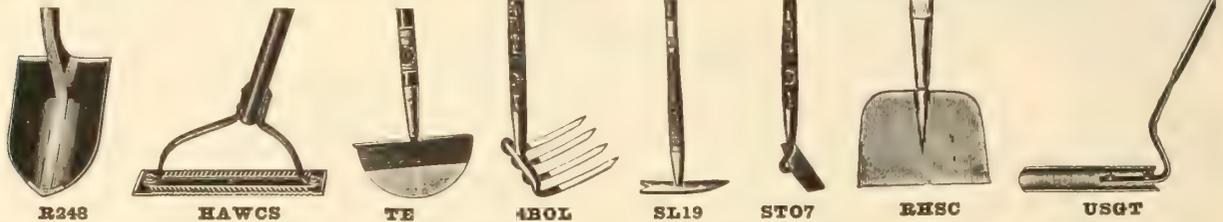
WARREN HOES
 SL6—4 3/4 in. blade \$1.50
 W7—4 3/4 in. blade 1.60

NURSERY HOES
 N2 1/2—2 1/2 in. blade \$1.50
 SL4—2 1/2 in. blade 1.45

MORTAR HOE
 MR9 \$2.75

MORTAR MIXER
 MM9 \$2.75

ONION HOE
 STO7—7x1 1/4 in. blade \$1.55



SHOVELS
 Rd. Pt. Long Hdl.
 No. 0-717L, Ladies \$1.90
 No. 903RS 1.75
 No. 2XL-703 2.10
 R248 Razor Back 1.75
 Sq. Pt. Long Hdl.
 GPL—Snow 1.15
 No. 2-701 Ingersoll 1.85
 S248 Razor Back 1.85
 Sq. Pt. "D" Hdl.
 GPD—Snow 1.15
 No. 2-700 Ingersoll 1.85
 No. 6-956 2.15
 Rd. Pt. "D" Hdl.
 FSH—Floral 1.60
 No. 2-702 Ingersoll 1.85
 R2UD Razor Back 1.75

SPADES
 GSUD Razor Back "D" Handle \$1.70
 No. 2-724 "D" Hdl. 1.85
 GS48 Razor Back, long handle 1.70

CHAMPION POTATO SCOOP
 No. 70—Heavy wire, "D" handle \$3.15

SIDEWALK SCRAPER
 RHSC—7x4 1/2 in. blade \$1.00
 SSC—7x6 in. blade 1.65

WEED CUTTERS
 HAWCS \$1.25

LAWN EDGER
 Te-Blade—9x4 1/4 in. \$1.60
 Planet Jr. No. 2 2.50

GRASS TRIMMERS
 USGT Union \$.95
 V165 Graswhip 1.90

ALL PURPOSE HOE
 \$1.35



GRASS HOOKS
 Lightning \$.50
 Little Giant .75
 No. V3 1.00
 Little Giant Long Handle 1.00

SCYTHES
 Best American Grass \$2.15
 Bush or Brier Scythes 2.25
 Weed Scythes, 24 in. 2.45

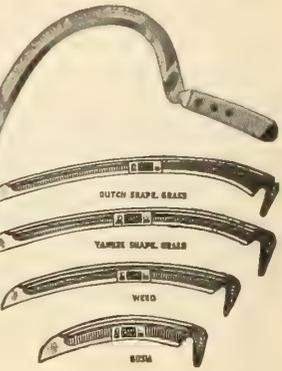
SNATH or SCYTHE HANDLES
 Grass Snath, light. \$2.65
 Bush Snath, heavy. 2.90

SCYTHE STONES
 Darby Creek (Flat) \$.25

WEED SLUGGER
 No. 7G \$2.75

BRUSH HOOKS
 No. 1130 \$2.60

POTATO HOOKS
 Tines
 4BOL 4-6 1/2 in. \$1.85
 5BOH 5-7 1/2 in. 2.40



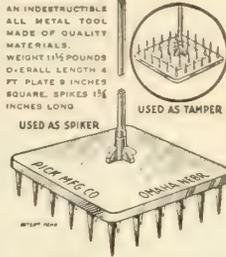
AXES
 Collins, 3 to 4 lbs. \$2.75

MATTOCKS
 5 lb., 3 1/2 in. cutter \$1.65 (Handles Extra)

BROOMS
 Palmyrah \$.85
 12B-BASS .95
 Stable Push 1.25

WATER BALLAST LAWN ROLLERS

Equipped with ball bearings and scraper.



\$6.25

- 601—14x24, Empty 70 lbs.; Filled 175 lbs. \$19.30
- 602—18x24, Empty 85 lbs.; Filled 265 lbs. 22.30
- 603—24x24, Empty 110 lbs.; Filled 420 lbs. 28.00
- No. 4 Dunham—18x24 15.75
- No. 7 Dunham—24x24 18.75

GARDEN CART



Light, strong, welded all-steel body, steel axle and wheels with solid rubber tires. 18 in. wide, 27 in. long; capacity 2 1/2 cubic feet.

Standard \$8.50



**OK-TRIM
ELECTRIC
HEDGE
TRIMMER**

\$12.85

...TRIM
HEDGES
THE
Easy
WAY



Does in minutes, what usually takes hours or days. Sizes for the home garden, estates and parks.

With 5 Feet of Wire

Junior Model 27"—\$69.50

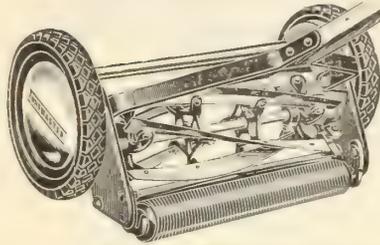
Senior Model 36"—99.50

Senior Model 60"—137.50

WITH THE

**"LITTLE WONDER"
ELECTRIC HEDGE TRIMMER**

LAWN MOWERS QUIET TURFMASTER BALL BEARING



Streamline design; 5 blades, self sharpening; 10 in. dia. wheels, semi-pneumatic rubber tires, Chromium hub cap, rubber roller, steel handle. 16 in. \$22.00

GRASS GROOMER BALL BEARING

Attractive streamlined mower 5 blades, self-sharpening; 10 in. dia. wheels, semi-pneumatic rubber tires, rubber roller, wood handle. 16 in. \$20.00.

DIAMOND DELUXE BALL BEARING

A high grade mower of fine quality. 5 blades, self-sharpening; 10 in. dia. wheels, solid rubber tires, wood roller, wood handle. 16 in. \$19.00.

ECLIPSE MODEL "L"

5 Blades, semi-pneumatic rubber tires. 16 in. \$28.95; 18 in. \$30.50.

ECLIPSE ZEPHYR

5 Blades, rib tread tires. 16 in. \$24.95.

GRASS CATCHERS

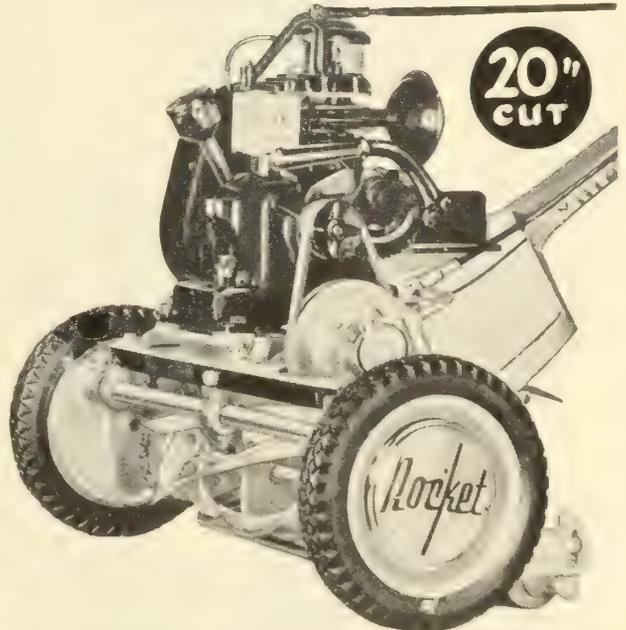
For hand lawn mowers 14 thru 18 inches. \$1.65.



A popular type of glove—for **MEN** and **WOMEN**—specially designed for garden wear.

Size 6, 7, 8 ... \$1.15 Pair Size 9, 10 ... \$1.25 Pair
SWAGGERTS—Rubber coated outside, soft fabric inside, pastel green. Medium, large. \$.85 pair.
No. 909—Men's knit wrist rubberized fabric, curved fingers, full size, black. \$.85 pair.

ECLIPSE ROCKET POWER MOWER



Briggs & Stratton 4 cycle motor, semi-pneumatic tires, 5 blades, self-sharpening, 20 in. cut. \$137.50.
ECLIPSE PARKHOUND POWER MOWER—21 inch cut. \$149.50.
ECLIPSE ROLLOWAY POWER MOWER—25 inch cut. \$249.50.
ECLIPSE TORNADO POWER MOWER—Sickle type, 36 inch cut. \$185.00.

FOB Factory.

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 Fibreboard Setter.....	\$ 70
100 Hotkaps with Fibreboard Setter.....	2.75
250 Hotkaps with Fibreboard Setter.....	4.65
1000 Hotkaps.....	\$14.65 per 1000; 10,000, \$14.35 per 1000
Fibreboard Setter .....	.20
Steel Setter	1.95

SOIL PULVERIZER



No.	Length	Pulverizes	Weight	Price
628	9ft.	98 in.	1100 lbs.	\$185.00

POTATO DIGGER

Success Jr., Two Wheel \$17.50

BACK BANDS

Plain G-56 .....	.35
Padded E-56 .....	.45
351-L .....	.50

Asparagus Tape Jute Cord
Binder Twine Hay Rope
Cotton Cord Plow Lines

Prices On Request

State Quantity Wanted.



FELINS

VEGETABLE

TYING MACHINE

Save Hours of Labor with this Machine.

Bigger and Better Than Ever.
\$86.65

WHEELBARROWS



No. 3

No. 1. 30 inches long, 24 to 25 inches wide. Sideboards 12 inches high, tread 2 3/4 in. \$28.90.

No. 3. 26 inches long, 19 to 22 inches wide. Sideboards 12 inches high, tread 2 3/4 in. \$21.20.

