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62.37 Index *

1955

Superior Seeds

SERVING SUCCESSFUL GROWERS
FOR SIXTY-EIGHT YEARS

Manns

FORREST & ENSOR STS.

BALTIMORE 2, MD.

Specially Formulated For Maryland Soils and Climate

Manns' Lawn Mixtures have been known for their
Superior Quality for more than half a century

Manns' Superior Lawn Grass

(Contains White Dutch Clover—No Rye Grass)

A correctly proportioned mixture of the most desirable perennial varieties blended according to a formula resulting from years of study and experience. It produces beautiful and permanent lawns under average conditions of soil and sunlight.

1 lb. \$1.65	25 lbs. .. \$ 35.00
5 lbs. 7.50	100 lbs. .. 135.00

Manns' Evergreen Lawn Grass

(Without Clover—No Rye Grass)

The top quality slow growing All Perennial mixture to be used where clover is not desired.

1 lb. \$1.40	25 lbs. .. \$ 30.00
5 lbs. 6.50	100 lbs. .. 115.00

White Dutch Clover

\$1.35 per lb.

Merion Blue Grass (B-27)

An improved Kentucky Blue, darker green, more heat and drought tolerant; spreads densely from its vigorous rhizomes.

1 lb. \$6.00	5 lbs. \$27.50
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Manns' Shady Place Lawn Grass

Contains varieties especially adapted for growing under trees and in shaded in areas.

1 lb. \$1.00	25 lbs. \$21.25
5 lbs. 4.75	100 lbs. 75.00

Manns' Shoreland Lawn Grass

A mixture of turf varieties particularly adaptable for growing in sandy soils.

1 lb. \$1.00	25 lbs. \$21.25
5 lbs. 4.75	100 lbs. 75.00

Manns' Quicklawn Grass

(Contains 50% by weight Perennial varieties)

For immediate effect where permanence is not an important factor.

1 lb. \$.45	25 lbs. \$ 9.50
5 lbs. 2.00	100 lbs. 35.00

Astoria Colonial Bent

Fine textured grass, blends and grows nicely in lawn mixtures, responds to close mowing. Thrives best on non-acid soils.

1 lb. \$1.75	5 lbs. \$7.50
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Scott's Lawn Seed and "Lawn Care" Supplies
—at advertised prices—

Lawn Making and Maintenance, See 3rd Cover Page

J. MANNS & CO.

ESTABLISHED 1887

Superior Seeds

BALTIMORE 2, MD.

ENSOR AND FORREST STREETS — AT BELAIR MARKET

PLEASE ADD
SALES TAX
AND POSTAGE

**We pay postage on
Flower and Veger-
table Seeds except
Beans, Corn and
Peas**

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We give no warranty, express or implied, as to the productiveness of any seeds we sell and will not be in any way responsible for the crop. Our liability in all instances is limited to the purchase price of the seed.

[illegible]

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

NAMES	POST OFFICE	STATE

[illegible]

How and When to Plant Vegetables

Vegetables	Seeds or Plants to Provide For Family of Five	Date to Sow or Plant Outdoors		Depth Cover Inches	Space Between Rows	Set Plants or Thin Out to Inches	Time Required to Produce Crop	Number of Plants per Row for Family of 5	SPECIAL NOTES
		First	Last						
Asparagus Beans (Bush)	1 oz. or 50 2 qts.	Mar. 20 April 20	Aug. 1 Aug. 15	Seeds 1 in. Plants 4 in. 2 in.	3 to 4 ft. 2 ft.	12 in. 3 to 4 in.	Seeds 4 years Plants 2 years 60 to 90 days	50 ft. 200 ft.	A well-cured for bed improves with age and lasts for many years. Select, early, midseason and late in both green and wax podded kinds.
Beans (Pole) Limas, see below	½ pt. 2 oz.	May 5 Mar. 20	Aug. 1 Aug. 15	2 in. ½ to 1 in.	3 to 4 ft. 18 in.	3 ft. (hills) 2 to 3 in.	90 to 120 days 60 to 80 days	80 to 100 hills 80 ft.	Select early and late, green and wax pod, storage.
Borecole or Kale	1 pkt.	April 20	Sept. 1	½ in. to 1 in.	2½ ft.	12 in.	80 to 100 days	20 ft.	Sow during July for fall use.
Brussels Sprouts	1 pkt. or 15 30	April 5 May 20	Aug. 10 Sept. 15	½ to 1 in. Seed ½ in.	2½ ft. 2 to 3 ft.	24 in. 18 to 24 in.	120 days 100 to 150 days	20 ft. 60 ft.	Handle exactly like Cauliflower.
Chinese Cabbage	1 pkt.	July 20 Mar. 20	Aug. 1	½ in. 1½ to 2 ft.	2½ ft. 1½ to 2 ft.	12 in.	80 to 100 days 45 to 60 days	20 ft. 40 ft.	Set out 2 doz. early, 1 doz. midseason and 2 doz. late kinds.
Carrot	½ oz.	July 20 Mar. 20	Aug. 1	½ in.	2½ ft.	2 to 3 in.	100 to 120 days	20 ft.	Sow only on August 1st for fall use only.
Cauliflower	24 ½ oz. or 60	April 5 Mar. 20	July 10 July 15	Seed ¼ in. 2 in.	2 to 3 ft. 3 ft.	2 ft.	120 to 150 days 100 to 120 days 65 to 95 days	20 ft. 60 ft. 200 ft.	Sow short rows often. Sow on August 1st for winter storage.
Celery (Sweet)	1 pt.	April 5 April 20	July 10 July 15	Seed ¼ in. 2 in.	2 to 3 ft. 3 ft.	2 ft.	120 to 150 days 100 to 120 days 65 to 95 days	20 ft. 60 ft. 200 ft.	Treat very much like Cabbage.
Cucumber	1 pkt.	April 20	Aug. 5	¾ in.	4 to 5 ft.	12 in.	60 to 80 days	10 hills	Select an early and a late variety.
Eggplant	12 1 pkt.	May 20 April 5	July 25 Aug. 10	¾ in. ¼ to ½	2½ ft. 1½ to 2 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Sow in blocks of short rows, for perfect pollination.
Kohl-Rabi	1 pkt.	Mar. 30 Mar. 20	July 15 July 10	¾ in. 1 in.	2 ft. 2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	When picking, cut stems; do not pull vines.
Leek	1 pkt.	Mar. 30 Mar. 20	July 15 July 10	¾ in. 1 in.	2 ft. 2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Needs lots of heat and frequent hoeing.
Lima Beans (Bush)	2 oz. (4 kinds)	June 1 June 1	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	To bleach, tie plants into bunches and should be used when roots reach a diameter of 2½ in.
Lima Beans (Pole)	1 pt.	May 10 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Grow like Onions and hill to bleach stalks.
Melons	1 qt. 1 pkt.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Should be thinned out to stand a foot apart.
Onion Sets	1 qt. 1 pkt.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Select an early and a late variety in both classes.
Parsley	1 qt. 1 pkt.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	See note on Cucumbers.
Peas	3 lbs. 1 pkt.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Weeding and hoeing are their chief requirements.
Pepper	12 15 lbs.	May 5 Mar. 20	Aug. 20 Aug. 10	4 in. ¾ to 1½	3 ft. 18 in.	2 ft. 6 in.	100 days 100 days 100 days 100 days	20 ft. 200 ft. 12 hills 50 ft.	Seed requires 3 to 6 weeks to germinate.
Potatoes	15 lbs.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 150 ft. 100 ft. 100 ft.	Cultivate well during the growing season. The early smooth seeded sorts may be sown a month before the later, wrinkled varieties.
Pumpkin	3 pkts.	May 5 Mar. 20	Aug. 20 Aug. 10	4 in. ¾ to 1½	3 ft. 18 in.	2 ft. 6 in.	100 days 100 days 100 days 100 days	20 ft. 200 ft. 12 hills 50 ft.	See note on Eggplants.
Radish	6 1½ oz.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 200 ft. 12 hills 50 ft.	Really a farm crop.
Rhubarb	1 pkt.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 200 ft. 12 hills 50 ft.	Really a farm crop.
Rutabaga	1½ oz.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 200 ft. 12 hills 50 ft.	Really a farm crop.
Squash	1 oz.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 200 ft. 12 hills 50 ft.	Really a farm crop.
Swiss Chard	1 oz.	Mar. 20 Mar. 20	July 15 July 10	¾ in. 1 in.	2½ to 3 ft.	36 in. 24 in. 12 in.	100 days 45 to 60 days 100 days 120 days	20 ft. 200 ft. 12 hills 50 ft.	Really a farm crop.
Tomato	1 pkt. # 43	Seeds Feb. 18 Plants May 5	Aug. 10 Aug. 1	Seed ½ in.	3 to 4 ft.	3 ft.	100 to 120 days	75 ft. 40 hills 150 ft.	Really a farm crop.
Turnips	1 pkt.	Mar. 20	Aug. 31	¾ in.	15 to 20 in.	2 to 4 in.	60 to 80 days	60 ft.	Really a farm crop.

NUMBER OF WEEKS BETWEEN SOWING 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.

SOW MANN'S' SUPERIOR SEEDS

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.

Shipments of baby fowl, live plants, nursery stock and agricultural products may weigh up to 70 lbs. and measure up to 100 inches combined length and girth. Other merchandise is limited to 40 lbs. in local, first and second zones; to 20 lbs. in zones 3 to 8 and may not exceed 72 inches combined length and girth.

POSTAGE RATES						POSTAGE RATES					
Weight in pounds	Local	Zone 1-2 Up to 150 mi.	Zone 3 150 to 300 mi.	Zone 4 300 to 600 mi.	Zone 5 600 to 1000 mi.	Weight in pounds	Local	Zone 1-2 Up to 150 mi.	Zone 3 150 to 300 mi.	Zone 4 300 to 600 mi.	Zone 5 600 to 1000 mi.
1	.018	.023	.23	.024	.026	16	.40	.83	1.01	1.28	1.65
2	.20	.27	.29	.31	.36	17	.42	.87	1.06	1.35	1.74
3	.21	.31	.34	.38	.45	18	.43	.91	1.11	1.42	1.84
4	.23	.35	.39	.45	.54	19	.45	.95	1.16	1.49	1.93
5	.24	.39	.44	.52	.63	20	.46	.99	1.21	1.56	2.02
6	.26	.43	.49	.59	.73	21	.47	1.02	1.26	1.62	2.11
7	.27	.47	.54	.66	.82	22	.49	1.06	1.32	1.69	2.21
8	.29	.51	.60	.73	.91	23	.50	1.10	1.37	1.76	2.30
9	.30	.55	.65	.80	1.00	24	.52	1.14	1.42	1.83	2.39
10	.32	.59	.70	.87	1.10	25	.53	1.18	1.47	1.90	2.48
11	.33	.63	.75	.93	1.19	26	.55	1.22	1.52	1.97	2.58
12	.34	.67	.80	1.00	1.28	27	.56	1.26	1.57	2.04	2.67
13	.36	.71	.85	1.07	1.37	28	.58	1.30	1.63	2.11	2.76
14	.37	.75	.90	1.14	1.47	29	.59	1.34	1.68	2.18	2.85
15	.39	.79	.96	1.21	1.56	30	.61	1.38	1.73	2.25	2.95

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.

ARTICHOKE

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

ASPARAGUS

MARY WASHINGTON—Resistant to rust, 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. 85c per 25; \$2.75 per 100; \$20.00 per 1000.

BROCCOLI

CALABRESE HEADING—(80-90 days from plants) Popular market gardeners variety making a large central head and a good crop of side shoots.

DE CICCIO—(60 days from plants) 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.

40 DAY—Sown very early produces an abundance of leaves and tender flower shoots used as greens. Must be cut in bud as it goes to seed rapidly.

GREEN MOUNTAIN—(65 days from plants) Makes compact, very large, dark green center heads that are

slow to go into bloom. Laterals are produced slowly and are sometimes nearly as large as the center heads.

ITALIAN GREEN SPROUTING—(Turnip 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

CATSKILL MOUNTAIN STRAIN—(90 days from plants) Found to be the best variety both in quality and productiveness.

PRICES				
ARTICHOKE				
	Pkt.	Oz.	¼ Lb.	Lb.
Green Globe	\$.15	\$1.00	\$3.00	—
ASPARAGUS				
Mary Washington	.10	.20	.65	\$2.00
BROCCOLI				
Calabrese Heading	.10	.35	1.00	3.00
De Ciccio (ex. early)	.10	.35	1.00	3.00
Green Sprouting (Turnip Salad)	.10	.20	.50	1.50
40 Day	.10	.20	.60	1.75
Green Mountain	.15	.55	1.60	5.00
BRUSSELS SPROUTS				
Catskill Mountain Strain	.15	.55	1.60	5.00

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.

Green Podded Varieties

ASGROW BLACK VALENTINE—(Oval Pod) (50 days) Fully as hardy and early as the original Black Valentine may be safely planted earlier than other varieties. Pods 6¾ in. long ¾ in. wide. Oval or nearly round. Prolific, entirely stringless, and of high quality.

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

BURPEE'S STRINGLESS IMPROVED (Landreth's) (50 days) Desirable home garden variety combining 5½ in. long by ⅞ in. dia. The pods are rich dark green in color, smooth, absolutely round, meaty, stringless, free from fiber, and of exceptionally delicate quality.

Top Crop

CONTENDER—(55 days) An improved, more productive stringless Black Valentine type. Resistant to bean mosaic and powdery mildew diseases. Pods slim 6½ in. long nearly round, dark green and stringless.

DWARF HORTICULTURAL OR DWARF CHERRY—(Stringless snaps, 50 days; green shelled 60 days; dried 85 days) One of the best for both snap and green shell beans equal to the lima in quality while any surplus crop can be kept for winter use. Pods are 5½ inches long, ⅝ in. wide; thick-flat, meaty and stringless when young.

TENDERGREEN—(50 days) (New Stringless) A quality bean for home, market, shipping canning or freezing. Pods 6¼ in. long, ⅜ in. dia. dark green, tender and fiberless.

TENDERLONG 15—(50 days) An improved Tendergreen, resistant to more diseases. Plants erect, compact and highly productive. Pods 6¼ in. long, ⅜ in. diam., straight, with fine flavor, color and quality for canning, freezing or fresh use.

TOP CROP—(50 days) Awarded All-America Selections Gold Medal for 1950. Most desirable for processing. Very prolific, hardy and vigorous. Resistant to mosaic diseases. Pods round, medium green. 6 in. long, ⅞ in. dia.

Wax Podded Varieties

CHEROKEE WAX (53 days) Deep golden yellow 6½ in. x ⅞ in. oval pods. Stringless, of excellent quality for home, market and shipping. Seed Black.

PENCIL POD WAX—(55 days) Vigorous grower and strongly productive. The golden yellow pods are round, fleshy, tender, entirely stringless and of fine quality. Seed black.

ROUND POD KIDNEY WAX—(62 days) (Brittle Wax) Pods are long, straight, brittle, meaty; entirely stringless and of exceptionally desirable quality. The best round-podded wax bean for canning or freezing. Seed white.

PRICES

Let us quote larger quantities.

GREEN PODDED

	½ Pt.	Pt.	Qt.	Pk.
Asgrow Black Valentine	\$.25	\$.40	\$.75	\$4.50
Bountiful	.25	.40	.75	5.00
Burpees Stringless	.25	.40	.75	5.00
Contender	.25	.45	.80	5.50
Dwarf Horticultural or Dwarf Cherry	.30	.55	1.00	7.00
Landreth's Stringless	.25	.40	.75	5.00
Slendergreen	.25	.45	.85	6.00
Supergreen	.30	.55	1.00	6.00
Tendergreen or New Stringless	.25	.40	.80	5.00
Top Crop	.25	.45	.85	6.00
Tenderlong 15	.30	.50	.90	6.00

WAX VARIETIES

Cherokee Wax	.25	.40	.75	5.00
Pencil Pod Wax	.25	.45	.80	5.00
Round Pod Kidney Wax	.25	.50	.90	6.00
POLE BEANS				
Horticultural Cranberry	.30	.50	.90	5.00
Kentucky Wonder	.30	.50	.90	5.00
Lazy Wife	.30	.50	.90	5.00
White Kentucky Wonder	.30	.50	.90	5.00
Yard Long, Celestial—Pkt., 10c; oz. 25c.				

BUSH BEANS

White Kidney	.20	.35	.65	4.00
White Marrowfat	.20	.35	.65	4.00
White Navy	.20	.35	.65	4.00

BUSH LIMA BEANS

1 pt. to 100 ft.; 1 bu. per acre

After June first, when 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.

BABY FORDHOOK—(70 days) Pods $2\frac{1}{2}$ in. by $\frac{3}{4}$ in. having 3 to 4 tightly packed plump, green beans, plant about 15 in., bushy, very prolific. Excellent quality.

BURPEE'S IMPROVED BUSH—(76 days) Pods about 5 inches long, beans about size of pole limas.

FORDHOOK 242—(75 days) Heaviest yielding high quality bush lima. The most dependable variety under adverse conditions.

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.

IMPROVED CHALLENGER—(92 days) Vigorous and very productive bearing until frost. Pods and beans resemble Fordhook Bush Limas. Finest quality.

KING OF THE GARDEN—(90 days) Used extensively because of its sizeable pods filled with four or five large white beans of fine quality.

SIEVA—(small white) (78 days) Known as butter beans. Pods $3\frac{1}{2}$ in. x $\frac{7}{8}$ in.

FAVA BEANS

CALIFORNIA IMPROVED LONG POD—(150 days) For green shelled use. Should be planted as early as possible. Pods, thick, 10 in. long, $1\frac{1}{4}$ in. wide.

BUSH BEANS

Used As Shell Beans

WHITE KIDNEY—(100 days) Used green, shelled or dry. Seeds large, white, kidney shaped, and of fine quality.

WHITE MARROWFAT—(100 days) Suitable both for green shells and dry beans. Pods broad, about $5\frac{1}{2}$ inches long, having large oval, clear, white seeds.

WHITE NAVY—(110 days) Grown for baked beans. Pods short inedible. Dry seeds small oval glossy white.

POLE BEANS

Edible Podded

For Cultural Directions See Pole Limas

KENTUCKY WONDER—(65 days) Extremely productive and of finest quality. Pods round, about 9 inches long. Continues to bear for a long period.

WHITE KENTUCKY WONDER—(65 days) Bears large, brittle, stringless pods of excellent flavor. Seeds white, fine for baking.

YARD LONG, CELESTIAL—(70 days) Very prolific, rust proof; produces pods 18 to 30 inches long, tender, stringless and of excellent quality.

HORTICULTURAL CRANBERRY—(72 days) Also known as Pole Cherry, Corn Field or Wren's Egg. A snap and shell bean. Producing large quantities of 5

King of the Garden Pole

Burpees Improved Bush

and 6-inch pods which are broad, thick, and of fine flavor.

LAZY WIFE—(75 days) Snap, green shelled or dried bean. Pods, easily gathered, entirely stringless, brittle, and of mild, sweet flavor. Seed white.

PRICES

BUSH LIMAS

	$\frac{1}{2}$ Pt.	Pt.	Qt.	Pk.
Baby Fordhook	.25	\$.50	\$.90	\$5.00
Burpees Improved Bush	.25	.50	.90	5.00
Fordhook #242	.30	.50	.90	5.00
Henderson's Bush	.20	.40	.75	4.50
Peerless, U. S. 243	.25	.50	.90	5.00
Wood's Prolific	.20	.40	.75	4.50

FAVA BEANS

California Improved Long Pod	.25	.45	.80	4.50
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POLE LIMAS

Improved Challenger	.25	.45	.85	4.50
King of the Garden	.25	.45	.85	4.50
Sieva (small white)	.25	.45	.85	4.50

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 apart, firming the soil about the seeds. This should be done as soon as the ground can be worked. 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 1.

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.

CROSBY'S EGYPTIAN—(55 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 medium.

DETROIT DARK RED—Long Top—(60 days) The tops are tall, strong and upright; roots globular, of medium size, very smooth and dark red throughout.

EARLY WONDER GREEN TOP—(58 days) Roots nearly globe shaped, deep purplish-red, zoned brighter red. Tops strong, numerous, medium, retaining fresh bright green color.

EARLY WONDER TALL TOP—(62 days) Grown for markets where tops are used for greens.

HALF LONG LENTZ—(78 days) Bright red outside, flesh pale pinkish white, sweet, about 2½ by about 4 inches top shaped.

PERFECTED DETROIT—(62 days) Extremely dark red, has plenty of top for bunching and is also an excellent canners variety.

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. Grows well above the ground and is therefore easily gathered. Flesh white tinged 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.

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.	10 Lbs.
Crosby's Egyptian —					
Dark	\$.10	\$.20	\$.55	\$1.75	\$15.00
Crosby's Egyptian —					
Light	.10	.20	.55	1.75	15.00
Detroit Dark Red (Long Top)	.10	.20	.55	1.75	15.00
Perfected Detroit	.10	.20	.55	1.75	15.00
Early Wonder Tall Top	.10	.20	.55	1.75	15.00
Early Wonder Green Top	.10	.20	.55	1.75	15.00
Extra Early Flat Egyptian	.10	.20	.55	1.75	15.00
Green Top Bunching—Tall	.10	.20	.55	1.75	15.00
Lentz (Ex. Early Light Red)	.10	.20	.55	1.75	15.00
Mammoth Long Red	.10	.15	.40	1.10	9.00
New Model	.10	.20	.60	2.00	17.50

Let Us Quote Larger Quantities

CABBAGE

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

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 open ground. However, the seed may be sown in hotbeds in February; making plantings later of course according to variety and time crop is wanted. Earliest sorts should be set 18 inches apart, 2 feet between rows.

First Early (Pointed Heads)

CHARLESTON WAKEFIELD—(74 days. 6½ in. dia. 4 lbs.) Produces larger and heavier heads than Jersey. ***JERSEY QUEEN**—(66 days. 5 in. dia. 2½ lbs.) The yellows resistant Jersey Wakefield.

SELECTED JERSEY WAKEFIELD—(63 days. 5 in. dia. 2½ lbs.) An improved strain of Early Jersey Wakefield. Heads of medium size, very solid, uniformly pointed and of excellent quality.

(Round Heads)

COPENHAGEN MARKET—(69 days. 6½ in. dia. 3½ lbs.) This very fine, large round headed variety is nearly as early as Jersey Wakefield.

***DETROIT—YELLOWS RESISTANT GOLDEN ACRE**—(68 days. 7 in. dia. 3½ lbs.) About a week later than Golden Acre. Plant slightly larger.

EARLY ROUND DUTCH—(71 days. 7½ in. dia. 4½ lbs.) Nearly globe shaped, solid, or good quality, short stemmed. Relatively nonbolting.

GOLDEN ACRE—(63 days. 6 in. dia. 3 lbs.) Matures as early as Jersey Wakefield, forming a large round, solid head.

***RACINE MARKET—YELLOWS RESISTANT**—(72 days. 4 lbs.) Heads firm and compact, deep blue-green color.

Selected Jersey Wakefield

Second Early

RED ACRE—(80 days. 6 in. dia. 4 lbs.) Round, solid, deep red color.

***GLOBE**—(80 days. 8½ in. dia. 6½ lbs.) A yellows resistant glory of Enkhuizen.

GLORY OF ENKHUIZEN—(77 days. 8 in. dia. 5 lbs.) Large sure heading, dark green variety, globular, very hard and solid.

***MARION MARKET**—(79 days. 6½ in. dia. 4½ lbs.) Yellows Resistant Copenhagen.

***WISCONSIN ALL SEASON**—(90 days. 10 in. dia. 9 lbs.) Yellows Resistant. Shows considerable resistance to drought.

Fall and Winter

CHIEFTAIN SAVOY—(88 days. 8 in. dia. 6 lbs.) Medium size, solid, dark green heads with typical savoy superior flavor.

DANISH BALL HEAD—(103 days. 7½ in. dia. 6½ lbs.) Heads almost globe shaped, very hard, interior very compact, tender texture, of good flavor.

PENN STATE BALL HEAD—(105 days. 7½ in. dia. 5½ lbs.) Hard flattened globe.

POINTED HEAD WINTER—(84 days. 6 in. dia. 3½ lbs.) Sow the seed in time to set out plants about July 15th. Stands temperatures down to 24 degrees.

PREMIUM LATE FLAT DUTCH—(100 days. 12 in. dia. 12 lbs.) The heads are flat, very large, heavy and keep well for winter use.

***WISCONSIN HOLLANDER YELLOWS RESISTANT**—(105 days. 7½ in. dia. 8 lbs.) A Danish ball head type, very large, hard, sure heading.

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.

MICHIHLI—(70 days from seed. 4 in. thick, 16 to 18 in. long.) Solid, crisp, well blanched, tender heads of excellent quality. Stores well for winter use.

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
All Head Early	\$.10	\$.30	\$.90	\$2.75
American Drumhead Savoy	.10	.30	1.00	3.00
Bonanza	.25	1.15	3.50	10.00
Charleston Wakefield	.10	.30	1.00	2.75
Chiefton Savoy	.10	.40	1.15	3.50
Copenhagen Market	.10	.30	1.00	3.00
Danish Ball Head	.10	.50	1.50	4.50
Early Flat Dutch	.10	.30	.90	2.75
Early Round Dutch	.10	.40	1.35	4.00
Glory of Enkhuizen	.10	.30	.90	2.75
Golden Acre (Original)	.10	.35	1.00	3.00
Jersey Wakefield (Sel.)	.10	.30	1.00	2.75
Medium Copenhagen	.15	.60	1.75	5.00
Penn State Ballhead	.10	.50	1.50	4.50
Pointed Head Winter	.10	.35	1.00	3.00
Premium Late Flat Dutch	.10	.30	.90	2.75
Red Acre	.15	.55	1.65	5.00

*YELLOW RESISTANT VARIETIES

	Pkt.	Oz.	¼ Lb.	Lb.
All Head Select	\$.15	\$.45	\$1.35	\$4.00
Detroit (Res. Golden Acre)	.15	.50	1.50	4.50
Globe (Resistant Glory)	.15	.45	1.35	4.00
Green Globe, Improved	.15	.45	1.35	4.00
Jersey Queen	.15	.45	1.35	4.00
Marion Market	.15	.40	1.15	3.50
Racine Market	.15	.50	1.50	4.50
Wisconsin All Seasons	.15	.40	1.15	3.50
Wisconsin Hollander #8	.15	.50	1.50	4.50
CHINESE CABBAGE				
Michihli	.10	.30	1.00	3.00

CARROTS

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

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.

CALIFORNIA BUNCHING—(78 days, 7 in. x 1½ in.) A bunching carrot for long distance shipping. Roots cylindrical, deep orange throughout, well stumped, tops strong.

CHANTENAY (LONG) MODEL—(70 days, 7 in. x 2 in.). Excellent, medium early, half-long variety. Smooth, deep orange-red, flesh very crisp and tender. Easily harvested and bunched.

CORELESS OR SCARLET NANTES—(68 days, 6 in. x 1¾ in.) The earliest of its type; bright orange, smooth skin; small top. Fine quality.

Chantenay

DANVERS—RED CORE—(75 days, 7 in. x 1¾ in.) An exceptionally fine carrot for home and market garden use. They are orange-red in color and the flesh is sweet, crisp and tender.

GOLD SPIKE—(72 days) Large, slender, smooth and good color. Unusually fine high quality for bunching. Thrives best in deep rich soil.

IMPERATOR LONG—(80 days, 9 in. x 1½ in.) Heavy cropper in deep loamy soil. Practically coreless, orange red color. Ideal for bunching.

NO. 92—BUSHELING—(78 days, 10 in. x 2¼ in.) Large fine quality long, thick, Danvers type used for fall or winter market.

SUNRISE—(75 days, 7 in. x 2 in.) For medium and late use, an excellent keeper, pointed-root end, with a broad, high shoulder. Sown during June it produces an excellent crop to store for winter.

Supreme Danvers

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
California Bunching	\$.10	\$.20	\$.60	\$1.75
Chantenay (Long)	.10	.20	.60	1.75
Danvers Half Long	.10	.20	.60	1.75
Gold Spike	.10	.40	1.15	3.50
Imperator	.10	.20	.60	1.85
Improved Long Orange	.10	.20	.60	1.75
Louisiana Danvers	.10	.25	.75	2.25
Model #122	.10	.25	.65	1.85
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

Let Us Quote Larger Quantities

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 should be shaded from excessive heat, protected from high winds and given just a moderate amount of moisture. Destroy any plants showing signs of black stems or mildew. When 5 in. tall transplant into 3" to 4" pots and protect from freezing until March. Then remove 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 from plants.) 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 from plants.) Dependable uniform heading variety for fall crop if sowed about June 15th. Produces 1½ to 2 lb. heads, 6½" to 7" in diameter.

Celeriac (Root Celery)

LARGE SMOOTH PRAGUE—(120 days from plants) Large, smooth and almost round. Plants vigorous, with large dark green foliage.

PRICES

CAULIFLOWER

	Pkt.	Oz.	¼ Lb.	Lb.
Early Snowball	\$.25	\$3.50	\$10.00	\$35.00
White Mountain	.25	3.50	10.00	35.00

CELERIAC

Large Smooth Prague	.15	.50	1.75	6.00
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Large Smooth Prague Celeriac

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 2½ 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 from plants) Developed by the New York State College of Agriculture. An early, easy blanching strain of outstanding quality. Is 10½ to 11 inches to joint with an overall height of 24 to 25 inches. Hearts long and full. Stems thick, rounded and of smooth texture. Highly resistant to fusarium yellows.

FULL-HEART EASY BLANCHING—(100 days from plants) The most profitable variety for growers who trench celery for early market. A green variety easily blanched, producing maximum size hearts of a yellowish cream color. The stalks are well rounded, crisp and of excellent quality.

GIANT PASCAL—(140 days from plants) 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 NO. 14—(86 days from plants) A strain of Golden Self-Blanching, producing large compact plants with very good hearts. Height 24 to 28 in.; 8 to 9 in. to joint.

TALL NON-BOLTING GOLDEN PLUME—(90 days from plants) Withstands low temperatures when planted out without bolting. It is the most satisfactory Golden Plume strain for an early crop. Stems 8 to 9 in. to joint, 24 to 26 in. overall.

UTAH PASCAL NO. 15—(125 days from plants) Green, midseason. Height 26 to 28 inches, stems 9 to 10 inches long; very heavy, rounded with narrow channel. Tops very dark green.

Full-heart Easy Blanching

Golden No. 14

PRICES

	Pkt.	Oz.	¼ Lb.	Lb.
Cornell No. 19	\$.15	\$1.00	\$3.25	\$10.00
Full Heart Easy Blanching	.25	1.65	5.00	15.00
Giant Pascal	.15	1.00	3.25	10.00
Golden No. 14	.15	1.00	3.25	10.00
Tall Non-Bolting Golden Plume	.25	1.50	4.50	14.00
Utah Pascal No. 15	.15	1.00	3.25	10.00

Swiss Chard—Fordhook Giant

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)—(60 days from seed) Light green smooth leaves with small midrib. A particularly good garden item in hot weather. With careful cutting, plants produce for months.

FORDHOOK GIANT—(60 days from seed) Extremely large, heavily savoyed leaves of glossy, very dark green color. Ribs broad, thick, white.

CHICORY

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

RADICHETTA (Ciccoria Catalogna)—(55 days from seed) Rapid growing annual, leaves and seed stalks edible.

RADICHETTA (Quarantine)—(80 days from seed) Sown late for early Winter use. Plants dwarf but produce heavy crop of tender shoots.

SAN PASQUALE (All Seasons)—(70 days from seed) Light green tender finely cut leaves, bunched so as to blanch at the center.

WITLOOF (FRENCH ENDIVE)—(95 days) A very choice winter salad forced in hotbeds from roots previously grown outdoors; producing solid oblong heads blanched 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 about 6 in. tall. The young leaves 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—(120 days from seed) Produces compact plants 1½ to 2 ft. high. Large clusters of leaves often show a tendency to form a head.

GEORGIA—(100 days from seed) Hardy, original collard strain, non-heading, 2 to 3 ft. plants forming cluster of tender leaves at top.

MORRIS IMPROVED HEADING—(120 days from seed) Has definite heading tendency, good color.

VATES—(100 days from seed)—Emerald green glossy leaves, otherwise somewhat similar to Georgia.

WINTER HARDY—(120 days) Cabbage collard type with strong heading tendency and extra hardiness.

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.

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 8 inch compact 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.

PRICES

CHARD (Swiss)

	Pkt.	Oz.	¼ Lb.	Lb.
Common Green — (Spinach Beet)	\$.10	\$.15	\$.40	\$1.25
Fordhook Giant	.10	.20	.50	1.50

CHICORY

Witloof (French Endive)	.15	.30	.85	2.50
CHIVES	.15	.75	2.25	

CORN SALAD

Large Dutch	.15	.35	1.00	3.00
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COLLARDS

Cabbage Collards	.10	.20	.60	1.75
Georgia or Southern	.10	.20	.60	1.75
Morris Improved Heading	.10	.40	1.15	3.50
New Hardy Short Stem	.10	.20	.60	1.75
Vates	.10	.20	.60	1.75
Winter Hardy	.10	.20	.60	1.75

CRESS

American Upland	.15	.30	.85	2.50
Garden (Curled or Pepper)	.15	.20	.50	1.50
True Water	.15	.85	2.60	8.00

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. As hybrids mature very uniformly they should be planted at intervals of a week or ten days to assure a continuous supply. 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.

Corn treated with Spergon can be safely planted much earlier than untreated seed.

ARISTOGOLD BANTAM EVERGREEN—(86 days) (Y) Ears 9 to 10 in. long, with 16 to 18 rows of Kernels, deep green husked.

COUNTRY GENTLEMAN—Ill. 15 Hybrid (85 days) (W) Ears 8 in. long. Noted for high ratio of first quality cut corn per ton.

GOLDEN BEAUTY—(Y) Extremely early therefore Stewart's Disease is not a factor.

GOLD RUSH—(66 days) (Y) Ears 8½ inches long, 12 to 14 rows. Tight dark green husk. Large for such an early sort and fine quality.

IOCHIEF—(83 days) (Y) Ears 8½ inches long, 14 to 18 rows of deep yellow kernels. Ears large, attractive, frequently 2 per stalk.

NARROW GRAIN EVERGREEN—(14 x 11) (86 days) (W) 8 inch ears containing 18 to 20 rows of deep white narrow kernels. Exceptionally heavy yielder combined with quality and hardness.