No. 1-RTW. Size of body 30 in. long, 24 to 25 in. wide, sideboards 12 in. high, with 2 ply 4:00x8 pneumatic rubber tired wheel, roller bearing. \$36.60.



No. 174-RTW

No. 174-RTW. Size of tray 37 by 28 in., capacity 4 cubic feet, with 2 ply 4:00x8 pneumatic rubber tired wheel, roller bearing. \$30.70.



No. 174

No. 174
Size of tray 37 by 28 ins.; capacity 4 cubic ft.
\$17.30

OLIVER PLOW REPAIRS



	Mould-boards	Land-sides	Solid Shares	Slip Shares
AC-2	\$2.80	\$1.20	\$.75	....
BC	3.75	1.50	1.05	....
10	4.00	1.75	1.10	\$1.30
13	4.55	1.90	1.15	....
19	5.80	2.25	1.40	1.60
20	6.90	2.55	1.50	1.70
E	8.25	2.45	1.80	2.00
40	8.50	2.90	1.90	2.10
83	8.00	....	2.00	....
84-88 12 in.	8.50	....	2.00	....

SLIP POINTS

.....25c

SYRACUSE PLOW REPAIRS

	Mould-boards	Land-sides	Solid Shares	Slip Shares
603	\$5.45	\$2.20	\$1.80	\$1.95
602	6.90	2.60	1.80	1.95
601	7.45	3.45	2.05	2.20
1462	6.40	2.30	1.35	....
1463	5.45	1.80	1.80	....

SLIP POINTS, A and B

CHATTANOOGA REPAIRS

	Mould-board	Land-side	Solid Share	Slip Share
65	\$6.95	\$2.70	\$1.55	\$1.80

INTERNATIONAL SOLID SHARES

No. 6002DS	\$1.80
No. 6007DS	1.95
No. 6175DS	1.95

BOSS REPAIRS

	Mouldboard	Landside	Share
1 1/2-2	\$.85	\$.75	\$.55
2 1/2-3	1.25	.75	.65
20	2.00	....	.80

HOLLAND TRANSPLANTERS

ECONOMY • ACCURACY • DEPENDABILITY

Transplants perfectly cabbage, strawberries, tomatoes, tobacco, and all plants which are transplanted.



Mr. H. Castellini and two assistants operating 3 row Self-propelled Transplanter

MECHANICAL ONE ROW. 53 gal. capacity galv. water barrel; with either pole or tractor hitch; Steel wheels; less fertilizer attachment. **\$188.00.**

MECHANICAL TWO ROW. Row spacing can be adjusted from 2½ ft. to 4 ft.; plant spacing from 16 in. to 5 ft.; (12 in. spacing available at small additional cost.) 53 gal. capacity galv. water barrel, with new type tractor hitch; steel wheels. **\$376.00.**

ONE ROW FERTILIZER ATTACHMENT, \$46.00.

TWO ROW FERTILIZER ATTACHMENT, \$92.00.

TWO ROW POWER DRIVEN CELERY PLANTER. For celery, onion, and all other small plants set from 3 in. to 12 in. apart in the row. Equipped with 2 H.P. Fairbanks-Morse Water-Cooled Gas Engine. **\$360.00.**

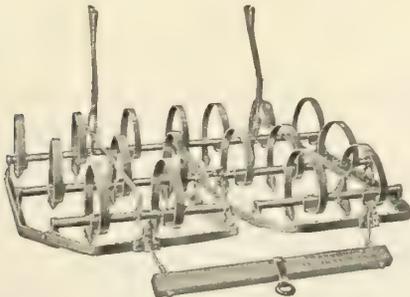
CELERY PLANTER UNITS, \$80.00.

WATER BARREL AND ATTACHMENTS. For watering plants. **\$16.00.**

FOB Factory

Illustrated Folder Mailed Upon Request

RODERICK LEAN SPRING TOOTH HARROWS ALL STEEL—"SPW" SERIES



PIPE BAR—Adjusting Lever—Low Frame—Adjustable Teeth—One Short Center Runner.

No.	Teeth	Section	Weight	Price
7SPW.....	17	2	274 lbs.	\$62.75

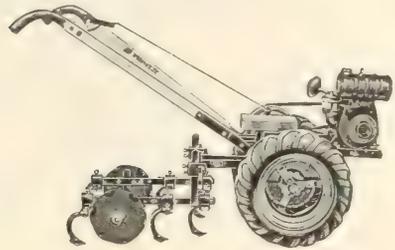
"TPW" SERIES ONE LEVER CONTROL TRACTOR SPRING TOOTH HARROW

With special draw bar and tractor clevis, plain teeth.

Section	Teeth	Width	Weight	Price
3	25	9	445 lbs.	\$116.75

GARDEN TRACTORS

ECONOMICAL FOR GARDEN OR LAWN



PLANET JR.

1½ H.P. Tractor with 4:00x12 Rubber Tires (Less Equipment) (Model BP).....	\$174.50
2½ H.P. Tractor with 5:00x12 Rubber Tires (Less Equipment) (Model B8).....	237.00
3 H.P. Tractor with 5:50x16 Rubber Tires (Less Equipment) (Model HB).....	365.00

ATTACHMENTS FOR 1½ H.P. TRACTOR

B12—Cultivator	\$32.50
B1—Narrow One Row Cultivator	24.25
B2—Narrow Two Row Cultivator	27.95
AB56—Field Mower	76.50
AB35—Two Row Seeder	71.25
B62—Disc Harrow	39.50
B21—6" Plow with Coulter	36.50

FOB Factory

Free Descriptive Catalog Mailed Upon Request

SIMPLICITY

MODEL D —Four Speeds; 1½ H.P. Tractor with 4:00x12 Rubber Tires (Less Equipment).....	\$149.50
5365 Cultivator with rubber tired wheel and depth screw regulator	25.00
5384 30" Sickle Bar Mower	54.00
5346 24" Lawn Mower	60.00
5317 Lawn Mower Hitch for Hand Lawn Mower	6.95
5379 6-12" Disc Harrow	24.00
5399 6½" Plow with 10" Swivel rolling coulter and depth screw regulator	24.50
5332 30" Snow Plow	16.50
5350 Counterweight	6.50
5327 Gang Tool Holder with six duck feet, Pair.	4.80

MODEL M—Especially designed for plowing. Will handle an 8 in. plow and all other Model "D" attachments are interchangeable. Has four speeds, is powered by the all new Briggs & Stratton Model 9 Engine, the latest in engine design; develops actual 3.1 H.P. **\$219.50.**

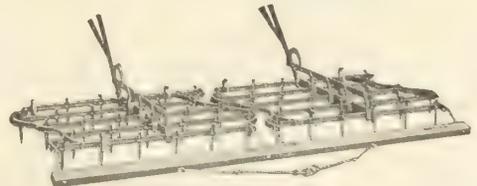
5511 8" Plow with rolling swivel coulter. **\$28.00.**

5378 8-12" Disc Harrow. **\$28.00.**

FOB Factory

Free Descriptive Catalog Mailed Upon Request

RODERICK LEAN SPIKE TOOTH HARROWS "VOW" LEVER HARROW

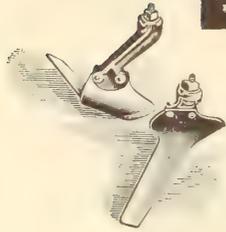


Diamond teeth, 5-bar guarded end adjusting lever.

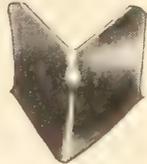
No. 14VOW—50 teeth, two section, with drawbar, 7½ ft. cut, weight 180 lbs. **\$47.95.**

No. 15VOW—60 teeth, two section, with drawbar, 9 ft. cut, weight 200 lbs. **\$53.05.**

Planet Jr Garden Tools



HOES



SHOVEL STEEL



HILLER



TURNING SHOVEL



FURROWER

CATALOG ON REQUEST

CULTIVATOR STEELS

No.	Size	No.	Size
4064	1 x 8	1888	1 1/4 x 10
1156	1 1/4 x 8	1249	1 3/4 x 10
2367	1 3/4 x 8	1199	2 1/4 x 10
2368	2 1/4 x 8	1200	3 x 10
2369	3 x 8	1201	4 x 10
2370	4 x 8		

SHOVEL STEELS

No.	Size	No.	Size	Pair
2539	7"	4059/60	4 1/4"	\$1.60
2540	8"	4061/62	6"	1.75

HOES

SINGLE WHEEL HOE
No. 16 (Illustrated)
\$13.65



19—Garden Flow with cultivator tooth, sweep and plow. \$7.70.
12—Double Wheel Hoe. \$17.25.
119—\$6.75 119W—\$7.85

HILLERS AND PLOWS

No.	Size	No.	Size
1167/8	6" Hiller		
495/6	7" Plows		

TURNING SHOVELS

No.	Size	No.	Size
3822/3	5" \$1.05 pr.	1161	10"
3580/1	6" 1.20 pr.	2621	12"
3824/5	7" 1.55 pr.	1162	15"

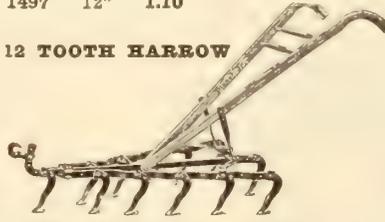
FURROWERS

No.	Size	No.	Size
1161	10"		
2621	12"		
1162	15"		

IMPROVED SWEEPS

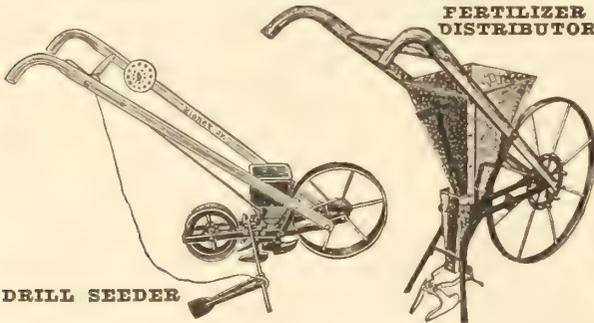
No.	Size	No.	Size
1494	5" \$.55	1498	15" \$1.40
1495	8" .70	1499	18" 1.90
1496	10" .85	2731	3" .40
1497	12" 1.10		

12 TOOTH HARROW



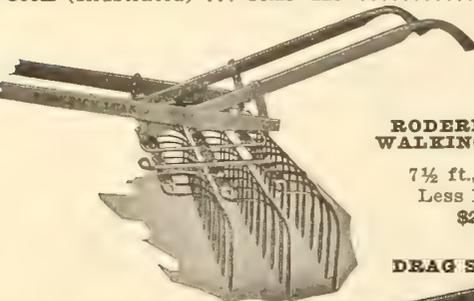
92D—(Illustrated.) Weight 45 lbs. \$16.25.
90D—Expands to 32 inches, contracts to 12 inches. Weight 54 lbs. \$18.25.

FERTILIZER DISTRIBUTOR



DRILL SEEDER

300A	219
4D	219 (Illustrated)
300A (Illustrated)	220



RODERICK LEAN WALKING WEEDER

7 1/2 ft., 39 teeth
Less Runners
\$28.95

DRAG SCOOPS



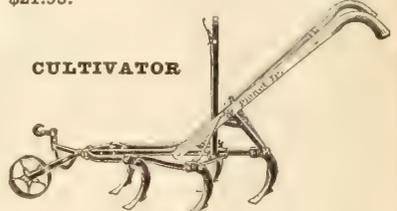
1—100 lbs.,	\$18.25
2— 90 lbs.,	17.00
3— 80 lbs.,	14.75

HORSE HOE



8—(Illustrated.) \$27.95.
9D—Same as illustrated, less the depth regulator and steel lever wheel. \$21.95.

CULTIVATOR

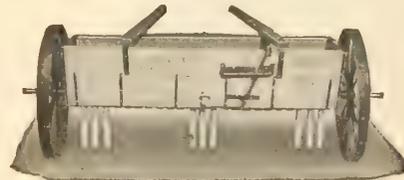


101D—As illustrated, less wheel, weight 44 lbs. \$15.25.
100D—As illustrated, less lever expander and wheel, weight 38 lbs. \$13.25.
4D—As illustrated, less wheel and lever expander, weight 49 lbs. \$15.25.
9D—As illustrated, less wheel, weight 56 lbs. \$18.75.

WALKBUCK WHEEL GARDEN PLOW AND CULTIVATOR

When plowing or cultivating the Walkbuck Way the arms and shoulders are used only to guide the plow or regulate the depth of operation. The pushing power is exerted at an angle of greater efficiency by the weight and forward leaning movement of the operator. The Walkbuck rests comfortably and flexibly across the hips or center of mass of the person plowing. Equipment includes turn plow, five tooth cultivator, sweep. \$14.95.

"SO-RITE" UNIVERSAL FERTILIZER AND LIME SOWERS



As a Fertilizer Drill—Rubber spouts are adjustable to any width rows. The quantity to be sowed is regulated by lever on back of machine.

As a Broadcaster—Remove all stoppers and spouts.

No.	Width	No. Sprouts	Weight	Price
5-UW-6-1	3 ft. 1-Horse	6	225 lbs.	\$74.90
600-U1-9-1	6 ft. 1-Horse	9	325 lbs.	88.70
700-U1-9-1	7 ft. 1-Horse	9	350 lbs.	92.90
800-U1-9-1	8 ft. 1-Horse	9	375 lbs.	99.75
900-U1-9-2	9 ft. 2-Horse	9	400 lbs.	109.70
1000-U1-9-2	10 ft. 2-Horse	9	425 lbs.	117.95

Extra Spouts Complete \$1.32 Each

MANNS' CHICKS

FROM UNITED STATES APPROVED—MARYLAND
STATE SUPERVISED AND INSPECTED FLOCKS
PROVEN TO BE PULLORUM FREE



WE GUARANTEE DELIVERY

100% LIVE VIGOROUS CHICKS

With Profit Producing Characteristics Bred Into Them



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.

ORDER EARLY—SPECIFY DATE WANTED

Order Early. Prices are subject to change but you will be given full benefit of any reduction in prices until shipping date.

	As Hatched	Sexed Pullets	Cockerels
Barred Rocks	\$14.00	\$21.00	\$11.00
White Leghorns	14.00	29.00	4.00
White Rocks	14.00	21.00	11.00
Barred Crosses	14.00	22.00	12.00
New Hampshire Reds	14.00	23.00	10.00

300 or more 50c per 100 less.

Less than 100 lots add 1c each.

TURKEY FOULTS. Broad Breasted Mammoth Bronze.
95c ea.; \$85.00 per 100



Barred Plymouth Rock



New Hampshire Red

DOG FOODS

CONKEYS Y-O DOG RATION—Contains yeast and cod liver oil; meal or cubes.

10 lbs., \$1.25; 25 lbs., \$2.70; 100 lbs., \$9.90.

CONKEYS DOG AND CAT Y-O. 1 lb. 5 ozs. \$1.00.

FOR ECONOMY
Give Your Chicks The Best
FEED THEM

Conkeys



(The Original)

Let Us Quote

YO STARTING FEED	SUPERIOR SCRATCH
YO GROWING MASH	PIGEON FEED
YO EGG MASH	RABBIT FEED

CONKEYS Y-O

5 lbs., \$1.85; 25 lbs., \$6.85; 100 lb. drum, \$21.50.

CONKEYS POULTRY REMEDIES

DIA-TAB TABLETS. 25-25c; 55-50c; 125-\$1.00.
INHALENT SPRAY (Concentrated) ¼ pt., 65c; ½ pt., \$1.00.
INHALENT SPRAY (Ready to use) qt., \$1.00.
LICE POWDER, 12 oz., 25c.
NOXICIDE, pt., 40c; qt., 70c; gal., \$1.75.
OLD RELIABLE POWDER, oz., 25c; 2½ oz., 50c; 7 oz., \$1.00.
100 TO 1 POWDER, 4 oz., 30c; 1 lb., \$1.00.
PICK-END BITTERS, 2¾ oz., 25c; 7¾ oz., 65c.
POULTRY TONIC, 1½ lbs., 30c; 3½ lbs., 55c.

LEE'S POULTRY REMEDIES

ACIDOX, 4 oz., 50c; 12 oz., \$1.00; 32 oz., \$2.00; ½ gal., \$3.50; 1 gal., \$6.50.
FLOCK WORMER, 8 oz. \$1.25.
GERMOZONE, 4 oz., 40c; 12 oz., 75c; 32 oz., \$1.50; ½ gal., \$2.50; gal., \$4.50.
GIZZARD CAPSULES—Adult 50-75c; 100-\$1.25.
GIZZARD CAPSULES—Pullet 50-50c; 100-\$1.00.
GIZZARD CAPSULES—Chick 50-40c; 100-75c.
LEEMULSION, 4 oz., 50c; 12 oz., \$1.00; 32 oz., \$2.00.
MITE KILLER, qt., 60c; gal., \$1.50.
PICKPASTE, 2 oz., 25c; 6 oz., 60c.
SULFAMERAZINE, 4 oz. \$1.25; 12 oz. \$3.00.
TONAX, 2 lbs., 75c.
VAPO-SPRAY, pt., 50c; qt., 75c; gal., \$2.00.

AVICOL

For white diarrhea. 60 tablets, 50c; 180 tablets, \$1.00.

DON SUNG

Makes hens lay. 45 tablets, 50c; 135 tablets, \$1.00.

GROUP-OVER

For Colds, Roup and Canker. 3 oz., 50c; 8 ozs., \$1.00.

PHENOTHIAZINE

Very effective for worming livestock, can be mixed with feed or given individually. 1 lb., \$1.25.

"T. S. F."

Kills chicken lice. ½ lb., 35c; 1 lb., 60c.

TOXITE

Disease Control Spray—Controls poultry Coccidiosis, Round Worms and Red Mites which are transmitted by contaminated litter. Qt., 75c; gal., \$2.00.

"BLACK LEAF" WORM POWDER

4 oz., 100 birds... 75c 1½ lbs., 600 birds... \$3.00
CHARCOAL—Fine, 3 lbs., 25c; 5 lbs., 35c; 50 lbs., \$2.50.
Coarse. 3 lbs., 25c; 5 lbs., 35c; 50 lbs., \$2.50.
GRIT, Coarse and fine, 100 lbs., \$1.00.
OYSTER SHELL, coarse and fine, 100 lbs., \$1.25.

CAPONIZING SETS

Dr. Salsbury—Set \$5.35

WRITE FOR FREE POULTRY BOOKS

CEL-O-GLASS

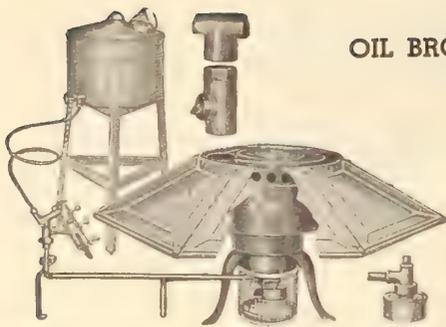
Now guaranteed for 5 years. Unbreakable weather proof, transmits violet rays (Glass does not). Ideal for poultry house, fronts, windows, and doors, and many other uses.

Standard Roll,
36 inches wide,
100 feet long, 36c
per running foot.



R-V-LITE VITAPANE

36 inches wide (cord base)..... 21c lineal foot
50 ft. roll (150 ft.)..... \$10.25 roll



OIL BROODER

256B—54 inch; 8-gallon tank; 700 chicks. Without Fuel Stand. \$27.15.

COAL BURNING BROODERS

A16—56-inch hoover, capacity 500 chicks. \$28.50.

ELECTRIC BROODERS

UB42—Galv. Metal, 500 watt enclosed type heater, with thermostat, size 36 in. by 42 in., capacity 200 chicks. \$20.00.

302. Galv. metal chick battery unit with 150 watt acra heater, micro switch and wafer thermostat. Size 23 x 36 inches. Capacity 100 chicks. \$17.95.

202—Square type canopy, 26 gauge galvanized steel, lined with Masonite presdwood. 500 Watt enclosed Acra Type heater with thermostat. Size 36 in. by 36 in.; capacity 150-200 chicks. \$23.25.



REEL TOP FEEDER

H224—24 in. galv. ... \$.40 H6360—36 in. galv. ... \$1.00
C236R—36 in. galv.95 H5480—48 in. galv. ... 1.60

GRILL TOP FEEDER



H7480—48 in. galv. ... \$2.25

FOUNTAIN AND FEEDER

CG6—(Crystal). Fits any Mason Jar. 15c.
HG25—Galv. 11c.