PROSPERITY—(83 days) (Y) Bright green ears. 8½" long, 14 to 18 rowed, kernels bright yellow. A dependable cropper.

STOWELL'S EVERGREEN HYBRID—(86 days) (W) Ears 8½ inches long—14 to 18 rowed, having tight, heavy husks, very productive, fine quality.

FIELD CORN

Hybrid Yellow Varieties

IOWA 939—(90-100 days) Plants medium height, ears rough, medium long, 16 rows of reddish yellow grain. Yields well in average soils.

GOLD LINE 378—(115-120 days) Ears 10 to 12 in. having 20 rows of golden yellow kernels. The strong, sturdy fodder stays green while the ears mature making it an excellent silage variety.

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

Iachief

PRICES

	1/2				50
	Pt.	Pt.	Qt.	Pk.	Lbs.
Black Mexican	\$.25	\$.40	\$.75	\$4.00	\$12.50
Country Gentlemen					
(Shoe Peg)	.25	.40	.75	4.00	12.50
Early Evergreen	.25	.40	.75	4.00	12.00
Early Superior	.25	.40	.75	4.00	12.50
Golden Bantam	.25	.40	.75	4.00	12.00
Improved Early Adam	.20	.30	.55	3.50	10.00
Stowell's Evergreen Ex.					
Selected	.25	.40	.75	4.00	12.00
White Evergreen	.25	.40	.75	4.00	12.00
Pop Corn—South American—25c Lb.					
HYBRIDS					
Aristogold	.40	.75	1.25	7.50	25.00
Carmelcross	.40	.60	1.15	6.00	22.50
Country Gentlemen (Ill. 15)	.35	.75	1.25	7.50	25.00
Golden Beauty	.40	.75	1.25	8.50	30.00
Golden Cross Bantam	.40	.60	1.15	6.00	20.00
Gold Rush	.40	.75	1.25	7.50	27.50
Ioana	.35	.60	1.15	6.00	20.00
Iochief	.40	.75	1.25	7.50	25.00
Narrow Grain Evergreen (14x11)	.40	.75	1.50	7.50	27.50
Stowell's Evergreen Hybrid	.35	.60	1.15	6.00	22.50
Prosperity	.40	.75	1.50	7.50	27.50

	Qt.	Pk.	Bu.
FIELD CORN			
Iowa Silver Mine	\$.35	\$1.85	\$6.00
Lancaster County Sure Crop	.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	.40	2.50	9.00
Iowa 939 (Certified)	.40	2.50	9.00
Pfister #347	.70	4.20	12.50
U.S. 13 (Certified)	.40	2.50	9.00

CUCUMBERS

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

Plant 8 to 10 seeds in each hill, hills 4 ft. apart. When seedlings become well established, thin to 4 plants per hill.

Another method is to sow seed in rows, thinning plants to stand 12 in. apart in the row. For pickles, plant from first of June to first of August.

A&C—(68 days) A leading market and shipping variety. 9 to 11 inches long by $2\frac{1}{4}$ inch diameter, blunt at both ends, very dark.

GERKINS OR BURR—(60 days) Very small, quite distinct from all others, grown exclusively for pickling, and should be picked when young and tender.

HYBRID EARLY SURECROP—(58 days) Very dark green, disease resistant, shaped similar to A&C or Cubit. Yield and ability to produce over a long period makes it especially desirable.

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.

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.

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.

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

SANTEE is a cucumber introduction from a series by Dr. W. C. Barnes at Charleston, South Carolina, bred for Downy Mildew resistance, and intended for spring plantings where this disease is prevalent. Santee is very productive, and the vigorous vines produce well shaped fruits, approximately 8 inches long and $2\frac{1}{4}$ inches in diameter, with a good dark green color.

STRAIGHT 8—(66 days) Symmetrical fruits, well rounded at both ends. Regularly eight inches in length and from $1\frac{3}{4}$ to 2 inches in diameter. Deep green and free from pale striping and tipping. Vines are vigorous and remarkably productive.

Cucumber—Marketer

PRICES

	Pkt.	Oz.	$\frac{1}{4}$ Lb.	Lb.
A & C	\$.10	\$.25	\$.75	\$2.50
Black Diamond (or Stays Green)	.10	.25	.75	2.25
Boston Pickling or Green Prolific	.10	.20	.60	2.00
Gherkins or Burr	.15	.35	1.00	3.00
Japanese Climbing	.10	.20	.60	2.00
Longfellow or Straight Pack	.10	.25	.75	2.50
Long Green Improved	.10	.30	.75	2.50
Marketer	.10	.30	.85	2.75
National Pickling	.10	.25	.75	2.25
Niagara	.15	.40	1.25	3.75
Palmetto	.10	.40	1.15	3.50
Santee	.10	.40	1.15	3.50
Straight 8	.10	.25	.75	2.50
Sure Crop Hybrid	.25	3.50	10.00	
York State Pickling	.10	.35	1.00	3.00

Straight Eight

A & C

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

Florida High Bush

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.

FT. MYERS MARKET—(85 days) Developed by Dr. Decker, Fla. Agr. Expt. Sta. for Phomopsis blight resistance. High bush variety, fruits 9 to 10 inches long, 5½ to 6½" in dia., broadest near blossom end. Outstanding for deep purplish black color and high gloss.

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.

PRICES

DANDELION		Pkt.	Oz.	¼ Lb.	Lb.
Arlington		\$.15	\$.95	\$2.85	\$8.50
Italian (Ciccoria	Catalognia)	.15	.50	1.50	4.50
DILL					
Long Island Mammoth		.10	.15	.40	1.25
EGG PLANT					
Black Beauty		.15	.60	2.00	6.00
Florida High Bush		.15	.60	2.00	6.00
Fort Myers Market		.15	.60	2.00	6.00
ENDIVE					
All Heart Cabbaging		.10	.30	.85	2.50
Full Heart Batavian		.10	.20	.60	1.75
Green Curled		.10	.20	.60	1.75
FENNEL					
Florence		.15	.30	1.00	3.00

Endive—Full Heart

HERBS

PRICES

HERBS		Pkt.	Oz.	¼ Lb.	Lb.
Caraway		\$.10	\$.15	\$.40	\$1.20
Marjoram, sweet		.15	.60	2.00	—
Sage		.15	.60	2.00	6.00
Summer Savory		.15	.60	2.00	—
Sweet Basil		.15	.60	1.50	4.50
Thyme		.15	.85	2.50	7.50

Borecole—Dwarf Green Scotch

Borecole—Curled Perfection

Borecole—Superior Extra Curled

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.

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.

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.

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 Scotch Curled	\$.10	\$.25	\$.75	\$2.25
Curled Perfection	.10	.25	.75	2.25
Dwarf Green Scotch	.10	.25	.75	2.25
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	.20	.50	1.50
Spring Smooth Leaf (Hanover)		.10	.20	.50
Hanover Late Seeding	.10	.15	.30	1.00

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 CURLED (640 ORIGINAL)—(60 days) Ready for cutting earlier than others. Retains bright green foliage. Even in frosty weather does not turn purple.

MANN'S NO. 640 (RESELECTED)—(65 days) The longest standing of any Kale we know, beautifully curled.

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. Globular, very light green; flesh clear white.

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 var. with unusually long thick white stalk.

PRICES

KOHLRABI				
	Pkt.	Oz.	$\frac{1}{4}$ Lb.	Lb.
Early White Vienna	\$.15	\$.40	\$ 1.25	\$ 3.75
LEEK				
Large American Flag	.15	.60	1.75	5.50
Monstrous Carentan	.15	.60	1.75	5.50
Special Big #7	.15	.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. Improved germination results when seed is treated in ICE WATER for 8 hrs. prior to planting.

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.

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.

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.

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

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.

Imperial Iceberg No. 44

White Boston

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.

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.

SALAD BOWL—Loose leaf variety, seems to stand sun very well, is fast and large grower, slow to bolt and of extreme high quality. Leaves are short and closely set hold their quality, tenderness and fine texture over a long period. Developed by Dr. Ross C. Thompson of the U. S. Dept. of Agriculture.

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.

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.

**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 blanchied.

Cos Lettuce

Salad Bowl

COS, EXTRA DARK GREEN—(68 days) Similar to White but darker color. Spoon-formed, straight-edged outer leaves and upright. Well folded firm head 8 to 9 inches tall.

LETTUCE PLANTS

FRESH DAILY IN SEASON

PRICES

	Pkt.	Oz.	1/4 Lb.	Lb.
All Seasons	\$.10	.20	\$.60	\$2.00
Bibb	.15	.36	1.00	3.00
Big Boston	.10	.25	.75	2.25
Cabbage Head	.10	.25	.75	2.25
Cos, or Romaine (White)	.10	.25	.80	2.50
Cos, Extra Dark Green	.10	.25	.80	2.50
Grand Rapids	.10	.25	.75	2.25
Great Lakes	.15	.50	1.65	5.00
Great Lakes Special (M. R.)	.15	.60	1.85	5.50
Great Lakes #360 (Fall Sowing)	.15	.85	2.50	7.50
Iceberg	.15	.30	.90	2.75
Imperial #44	.15	.40	1.15	3.50
Cornell No. 456	.15	.60	1.85	5.50
Imperial Iceberg No. 847	.15	.40	1.15	3.50
May King	.10	.20	.60	2.00
Midas (U.S.D.A. White Boston)	.15	.65	2.00	6.00
Oakleaf	.15	.40	1.15	3.50
Pennlake	.15	.85	2.50	7.50
Premier Great Lakes	.15	.85	2.50	7.50
Salad Bowl	.15	.70	2.15	6.50
Slobolt	.15	.40	1.15	3.50
Unrivalled	.10	.25	.75	2.25
White Boston	.10	.25	.75	2.25

Pride of Wisconsin

SALMON FLESHED VARIETIES

GOLDEN DELIGHT—(80 days) Fruits are 4 to 5 inches diameter by 5 to 7 inches long, have thick flesh. Skin is slate gray maturing to deep yellow. Distinctly ribbed and rather heavily netted, home garden and market melon.

HALE'S BEST JUMBO—(83 to 88 days) A leading variety for market gardeners and shippers. Fruits oval, about $7\frac{1}{2} \times 6$ 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 $6\frac{1}{2} \times 5$ 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.

Hale's Best Jumbo

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

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.

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.

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.

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.

LONG JOHN—(100 days) Very large, oblong, green fleshed, sweet.

PRICES

	Pkt.	Oz.	$\frac{1}{4}$ Lb.	Lb.
Clark	\$.15	\$.30	\$1.00	\$3.25
Cornell Delicious #51	.15	.35	.95	2.85
Golden Delight	.15	.50	1.50	4.50
Hale's Best Jumbo	.15	.30	.85	2.50
Hales Best #45	.15	.30	.85	2.50
Hearts of Gold	.15	.25	.75	2.25
Honey Ball	.15	.25	.75	2.25
Honey Dew	.15	.30	.85	2.50
Jasper	.15	.30	.85	2.50
Knight's Early Maryland	.15	.30	.90	2.75
Long John	.15	.35	1.00	3.00
Pride of Wisconsin	.15	.30	.85	2.50
Rocky Ford Improved,				
Jr.	.15	.30	.85	2.50
Sugar Rock	.15	.25	.75	2.25
Texas #1	.15	.25	.75	2.25

Congo

Black Diamond

Charleston Gray

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.

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.

CONGO—(90 days) Recently introduced by U.S.D.A. Anthracnose resistant. Not resistant to downy mildew or Fusarium wilt. Fruits semi-long, dark green irregular stripes; rind tough; flesh firm, bright red, sweet. Ripens well toward rind. All America Selection 1949.

HAWKESBURY—(85 days) Wilt resistant. Introduced by Australian Dept. of Agriculture. Vines vigorous. Fruits large grayish green. Flesh red, fine grained, delicious sweet flavor. Good shipper.

NEW HAMPSHIRE MIDGET—(67 days) Introduced by N. H. Expt. Sta., won All American Selection Award. Small elliptically shaped fruit with thin rind.

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 \$1.25 ea.

PRICES

MUSTARD

	Pkt.	Oz.	1/4 Lb.	Lb.
Fordhook Fancy	\$.10	\$.20	\$.50	\$1.50
Giant Southern Curled	.10	.20	.50	1.50
Tendergreen (Mustard Spinach)	.10	.15	.40	1.25

WATERMELON

Let Us Quote Larger Quantities

	Blacklee (Wilt Resist- ant)	Charleston Gray	Congo	Congo, Certified	Dixie Queen	Florida Giant	Fairfax	Garrison (90 Days)	Hawkesbury	Icebox	Kleckley's Sweet	New Hampshire Midget	Stone Mountain	Tom Watson
	.10	.15	.10	.15	.10	.10	.10	.10	.10	.25	.10	.10	.10	.10
	.25	.50	.40	.50	.20	.20	.45	.35	.20	.35	.20	.35	.20	.20
	.75	1.50	1.25	1.50	.60	.60	1.35	1.00	.60	1.00	.60	1.00	.60	.60
	2.25	4.50	3.75	4.50	1.75	1.75	4.00	3.00	2.00	3.00	1.75	3.00	1.75	1.75

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.

White Silver Skin Onion

SOUTHPORT WHITE GLOBE—(110 days) Pure white, true globe form with very crisp flesh, exceedingly mild and fine grained.

WHITE QUEEN—(90 days) Used extensively for a bunch onion, solid flesh of a mild flavor.

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.

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.

Early Yellow Globe

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.

EARLY YELLOW GLOBE—(100 days) Matures medium large uniform globe-shaped bulbs which keep exceptionally well.

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.

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.

NO. 613 BUNCHING—(60 days) A reselected strain from Evergreen White Bunching. Produces a cluster of 4 to 6 useful shoots from a single seed in the first season. Used only for green onions.

ONION SETS

FINE QUALITY MARKET GARDENERS STOCK

Subject to change. Postage Extra
Let Us Quote Larger Quantities

PRICES

ONIONS	Pkt.	Oz.	¼ Lb.	Lb.
Crystal Wax	\$.15	\$.45	\$1.35	\$4.00
#6-13 Bunching	.20	.60	1.75	5.25
Danvers-Yellow Globe	.15	.45	1.35	4.00
Early Yellow Globe	.15	.55	1.65	5.00
Golden Globe	.15	.55	1.65	5.00
Prizetaker	.15	.45	1.35	4.00
Southport White Globe	.15	.45	1.35	4.00
White Bunching	.15	.55	1.65	5.00
White Ebenezer	.15	.70	2.00	6.00
White Lisbon	.15	.55	1.65	5.00
White Queen	.15	.55	1.65	5.00
White Silver Skin, or				
Portugal	.15	.45	1.35	4.00
Yellow Sweet Spanish	.15	.70	2.00	6.00

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.

EMERALD—(55 days) Plants $4\frac{1}{2}$ feet tall, vigorous pods, thick walled, 6 to 8 inches long and $\frac{3}{4}$ inches in diameter at center; slightly curved, dark green.

DWARF GREEN LONGPOD—(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

PRICES

OKRA OR GUMBO	Pkt.	Oz.	$\frac{1}{4}$ Lb.	Lb.
Clemson Spineless	\$.10	\$.20	\$.60	\$1.75
Dwarf Green Longpod	.10	.20	.60	1.75
Emerald	.10	.20	.60	1.75
White Velvet (60 days)	.10	.20	.60	1.75

PARSLEY	Pkt.	Oz.	$\frac{1}{4}$ Lb.	Lb.	Lbs.
Champion Extra Dark Moss Curled	\$.10	\$.25	\$.75	\$2.25	\$20.00
Green Castle	.10	.25	.75	2.25	20.00
Paramount	.10	.25	.75	2.25	20.00
Plain or Single (72 days)	.10	.25	.75	2.25	20.00
Hamburg (Root Parsley)	.10	.25	.75	2.25	20.00

Let Us Quote Larger Quantities

Hamburg Parsley

PEAS

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.

Wrinkled Varieties

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.

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.

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.

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

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.

Edible Podded Peas

DWARF GREY SUGAR—(62 days) Vines 24 in. bearing 2¾ in. light green-pointed pods with small gray peas.

*Postage on peas: refer to chart on Page 1.

Early Bird

PRICES

	½ Pt.	Pt.	Qt.	Pk.
Alaska-Wilt-Resistant	\$.20	\$.30	\$.55	\$3.00
Early Bird	.25	.40	.75	4.00
Extra Early Alaska	.20	.30	.55	3.00
Long Podded Alaska	.25	.45	.85	4.50
Mammoth Pod Ex. Early	.25	.40	.75	4.00
Black Eyed Peas (100 days)	\$.20	\$.35	\$.65	\$3.50
Blue Bantam	.25	.45	.85	4.50
California Mammoth	.25	.40	.75	4.50
Dark Green Telephone	.25	.40	.75	4.50
Dwarf Grey Sugar	.30	.50	.95	5.00
Dwarf Market	.25	.40	.75	4.50
Dwarf Telephone—W.R.	.25	.40	.75	4.50
Early Giant (66 Days)	.25	.40	.75	4.50
Early Wonder	.25	.40	.75	4.50
Freezonian	.25	.40	.75	4.50
Gradus (Prosperity)	.25	.40	.75	4.50
Laxtonian (Hundredfold)	.25	.40	.75	4.50
Marvel	.25	.40	.75	4.50
Thomas Laxton	.25	.40	.75	4.50
World's Record (58 days)	.25	.40	.75	4.50

PEANUTS

VIRGINIA BUNCH—(145 days) Earliest, most prolific and easiest cultivated variety. Lb., 50c; 10 lbs., \$4.50.