SINGLE WALL FOUNTAINS



H48—2 gal. Galv. \$1.30
HC3—3 gal. Galv. 1.95
HC5—5 gal. Galv. 2.60

SPIRAL BANDS

Dark blue, light blue, red, green, white.



Size Per 100
1/4 in. \$2.00
5/16 in. .30
9/16 in. .40
11/16 in. .50
3/4 in. .50

FLOCK FEEDERS

H25S—60 in. galv. ... \$6.00
H28S—96 in. galv. ... 8.80



TOP FILL FOUNTAINS

302S—2 gal. Galv. ... \$2.30
303S—3 gal. Galv. ... 3.50
305S—5 gal. Galv. ... 4.60
HK5—5 gal. Galv. ... 3.70
HK5H—5 gal. with heater 6.50
904—Automatic Valve and Float only 1.00

FOUNTAIN HEATERS

H5H—Oil, fits any 15 or 15 1/2 in. pan. \$2.80.
H82—Lamp with burner and wick. \$1.85.
H569—Elec., fits any 5 to 10 gal. fountain. \$6.00.

FEEDER AND WATERER



G16L—16 in. dia. 4 1/2 in. high, 16 qt. capacity. \$1.65

K. R. O.

Kills Rats Only
2 oz. (Mix with 2 lbs. bait) \$.75
Ready Mixed, 6 oz., 35c; 1 lb., \$1.00.

GALVANIZED PIPE

2 ft. lengths. 4 in., 35c; 5 in., 40c.

ELBOWS

4 in., 40c; 5 in., 45c.

GALVANIZED CAPS

HPC5—5 in., 35c.

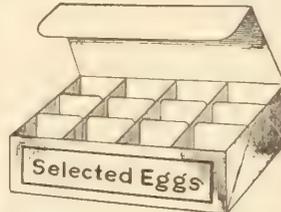
ROOF SADDLE

440. Adjustable. 4 in., \$1.25
HRS5—5 in., \$1.65.
N12—Non-adjustable. 4 in., 45c.

WAFFER THERMOSTATS

T-347—DeLuxe. 3-in. \$.35
T-434—4-in.45
128 Brooder Thermometers... .50
Incubator Thermometers65

EGG CARTONS



\$1.50 per 100; \$3.15 per carton of 250 (weight 26 lbs.). Postage extra.

EGG PRESERVATIVE



Qt., 60c; gal., \$1.70

EGG CANDLER



700 \$1.50

842—Capacity 20 lbs. by ounces in two revolutions; adjusted by set screw at top; 8 in. dial, figures in black on white enamel. Heavy galv. scoop and chain. \$8.50.

WIRE EGG BASKETS

44—Cap. 12 to 15 doz. \$1.00.

EGG CLEANERS

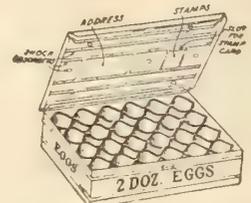


13 \$.35
14—10 ft. Cleaning Cloth \$30

Humane Poultry Killer \$1.85 517 Egg Grading \$1.75



METAL EGG CRATES



1-dozen size \$1.75
2-dozen size 2.00
3-dozen size 2.50
4-dozen size 3.00
6-dozen size 3.50

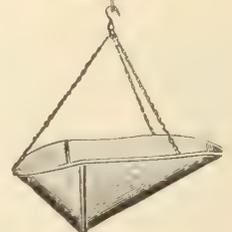
Postage Extra

SCALES

8910—Spring balance. Capacity 100 lbs. by 1 lb. \$4.50.



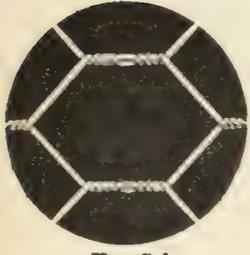
8910



842



POULTRY NETTING
Galvanized After Weaving



Hex-Cel

150-FOOT ROLLS

2-inch Mesh 20 gauge	1-inch Mesh 20 gauge
24 inch. \$3.85	12 inch. \$4.20
36 inch. 5.35	18 inch. 5.10
48 inch. 6.95	24 inch. 7.85
60 inch. 8.50	36 inch. 11.40
72 inch. 10.00	48 inch. 14.75

25 to 150 foot lengths

2-inch mesh 1 1/2 c per sq. ft.
1-inch mesh 2 1/2 c per sq. ft.

**BARBED WIRE
GALVANIZED**

4 point, 12 gauge, 6 ins.
between barbs. 80 rod reel
\$8.00

POST HOLE DIGGERS
\$3.15

EARTH AUGERS

8-8-14 in. \$9.45

**TOWNSEND WIRE
STRETCHER**

No. 500. Has hickory
handle and malleable clamp;
can be quickly adjusted.
\$2.25.

U STEEL FENCE POSTS

5 ft., 85c; 6 ft., 90c; 7 ft., 95c

STICKIT WICKIT FENCING

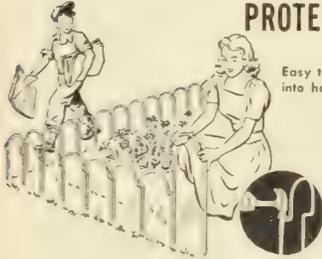
PROTECTS AND BEAUTIFIES

Easy to hammer
into hard ground

21" High, 12" Wide,
1/4" steel enameled green

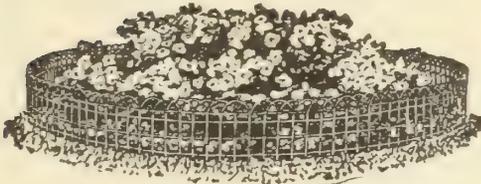
\$1.85
Doz.

In cartons of two dozens
(makes 24 feet of fence)



G & O WICKETS—\$1.95 per doz.

FLOWER GUARD



Designed for protecting Flower Beds

22-inch, per foot, 14c; 100 ft. roll, \$12.00.

HARDWARE CLOTH

2x2.....\$.03 sq. ft.	4x4.....\$.09 sq. ft.
3x3.....\$.03 sq. ft.	3x8.....\$.10 sq. ft.

100 sq. ft. or more deduct 1c per sq. ft.

COW TIES

4 1/2 ft.\$.35 each

TIE OUT CHAINS

20 ft.\$.90 each
30 ft.\$ 1.20 each

HALTER CHAINS

4 1/2 ft.\$.30 each

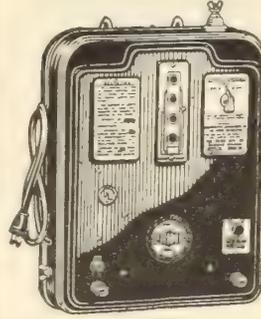
TRACE CHAINS

Lucky Mule, elec. welded; 7 1/2-10-2. \$3.25 Pair.

Victory: 7 ft.—\$1.50 pair

PRIME ELECTRIC FARM FENCE

Approved for Safety by Underwriters' Laboratories



110-120 Volt

486 (Illustrated)\$39.50
2C1 44.50

Battery Type

333\$24.95
580A 42.50

Accessories

Battery Cabinet 255, \$2.50.
Bulbs; P-363, 50c; P-364,
75c.

Clips Spring Tie P-19, 50c
per 100.

Electric Fence Tester, \$2.95.

Fuse Plug, P-407, 10c each; box of 5. 45c.

Fuses, P-523, 10c each; box of 5, 40c.

Gate Handles, P-500, 7 inch, 35c.

Gate Springs, P-501, 10c.

Insulators End and Corner, P-23, 5c.

Insulators End and Corner, P-26, 10c.

Insulators Standard, P-1, \$2.40 per 100.

Insulators Weatherproof, P-2, \$2.90 per 100.

Lightning Arresters, P-244, 30c.

Let us send descriptive catalog, prices
and free booklet on Electric Fencing.

**ROOFING MATERIAL
SMOOTH SURFACED**

Weight Per
Lbs. Roll

Panamold, medium .....	.45	\$2.40
Everlastic, heavy .....	.55	2.95
Everlastic, extra heavy....	.65	3.20

(Underwriters' label)

TARRED SLATERS FELT

500 square feet30 \$2.75

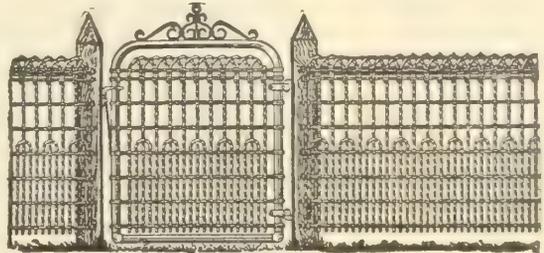


KUR-A-LEKE

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 com-
position roofings. Gal., 95c; 5 gals.,
\$2.75.



ORNAMENTAL LAWN FENCE



Very attractive and we believe the most durable wire
lawn fence made. Heavy galvanized. Spaces, 1 1/4 inches;
wire, No. 9 1/2 Crimped Pickets in No. 12 1/2 Tw. Cables.

	36-inch	42-inch	48-inch
	Per ft. 100 ft.	Per ft. 100 ft.	Per ft. 100 ft.
Single Loop ...	\$17	\$15.00	\$19
Double Loop ...	.23	21.00	.26
		23.50	.29
			26.00

ORNAMENTAL GATES

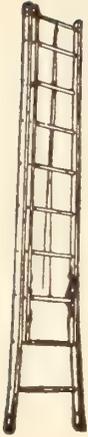
Heavy steel frames, filled to match the fence; fittings
for 1 1/2 in. iron posts included.

Width	Height	Price
42-inch	36-inch	\$6.90
42-inch	42-inch	7.15
42-inch	48-inch	7.45

EXTENSION LADDERS

Equipped with automatic locks, rope, and pulley. Rails are edge grained Douglas fir and oak dowels. (An allowance of 2 ft. should be made for lap on ladders 20 to 32 ft. and 3 ft. from 34 to 48 ft.)

In lengths from 20 to 32 ft. inclusive, 85c ft.
In length from 34 to 48 ft. inclusive, 90c ft.