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. 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. USDA recommends Phygon or Arasan seed treatment.

CALIFORNIA WONDER—(75 days) The leading market garden and shipping variety. Large, smooth, extremely heavy, very mild, thick flesh. Excellent uniformity and high quality for any use. Sweet distinctive flavor. Fruits 4½" long—3½" through.

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.

NEAPOLITAN—(62 days) Very early, prolific narrow variety grown for market and shipping. Very productive, upright fruits 4 in. long by 2 in. at widest. Flesh thin, mild, and sweet.

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.

WONDER GIANT—(74 days) Excellent, pure lined or uniform. Thick, sweet flesh. Recommended for market gardeners, good shipper and canner. Beautiful heavy peppers. Heavily productive. Fruit—4½" long—3¼" diameter, mostly 4 lobed, born upright with some pendant. Deep glossy green—deep scarlet when ripe.

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 of color good. The flesh is very thick, making distant shipment possible. Mosaic resistant.

YOLO WONDER—(75 days) Excellent quality—strong resistance to mosaic. Fruits more blocky than California Wonder and brighter green—sweet, thick flesh. Plants very prolific.

Yolo Wonder

Pungent or "Hot" Varieties

CHERRY RED—(82 days) Fruit small, round, color rich scarlet, very hot.

CHILI, SMALL—(80 days) Red conical pod, about 2 inches long, very hot. Fine for pepper sauce and seasoning.

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.

California Wonder

PRICES

	Pkt.	Oz.	¼ Lb.	Lb
California Wonder	\$.15	\$.80	\$ 2.60	\$ 7.75
Chinese Giant	15	.95	2.75	8.25
Cherry Red (Hot)	15	.60	2.00	6.00
Chili, Small (Hot)	15	.55	1.65	5.00
Floral Gem	15	.80	2.50	7.50
Florida Giant	15	.80	2.50	7.50
Half Long Cayenne	15	.80	2.50	7.50
Hungarian Wax	15	.60	2.00	6.00
Long Red Cayenne (Hot)	15	.60	2.00	6.00
Neapolitan	25	1.35	4.00	12.50
Pimento or Perfection	15	.80	2.50	7.50
Sunnybrook or Cheese	15	.60	2.00	6.00
Sweet Banana	15	.80	2.50	7.50
Wonder Giant	25	1.15	3.50	13.50
World Beater	15	.60	1.85	5.50
Yolo Wonder	25	1.15	3.50	10.00

PARSNIP

All American Hollow Crown

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

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.

ALL AMERICAN HOLLOW CROWN—(110 days) A specially selected stock, developed for uniform well-shaped smooth roots of excellent quality.

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.

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.

KING OF MAMMOTHS—(115 days) Enormous, deep yellow. Often weighs 75 to 100 lbs.

SUGAR PIE PUMPKINS—(115 days) Best of all Pumpkins for pies. Small to medium size, solid and fine grained, and a splendid keeper.

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

PRICES

PARSNIPS

	Pkt.	Oz.	¼ Lb.	Lb.
All American Hollow Crown	\$.10	\$.20	\$.65	\$ 2.00
Special New Market Garden Strain	.10	.30	.85	2.50

PUMPKIN

Connecticut Field	.10	.15	.50	1.50
Cushaw or Crookneck				
Golden	.10	.20	.60	2.00
Cushaw Green Striped	.10	.20	.55	1.75
King of Mammoths	.10	.25	.75	2.25
Sugar Pie Pumpkins	.10	.20	.55	1.75

Sugar Pie Pumpkin

RADISH

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

Extra Early Scarlet Globe Outdoor Forcing

Light, sandy soil, rich in organic matter is essential to produce crisp and tender radishes. For 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.

Early Varieties

CHERRY BELLE—(29 days) A beautiful bright round variety with short tops for bagging or for sowing in warm weather for bunching. Another all American winner.

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.

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.

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.

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.

Summer Varieties

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

Plant between Aug. 15th and Sept. 30th

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.

PRICES

	Pkt.	1/4 Lb.	Lb.	10 Lb.
Cherry Belle	\$.10	\$.35	\$1.15	\$10.00
Comet	.10	.35	1.15	10.00
Crimson Giant	.10	.35	1.15	10.00
Long Black Spanish	.10	.40	1.25	11.50
Long Scarlet	.10	.35	1.15	10.00
Round Black Spanish	.10	.40	1.25	11.50
Scarlet Globe	.10	.35	1.15	9.00
Scarlet Globe Round	.10	.35	1.15	10.00
Scarlet Globe #8	.10	.35	1.15	10.00
Scarlet Turnip	.10	.35	1.15	10.00
Sparkler	.10	.35	1.15	10.00
Tidewater Globe	.10	.35	1.15	9.00
White Chinese or Celestial	.10	.50	1.50	13.50
White Icicle	.10	.35	1.15	10.00
White Strasburg	.10	.35	1.15	10.00

Let Us Quote Larger Quantities

RAPE

DWARF ESSEX—Leaves smooth, quick growing may be cut for greens in three weeks after seeding. Sow any time from Spring through Fall. 1 oz. 10c; ¼ lb. 20c; lb. 55c Postpaid.

RHUBARB

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 32.

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 1¼ 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.

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.

PRICES

RHUBARB	Pkt.	Oz.	¼ Lb.	Lb.
Crimson Winter	\$.15	\$.50	\$1.50	\$5.00
SALSIFY				
Mammoth Sandwich Island	.15	.45	1.35	4.00
SORRELL				
Broad Leaf	.15	.35	1.15	3.50
Narrow Leaf	.15	.50	1.50	5.00

SPINACH

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

Spinach is rich in vitamins A and C. 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.

For winter and early spring use, sow either in drills or broadcast during August, September and October.

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.

AMERICA—(50 days) A long standing heavy yielding, slow growing, warm weather variety with heavy thick, glossy dark green leaves, densely crumpled and savoyed. Plant averages 7 in. tall by 12 in. across at maturity. Won Silver Medal in All America trials.

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. Fast growing vigorous variety.

EXTRA DARK GREEN SAVOY—(40 days) About two days later than Reselected, but 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 and plant breeder has also improved the strain in its savoyed characteristics and absolute freedom from smooth leaved plants.

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.

Extra Dark Green Savoy

Field of Early Long Standing Savoy for Seed

OLD DOMINION Blight resistant—(40 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.

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.

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 and early spring sowing.

NEW ZEALAND—(55 days) (Teteragonia Expansa) Not related to regular spinaches but forming larger spreading plants producing fleshy brittle tips and leaves which are used as spinach. Excellent for culture during hot, dry weather. Of delightful flavor and practically ever-bearing. Can be picked several times during season.

America

PRICES

	$\frac{1}{4}$		10	25	100
	Pkt.	Lb.	Lb.	Lbs.	Lbs.
America	\$.10	\$.25	\$.75	\$6.50	\$15.00
Extra Dark					
Green	.10	.25	.75	4.50	10.00
Heavy Pack ...	.10	.25	.75	4.50	10.00
Long Standing ...	.10	.25	.75	4.50	10.00
Old Dominion ...	.10	.25	.75	4.50	10.00
Reselected	.10	.25	.75	4.50	10.00
Special Summer					
Savoy	.10	.25	.75	4.50	10.00
Virginia B.R.	.10	.25	.75	4.50	10.00
New Zealandud	.10	.40	1.25		

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.

Summer Varieties

CASERTA—(62 days) An early bush type producing fruits a week earlier than Cocozelle. Early and highly productive young fruits grayish-green, striped with darker green. Average 14 to 16 inches when mature.

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.

EARLY GOLDEN SUMMER CROOKNECK—(52 days) A superior strain of summer crookneck, heavily warted, of a very deep orange color, 9 inches long, of excellent quality and highly productive.

GREEN TINTED BUSH SCALLOP—(50 days) Preferred by many market gardeners by reason of true decided light green color, even when fully matured. Retains green color longer than most varieties.

Winter Varieties

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.

BOSTON MARROW A&C SPECIAL—Same as Boston Marrow but having deeper orange color.

GREEN WARTED HUBBARD—(110 days) Densely warted, much larger than Golden Hubbard; flesh exceptionally thick, deep orange, dry and of excellent quality.

TABLE QUEEN OR ACORN (NEW MAMMOTH TYPE)—(80 days) Dark green, thin shelled, smooth, ribbed fruits with yellow flesh; favorite variety for baking. Fruits pointed acorn shape 5½ in. long 4 in. through.

Green Tinted Bush Squash

PRICES

Acorn or Table			
Queen (Mammoth)	\$.15	\$.60	\$1.75
Blue Hubbard	.15	.60	2.00
Boston Marrow	.15	.50	1.50
Boston Marrow A & C	.15	.85	2.50
Butternut	.15	.75	2.25
Casserta	.15	.60	2.00
Cocozelle, Extra Long			
Italian	.15	.60	1.75
Cocozelle, Vining	.15	.60	1.75
Early Golden Summer			
Crookneck	.15	.60	1.75
Early Prolific			
Straightneck	.15	.60	1.75
Golden Hubbard	.15	.60	2.00
Green Tinted Bush			
Scallop	.15	.60	1.75
Green Warted			
Hubbard	.15	.60	2.00
Jersey White Bush			
Scallop	.15	.60	1.75
Zucchini (Extra			
Dark)	.15	.60	2.00

Let Us Quote Larger Quantities

Green Warted Hubbard

Golden Summer Crookneck

Boston Marrow

TOMATOES

Improved Advance

1 oz. to 2,000 plants; $\frac{1}{4}$ 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 1st to 10th according to weather (or 3 weeks earlier if protected with Hotkaps) spacing 3 to 5 ft. apart.

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.

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.

CENTURY—(71 days) Excellent variety for canning, deep red color, firm, good shipper. Ripens from inside. Fusarium wilt resistant. Moderately heavy foliage.

BIG BOY, Hybrid—(78 days) Fruits smooth, deep globe, deep globe shape; firm, scarlet red skin. Excellent flavor.

PRICES

	Pkt.	Oz.	$\frac{1}{4}$ Lb.	Lb.
Beef Steak	\$.15	\$1.00	\$3.00	\$
Burpees Big Boy				
Giant Hybrid	$\frac{1}{8}$ oz.	\$7.00;	Oz.	\$42.00
Century	.15	1.15	3.50	10.00
Earliana	.15	.70	2.15	6.50
Early Giant Hybrid	$\frac{1}{8}$ oz.	\$6.00;	Oz.	\$35.00
#43	.25	1.00	3.00	12.00
Garden State	.15	.85	2.50	7.50
Greater Baltimore (Ind.)	.15	.40	1.25	4.00
Hybrid C 18 x 21	$\frac{1}{4}$ oz.	\$3.85;	Oz.	\$12.50
Improved Advance	.15	1.15	3.50	10.00
Jubilee Golden	.15	1.50		
Manalucie	.25	1.00	3.00	12.00
Marglobe (Certified)	.15	.70	2.15	6.50
Oxheart	.15	1.50	4.50	15.00
Ponderosa	.15	1.15	3.50	10.00
Pritchards Scarlet				
Topper	.15	.85	2.50	7.50
Queen's (Certified)	.15	.85	2.50	7.50
Rutgers (Certified)	.15	.65	2.00	6.00
Scarlet Dawn	.15	.50	1.50	5.00
Sioux	.15	1.00	2.85	8.50
Southland	.25	1.35	4.00	12.00
Stokesdale (Certified)	.15	1.15	3.50	10.00
Stone (Improved)	.15	.50	1.50	4.50
Urbana	.15	1.15	3.50	10.00
Valiant	.15	.85	2.50	7.50
SMALL FRUITED				
Pear Shaped Yellow	.15	.85	2.50	
Red Cherry	.15	.60	1.75	
Red Plum	.15	.60	1.75	
San Marzano				
(Paste) Red	.15	1.00	3.00	
Yellow Plum	.15	.85	2.50	

Let us quote larger quantities

Marglobe Certified

INDIANA BALTIMORE—(80 days) Large, smooth, solid, bright scarlet; second early Tomato; a very prolific bearer and fine canning variety.

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.

RUTGERS CERTIFIED—(80 days) Developed under the direction of Prof. L. G. Schermerhorn of the New Jersey Agr. Experiment Station. The fruits begin ripening at the center, are highly colored throughout and have a thick wall structure with very small seed cavity. In comparison with Marglobe they are slightly more flattened at the stem end and will average much larger. Very prolific and desirable for canning, market or the home garden.

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.

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.

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.

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.

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 yellowship white, fine grained, sweet and tender.

DOUBLE DUTY—(30-40 days) Roots approximately 3 x 2 in. tops 18 in. tall, strap-leaved fast growing heavily

Turnip—Autumn King

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—Smith's strain. (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.

Purple Top White Globe Turnip

PRICES

RUTABAGA

	Pkt.	Oz.	¼ Lb.	Lb.
Neckless Purple Top	\$.10	\$.15	\$.30	\$1.00
New Canadian	.10	.30	1.00	2.85
Special Market				
Gardeners	.10	.55	1.65	5.00
Waltham (Yellow				
Globe)	.10	.30	1.00	3.50

TURNIP

Autumn King	.10	.15	.30	1.00
Double Duty	.10	.15	.30	1.00
Early Snowball	.10	.15	.30	1.00
Golden Ball (Orange				
Jelly)	.10	.15	.30	1.00
Mammoth Shogoin	.10	.15	.30	1.00
Purple Top White				
Globe	.10	.15	.30	1.00
Seven Top	.10	.15	.30	1.00
Yellow Aberdeen				
Purple Top	.10	.15	.30	1.00

VEGETABLE PLANTS

PLEASE NOTE: All plants are quoted f.o.b. Baltimore.

Let us quote larger quantities

On parcel post orders, add 25c per 100.

CABBAGE PLANTS, FROST-PROOF.

(Ready in February to May.)

75c per 100.

CAULIFLOWER PLANTS. (Ready in May.)

25c per doz.; \$1.50 per 100.

BORECOLE PLANTS. (Ready in July.)

\$1.25 per 100.

CELERY PLANTS. (Ready in July.)

\$1.50 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. 40c; 100, \$2.50

RHUBARB ROOTS

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

PLANT SETTER

No. 15—Sets, waters, and covers plants in one operation. Eliminates damaging plants. Automatic, positive and accurate operation, rigid construction, no rust, removable water spout. \$8.50.

Lynchburg Setter \$5.65.

FRUIT TREES

APPLES. 5-6 ft. \$1.90 each; \$17.00 per 10. Delicious, Yellow Delicious, Double Red Delicious, Winesap, York, Red Rome, Grimes Golden, Jonathan, Yellow Transparent, Hyslop Crab, etc.

PEARS. 5-6 ft. \$2.15 each. Bartlett, Kieffer, Seckel.

PEACHES. 5-6 ft. \$2.00 each. Belle of Georgia, Carman, Crawford Early, Crawford Late, Elberta, Heath Cling, J. H. Hale, Shippers Late.

CHERRIES. 9/16 to 11/16 cal. \$2.30 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. **DELAWARE.** Red. **NIAGARA.** White. 60c each, 10 for \$5.00.

SMALL FRUITS & BERRIES

BLACKBERRIES. Alfred, Eldorado.

10, \$2.00; 100, \$10.00.

RASPBERRIES. Cumberland—black; Latham—red; St. Regis—red, everbearing; Indian Summer—red, everbearing. 10, \$3.00; 100, \$14.50.

BLUEBERRIES. 2 yr. 12-18 in. Burlington, Concord, Jersey, Rancocas, Rubel, \$1.25 ea.; 10, \$10.75.

BOYSENBERRIES. Thornless. 10, \$2.50; 100, \$10.50.

TRANSPLANTONE

For all plants and trees. No set-back from transplanting, insurance against replanting and an aid to earlier production. 1/2 oz. pkt., 25c; 3 oz., \$1.00; lb., \$4.00.

FRUITONE

The hormone spray for stopping premature drop of fruit, flowers and leaves. 2/5 oz., 25c; 2 oz., \$1.00; 12 oz., \$5.00.

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

Big Joe-Catskill. Midseason

Chesapeake. Late.

25 for \$1.25; 100 for \$3.00.

Everbearing-Streamliner. 25, \$2.00; 100, \$5.50.