SINGLE STRAIGHT LADDERS

10 to 24 ft. 80c ft.



FILTER DISCS

Plain round rapid-flo filter disks. 100 in box—6½ in. single face. Pkg. of 300 discs, \$2.62

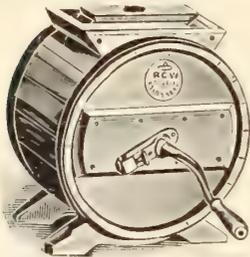
GLASS CHURNS

Size Churns
4 quart—2 quart.....\$2.65
8 quart—4 quart.....\$3.65

GLASS JARS ONLY

2 qt., 50c; 4 qt., 85c; 6 qt., \$1.00;
8 qt., \$1.20.

CYLINDER CHURN



No. 1—3 Gal. (churns 1½ gal.) \$6.00.

ICE CREAM FREEZER



Snowball (Triple Action). 2 qt., \$6.40; 4 qt., \$8.65; 6 qt., \$11.15; 8 qt., \$14.95.

HUDSON BARN EQUIPMENT

2A—Stall, \$12.05.
193—Stanchion, \$5.00.
181—Stanchion, \$3.82.
89—Water Bowls, \$4.90

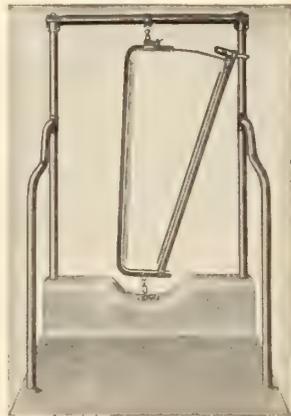


PARCHMENT BUTTER PAPER

Sizes 6x9, 9x12....Lb., 35c
Postage Extra

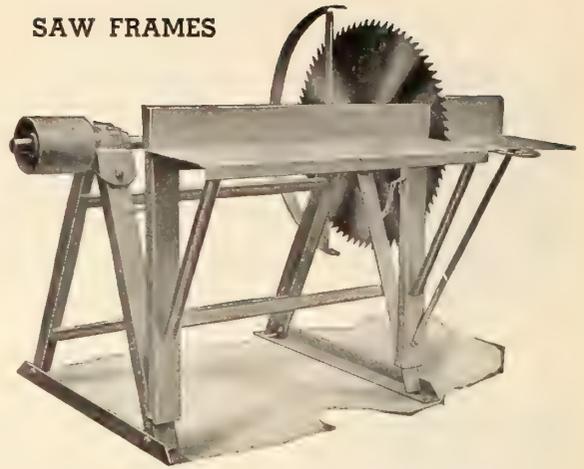
DANDELION BUTTER COLORING

Small, colors 500 lbs..\$.40
Medium, colors 1250 lbs.75



262—Hay Carriers, \$18.50.
268—Harpoon Fork, \$6.00.
249S—Rafters Brackets, 9c ea.
290—Hanger Hooks, 30c ea.
401—Track, 40c ft.

SAW FRAMES



No. 9—All steel saw frame; 3 to 5 H.P. with 30 in. blade and 50 lb. flywheel. \$60.00.

BLADES (Cross Cut)—Bore 1½-inch
18-inch, \$6.10; 24-inch, \$9.65; 26-inch, \$10.90; 28-inch, \$13.00; 30-inch, \$14.50.

SAWS

AA3—24 in. 8 pt. Penna. Hand Saw.....\$3.35
400—3 ft. Penna. One Man Saw..... 3.15
400—3½ ft. Penna. One Man Saw..... 3.70
800—5½ ft. Penna. Cross-Cut Saw..... 4.75
800—6 ft. Penna. Cross-Cut Saw..... 5.50
1½—Penna. Buck Saw..... 1.65

FARM BELT

Rubber coated canvas transmission belting; 4 in. wide; 4 ply; flat sides; black, 45c ft.

DAIRY SUPPLIES

Bag Balm, 75c.
Kow-Kare, 1¼ lbs., 75c; 2¾ lbs., \$1.35.
Conkeys Fly Kicker, qt., 60c; gal., \$1.50.
Conkeys Stock Tonic, 2¾ lbs., 55c; 6 lbs., \$1.10.
Hog Oil Wormer, 12 oz., \$1.00; qt., \$2.00.
Veterinary Dosing Syringe—1 oz. size, \$1.25.

CALF WEANERS, No. 103 Medium, 65c.

TEAT DILATORS for Cows, box of 18, 25c.

PERFECTION ANTI-COW KICKERS, \$1.00.

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. \$16.80.

WESTERN. Angular steel frame, adjustable steel seat and equipped with treadles, ball-bearing, strong and rigid. Stone 19 to 20 inches in diameter by 1¾ to 2-in. face. \$13.50.

LOOSE GRINDSTONES (centered) 20-22 in. dia. by 2 in. face. \$8.75.

Loose Grindstones, 6c per pound.



TOOL GRINDER

This very useful grinder is especially suited to farm work and can be easily clamped to a mower wheel or bench.

82—With Bevel Tool wheel only\$13.95
83—With both Flat and Bevel Tool Wheels..16.10
171—4½x1½ Dimeo-Grit Tool Wheel 3.25
DG3½—Beveled Wheel only 2.10



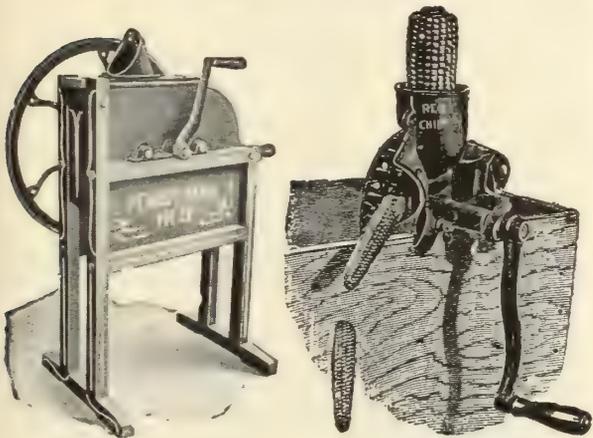
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Mail Your Order To Us
Prices F. O. B. Baltimore



HONEY JARS

- 6736—Plain Round, ½ lb. size, \$1.25 case 2 doz.
6741—Plain Round, 1 lb. size, \$1.60 case 2 doz.
6752—Plain Round, 2 lb. size, \$.95 case 1 doz.
6558—Honey Jar, 5 lb. size, \$1.50 doz.
White coated caps included

CORN SHELLERS



No. 3 \$30.00

Red Chief \$3.95

FEED CUTTER

This cutter is simple and durable. Hand lever type, has adjustable 11 inch tempered curved knife; gauge plate adjustable to any length of cut up to 3 inches. Cuts either green or dry fodder. \$11.00.

RURAL MAIL BOX

- 1—18¾ in. long, 6¾ in. wide, 8¾ in. high.....\$2.50
2—23¾ in. long, 11 in. wide, 13¾ in. high.....\$5.95

SALT BRICKS

- Worcester \$.20
Worcester Mineralized—
4 lb. brick, 25c; case of 15 bricks. \$3.00

MEAT CURING PRODUCTS

- Mortons Sugar Cure, (Smoke Salt) 7½ lbs., 90c.
Mortons Tender Quick, 4 lbs., 90c.
Mortons Sausage Seasoning, 10 ozs., 35c.
Mortons Meat Pump, \$2.00.

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.

2 MINUTE KIT—Tests for acidity only. Complete with instructions and charts. \$1.00

MODEL D (as illustrated)—Contains enough soil testing solutions to make 20 individual tests. \$2.50.

JR. PROFESSIONAL—Makes 50 individual tests for nitrogen, phosphorus, potash and acidity. Cased in handsome sturdy imitation leather. \$4.75.

HORTICULTURAL—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. \$12.50.

SUPER DELUXE—Widely used by large growers, nurseries and government departments. Makes 200 individual tests for nitrogen, phosphorus, potash and acidity. In handsome steel carrying case with complete instructions \$24.95

TESTING FLUID for refill. Specify whether for nitrogen, phosphorus, potash or acidity. 2 oz., \$1.00; 6 oz., \$2.00.

PARA WATERPROOFED TARPAULINS



GRIZZLY BRAND (12 oz. sq. yd. before waterproofing). Genuine canvas duck, color brown. Ruggedly constructed, heavy rustproof brass grommets set at each corner and along edges in double reinforced canvas patches.

Cut size before seaming and hemming	Approx. weight	Price
10x12	16 lbs.	\$11.40
12x16	23 lbs.	18.24
15x20	40 lbs.	28.50
16x24	50 lbs.	36.48

Sizes not listed available at proportionate prices.
F.O.B. Factory.

HANDLES

Axe, 19 in. Bobolink, House.....	\$.20
Axe, 34 in. Bobolink, Bent.....	.70
Axe, 36 in., Bent.....	.50
Cultivator, Rough, pair.....	1.35
Hammer, 14 in.....	.15
Hatchet, 14 in. Bobolink.....	.15
Hay Fork, 4½ ft., with ferrule.....	.90
Hay Fork, 6 ft. with ferrule.....	1.15
Hay Fork, No. 38A, 6 ft. with ferrule.....	1.30
Hoe, 4 ft. socket.....	.45
Hoe, No. 228, 4¼ ft. socket.....	.90
Manure Fork, IDL top, heavy, with ferrule.....	1.25
Manure Fork, No. 102A, 4½ ft. with ferrule.....	1.00
Mattock, 36 in. Natural, Bobolink.....	.70
Plow, Rough, pair.....	1.75
Rake, 6 ft., with ferrule.....	.70
Rake, No. 331, 5½ ft.....	1.00
Shovel, 4½ ft., single bend.....	.85
Shovel, 4½ ft., double bend.....	.85
Shovel, No. 1004, Razor Back, 4 ft.....	.85
Shovel, No. 1005, Razor Back, 27 in. "D" Hdl.....	.85
Sledge, 36 in.....	.60
Spading Fork, "D" top, with ferrule.....	1.20
Spading Fork, No. 154, 30" "IDL" Steel D Top, with ferrule.....	1.20
Window Brush, 12 ft.....	.75

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, cottonseed meal and inorganic forms such as nitrate of soda (tending toward an alkaline reaction), am-

monium 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.