BERRY BOXES

	100
Pints	\$2.00
Quarts	1.75
2 qt. Tills	5.00
3 qt. Tills	5.50

Let us
quote
quantity
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 0-14-14 or 0-20-20. 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. 800 to 400 lbs. 4-12-8 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. 10-10-10. For new seeding, 400 lbs. 5-10-5. 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. 4-12-8 heavy phosphorus and potash feeder. Best on moderately acid soil.	Flour, stock and poultry feed, bees, summer cover and green manure crop.	Takes cool, moist climate, a poor land crop. Harvest between time and first seed fully formed and the time they mature.
Corn Field	56	14	May July	Broadcast 500 lbs. 10-10-10 per acre before 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 $\frac{1}{2}$ to $\frac{3}{4}$ green. For ensilage harvest in early glaze stage, shucks yellow.
Clover Alsike	60	5-8	Aug.-Sept. Feb.-Apr.	200 to 400 lbs. 0-14-14 or 0-20-20. Responds readily to lime. Top dress annually.	Hay, pasture, soil improvement.	Better on wet, poor or acid soils than any other clover. Inoculation helpful.
Clover Crimson	60	15	August	Responds to lime but not very sensitive to acid. 400 lbs. 0-14-14 at seeding.	Green manure, and to some extent for hay and pasture winter annual.	Best suited to coastal plain soils but not to wet soil. 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 Ladino	60	2	March April or August	200 to 400 lbs. 0-14-14.	Pasture and hay.	For pasture sow with orchard or alta fescue. Thrives 4 to 8 years.
Clover Red	60	10-15	March April or August	200 to 400 lbs. 0-14-14 or 0-20-20 $\frac{1}{2}$ 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. of 0-20-20. 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. of 0-14-14 annually 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 3 bu.	May 15th July 15	300 lbs. of 0-14-14 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. 400 lbs. 5-10-5 or 10-10-10.	Lawns principally; also as pasture.	Withstand 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. 5-10-5 or 10-10-10.	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	300 to 300 lbs. 0-14-14 per acre. Lime not necessary but responds readily.	Hay, pasture and soil improvement.	For hay sow on fertile moist land. If second growth 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	
Millet Golden	50	25-30	May to July	Responds to 200 lbs. 0-14-14 or 0-20-20. 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. 5-10-10 at seeding. Topdress as growth begins in spring where straw is likely to be too short, with 200 to 300 lbs. 5-10-5.	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	400 lbs. 5-10-5 or 300 lbs. 5-10-10 for fall application or 10-10-10 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.
Rape Dwarf Essex	56	6-10	Mar.-Apr. Aug.-Sept.	Heavy feeder and responds to manure and fertilizer. (10-10-10). 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 acid or "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 400 lbs. 5-10-5. Top dress in spring when growth begins. Not necessary but helps some. Manure.	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. 500 lbs. 5-10-5 or 5-10-10.	Very similar to above.	More persistent than Domestic Rye Grass.
Sorghum	50	Drill 8-10 Broadcast 60-75	May-July	150 to 400 lbs. 5-10-5 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 15-60 Broadcast 60-90	May 15th to July 15th	300 lbs. 0-14-14 or 0-20-20 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 it 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. 10-10-10.	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. 200 to 300 lbs. 10-10-10.	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.	400 lbs. 5-10-5 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. 10-10-10 when spring growth begins.	Primarily for hay. Does not stand grazing well.	Semi-bunch growth. Adapted to heavy soils such as clays and loams. Usually seeded in mixture with sapling clover, or with wheat in the fall and the clover on the wheat in spring. Cut hay when in full bloom or slightly after.
Vetch Winter	50	20-30 with 1 bu. Rye	Aug.-Oct.	200-300 lbs. 0-20-20, 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	200-300 lbs. 0-14-14 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.

FIELD SEED PRICES

These quotations are based on market at time catalog goes to press and will be maintained as far into the season as possible. Buyers of large quantities are requested to write for firm prices stating quantities, as market fluctuations may permit lower prices. Mail orders will be filled at prices prevailing date order is received and any overpayment will be refunded. We are offering only strong germinating, new crop seed, with as low weed content as economically possible. Prices quoted cash, f.o.b. Baltimore, bags included on full bag lots; bags charged extra on smaller quantities.

	(1-9 lbs.) Per lb.	(10-20 lbs.) Per lb.	(21-99 lbs.) Per lb.	Bag Lots Per lb.
Prices F.O.B. Baltimore				
Alfalfa: Kansas Verified	\$.65	\$.60	\$.53	\$.49
Cert. Atlantic	.90	.85	.80	.74
Blue Grass: Kentucky	1.45	1.25	1.00	.90
Merion	4.50	4.25		
Clovers: Alsike	.60	.50	.47	.44
Crimson	.35	.30	.26	.22
Ladino (Certified)	1.25	1.20	1.10	.90
Red (Midwest ver.)	.90	.85	.78	.73
White Dutch	1.35	1.30	1.25	1.10
Wild White—New Zealand	1.50	1.45	1.35	1.20
Fescues: Alta	.40	.35	.30	.25
Chewings	.75	.65	.55	.45
Creeping Red	.70	.60	.50	.40
Meadow (English Blue Grass)	.80	.70	.60	.50
Lespedeza: Korean	.36	.33	.30	.27
Oats: Spring (Clinton Cert.)	1-9 Bu. @ \$2.15	10 Bu. @ \$2.00		
Orchard Grass	.55	.50	.45	.39
Red Top Grass	1.35	1.15	1.00	.88
Rye Grass: Italian—Domestic	.20	.18	.15	.13
Perennial	.40	.38	.35	.33
Sorghum: Amber	.20	.18	.15	.12
Milo	.15	.13	.12	.10
Tall Meadow Oat Grass	.70	.60	.50	.40
Timothy	.35	.34	.32	.31

MANNS' PERMANENT PASTURE MIXTURE

\$11.00 Per Acre

Contains reselected 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 20 lbs. per acre. (Low Lands—sow 17 lbs. plus 3 lbs. Red Top.)
 Lb., 57c; 20 lbs., \$11.00; 100., \$52.50.

Cyclone illustrated \$4.10

MANNS' SUPERIOR FLOWER SEEDS

FINEST AMERICAN AND IMPORTED STRAINS
FOR FLORISTS AND PARTICULAR GARDENERS

BORDER AND EDGING

Ageratum
Alyssum, Annual
x Alyssum, Saxatile
x Arabis, Alpina
x Bellis Perennis
Calendula
x Campanula, Carpatica
Candytuft
Centaurea
x Cerastium
x Dianthus, Barbatu
x Iberis, Sempervirens
Lobelia
Nasturtiums
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
x Perennial Varieties.

Stock
Stock, Virginian
Sweet Peas
Verbena

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

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
Clarkia
Cornflower
Cosmos
Dianthus
Gaillardia
Glove Amaranth
Helichrysum
Gypsophila
Larkspur
Marigold, African
Mignonette
Nasturtium
Nigella
Phlox, Drummondii
Salpiglossis
Scabiosa
Schizanthus
Snapdragon
Statice
Stocks
Zinnia

TALL VARIETIES

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

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

POTTED PLANTS

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

Ageratum
Alyssum
Aster
Calendula
Cannas
Coleus
Coreopsis
Dianthus
Geranium
Heliotrope
Lantana
Lobelia

Pansy
Petunia
Phlox
Scarlet Sage
Snapdragon
Stock
Summer Poinsettia
Verbena
Vinca
Wallflower
Zinnia

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*, *Nigelia*, *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

ANNUAL FLOWER GARDEN MIXTURE

2 to 3 ft. tall. Pkt., 10c; oz. 65c; ¼ lb., \$2.00.

AGERATUM

Splendid for bedding or borders, covered from June until frost with a mass of flowers of a tufted appearance.

DWARF COMPACTUM MIDGET BLUE.

Pkt., 15c; ½ oz., \$1.00.

SEMI-DWARF BLUE PERFECTION.

Pkt., 15c; ½ oz., \$1.00.

Crego Aster

ALYSSUM

LITTLE GEM. In bloom six weeks after sowing seed. Very erect and dwarf, white, height 4 inches. Pkt., 10c; ½ oz. 75c.

ROYAL CARPET. Purple, 2 to 3 in. tall but spreading to 10 in. wide. Pkt., 25c; ½ oz., \$1.75.

PROCUMBENS SNOW-CLOTH. Compact mass of pure white flowers. 3-4 inches high by 8 inches wide. Pkt., 15c; ¼ oz., 75c.

AMARANTHUS

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 feather sprays of rich crimson color. Pkt., 10c; ¼ oz., 25c.

MOLTEN FIRE. (Summer Poinsettia) 3 feet tall; easily grown, leaves dark bronze, top of plant brilliant Poinsettia red. Pkt., 15c; ¼ oz., \$1.50.

ARCTOTIS (Blue-Eyed African Daisy)

GRANDIS. White petals tinged lilac with centers steel blue. Good for cutting, June to October, 2 feet tall. Pkt., 15c; ½ oz., 50c.

ASTERS (Wilt Resistant)

The varieties listed represent the finest 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., 25c; ¼ oz., \$2.25.

AMERICAN BRANCHING. A very distinct variety resembling *Chrysanthemums*; plants 2 feet in height and width and bloom in July or early August.

Mixed, Pkt., 15c; ¼ oz., 90c.

CREGO. Flowers 4 to 5 inches in diameter during late summer and fall. Plants are of strong branching growth, 2 to 2½ feet high. Separate colors.

Pkt., 15c; ¼ oz., 90c.

Mixed, Pkt., 15c; ¼ oz., 90c.

CALIFORNIA SUNSHINE. Flowers 4 to 5 inches in diameter, half double. Fine for cutting, midseason, height 3 ft.

Mixed, Pkt., 15c; ¼ oz., \$1.25.

BALSAM OR LADY SLIPPER

Produces numerous flowers resembling tiny roses throughout the summer and early fall. An old favorite for beds and borders. 2 feet.

Splendid double mixed, pkt., 10c; ¼ oz., 40c.

BELLS OF IRELAND

Molucella Laevis—Pale green flowers on 2 ft. stems, blends beautifully in flower arrangements.

Pkt., 25c; 1/16 oz., \$1.00.

Centaurea

CALENDULA

Blooms continuously from June until frost. 15 to 24 inches.

EXTRA DOUBLE ORANGE KING. Rich deep orange. Pkt., 15c; ½ oz., 75c.

LEMON QUEEN. Light golden-yellow flowers, Pkt., 15c; ½ oz., 75c.

ORANGE SHAGGY. Distinct type having long narrow fringed petals. Flowers 3 in. across. Somewhat resembling rich deep orange Chrysanthemums, grows 18 in. high.

Pkt., 15c; ½ oz., \$1.00.

RADIO. Medium sized, clear orange, closely set petals, attractively quilled.

Pkt., 15c; ½ oz., \$1.00.

FINEST MIXED. Pkt., 10c; ½ oz., 60c.

CAMPANULA—CANTERBURY BELLS

Biennial, sow seed in June for blooms following early summer. An old-fashioned favorite, stately, showy, and easily grown. Bell-shaped flowers on long upright stems. Plants form perfect pyramids about 2 ft. high.

Mixed, Pkt., 15c; ¼ oz., \$1.25.

CANDYTUFT

FINEST HYBRID MIXTURE OF ALL COLOES. Clusters of small flowers, useful for beds, borders, rock gardens and cutting. Height 12 inches. Blooms May to July.

Pkt., 10c; ½ 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, yellow or mixed, height 2 to 3 ft.

Pkt., 15c; ¼ oz., 85c.

DWARF EMPRESS COCKSCOMB. Dark-leaved, bright crimson. Height 10 in.

Pkt., 15c; ¼ oz., \$1.00.

TALL EMPRESS COCKSCOMB MIXED. Height 1½ ft. Pkt., 15c; ¼ oz., \$1.00.

CHILDSII. (Chinese Woolflower.) 2½-3 ft. Crimson.

Pkt., 15c; ¼ oz., \$1.10.

Mixed, Pkt., 15c; ¼ oz., \$1.00.

CENTAUREA

CENTAUREA OYANUS; BACHELOR'S BUTTON OR CORN FLOWER. Double mixed. Height 2-2½ ft. Blooms from mid-summer until frost.

Pkt., 10c; ½ oz., 75c.

CENTAUREA MOSCHATA OR SWEET SULTAN. Sweet scented flowers on long stems, when cut will last for several days. Height 2½-3 ft.

Mixed, Pkt., 10c; ½ oz., 75c.

CORNFLOWER, JUBILEE GEM—Dwarf plants, 1 foot, freely blooming, vivid blue.

Pkt., 10c; ¼ oz., 50c.

CHRYSANTHEMUMS

Annual Chrysanthemums are free-blooming, easily grown plants, having large single flowers in a variety of brilliant colors, fine for cutting. Height 2 ft. Blooms from summer until frost.

Single, Mixed. Pkt., 15c; ¼ oz., 60c.

CLARKIA

Graceful, profuse flowering. Height 2 ft. Blooms like small double roses from June until frost.

Double mixed. Pkt., 15c; ¼ oz., 50c.

COREOPSIS

Showy plants with numerous small daisy like flowers, excellent for bouquets. Thrive well in any soil. Height 2-3 ft. Blooms all summer.

Pkt., 10c; ½ oz., 60c.

COSMOS

FIESTA. All American Winner 1952. Semi double flowers, ruffled, 2½ ft. plants, blooms all summer. Red, orange, yellow, suffusion of color.

Pkt., 25c; ¼ oz., \$1.50.

RADIANCE. All American Winner 1948. A striking color combination of deep rose overlaid with well-defined zone of rich crimson.

Pkt., 15c; ¼ oz., \$1.00.

SENSATION. Extremely early free blooming, flowers 4 to 5 inches, plants 4 ft. White, Pink and Mixed.

Pkt., 15c; ¼ oz., 75c.

DOUBLE EARLY FLOWERING MIXED. Blooms 3 in. Height 4 ft.

Pkt., 25c; ½ oz., \$1.00.

CYNOGLOSSUM

(Chinese forget-me-not)

AMABLE. Dwarf sweet scented, blue.

Pkt., 15c; ¼ oz., 75c.

DIANTHUS OR PINKS

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

TETRAPLOID HEDDENSIS. Large long stemmed double flowers. Plants 10-12 inches.

Pkt., 15c; ¼ oz., 75c.

DIDISCUS—Blue Lace Flower

COERULEUS. Lavender, blue, lace-like flower; blooming profusely from June to September; 1½ feet tall.

Pkt., 15c, ¼ oz., \$1.25.

Cosmos Radiance

Helichrysum

DIMORPHOTHECA

AURANTIACA (African Daisy). Orange-gold daisy-like blooms on long stems. Bushy plants 12-15 inches tall. Bloom until frost.
Pkt., 15c; $\frac{1}{4}$ oz., \$1.50.

EUPHORBIA

VARIEGATA (Snow on the Mountain). Bright green foliage veined and margined with white, top leaves snow white. Height 3 ft.
Pkt., 15c; $\frac{1}{4}$ oz., 75c.

GLOBE AMARANTH-GOMPHRENA

One of the best "Straw flowers." Perfect globe shape. Blooms midsummer until frost. Height 2 ft.
Mixed colors. Pkt., 15c; $\frac{1}{4}$ oz., 50c.

GODETIA (Satin Flower)

DOUBLE-DWARF MIXED. Azalea flowered. Blooms 2 to 3 in. dia., June to August. Plants 1 foot high.
Pkt., 10c; $\frac{1}{4}$ oz., 70c.

GYPSOPHILA (Baby's Breath)

Graceful plants, myriads of small bell-shaped single flowers, excellent for their delicate effect in bouquets. Height 2 ft.
Pkt., 10c.; $\frac{1}{2}$ 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; $\frac{1}{4}$ oz., 25c.

HELICHRYSUM (Everlasting Flower)

MONSTROSUM. Double pompon-like flowers 1 to 2 in. dia. often dried and used as "straw flowers." Height 2 ft. Blooms from June to November.
Mixed, Pkt., 10c; $\frac{1}{4}$ oz., 50c.

HOLLYHOCK

SINGLE ANNUAL FINEST MIXED.
Pkt. 10c; $\frac{1}{4}$ oz., 45c.
Also see perennials.

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; $\frac{1}{4}$ oz., 35c.

LANTANA

DWARF HYBRIDS MIXED. Pkt., 15c; $\frac{1}{4}$ oz., 75c.

Dianthus

Lobelia

Lupins

Nigella

LARKSPUR

For Perennial Larkspur see Delphinium.

Seed sown in April will produce flowering plants by the first of July and continue to bloom until frost. November sowing is preferred by many growers.

GIANT IMPERIAL DOUBLE. Height 3-4 ft. White, Carmine Rose, Blue, Pink.

Pkt., 15c; ¼ oz., 50c; 1 oz., \$1.25; ¼ lb., \$3.75; 1 lb., \$12.00. (Mixed Pkt., 50c)

REGAL. 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; ½ oz., 80c; oz., \$1.50; ¼ lb., \$4.50.

LOBELIA

CRYSTAL PALACE COMPACTA. Desirable for edgings. Dark blue flowers, dark foliage. Height 4 inches.

Pkt., 15c; ⅓ oz., 60c.

LUPINUS

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

AFRICAN (TALL) VARIETIES

AFRICAN. Mixed. Double.

Pkt., 10c; ¼ oz., 75c.

MAMMOTH OZ. Large double fluffy light sulphur-yellow flowers resembling Chrysanthemums. Plants bushy, erect and strong. Height 3 ft.

Pkt., 25c; ⅓ oz., \$1.00.

GLITTERS. Large, tall, clear yellow. Double Chrysanthemum flowered.

Pkt., 25c; ¼ oz., \$1.50.

GUINEA GOLD. Orange flushed with gold, flowers semi-double. Height 2 to 2½ feet.

Pkt., 15c; ¼ oz., 80c.

CROWN OF GOLD. Collarette type, rich golden yellow, chrysanthemum formed, fragrant, double. 2½-inch blooms. Height 2 ft.

Pkt., 15c; ¼ oz., \$1.00.

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., 15c; ¼ oz., \$1.00.

FRENCH (DWARF) VARIETIES

BUTTERBALL. Extra dwarf double, soft yellow. Height 6 to 8 in.

Pkt., 15c; ¼ oz., \$1.00.