FERTILIZERS

Analysis	List Price Per Ton	100 lbs.
0-14-7	\$38.75*	\$2.95
For: Alfalfa, Clover, Soybeans, Cowpeas, Corn, Wheat, Rye, Winter Barley, Pastures, Turf Grasses, Home Lawn.		
10-6-4	\$64.00*	\$4.65
For: Top Dresser, Spinach, Kale, Cabbage, Lettuce, Mustard, Turnip Greens.		
3-12-6	\$42.75*	\$3.25
For: Sweet Corn, Field Corn, Tomatoes.		
4-12-8	\$48.50*	\$3.70
For: Tomatoes, Asparagus, Potatoes, Sweet Potatoes, Carrots, Parsnips, Turnips.		
5-10-5	\$46.75*	\$3.50
For: Peas, Beans, Sweet Corn, Strawberries, Potatoes, Asparagus, Leafy Vegetables.		

*Less 10% C.O.D. Ton Prices include delivery to farm. If handled from factory deduct \$2.00 per ton.

ORGANIC PLANT FOODS

	lb.	5 lbs.	10 lbs.	25 lbs.	100 lbs.
Blood Meal (3 lbs., 50c)	\$.15	..	\$1.35	..	..
Bone Meal (Raw)	..	\$.35	.65	\$1.50	\$4.90
Bone Meal (Steamed)	4.50
Cotton Seed Meal	..	.40	.75	1.50	5.00
Cow Manure	..	.30	.50	1.00	3.35
Sheep Manure	..	.30	.50	1.00	3.35
Tobacco Stems (Meal)50	.90	2.85

AGRICULTURAL CHEMICALS, ETC.

	lb.	10 lbs.	25 lbs.	100 lbs.
Aluminum Sulphate	\$.10	..	..	..
Asparagus Salt	..	\$.65	\$1.25	\$3.85
Borax	..	.40	.65	1.90
Calcium Chloride	..	.10	.60	..
Copper Sulphate	..	.60	1.25	4.50
Epsom Salts	..	.20	1.25	4.50
Ground Phosphate Rock	..	.10	.65	1.25
Hydrated Lime (50 lbs., 75c)25	1.25
Iron Sulphate (Crystal)	..	.20	..	..
Muriate of Potash	..	.10	.75	1.50
Nitrate of Soda	..	.10	.80	1.50
Pulverized Ground Limestone (80 lbs., 75c; 160 lbs., \$1.25)
Sulphate of Ammonia	..	.10	.75	1.50
Sulphate of Potash	..	.10	.75	1.50
Super Phosphate (20%)	..	.10	.40	.75
Top Soil (500 lbs., \$5.00)20	.50
Zinc Sulphate	..	.20	..	..

ACTIVO

Popular composting chemical makes rich organic fertilizer out of vegetable waste. Stretches fertilizer; activates soil. No. 2 Size (approx. 2 lbs.) makes about 425 lbs. compost, \$1.00. No. 7 Size (approx. 6 lbs.) makes about 1400 lbs. compost, \$2.00.

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. 5 lbs., \$1.00; 20 lbs., \$2.50; 100 lbs., \$10.00.

FLORALIFE "B"

Prolongs life of cut flowers, retards wilting, prevents fading, maintains fragrance.

10c size makes two quarts solution
\$1.00 size makes thirty quarts solution

AFRICAN VIOLET SOIL

Specially prepared organic potting soil for African Violets. 4 lb. pkg., 50c.

DAHLIA FOOD

G. & O. Analysis 5-6-15. Can also be used on gladiolus, tulips, daffodils. The excess potash in this food balances the nitrogen and phosphoric acid. It forms starch and acids in maturing of well nourished roots. 5 lbs., 65c; 10 lbs., \$1.15.

ROSE FOOD

An organic plant food especially for roses. G. & O. Analysis 5-7-4. 5 lbs., 75c; 10 lbs., \$1.25; 25 lbs., \$2.75; 100 lbs., \$9.00. **TRIOGEN.** Analysis 5-10-5. 5 lbs., \$1.00; 10 lbs., \$1.60; 25 lbs., \$3.00.

TREE, SHRUB AND ORNAMENTAL FEED

G. & O. Organic 9-7-3. 5 lbs., 65c; 10 lbs., \$1.15; 25 lbs., \$2.50.

FRUITONE

When sprayed on blossoms of tomatoes or beans it produces better set and larger crop. 2 1/2 oz., 25c; 2-oz., \$1.00; 12-oz., \$5.00.



ROOTONE

Reg. U. S. Pat. Off.

Assures better germination of seeds, produces better plants with longer roots, greater top growth and vigor. Rootone kills fungi and prevents damping off.

1/4 oz. will treat 2 1/2 lbs. seed or 400 cuttings, 25c.

2-oz. size will treat 8 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. 1/2 oz. pkt., 25c; 3 oz., \$1.00; lb., \$4.00.

FULTON'S PLANTABBS

Odorless Plant Food Tablets
Containing Vitamin B₁

10 Tablets, 10c; 30 Tablets, 25c; 75 Tablets, 50c; 200 Tablets, \$1.00; 1000 Tablets, \$3.50. (By mail add 10%.)

3 AGRICO Fertilizers

FOR BETTER LAWNS and GARDENS

Each of these three special-purpose AGRICO Fertilizers is made to do its own job and do it better than any all-purpose fertilizer could possibly do. Yet Agrico costs no more . . . is more economical to use . . . gives you more value, per pound and per dollar.



AGRICO FOR LAWNS, TREES & SHRUBS

Keep a lawn good by feeding it with Agrico every Spring and Fall. Use Agrico in rebuilding lawns. Also, feed your trees and shrubs. Use 30 lbs. per 1000 sq. ft. 5 lbs. 45c; 10 lbs. 80c; 25 lbs. \$1.60; 50 lbs. \$2.65; 100 lbs. \$4.75.



AGRICO FOR GARDENS

Use this special-purpose Agrico for flowers of greater health and beauty—and for larger yields of vegetables, richer in minerals and vitamins. Use 40 lbs. per 1000 sq. ft. 5 lbs. 45c; 10 lbs. 80c; 25 lbs. \$1.60; 50 lbs. \$2.40; 100 lbs. \$4.25.



AGRICO FOR BROADLEAF EVERGREENS

This AGRICO provides all needed plant foods for acid-loving plants, — also acidifies the soil, essential for best results. Use approximately 1 1/2 lbs. per 100 running feet. 10 lbs. \$1.10; 25 lbs. \$2.10; 100 lbs. \$5.50.

ES-MIN-EL

Essential mineral elements not present in depleted soils. Use with fertilizer or separately, about 1 lb. per 100 sq. ft., 50 lbs., per acre. 5 lbs., \$1.25; 100 lbs., \$10.25.



EKKAY 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. 10 lb. bag, 90c; 25 lb. bag, \$1.75; 50 lb. bag, \$2.90; 100 lb. bag, \$4.25.



HY-GRO SOLUBLE PLANT FOOD

13-26-13-Plus Trace Elements

Formulated by America's greatest authority on soils, an ideal starter solution and all season fertilizer. A proven product that helps growers increase their profits. Hy-gro analyses 13-26-13 plus minor elements, completely soluble in water, absorbed quickly by the roots. Use 2 to 4 lbs. per 50 gal. water.

3-ounce jar, 30c; 20-ounce jar, \$1.00. 10 lbs., \$4.50.

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.

3 oz. makes 18 gallons.....\$.25
7 oz. makes 42 gallons..... .50
1 lb. makes 100 gallons..... 1.00
10 lbs. makes 1000 gallons..... 8.00
25 lbs. makes 2500 gallons.....15.00



TRACEL—(8-16-7)

Complete soluble fertilizer with trace elements. 1/2 lb., 65c; 1 lb., \$1.00; 15 lbs., \$9.00.

VHPF—(5-25-15)

1 lb., makes 30 gal.

Vitamin Hormone plant food soluble fertilizer plus all essential minor elements, in quickly available form. Used as starter solution, side dressing, etc., with outstanding results. 1 lb., 50c; 3 lbs., \$1.00; 30 lbs., \$7.50.

Hyper-Humus

Completely organic, maintains high soil fertility by bacterial conversion. Worked into the soil before planting it makes poor soil loamy and holds moisture and plant foods where they do the roots most good. For faster results add 5 to 10 lbs. organic plant food per 100 lbs. Humus.

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., \$1.25; 100 lbs., \$2.00; 500 lbs., \$8.50; 1000 lbs., \$13.50; ton, \$25.00. Let us quote 5 ton and carload lots.

BUCKWHEAT HULL MULCH

During the growing season it keeps soil cool and moist, discourages weeds, presents smooth clean appearance. In winter it reduces alternate freezing and thawing, thus protecting roots from destructive heaving. Does not form crust but permits even light rains to reach the soil. Packed in 50 lb bags (covers about 65 sq. ft. 2 in. deep), \$1.50; 200 lbs., \$5.00; 500 lbs., \$10.50; Ton, \$35.00.

PEAT MOSS

Promotes Growth by Improving Texture of Soils and as a mulch, keeps roots moist and cool; discourages weeds. Ideal for rose beds and perennial borders.

Jumbo Bale (German) 11 cu. ft. (Compressed to 38x23x22) \$4.85; Standard Bale (Canadian) 9 cu. ft. (38x23x18) \$4.35; Junior Bale 5 cu. ft. (29x20x15) \$2.45; Bu., 75c; 1/2 Pk., 20c.

SPHAGNUM MOSS

Finest quality. Free from sticks and other refuse. 1/2 Pk., 25c; Bu., \$1.65; Bale, \$3.45.

VERMICULITE (Terra-Lite Brand)

Expanded Vermiculite is a new sensational sterile, inert, plant growing medium obtained from natural deposits in Montana. Work done by the U.S.D.A. at Beltsville and Glen Dale, Md., definitely proves this propagating material far superior to mixtures of sand and soil, sphagnum moss, etc., for producing the finest seedlings and best rooted cuttings. Processed at 2200° heat, there are no weed seeds, no disease organisms, no "dampening off". It holds water, air and applied plant foods readily available, therefore seeds germinate quickly, grow faster with much stronger roots and therefore transplant better. Cuttings of even very difficult varieties are easily rooted. Vermiculite has many other horticultural uses such as soil corrective, mulch, for bulb storage, etc. Packed in bags of approximately 2 1/2 cu. ft., weighing about 12 lbs. \$1.75 ea.; 1/2 Bu., 85c; 1/2 pk., 40c.