FLASH. Extra early, free flowering, single orange-red profuse blooms. Height 1½ ft.

Pkt., 15c; ¼ oz., 75c.

FRENCH. Dwarf double mixed. Height 1 ft.

Pkt., 10c; ¼ oz., 75c.

MELODY. Double, solid bright orange. Height 1 ft.

Pkt., 15c; ¼ oz., \$1.00.

MARVEL OF PERU—FOUR O'CLOCK

Large showy fragrant flowers, blooming the entire season. Height 2 ft.

Mixed, Pkt., 10c; oz., 50c.

MIGNONETTE

Sowing 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., 75c.

NASTURTIUM

Bloom most prolifically if given a rather poor soil and an open sunny location.

DWARF MIXED. Brilliant shades of yellow, and red. Height 9 in.

Pkt., 10c; oz., 30c; ¼ lb., \$1.00.

DOUBLE GLEAM HYBRIDS. Large, sweetscented double flowers in wide range of colors. Height 15 in. Golden, Scarlet or Mixed.

Pkt., 15c; oz., 50c; ¼ lb. \$1.50.

TALL TRAILING—CHOICE MIXED. Height 10 ft.

Pkt., 15c; oz., 30c; ¼ lb., \$1.00.

NICOTIANA

AFFINIS. Gives a continuous display of very fragrant flowers through the summer and autumn. Height 2-3 ft.

Mixed. Pkt., 10s; ¼ oz., 60c.

NIGELLA OR LOVE-IN-A-MIST

Free-flowering plant, producing curious flowers surrounded by the finely cut foliage. 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., 75c.

Stocks

Schizanthus

Salpiglossis

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.

SWISS GIANTS. Mixed reselected Florist strain. In a fine range of colors.

Pkt., 25c; $\frac{1}{8}$ oz., \$1.50; oz., \$10.00.

TRIUMPH OF THE GIANTS. (Fringed.) Blooms enormous, brilliant colors.

Pkt., 25c; $\frac{1}{8}$ oz., \$1.50; oz., \$10.00.

SWISS GIANT ALPENGLOW. Rich garnet and ruby red shades with dark blotches.

Pkt., 25c; $\frac{1}{4}$ oz., \$2.00.

SWISS GIANT CORONATION GOLD. Large golden yellow, without blotches or marking.

Pkt., 25c; $\frac{1}{8}$ oz., \$1.50.

SWISS GIANT ULLSWATER. Marine blue with darker blue blotches.

Pkt., 25c; $\frac{1}{4}$ oz., \$2.00.

SWISS GIANT. White.

Pkt., 25c; $\frac{1}{4}$ oz., \$2.00.

PETUNIAS

GIANTS OF CALIFORNIA. Huge blooms in light and dark colors, fringed and ruffled. Height 12 in.

Mixed, Pkt., 25c; $\frac{1}{32}$ oz., \$4.00

BALLERINA. Deep pink, fringed grandiflora.

Pkt., 50c.

HOWARD'S STAR. Rose-crimson with a five-pointed white star. Height 18 in.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.50.

DWARF BEDDING VARIETIES (Height 12 in.)

BLUE BEDDER. Mid-blue.

Pkt., 15c; $\frac{1}{16}$ oz., \$1.50.

ROSY MOEN. Pink white throat.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.25.

ROSE OF HEAVEN. Deep brilliant rose.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.75.

SNOWBALL IMPROVED. Large white.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.75.

DWARFED MIXED

Pkt., 15c; $\frac{1}{8}$ oz., \$1.00; $\frac{1}{4}$ oz., \$1.70.

DWARF ELK'S PRIDE. Deep Purple.

Pkt., 25c; $\frac{1}{32}$ oz., \$4.00.

FIRE CHIEF. All American, brilliant red.

Pkt., 25c; $\frac{1}{16}$ oz., \$2.00.

FLAMING VELVET—velvety crimson. Height 18 in.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.25.

BALCONY PETUNIAS

HYBRIDA PENDULA. For porch and window boxes. Large blooms produced in abundance.

Mixed, Pkt., 15c; $\frac{1}{8}$ oz., \$1.25.

PHLOX

***DEUMMONDII.** Choice mixture, first quality. Height 15 in.

Pkt., 15c; $\frac{1}{8}$ oz., 75c.

***STAR PHLOX.** (Cuspidata.) Star-shaped flowers. Height 12 in.

Pkt., 15c; $\frac{1}{8}$ oz., 75c.

POPPIES

TULIP POPPY. Scarlet flowers 3 inches in diameter, greatly resembling tulips. Height 20 in.

Pkt., 10c; $\frac{1}{4}$ oz., 75c.

SHIBLEY. Special mixed. Height 20 in.

Pkt., 10c; $\frac{1}{4}$ oz., 50c.

ESCHSCHOLTZIA. (California Poppy). Spreading plants 1 foot high.

Mixed, Pkt., 10c; $\frac{1}{4}$ oz., 60c.

PORTULACA—Mexican Rose

Thrives best in rather rich soil in a sunny situation. Height 6 in.

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

Pkt., 15c; $\frac{1}{8}$ oz., \$1.00.

***LARGE-FLOWERING SINGLE MIXED.**

Pkt., 10c; $\frac{1}{8}$ oz., 65c.

RICINUS—CASTOR OIL BEAN

Ornamental plants of strong, stately growth, the foliage having the appearance of a tropical plant. Height 6-8 ft.

ZANZIBAR. Extra mixed.

Pkt., 10c; $\frac{1}{4}$ lb., \$1.00.

SALPIGLOSSIS

Petunia-like flower borne on bushy stem, about 24 inches tall.

Mixed, Pkt., 15c; $\frac{1}{8}$ oz., 50c.

SALVIA SPLENDENS OR SCARLET SAGE

BONFIRE. Dense flowering 2½ foot plants.
Pkt., 15c; ¼ oz., \$1.25; oz., \$4.50.

BLAZE OF FIRE. Ten days earlier than other early flowering Salvia. Height 12 in.
Pkt., 25c; ⅛ oz., \$1.50.

HARBINGER. Bluish green foliage and a profusion of scarlet flowers. Height 16 in.
Pkt., 25c; ⅛ oz., \$1.50.

SCABIOSA OR MOURNING BRIDE

Fine free-flowering plants for mixed borders and cut flowers, ranging from white to dark maroon. Height 3½ feet.

IMPERIAL HYBRIDS MIXED.
Pkt., 15c; ¼ oz., 75c.

SCHIZANTHUS

***MONARCH HYBRID MIXED.** Noted for variety of coloring and butterfly-like blossoms; fern-like foliage, height 18 inches.
Pkt., 15c; ⅛ oz., \$1.00.

SNAPDRAGON

See Antirrhinum.

SPIDER PLANT

CLEOME. Plants 4 ft. spreading but open growth. Pink curious flower heads. Blooms continuously until frost.
Pkt., 15c; ¼ oz., \$1.00.

STATICE (Annual)

Clusters of colorful, strawy blooms on stiff stems. Often dried and used for winter bouquets. Height 2 ft.
***SINUATA CHOICE MIXED.**
Pkt., 15c; ¼ oz., 40c.

STOCKS-10-WEEKS

Deliciously-scented flowers like small rosettes are produced in a wide range of soft and distinct shades. Blooms May to July.

DOUBLE EARLY GIANT IMPERIAL. (Improved Bismarck.) Height 26 in.
Mixed. Pkt., 15c; ⅛ oz., 75c.

DRESDEN PERPETUAL. 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; ⅛ oz., \$1.00.

DWARF DOUBLE LARGE FLOWERED MIXED. Height 12 in.
Pkt., 15c; ⅛ oz., 75c.

SWEET PEAS

One Ounce for 30 to 40 feet of row

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

FINEST MIXED.
Pkt., 10c; oz., 45c; ¼ lb., \$1.50; lb., \$4.50.

Sweet Peas

SUNFLOWER

(See also Helianthus)

CALIFORNIA GIANT. Grown for ornamental or commercial use. Gray striped seed.
Pkt., 10c; ¼ lb., 20c; lb., 50c.

SUMMER POINSETTIA

See Amaranthus Molten Fire.

TITHONIA

TORCH. Orange scarlet, single flowers with gold centers. 5 ft. tall.
Pkt., 25c; ⅛ oz. 75c.

TORENIA

FOURNIERI. Plants 6 to 8 in., bushy. Blooms July until frost. Flowers, blue with yellow throat.
Pkt., 25c; ⅛ oz., \$1.50.

VERBENA

One of the finest bedding plants, 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 succeeded in almost any good garden soil.

HYBRID MAMMOTH MIXED. Extra large flowered, brilliant colors and vigorous. Height 1½ ft.
Pkt., 15c; ⅛ oz., 75c.
HYBRIDA COMPACTA. Dwarf mixed.
Pkt., 15c; ⅛ oz., 75c.

VINCA (Periwinkle)

Attractive bushy plants with glossy green foliage, producing in abundance handsome flowers that bloom freely all summer. Height 1 ft.
Choice mixed. Pkt., 10c; ¼ oz., 80c.

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., 60c
1 oz., \$2.00

DAHLIA FLOWERED MIXED.
Pkt., 15c; ¼ oz., 50c; 1 oz., \$1.75.

BURPEE'S HYBRIDS. Giant flowers with quilled petals, wide range of colors. 3 ft.
Pkt., 25c; ⅓ oz., 75c.

GIANT FLOWERED MIXED. Height 3-4 ft.
Pkt., 15c; ¼ oz., 50c; 1 oz., \$1.75.

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., 25c; ⅓ oz., 75c.

PASTEL GIANTS MIXED.
Pkts., 25c; ⅓ oz., 50c.

PERSIAN CARPET. Flowers 1 to 1½ in. diameter, each plant different, 12 in. height.
Pkt., 25c; ⅓ oz., 90c.

FANTASY. Large, well-rounded, graceful blooms on long stems in the usual range of zinnia colors. Height 2½-3 ft.
Pkt., 15c; ¼ oz., 75c.

DOUBLE LILLIPUT. Dainty profuse blooming type; flowers 1 inch in diameter. Orange, Salmon Rose, Lilac, Pink, Scarlet, Mixed. Height 1½-2 ft.
Pkt., 15c; ¼ oz., 50c.

Zinnias

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., 75c.

PEPPERMINT STICK. Medium size bloom with striped petals.
Mixed Pkt., 25c; ⅓ oz., 75c.

VINES

BALLOON VINE. (*Cardiospermum*.) Graceful, rapid grower, with clusters of small white flowers followed by large, inflated ballon-shaped seed pods. Height 10 ft.
Pkt., 15c; ¼ oz., 40c.

BALSAM APPLE. (*Balsamina*.) Rapid growing vines with 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., 15c; ½ oz., 50c.

CARDINAL CLIMBER. (*Ipomoea Quamoclit Hybrida*.) Brilliant scarlet flowers are borne profusely; leaves resemble those of a Japanese Maple. (15-25 ft.)
Pkt., 15c; ¼ oz., 80c.

COBAEA SCANDENS. Of rapid growth, with fine foliage and large bell-shaped flowers of a beautiful violet blue color. (10-20 ft.)
Pkt., 15c; ⅓ oz., 90c.

CYPRESS VINE. (*Ipomoea quamoclit*.) Slender vine, with fern-like foliage and a mass of small star-shaped flowers. (10 ft.)
Scarlett. Pkt., 15c; ¼ oz., 50c.

GOURDS. A large and interesting class producing a great variety of curious fruits, many of which are peculiarly marked. (12 ft.)
Pkt., 15c; ½ oz., 50c.

HYACINTH BEAN (*Dolichos*.) Superior to the old-fashioned flowering bean. (15 ft.)
Mixed. Pkt., 10c; oz., 40c.

KUDZU VINE.
Pkt., 15c; ¼ oz., 50c.

MOON FLOWER. White (*Ipomoea mexicana*) pretty, rapid growing, fragrant, trumpet-shaped flowers at evening. (15 ft.)
Pkt., 15c; ½ oz., 50c.

MORNING GLORY

Scarlet O'Hara. Rich dark red or deep rosy crimson, 3½ inch diameter. (10 ft.)
Pkt., 15c; ¼ oz., 50c.

Heavenly Blue. Sky blue, shading golden yellow in throat, 4 inch diameter. (10 ft.)
Pkt., 15c; ¼ oz., 35c.

Pearly Gates. Enormous flowers, 4½ inches across, clear shining white. (10 ft.)
Pkt., 15c; ¼ oz., 50c.

Giant Japanese Imperial Mixed. (10 ft.)
Pkt., 10c; ¼ oz., 35c.

PASSION FLOWER. (*Passiflora*.) A most interesting climber, bearing singularly beautiful flowers. Blue and white mixed.
Pkt., 15c; ¼ oz., \$1.50.

SMILAX. Pkt., 25c; 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., 15c; ¼ oz., 75c.

SCARLET RUNNER. Produces clusters of showy bright scarlet pea-shaped blossoms, followed by edible beans of very fine quality. (20 ft.)
Pkt., 10c; oz., 20c.

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.** Bright sulphur-yellow flowers during early spring. Height 9 in.
Pkt., 15c; $\frac{1}{4}$ oz., 75c; oz. \$2.25.

ANEMONE

***CORONARIA ST. BRIGID.** Semi-double and double flowers in a wonderful array of brilliant colors. Blooms in June. Height 12 in.
Pkt., 15c; $\frac{1}{8}$ oz., \$1.50.

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.

TALL MIXED. $2\frac{1}{2}$ to 4 ft.

Pkt., 15c; $\frac{1}{4}$ oz., \$1.50.

TETRAPLOID MIXED. $2\frac{1}{2}$ to 4 ft. Commercial florist strain. Vigorous grower. Florets huge, mostly ruffled, twelve inch flower spikes are usual.

Pkt., 25c; $\frac{1}{4}$ oz., \$2.50.

AQUILEGIA OR COLUMBINE

LONG SPURRED GIANT HYBRIDS. Very hardy, blooming early in the season and during the summer a dainty cut flower. Height 3 ft.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.85.

***COERULEA—The Rocky Mountain Columbine.** Blue, blooms during June. Height 2 ft.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.25.

ARABIS—Rock Cress

***ALPINA.** White flowers, a fine border for taller perennials. Blooms during April. Height 6 in.

Pkt., 15c; $\frac{1}{8}$ oz., 75c.

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 $1\frac{1}{2}$ ft.

Pkt., 25c; $\frac{1}{8}$ oz., \$1.00.

Anemone

BELLIS (Double English Daisy)

Dwarf plant which bears very double aster-like flowers. April to July. Height 6 in.

ENORMA. Doubled Red.

Pkt., 25c; $\frac{1}{8}$ oz., \$1.00.

MONSTROSA. Double Mixed.

Pkt., 15c; $\frac{1}{4}$ oz., \$1.60.

Aquilegia

BOSTON IVY

AMPELOPSIS VEITCHII. 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; 1/8 oz., 50c.

CACTUS

MIXED VARIETIES. All kinds and forms mixed including rare sorts. Easily and quickly grown; very interesting pot plants. Pkt., 25c; 1/16 oz., 90c.

CAMPANULA—CANTERBURY BELLS

CALYCANTHEMA. Hardy Biennial. Tall, erect plants, completely covered with cup and saucer shaped flowers during May and June. Height 3 ft. Mixed. Pkt., 15c; 1/4 oz., \$1.00.

CANDYTUFT

***IBERIS SEMPERVIRENS.** Heads of white flowers. Height 1 ft.

Pkt., 15c; 1/4 oz., \$1.25.

GIBALTARICA. White flushed lilac. Blooms during June and July. Height 10 in.

Pkt., 15c; 1/4 oz., \$1.00.

QUEEN OF ITALY. Rosy lilac.

Pkt., 15c; 1/4 oz., \$1.00.

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. Compact plants displaying an excellent range of bright colors. Height 1 ft. Mixed Dwarf.

Pkt., 25c; 1/8 oz., \$1.50.

MARGUERITE. Half Dwarf. Height 15 to 18 in. Choice double mixed.

Pkt., 10c; 1/4 oz., \$1.50.

PERPETUAL (Famous Chaubaud Type). Height 2 ft. Scarlet or white.

Pkt., 25c; 1/8 oz., \$1.10.

Choicest mixture. Pkt., 25c; 1/8 oz., \$1.00.

CHRYSANTHEMUM PLANTS

Hardy Garden Varieties
Ready May 20

Delphinium

Carnation

COLEUS (Tender)

HYBRID MIXTURE. Richly colored foliage plants, shady or partially shady locations. Height 20 in. Pkt., 25c; 1/16 oz., \$2.00.

COREOPSIS—Golden Wave

GRANDIFLORA. (Mayfield Giants.) Double and semi-double golden yellow flowers during late spring and summer. Height 3 ft. Pkt., 15c; 1/4 oz., \$1.00.

DAHLIA (Half Hardy)

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., 25c; 1/8 oz., \$1.25.

DELPHINIUM

PACIFIC GIANTS BLACK KNIGHT. Very dark blue. Pkt., 50c; 1/16 oz., \$1.50.

PACIFIC GIANTS GALAHAD. Clear hugh white. Mildew resistant. Height 5 ft.

Pkt., 50c; 1/16 oz., \$1.50.

PACIFIC GIANTS MIXED. Florets: 2½ to 3½ in. across. Mildew resistant. Height 5 ft.

Pkt., 25c; 1/16 oz., \$1.25.