VERTAGREEN

For lawns, flowers, shrubs, fruits, vegetables and trees. It contains, in concentrated readily available forms, major and minor plant food elements needed for healthy, vigorous growth. 10 lbs., 90c; 25 lbs., \$1.60; 100 lbs., \$4.25.

VIGORO

Vigoro is a complete fertilizer containing all necessary minor elements. It is clean, odorless, sanitary and easy to apply. Economical because you need only 4 pounds of Vigoro per 100 sq. ft. to get best results from everything you grow.

1 lb., 15c; 5 lbs., 50c; 10 lbs., 90c; 25 lbs., \$1.60; 50 lbs., \$2.65; 100 lbs., \$4.25.

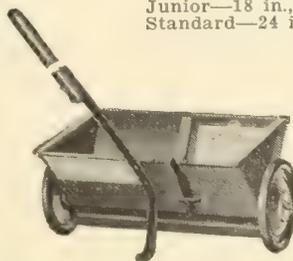
VIGORO SPREADERS

"B"—18 in., 20 to 25 lb. capacity.....\$6.85
Junior—18 in., 45 to 50 lb. capacity...11.35
Standard—24 in., 80 to 90 lb. capacity 27.50

SALEM SPREADERS

Automatic shut off; six quantity adjustments.

16 in., 22 lb. cap., \$7.50
20 in., 40 lb. cap., 11.50
30 in., 80 lb. cap., 17.50



INDEX

VEGETABLE SEEDS			Tuberoses	56	Fertilizer	78	Plant Forcer	66	
Artichoke	3	Asparagus	3	Vegetable Plants	58	Fertilizer Distributors	72	Plant Setter	58
Beans	4, 5, 6	FLOWER SEEDS			Annuals	43 to 50	Plant Stakes	66	
Beets	7	Perennials	51 to 55	Vines	50	Flame Sprayer	65	Pomo Green	63
Borecole	18	SUPPLIES, IMPLEMENTS, ETC.			Adco	78	Pot Labels	66	
Broccoli	3	Ant Traps and Sets	61	Agrico	79	Post Hole Diggers	75		
Brussels Sprouts	3	Arsenates	61	Ant Traps and Sets	61	Potato Digger	70		
Cabbage	8, 9	Asparagus Bunchers	67	Arsenates	61	Potato Hooks	68		
Caraway	17	Asparagus Knives	67	Asparagus Salt	78	Potato Mix	63		
Carrots	10	Asparagus Salt	78	Axes	68	Poultry Feeds	73		
Cantaloupe	22	Azofume	61	Back Bands	70	Poultry Fencing	75		
Cauliflower	11	Back Bands	70	Bag Balm	76	Poultry Killer	74		
Celeriac	13	Bag Balm	76	Bamboo Stakes	66	Poultry Remedies	73		
Celery	12	Barbed Wire	75	Barbed Wire	75	Poultry Supplies	73, 74		
Celtuce	13	Beetle Traps	61	Be-e Supplies	77	Pruners	68		
Chard, Swiss	11	B-e Supplies	77	Belting	76	Pruning Paint	63		
Chicory	13	Belting	76	Benzo-Fume	61	Pulverizer	70		
Chinese Cabbage	9	Berry Boxes	39	Berry Boxes	39	Pyrox	63		
Chives	13	Black Leaf Forty	61	Black Leaf Forty	61	Raffia	66		
Collards	13	Blood Meal	78	Blood Meal	78	Rakes	68		
Corn	14, 15	Bone Meal	78	Books	59	Rat Exterminator	74		
Corn Salad	13	Books	59	Bordeaux Mixture	61	Red Arrow	63		
Cress	13	Bordeaux Mixture	61	Brooders	74	Rope	70		
Cucumber	16	Brooders	74	Brooder Thermometers	74	Roofing Materials	75		
Dandelion	17	Brooder Thermometers	74	Broom Rakes	68	Rootone	78		
Dill	17	Brooms	68	Broom Rakes	68	Rootone Dust	63		
Egg Plant	17	Brush Hooks	68	Brooms	68	Salt Bricks	77		
Endive	17	Butter Coloring	76	Brush Hooks	68	Saw Blades	76		
Escarolle	17	Butter Paper	76	Butter Coloring	76	Saw Frames	76		
Fennel	17	Butter Paper	76	Butter Paper	76	Saws	76		
Herbs	17	Calf Weaners	76	Calf Weaners	76	Scalecide	64		
Kale	18, 19	Caponizing Sets	73	Caponizing Sets	73	Scales	74		
Kohlrabi	19	Carbola	61	Carbola	61	Scrapers	68		
Leek	19	Carbolineum	61	Carbolineum	61	Scythes	68		
Lettuce	20, 21	Carbon Di-Sulphide	61	Carbon Di-Sulphide	61	Scythe Stones	68		
Marjoram	17	Caulking Gun	66	Caulking Gun	66	Seeders	17, 41, 72		
Mushroom Spawn	23	Celery Bleachers	13	Celery Bleachers	13	Selocide	64		
Muskmelon	22	Celery Holder	13	Celery Holder	13	Seltox	64		
Mustard	23	Cemetery Vases	66	Cemetery Vases	66	Sheep Manure	78		
Okra	25	Chains	75	Chains	75	Semesan	62		
Onion	24	Charcoal	73	Charcoal	73	Shovels	68		
Onion Sets	24	Chicks	73	Chicks	73	Slug Shot	63		
Parsley	25	Churns	76	Churns	76	Snarl	64		
Parsnips	29	Copper Arsenate	61	Copper Arsenate	61	Snaths	68		
Peanuts	27	Copper Sulphate	61	Copper Sulphate	61	Soil Fumigants	62		
Peas	26, 27	Cordage	70	Cordage	70	Soil Soaker	67		
Pepper	28	Corn Ear Worm Drops	61	Corn Ear Worm Drops	61	Soil Tester	77		
Popcorn	14	Corn Planter	15	Corn Planter	15	Spades	68		
Potatoes	32	Corn Shellers	77	Corn Shellers	77	Spading Forks	68		
Pumpkins	29	Cow Manure	78	Cow Manure	78	Spergon	64		
Radishes	30, 31	Crow Repellent	61	Crow Repellent	61	Spike Tamp	69		
Rhubarb	31	Cucurbit Dust	61	Cucurbit Dust	61	Spray Catalizer	61		
Rutabagas	38	Cultivators	72	Cultivators	72	Spray Chart	60		
Sage	17	Cyano Gas	61	Cyano Gas	61	Sprayers	65		
Salsify	31	Dahlia Food	79	Dahlia Food	79	Spraying Materials	62, 63, 64		
Sorrel	31	DDT	61	DDT	61	Spreaders	72, 79		
Spinach	34, 35	De-K-Pruf	61	De-K-Pruf	61	Sprinklers	67		
Squash	33	DX	62	DX	62	Stalls	76		
Summer Savory	17	Dairy Supplies	76	Dairy Supplies	76	Stanchions	76		
Sweet Potatoes	32	Dibbles	68	Dibbles	68	Stock Tonic	76		
Swiss Chard	16	Dinitro	63	Dinitro	63	Strainer Pads	76		
Thyme	17	Dog Food	73	Dog Food	73	Sulphur	64		
Tomatoes	36, 37	Dog Repellents	62	Dog Repellents	62	Sulphur	64		
Turnips	38	Dormatone	62	Dormatone	62	Sulfocide	64		
Watermelon	23	Drag Scoop	72	Drag Scoop	72	Tarpaulins	77		
FIELD SEEDS, ETC.			Ducks	73	Nitragin	41	Tartar Emetic	64	
Bird Seed	41	Duradust	62	Duradust	62	Tear Dilators	76		
Field Seeds	40, 41	Dusters	65	Dusters	65	Thermometers	67		
Pasture Mixture	41	Earth Augers	75	Earth Augers	75	Tobacco Dust	64		
Wild Bird Seed	41	Egg Baskets	74	Egg Baskets	74	Tobacco Stems	78		
PLANTS, ROOTS AND NURSERY STOCK			Egg Candler	74	Paradichlorobenzene	63	Tomato Dust	64	
Amaryllis	56	Egg Cartons	74	Egg Cartons	74	Tool Grinders	76		
Asparagus Roots	39	Egg Cleaners	74	Egg Cleaners	74	Tractors	71		
Begonias	56	Egg Grading Scale	74	Egg Grading Scale	74	Transplanters	71		
Bleeding Hearts	56	Egg Preservative	74	Egg Preservative	74	Transplantone	78		
Caladiums	56	Electric Farm Fence	75	Electric Farm Fence	75	Traps	61		
Cannas	56	Ensilage Forks	68	Ensilage Forks	68	Tree Labels	66		
Clematis Vines	50	Esskay Plant Food	79	Esskay Plant Food	79	Tree Pruners	67		
Daffodil, Peruvian	56	Evergreen	62	Evergreen	62	Tree Banding Compound	64		
Dahlia Roots	58	Feed Cutter	77	Feed Cutter	77	Tri-ogen	64		
Gladiolus	57	Fertilizer	78	Fertilizer	78	Turkey Poult	73		
Horseradish Roots	39	Fertilizer Distributors	72	Fertilizer Distributors	72	Vegetable Tying Mach's	70		
Iris	56	Fish Oil Soap	62	Fish Oil Soap	62	Vermiculite	78		
Lilies	56	Flame Sprayer	65	Flame Sprayer	65	Vigoro	79		
Peonies	56	Floralife	78	Floralife	78	Vio-Ray	73		
Rhubarb Roots	39	Flower Guard	75	Flower Guard	75	Volck	64		
Rose Bushes	58	Flower Pots	66	Flower Pots	66	Watering Pots	66		
Strawberry Plants	39	Formaldehyde	62	Formaldehyde	62	Weed Cutters	68		
Trees	39	Fountain Heaters	74	Fountain Heaters	74	Weeders	67, 72		
		Fruitone	78	Fruitone	78	Weedone	64		
		Fruit Pickers	67	Fruit Pickers	67	Weed Killer	64		
		Fungtrogen	62	Fungtrogen	62	Weed Slugger	68		
		Garden Cart	69	Garden Cart	69	Wheelbarrows	70		
		Garden Trowels	67	Garden Trowels	67	Wheel Hoes	72		
		Glass	66	Glass	66	Window Boxes	66		
		Glazing Points	66	Glazing Points	66	Y-O	73		
		Glazing Putty	66	Glazing Putty	66				
		Gloves	69	Gloves	69				
		Go-West	62	Go-West	62				
		Grafting Wax	67	Grafting Wax	67				
		Grape Dust	62	Grape Dust	62				
		Grass Catchers	69	Grass Catchers	69				
		Grass Hooks	68	Grass Hooks	68				
		Grindstones	76	Grindstones	76				
		Grit	73	Grit	73				
		Halter Chains	75	Halter Chains	75				
		Handles	61	Handles	61				
		Hand Weeders	67	Hand Weeders	67				
		Harrows	71	Harrows	71				
		Hay Carriers	68	Hay Carriers	68				
		Hay Forks	68	Hay Forks	68				
		Hedge Shears	67	Hedge Shears	67				
		Hoes	68	Hoes	68				
		Hog Oil Wormer	76	Hog Oil Wormer	76				
		Hole in One Tools	67	Hole in One Tools	67				
		Honey Jars	77	Honey Jars	77				
		Horse Hoes	72	Horse Hoes	72				
		Hose	67	Hose	67				
		Hot Bed Heater	66	Hot Bed Heater	66				
		Hotkaps	70	Hotkaps	70				
		Hyacinth Stakes	66	Hyacinth Stakes	66				
		Hydrated Lime	78	Hydrated Lime	78				
		Hyper Humus	79	Hyper Humus	79				
		Hy-Gro	79	Hy-Gro	79				
		Hyponex	79	Hyponex	79				
		Ice Cream Freezers	76	Ice Cream Freezers	76				
		Incubator Thermometers	74	Incubator Thermometers	74				
		Insecticides	61, 62, 63, 64	Insecticides	61, 62, 63, 64				
		Insecticide Cartridges	65	Insecticide Cartridges	65				
		Japidemic	62	Japidemic	62				
		Knee Pads	66	Knee Pads	66				
		Kryocide	63	Kryocide	63				
		Ladders	76	Ladders	76				
		Lawn Edgers	68	Lawn Edgers	68				
		Lawn Fence	75	Lawn Fence	75				
		Lawn Gates	75	Lawn Gates	75				
		Lawn Mowers	69	Lawn Mowers	69				
		Lawn Rollers	69	Lawn Rollers	69				
		Lawn Sprinklers	67	Lawn Sprinklers	67				
		Leg Bands	74	Leg Bands	74				
		Lime Spreader	72	Lime Spreader	72				
		Lime and Sulphur							