DIANTHUS—Hardy Pinks

FLORISTS' PERPETUAL. Large clusters, fragrant. Height 1½ ft.

Double and Single Mixed. Pkt., 15c; 1/8 oz., \$1.25.

***PLUMARIUS—Single Mixed.** Large showy single flowers in wide range of colors during May and June. Height 1 ft.

Pkt., 15c; 1/8 oz., 75c.

***PLUMARIUS—Double Mixed.** Of very compact growth, double flowers in many colors, during May and June. Height 1 ft.

Pkt., 15c; 1/8 oz., 75c.

Gerbera

FEVERFEW (*Matricaria*)

BRIDAL ROSE. Small, white button-like double flower heads, from June to October. Height 2 ft. Pkt., 15c; $\frac{1}{8}$ oz., \$1.60.

FORGET-ME-NOT—*Myosotis*

***BIENNIAL ALPESTRIS.** Succeeds best in moist, shady locations. Vivid blue flowers from May to July. Height 1 ft. Pkt., 15c; $\frac{1}{8}$ oz., \$1.00.

FOXGLOVE OR DIGITALIS

GLOXINIAFLORA FINE MIXED. Produces long spikes of beautiful, tubular-shaped flowers in a wide range of rich colors during June and July. Height 4-5 ft. Pkt., 15c; $\frac{1}{4}$ oz., \$1.00.

GAILLARDIA

BURGUNDY. 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., 15c; $\frac{1}{4}$ oz., \$1.00.

THE DAZZLER. Bright golden yellow with crimson-maroon center, rather large.

Pkt., 15c; $\frac{1}{4}$ oz., \$1.00.

GRANDIFLORA, FINEST MIXED.

Pkt., 10c; $\frac{1}{4}$ oz., 65c.

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. Height 12 to 18 inches.

Pkt., 25 seeds, 25c; 100 seeds, 75c.

GEUM—*Coccineum*

***MRS. BRADSHAW.** Graceful, double orange-scarlet flowers produced on long stems from June to September. Height 2 ft.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.25.

GYPSOPHILA—*Baby's Breath*

SINGLE (PANICLUATA). Tiny white flowers borne on slender stems. The plants are covered with blooms during June and July. Height 3 ft.

Pkt., 15c; $\frac{1}{4}$ oz., \$1.00.

DOUBLE BABY'S BREATH. Small, double, white flowers, carried on slender wiry stems. Bloom during June and July. Height 3 ft.

Pkt., 25c; $\frac{1}{4}$ oz., \$2.50.

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., 25c; $\frac{1}{8}$ oz., \$1.25.

HESPERIS MATRONALIS

(SWEET ROCKET)

Old fashioned garden plants. Bears white, lilac or purple fragrant flowers. Height 2-3 ft.

Mixed. Pkt., 15c; $\frac{1}{4}$ oz., 60c.

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., 15c; $\frac{1}{4}$ oz., \$1.00.

IBERIS—See Candytuft (Perennial)

LATHYRUS—Perennial Sweet Peas

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

FINEST MIXED. Pkt., 15c; $\frac{1}{4}$ oz., \$1.00.

LINARIA—Kenilworth Ivy

***CYMBALARIA.** Small lilac blue flowers, are borne on a charming neat trailing plant. Height 4 to 6 in.

Pkt., 15c; $\frac{1}{4}$ oz., 70c.

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., 15c; $\frac{1}{4}$ oz., 45c.

LUNARIA—Honesty

Biennial, having round, silvery white, paper-like seed-pods which are dried for winter bouquets. Height 1½ to 2½ ft.

Mixed. Pkt., 15c; $\frac{1}{4}$ oz., 60c.

LUPINS

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

RUSSEL. New hybrid.

Pkt., 25c; $\frac{1}{4}$ oz., 90c.

Gaillardia

Iceland Poppies

NIEREMBERGIA (Tender Perennial)

PURPLE ROBE. Rich deep violet purple dwarf compact, does not fade, free flowering. Height 6 in. Pkt., 25c; 1/32 oz., \$3.00.

PHLOX

DECUSSATA—Beltsville Beauty, New Hybrids. Flowers in all bright colors. Height 2-3 ft. Pkt., 25c; 1/8 oz., \$1.50.

POPPIES

ORIENTAL SCARLET. Intense scarlet red having a conspicuous black blotch on each petal, during June and July. Height 2½ ft.

Pkt., 15c; 1/8 oz., 85c.

PRINCESS VICTORIA LOUISE. Salmon pink.

Pkt., 15c; 1/8 oz., \$1.00.

POPPY NUDICAULE—Iceland Poppies

***SUNBEAM MIXED.** Graceful, gaily, colored flowers in white, yellow and orange on slender stems, 1 foot.

Pkt., 15c; 1/8 oz., \$1.00.

PRIMULA—Primrose

***AURICULA.** Many bright colors, including orange, copper, brown, and other pastel shades. Blooms during spring. Height 6-9 in.

Pkt., 25c; 1/8 oz., \$2.00.

PYRETHRUM—Painted Daisy

SINGLE MIXED. Daisy-like flowers, blooming during May and June. Height 2 ft.

Pkt., 15c; 1/8 oz., \$1.50.

DOUBLE MIXED. Bright showy colors, shading from white to deepest red. Height 2 ft.

Pkt., 25c; 1/8 oz., \$2.50.

SCABIOSA

CAUCASICA. Large lavender blue flowers borne profusely on fine long stems. Height 2 ft.

Pkt., 25c; 1/8 oz., \$2.00.

SHASTA DAISY

ALASKA. Large white flowers with yellow center, 4 to 5 in. across, borne singly on long, stiff, wiry stems. Height 2 to 2½ ft.

Pkt., 15c; 1/8 oz., 60c.

STOCKS

DRESDEN PERPETUAL—(See annuals)

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. Pkt., 15c; 1/4 oz., 50c.

SINGLE NEWPORT PINK.

Pkt., 15c; 1/4 oz., 80c.

SINGLE SCARLET BEAUTY.

Pkt., 15c; 1/4 oz., 80c.

DOUBLE MIXED. Pkt., 15c; 1/4 oz., 90c.

DOUBLE EXTRA DWARF MIXED.

Pkt., 25c; oz., \$4.00.

TRITOMA—Poker Plant

EARLY HYBRID. Massive orange-scarlet flowers. Blooms August to October. Needs winter protection. Height 3-4 ft.

Pkt., 15c; 1/8 oz., 75c.

VALERIANA (Coccinea)

Very showy red flowered border plant. Does well in poor soil. Height 2 ft.

Pkt., 15c; 1/4 oz., \$1.00.

VIOLAS OR TUFTED PANSIES

Flowers resembling small pansies produced abundantly nearly all spring and summer. Bloom first year from seed. 6 in.

LUTEA SPLENDENS (Yellow).

Pkt., 25c; 1/16 oz., 75c.

HYBRIDA. Choice mixed.

Pkt. 25c; 1/16 oz., 75c.

VIOLET

ODORATA SEMPERFLORENS. Blue, fragrant.

Pkt., 25c; 1/16 oz., 75c.

WALLFLOWER

Sweet-scented flowers in bright oriental red and yellow colors in May. Height 1½ to 2 ft.

DOUBLE MIXED. Pkt., 15c; 1/8 oz., 80c.

Sweet William

CANNA ROOTS

City of Portland. 4½ ft. Rosy pink, green foliage. \$1.50 per dozen.
KING HUMBERT. 4 ft. Leaves are purple-brown over bronze. Crowned with immense heads of velvety orange-scarlet. \$1.50 per dozen.
PRESIDENT. 4 ft. The most wonderful green leaved, red flowered canna in cultivation. \$1.50 per dozen.
YELLOW KING HUMBERT. 4 ft. Green leaves, golden-yellow flowers blotched red. \$1.50 per dozen.

GLOXINIA

Etoile de Feu—Red Emperor William—Violet
 Emperor Frederick—Scarlet & White
 Montblanc—White Prince Albert—Blue
 Above colors or Mixed—40c each; \$4.50 dozen.

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. 12c each; \$1.25 doz.

PERUVIAN DAFFODIL

(ISMENE CALATHINA)

Summer-flowering bulb with large, amaryllis-like, pure white, fragrant blossoms. 2 in. size. 50c each.

IRIS

	Each
Ambassador. Bronze and maroon.	\$.20
Dauntless. Smoky lilac and deep purple.	.25
Dorcas Hutchinson. Rich pansy violet, autumn.	.25
Gold Imperial. Golden.	.20
Mary Barnett. Lovely light blue.	.50
Peggy Babington. Clear yellow.	.20
Sequoiah. Buff and deep red.	.40
True Charm. Pale blue, white edge.	.20

Hardy Iris

Hardy Lilies

LILIES

Estate. Hardy pure white Easter lily type, 24 in. tall, blooms Aug. and Sept. 6 to 7 in. cir. bulbs. 50c each; 6 for \$2.70.

Regal. White shading to yellow in the center with pink tinge on outer edge. Height 3 to 5 ft. Bulbs 7-8 inch size. 40c ea.; 6 for \$1.85.

Spec. Rubrum Magnificum. Deep pink, healthy. Bulbs 8-9 inch size. 50c ea.; 6 for \$2.25.

Fire King. A fire red hardy garden lily blooms in June with horizontal to slightly upright flowers in quantities about the size and shape of Regale. It is a stem rooting lily and should be planted about 10 inches deep. 8"-9" bulbs. \$1.15 ea.

AMARYLLIS

(GIANT AMERICAN HYBRIDS)

The most desirable type of Amaryllis, especially beautiful and easily managed in the amateur's window or conservatory, produces from four to six gigantic blooms of perfect form. **Mixed colors, 3 inches up, .75c each.** Imported Holland giants. Red or pink. \$2.50 each.

TUBEROUS ROOTED BEGONIAS

Especially adapted to window or conservatory culture. Double scarlet, pink, yellow. 30c each; \$3.50 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. 85c each.

EXCELSIOR PEARL TUBEROSE

One of the most fragrant and most popular of the summer flowering bulbs. May be started early in hot-beds or pots, or planted in open ground after the first of May. 15c each; \$1.50 per dozen.

CALADIUM ESCULENTUM OR ELEPHANT'S EAR

Large bulbs, 9-11 inch. 30c each; \$3.00 per dozen; medium sized bulbs, 5-7 inch. 20c each; \$2.00 per dozen.

FANCY LEAVED CALADIUMS

Separate Colors or Mixed. 35c each; \$3.95 dozen.

GLADIOLI

PLANT MANNS' GLADIOLI BULBS. They are strictly 1½ inches or more in diameter, sound, true to name, and can be absolutely depended upon to produce large, beautiful well-formed blooms. (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.

SMOKIES AND OTHER COLORS

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

SILVER GULL. (80 Days) Silver bluish grey with a creamy blotch. Very distinct.

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

WHITE

FLORENCE NIGHTINGALE. (80 to 85 Days) Very fine white, slightly on the creamy side. Florets are frilled about 7 open at once.

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

YELLOW AND CREAMS

GOLD DUST. (Large—85 Days) Fine clear soft yellow.

LEADING LADY. (Giant—85 to 90 Days) A cream sport of Picardy. Beautiful cream white with canary yellow throat.

SPOT LIGHT. (Large—80 Days) Large, ruffled deep yellow.

WHITE GOLD. (Large—85 Days) Clear light cream shading to a golden throat. Tall and very vigorous.

YELLOW HERALD. (70 Days) Early, amber yellow, carmine in throat.

BLUE

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.

ORANGE

LANTANA. (Med.—70 Days) Orange shading orange salmon. 7-9 well placed blooms.

PINK

GEN. EISENHOWER. (Huge—75 Days) Strong grower, deep rose-pink.

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

MISS WISCONSIN. (Large—80-85 Days) Rich brilliant rose-pink. Opens up to 8 blooms.

PANDORA. (Large—85 Days) Soft pink with darker line in the throat. Opens up to 10 florets on a medium tall spike.

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.

PURPLE

KING LEAR. (Large—80 Days) Ruffled, dark velvety purple.

PURPLE SUPREME. (80 Days) Tall plant with many well placed bright purple flowers. Silvery edge on the petals. Superb cutflower.

RED

BURMA. (85 Days) Very deep rose red with heavily ruffled blooms.

NANCY. (80 Days) Brilliant scarlet-red. Opens 7 to 9 well placed blooms.

RED CHEERY. (70 Days) Opens up to 9 round florets of a beautiful scarlet on tall graceful spikes.

STOPLIGHT. (90 Days) Beautiful large glistening deep red.

VALERIA. (70 Days) Large bright scarlet red.

PRICES

VARIETY	EACH	10	PER 100
BAGDAD	\$.10	\$.85	\$7.00
BLUE BEAUTY	.12	.95	8.00
BURMA	.11	.90	7.50
ELIZABETH THE QUEEN	.09	.80	6.75
FLORENCE NIGHTINGALE	.10	.95	8.00
GEN. EISENHOWER	.11	.90	7.50
GOLD DUST	.09	.80	6.75
KING LEAR	.10	.85	7.00
LANTANA	.10	.85	7.00
LEADING LADY	.09	.80	6.75
MARGARET BEATON	.08	.70	6.00
MARGARET FULTON	.08	.70	6.00
MISS WISCONSIN	.10	.85	7.00
NANCY	.11	.90	7.50
PANDORA	.10	.85	7.00
PICARDY	.09	.80	6.75
PURPLE SUPREME	.11	.90	7.50
RED CHERRY	.12	.95	8.00
SILVER GULL	.10	.85	7.00
SPOTLIGHT	.12	.95	8.00
STOPLIGHT	.10	.85	7.00
VAGABOND PRINCE	.12	.95	8.00
VALERIA	.11	.90	7.50
WHITE GOLD	.09	.80	6.75
YELLOW HERALD	.10	.85	7.00

GLADIOLUS MIXTURES

MANNS' SECIAL VARIETY MIXTURE:

25 Bulbs (mixed)	1. of each listed	\$1.95
100 Bulbs (mixed)	4 of each listed	\$7.25
100 Bulbs, in multiples of 10, your selection at 100 rates		

MANNS' SUPERIOR RAINBOW MIXTURE:

10 for .60c; 25 for \$1.35; 100 for \$5.00

DAHLIAS

Dahlias do well in almost any kind of soil, but thrive best in a medium loam. The tubers should be planted in a horizontal position, with the sprout up and about four inches below the surface; they should be set three or four feet apart each way, in deeply spaded soil. Mulch with peat moss and allow only one shoot to stand. A good plant food applied just as the buds start to form will increase the size and improve the color of the blooms. If large exhibition blossoms are desired, it is absolutely necessary to disbud. After the frost has killed the flowers, the roots should be removed from the ground, allowed to dry for two or three days, and then stored away in peat moss in a cool, dry, dark place, where frost will not reach them.

A—8 to 12 inches B—4 to 8 inches
M—Miniature 2 to 4 or 6 inches
C—Cactus ID—Informal Decorative
SC—Semi-Cactus FD—Formal Decorative
STC—Straight Cactus IC—Incurved Cactus

ADA N. (ID-A) Purple. \$1.00 each.
ALL AMERICAN. (SC-A) Spinel red with Spanish orange undertone. 30c each.
ARTHUR GODFREY. (FD-A) Orange blend. \$1.50 each.
BIG MO. (A). Dark Red. \$2.00 each.
COMMODORE. (D) Deep yellow. 30c each.

CROWNING GLORY. (SC-A) Variegated. \$1.00.
ELEANOR K. (SC-A) Yellow, prize winner. \$1.50 each.
FIVE STAR GENERAL. (FD-A) Pink with yellow. \$1.00 each.
FRAU O. BRACHT. (C-A) Deep yellow. 30c each.
GALLANT FOX. (FD-A) Delicate pink. 30c each.
J. A. KERNOCHE. (FD-A) Red and white. \$1.00 each.
I. D. VERWARNER. (FD-A) Huge lilac rose. 30c each.
JANE COWL. (ID-A) Orange. 30c each.
JEAN TRIMBEE. (SC-A) Purple. 30c each.
JERSEY BEAUTY. (FD-B) Pink. 30c each.
JERSEY DAINY. (STC-B) White. 30c each.
JERSEY WHITE BEAUTY. (FD-B) Pure white. 30c each.
KELVIN. (ID-A) Pink. 75c each.
NANCY K. (SC-A) Red. \$1.50 each.
MRS. GEO. LE BOUTILLIER. (ID-A) Red. 30c each.
POWDER PUFF. (ID-A) Lavender. \$1.20.
RUBY KING. (C) Salmon-pink. 30c each.
ST. THERESE. (STC-B) Deep red. 30c each.
SHERWOOD PEACH. (ID-A) Orange and red. 60c each.
SON OF SATAN. (IC-A) Red. 30c each.
SUNSHINE. (ID-A) Large yellow. 50c each.
THOMAS EDISON. (FD-B) Purple. 30c each.
VICTORY. (FD-A) Pink. 30c each.
WATCHUNG GIANT. (ID-A) Deep amber, yellow with orange. 30c each.

ROSE BUSHES

U. S. Plant Patented Novelties

3 or More. Less 10%

Patented varieties not listed can be supplied on order at patentees published price.