LAWN MAKING AND MAINTENANCE

The very best time of the year to make a new lawn is early in the fall because of ample rainfall, continued cool weather and the winter killing of many weeds. The second best season is very early spring (March and April) because there is sufficient rainfall and cool weather to start the young grass quickly. Spring seeding however must compete with weed seeds in the soil and is sometimes damaged by hot dry weather before it is thoroughly established.

Preparing the Soil

Preparation of the soil is the most important part of lawn making and should have the most careful attention because no amount of effort spent after a lawn is made can equal the results of thorough tillage before the seed is sown.

A successful lawn requires at least 2 to 4 inches of good quality top soil possessing the organic matter and plant foods necessary for sturdy growth of the grasses. However six inches or more of thoroughly prepared finely pulverized and fertilized top soil would be ideal.

If existing top soil is of fair quality and at least 2 to 4 inches deep it should not be necessary to spread additional top soil. It is essential though to apply a good lawn fertilizer which is high in phosphate (such as bone meal or the chemical lawn foods) at the rate of 2 to 4 lbs. per 100 sq. ft. In addition to this an application of a one inch layer of humus or a two inch layer of well rotted manure (it must be very well rotted to be weed free) is necessary to supply sufficient organic matter.

After spreading the plant food and humus materials evenly, they must then be spaded into and mixed with the top soil to a depth of about six inches depending on the quality of the sub-soil and the depth of the top soil. When this newly processed top soil is completely broken up and thoroughly mixed it should be raked and rolled in both directions until there are no uneven places. A good seed bed has now been prepared and is ready for seeding.

Sowing the Seed

Sow at the rate of 1 lb. to 200 sq. ft. broadcasting half of the seed in one direction and the other half at right angles. If the soil is dry the surface may be raked very lightly covering seed not over $\frac{1}{8}$ in. and being extremely careful to avoid "bunching" the seed. Rolling is desirable but only practical if the soil is sufficiently dry so that the seed does not stick to the roller. Many successful lawns are made without raking or rolling in the seed by depending upon the rain or watering to pack the soil firmly about the seeds. If watering is once begun however the soil must be kept damp continuously or the seed may sprout and die off before it has rooted. Clipping should begin when the grass is about 3 inches high but should not be cut closer than 2 inches.

Re-Seeding Old Lawns

Thin turf or lawns with bare spots can be rebuilt by raking lightly so that the existing grass is not damaged and then seeding as though making a new lawn. Another satisfactory method is to mix seed with top soil or sow the seed and then cover lightly with top soil. In either case the top

soil should be free from weed seeds. If the seed is sown early in March it can be broadcast without raking or rolling because the ground is "open" and the late wet snows will carry it in.

Fertilizing

Timely and ample applications of fertilizers have double advantages. Very early feeding whether Spring or Fall forces growth of the grass during its most natural growing seasons, thereby helping it to crowd out crab-grass and more easily survive hot dry summer weather. A strong healthy turf also stands the rigors of winter so much better. Fertilizer materials are most accurately and easily applied by using a fertilizer spreader. Most materials should be applied when the grass is dry at the rate of 2 to 4 lbs. per 100 sq. ft. then watered in. Lawns that are thoroughly established and are thriving should be fertilized once every two years but average lawns require at least one feeding a year.

Rolling

During the winter the alternate freezing and thawing have played "tug-o-war" with the little grass plants in your lawn, heaving them out of the ground so that they are only partly rooted. It is therefore extremely necessary to roll your lawn after the frost is out of the ground and while it is still wet but not soggy. This smooths out uneven places caused by the frost and puts the grass roots back where they can quickly begin producing a luxuriant lawn.

Weed Control

One of the best weed controls is a good heavy turf, well fertilized very early, cut not shorter than 2 inches and kept seeded to grass so there will be practically no space for weeds to grow. Crab-grass which is perhaps the most difficult weed to combat should be killed by chemicals during June or July. Other chemicals such as 2-4-D are available for clearing lawns of dandelions, plantain and most other lawn weeds.

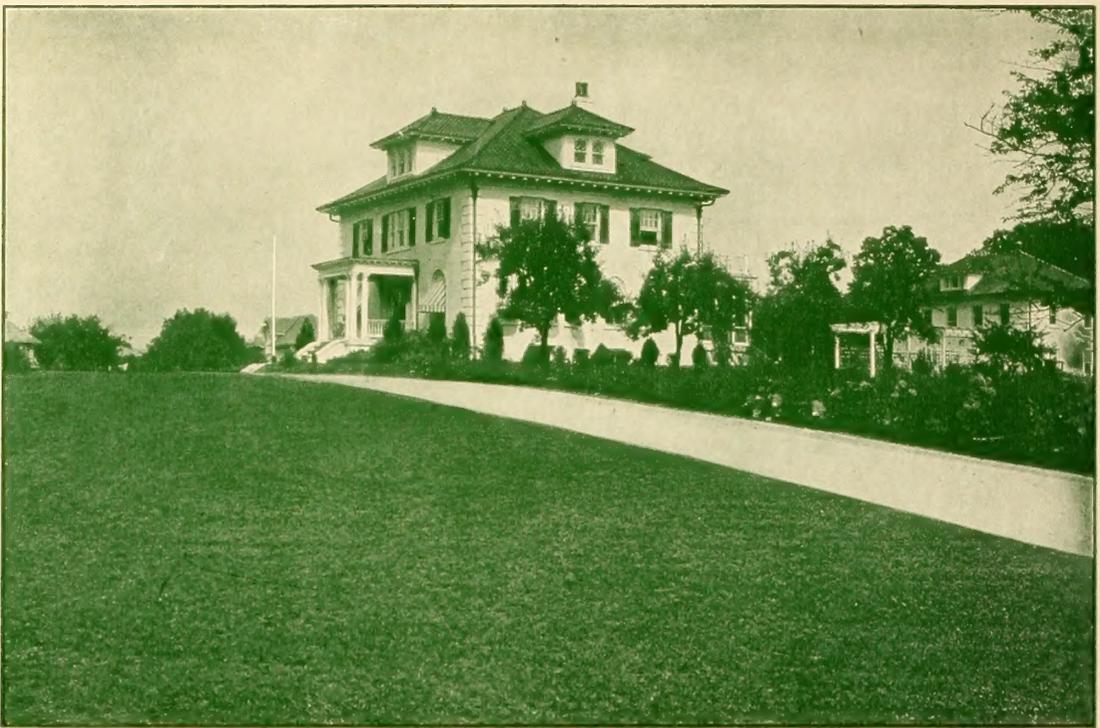
Soil pH

For most Maryland lawns the pH values (acidity or alkalinity) should be between 6.0 and 7.5, that is ranging between slightly acid to slightly alkaline, 7 being neutral. The grasses which thrive best in this climate succeed best in this pH range. If the soil is strongly acid (pH 4.5 to 5.0) an application of 10 lbs. of ground limestone per 100 sq. ft. will reduce the acidity to approximately pH 6. Lime should not be used on lawns unless an actual soil test indicates excessive acidity.

Moss

The presence of moss is often considered an indication of acid soil, but it is more often the result of low fertility. During March apply nitrate of soda (1 lb. per 100 sq. ft.) This will kill the moss but not injure the grass. In about two weeks the dead moss may be raked from the lawn and if there are bare spots they should be reseeded at once.

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Manns' Superior Lawn Grass

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For immediate effect where permanence is not an important factor.

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25 lbs.	2.00	100 lbs.	35.00

Lawn Making and Maintenance, See Page 81

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