BUCCANEER (1119) Butterscup yellow, very sweet fragrance	\$2.75
CHARLOTTE ARMSTRONG (455) Deep glowing rose	2.25
CHRYSLER IMPERIAL (1167) Distinctive brilliant red	2.50
FASHION (789) Floribunda, luminous coral-pink suffused with gold. Winner of six awards	2.00
FORTY-NINER (792) Orient-red and chrome-yellow	2.50
HELEN TRAUBEL (1028) Two toned petals, pink flushed apricot	2.50
JIMINY CRICKET (Pat. Pend.) Floribunda, Urn-shaped buds of Tangerine-red, softening later to a deep coral-pink	2.50
MOJAVE (1176) Glowing cooper-orange, sweetly fragrant	2.75
PEACE (591) Yellow with edges picoted cerise	2.50
QUEEN ELIZABETH (1259) Grandiflora. Hand-some pink blooms	3.00
TIFFANY (Pat. Pend.) Dainty pink with a heart of gold, fragrant	3.00

Select Everblooming Hybrid-Tea

\$1.35 each, any 6 for \$7.50

AMI QUINARD. Blackish maroon
CHAS. K. DOUGLAS. Scarlet, slightly fragrant
CONDESA DE SASTAGO. Bicolor. Coppery-red and raspberry red.
CRIMSON GLORY. Deep crimson, fragrant.
ECLIPSE. Rich gold.
ETOILE de HOLLAND. Bright red, large, loose, semi-double, very fragrant.
GOLDEN CHARM. Yellow sport of Talisman
K. A. VICTORIA. Double pure white
POINSETTIA. Long buds, poinsettia-scarlet
PRES. HERBERT HOOVER. Maroon and orange, two-tone. Vigorous, upright, free blooming.

RADIANCE. Cameo-pink; large, intensely fragrant.
RED RADIANCE. Very large, long-lasting; intensely fragrant, clear, even red, tall.
SOEUR THERESE. Butterscup-yellow. Blooms in can-delabras of from 5 to 15 flowers.
TALISMAN. Golden yellow and copper; long-lasting.
YELLOW CONDESA. Yellow

Climbing Roses

BLAZE. Vigorous, scarlet flowers, recurrent bloomer	\$1.35
CLIMBING CRIMSON GLOEY	2.50

Dust and Spray Guide

INSECT OR DISEASE	DESCRIPTION	MATERIAL TO USE (See List)	WHEN TO APPLY
Ants	Sweet or grease eating.	Magikill-J	When ants appear.
Aphids	Small green, red or black lice feeding on the tender terminal growth of many plants.	C-E-X-K	When pests first appear. Wet insects thoroughly. Repeat as necessary.
Asparagus Beetles	Olive colored, both adults and grub like larvae.	E-N-S	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.
Bean Beetles	Copper-colored beetles with eight black spots. Yellow larvae, which also devour leaves.	E-K-M-N-S	When pests first appear.
Black Rot	(Grapes) Fungus disease. Shows first as small white spots, later surrounded by brown ring.	B-F-L-Q	When leaf buds first open. When shoots are 10 to 15 inches long. Just after blossoms fall.
Blights	Diseases that attacks young shoots and leaves, causing brown or black spots and sudden wilting.	B-F-Q-T-Y-I	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-K	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	Stop spraying 3 weeks before harvest.
Corn Earworm	Green worm which eats into ears of corn.	A-M-D 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-I-S-X	When vines begin to run. Repeat at frequent intervals.
Cut-Worms	Destroy plants by cutting stems.	Snarol-S-K	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	At weekly intervals.
Flea-beetles	Extremely small black beetles on blades of grass.	G-K-S	During warm weather.
Grape Berry Moth	Lays eggs from which small worm develops in fruit.	E-S-K	Just after blossoms fall. Repeat at monthly intervals until July.
Grubs	White or colored larvae.	A-D-J	Apply to soil, Fall or Spring.
Horn (Tomato) Worms	Large green worms.	A-E-Rothane	When bugs or worms first appear.
Japanese Beetles	Bronzy-green about ¾ inch long.	J-D-A	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-K	When pests first appear. Repeat as necessary.
Leaf Spot	Fungus disease causing brown spots on leaves.	B-F-Q-Y	Repeat at intervals.
Mealy Bug	White, cottony appearance.	E-V	Every few days until under control.
Mites	Very small sucking insects on azaleas, Holly, etc.	H	Protect new growth and repeat as necessary.
Potato Bug or Blister Beetles	Gray, black or striped beetles up to ¾ inch long.	A-D-P-X-G	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.	H-V-K	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.
Scale	Attacks bark of tree.	L-R	As late dormant spray.
Spittle Bug	Bug surrounded by foamy substance.	D-C-E-J-S	When first appear. Spray must penetrate foam, repeat as necessary.
Thrips	Tiny winged or wingless insects that rasp leaves and suck juices from plants.	D-C-E-X-G	When pests first appear. Repeat as necessary.
White Flies	Small whitish flies. In larval stage, tiny, scale-like, greenish objects.	E-O-V-H	When pests first appear. Repeat as necessary.

LIST OF MATERIALS INDICATED IN ABOVE CHART

A-Arsenate of Lead.
B-Bordeaux, Kopper King.
C-Black Leaf 40.
D-DDT.
E-Red Arrow, Evergreen.
F-Dusting Sulphur, Fungitrogen.
G-Dieldrin.
H-Aphid & Mite Spray.

I-Cucumber-Melon Dust
J-Chlordane.
K-Parathion, Malathion.
L-Lime Sulphur Solution.
M-Garden Guard.
N-Rotene Dust.
O-Fish Oil Soap.
P-Paris Green, Red River Potato Mix.

Q-Sulfocide.
R-Scalecide, Scaletox.
S-Hytox.
T-Tomato Dust.
V-Emo.
X-Nicotine-Pyrox.
Y-Dithane.

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., Parathion, Malathion Control: 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 Shafter, Cabbage Worm, Flea Beetles, Onion Thrips, Tomato Fruit Worm, Caterpillars, Borwood Leaf Miners and many others. Ask for special DDT folder and use with caution.

ALL ROUND SPRAY OR DUST

A multi-purpose product designed to provide protection against both insects and fungi.

Lb. \$1.10; 4 lbs., \$3.45.

ANT KILLERS

ANTROL 15c each; 4 for 50c

ANTROL SYRUP
4-oz. bottle 25c

ANTROL SPRAY (Chlordane)
with sprayer. Pint, 89c; qt., \$1.19.

ANTROL ANT TRAPS. 25c Each.
ANT-X TRAP .25c Each.

ANT-X JELLY 1 oz. 35c
ANT X POWDER 35c Each
MAGIKILL JELLY. 1 oz., 40c; 8 oz., \$1.00.

(Also see Chlordane)
ARSENATE OF LEAD (1 lb. makes 25 to 35 gallons)
Lb., 65c; 4-lb., \$1.80.
ARSENITE OF ZINC (1 lb. makes 50 gals.)
1 lb., 40c; 4 lbs., \$1.15.

BENZO-FUME POWDER PRESSURE FUMIGATORS

For control of greenhouse red spider. 1/2 lb. size for 5,000 cubic feet of air space.
50c ea.; 12 for \$4.25.
75c ea.; 12 for \$7.00.

"BLACK LEAF 40"
(1 oz. makes 6 gallons)
Oz., .38c; 5 ozs., \$1.19; 1 lb., \$2.69; 2 lbs., \$4.79; 5 lbs., \$7.60; 10 lbs. \$14.70.

BORDEAUX MIXTURE (1 to 2 lbs. makes 12 1/2 gallons)
Prevents blight, rot, mildew, scab, anthracnose and certain other fungous diseases.
1 lb., 53c; 4 lbs., \$1.45.

CAPTAN (Fungicide)
2 lbs., \$1.65; 5 lbs. \$6.25
CARBOLA—WITH LINDANE (10 lbs. makes 5 gal.)
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., \$3.00; 5 gal, \$12.00.

CARBON B1-SULPHIDE

For control of insects in grain; 1 qt. per 100 bu.
Qt., .90c; gal. (approx. 10 1/3 lbs.), \$2.85.

CATALIZER

Combined adhesive and spreader, making spray materials more economical and effective. Use 2 pounds to each 100 gallons of spray.
2-lb. pkg., 90c.

2% CHLORDANE (Household spray)

Quart, .99c; gal., \$3.00.

5% CHLORDANE DUST

1 lb. canister, 50c; 5 lbs., \$1.40.

40% CHLORDANE (Wettable Powder)

4 lb., bag, \$3.50.

46% CHLORDANE EMULSION

Quart, \$3.00; gallon, \$10.50.

6% CHLORDANE DUST
1 lb., 60c; 4 lb., \$1.50; gal. \$10.50.

COPPER ARSENATE (Basic)

4 lbs., \$2.00.

COPPER DUST

Duo-copper 7%—5 lbs., 85; 50 lb. bag, \$5.00.

COPPER SULPHATE (Blue Stone)

Powdered: 30c lb.; 10 lbs., \$2.00; 25 lbs., \$4.25; 100 lbs., \$15.00.

CORN EAR WORM DROPS

(2 ozs. treats 100 ears)
2 oz., 35c; quart, 85c.

CROW REPELLENT

1 pt. treats 2 bu. corn, 90c.

CUCUMBER—MELON DUST

New formula with the versatile insecticide, Lindane, and the multi-purpose fungicide, Zineb. For use on cucumbers and melons against cucumber beetle, aphid, squash borer, pickle worm, downy mildew, and anthracnose. 1 pound covers a garden approximately 15 feet x 30 feet in size. Can be sprayed if desired. Also available in 50 pound bags.

Lb., 75c; 5 lbs., \$2.20; 50 lbs., \$10.50.

CYANOGAS ANT KILLER—A gas-producing powder. 4-oz. spout can is enough to treat ant nests in average lawn. 40c.

CYANOGAS A-DUST—Kills, rats, moles, woodchucks (groundhogs) and other rodents instantly. "It's the gas that kills 'em."
1 lb., \$1.00; 5 lbs., \$3.85.

CYANOGAS G-FUMIGANT—Most widely used greenhouse insecticide. Regular use insures insect-free house all season.
5 lbs., \$3.85; 85 lbs., \$12.90.

D.D.T. (Liquid)

30%—pt., 95c; qt., 1.60; gal., \$4.30.
25%—1 1/2 oz., 35c; 1/2 pt., 85c; 1 qt., \$2.00; gal., \$5.60.

Wettable Powder 50% D.D.T. (Garden). One tablespoon makes 1 gallon.
1 lb., .85c; 4 lbs., \$2.35.

D.D.T. (Dust)

10%—50 lb. bag, \$6.50.
5% D.D.T. DUST
5 lbs., 85c; 50 lbs., \$4.25.

DDT HOUSEHOLD SPRAY 5%
Qt., 75c; gal., \$2.00.

WOOD PRESERVATIVE

De-K-Proof makes wood immune against mildew, rot, termites and other wood destroying insects. One gallon covers 400 sq. ft. Color, green.
Gal., \$2.85; 5 gallons, \$13.50.

DIELDRIN "18" (Acme)

Lawn & Soil Fungicide
8 oz., \$1.25; Qt., \$3.50; Gal., \$10.75.

DIMITE

2 oz., 69c; Quart, \$5.00.

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

CHAPERONE, Powdered—Large size \$1.00.

KITTY CHAPERONE. For use indoors. Large size \$1.00.

CHAPERONE. 4 oz., \$1.00; 8 oz., \$1.49; qt., \$3.98.

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

DOG SKAT. 4" tube. Hang on trees or shrubs. The odor does the work. Dogs and cats hate it.
50c ea.; 6 for \$2.50.

DOGZOFF. 3 oz., 90c.

FUMEOGEN. 8 oz., 50c.

REPELLENT ROPE. Emits odor repugnant to wide range of animals. Non-poisonous, non-injurious to hands and harmless to pets. Protect vegetable gardens by placing rope on ground around entire garden. Circle flower beds and shrubs. Protect bulbs by burying the rope in 3 inch trench around the bed.
100 ft., \$1.50.

(See also Pests)

REG. U. S. PAT. OFF.

APHID AND MITE SPRAY

1 oz., 49c; 4 oz., \$1.25.

DU PONT DORMANT SPRAY OIL

1 qt. makes 18 gal., \$1.25.

DU PONT FERRO "FTE"

(Fritted Trace Elements)

1 lb., \$1.00

DU PONT FERMATE FUNGICIDE

8 oz., makes 20 to 38 gal., \$1.00;

3 lb., \$2.25.

DU PONT FLORAL DUST

8 oz., 98c; 1 lb., \$1.25; 3 lb., \$2.75.

DU PONT FRUIT TREE SPRAY

1 lb. makes 13 gal., \$1.25; 3 lb.

makes 39 gal., \$2.75

FUNGICIDE-A (Parzate)

6 oz. makes 20 gal, 85c.

50% METHOXYCHLOR

(Marlate)

(Wide range—low toxicity)

8 oz. makes 15 to 32 gal., \$1.00;

4 lb., \$3.40.

ROSE INSECTICIDE &

FUNGICIDE

8 oz. Dust Gun, \$1.20;

1 lb. Canister, \$1.69.

3 lbs. \$3.75.

TOMATO DUST

As Spray, 2 lb. makes 10 gallon. 8 oz.

Dust Gun, 89c; 2 lb. Bag, \$1.25.

DU PONT VEGETABLE GARDEN DUST

8 oz. Dust Gun, 98c; 1 lb. Canister,

\$1.25; 3 lb. Bag, \$2.75

SEED DISINFECTANTS

ARASAN—For dry application to prevent seed decay and damping off of corn, peanuts, sorghum, vegetables, grains and legumes. ½ to 1 teaspoonful treats 1 lb. of seed.

¾ oz., 25c; 8 oz., \$1.00; 2 lbs., \$3.20.

SEMESAN—For vegetable and flower seeds. One ounce to 15 to 30 lbs. seed.

4 oz., \$1.20; 12 oz., \$3.40.

CERESAN (New Improved)—For wheat. ½ oz. for 1 bu. seed.

4 oz., 50c; lb., \$1.45; 4 lbs., \$4.85.

CERESAN M. For small grains and peas.

14 oz., \$1.45; 3 lb., \$4.05.

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.

1 oz., 35c; ½ pt., \$1.75; qt., \$5.50; gal., \$14.50.

D.X AERO-SPRAY

10 oz. Spray Bomb \$1.49

EMO

(1 pt. makes 4 gallons)

A summer oil spray. Recommended for 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-NIK

(1 pt. makes 12½ gallons)

Complete contact spray combining nicotine in its most active form with Emo a summer oil emulsion.

4½ oz., 45c; pt., 90c; qt., \$1.40.

EVERGREEN GARDEN SPRAY

Non-poisonous, but 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., 45c; 5 lbs., \$1.75.

FORMACIDE FORMALDEHYDE DUST

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 SPRAY OR DUST (New Formula) (Miller)

Contains Malathion, Captain and Methoxychlor for wider, more effective insect and disease control and added safety on many crops. More effective mixture than older products containing Lead Arsenate, Sulphur, and DDT. Use on apples, pears, peaches, plums, grapes, raspberries, blackberries, strawberries, as well as other fruits, and flowers. 1 pound makes 8 gallons of spray. May be used within 2 weeks of harvest without dangerous residues. 2 lbs. \$1.80.

An effective and scientific preventive and remedy for mildew, black spot and many fungus diseases of Roses and other plants. Dilute one part to 60 parts water.

½ pt., 75c; pt., \$1.25; qt., \$2.00.

GARDEN DUST OR SPRAY (New Formula)

4% Malathion, 5% Methoxychlor and 3.9% Zineb. Kills much wider range of pests than most products on the market. can be sprayed as well as dusted. Garden Dust or Spray kills most insects

and diseases on beans, tomatoes, potatoes, cabbage, broccoli, kale, spinach, peas, corn, peppers, and eggplant. Can also be used for general spraying of azaleas, roses, and other flowers for certain insects and diseases. 1 pound makes 5 gallons of spray or will dust a garden 15 feet x 30 feet in size.

1 lb. can, 89c, 5 lbs. \$2.95.

HY-TOX INSECT DUST

(4% Malathion)

A companion product with Hy-Tox Insect Spray for dusting vegetables. Contains Malathion. Hy-Tox Insect Dust, controls mites, aphids, cabbage worms, Mexican bean beetle, Japanese beetle, potato beetle, leaf hopper, flea beetle and many other insects. Can be applied within 10 to 14 days of harvest without dangerous residues. Also available in 50 pound bags.

1 lb., 59c; 5 lbs., \$1.60.

HY-TOX INSECT SPRAY (Malathion & Methoxychlor)

This new spray will control a wider variety of garden and ornamental insects than most products now on the market. It is ideal for the home gardener. It can be used within 10 to 14 days of harvest; kills flies and mosquitoes as well as garden insects. Mix 1 tablespoon per gallon of water. Controls red spider, aphids, Mexican bean beetle, Japanese beetle, potato beetle, leaf hopper, flea beetle, cabbage worm, curculio, codling moth, cucumber beetle, squash borer, pickle worm, corn earworm, white flies, mealy bug, plant bugs, scale insects on shade trees, and house flies.

Let us quote 5 & 30 gal. drums—4 oz., 89c; qt., \$1.95; gal., \$18.00.

KOPPER KING

(1 to 2 lbs. makes 50 gals.)

(Basic Copper Sulphate)

1 lb., 75c; 4 lbs., \$2.00.

LIME SULPHUR SOLUTION

1 gal., \$1.50; 5 gal., \$3.25.

Dusting and Spraying Materials

DRY LIME 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 mites.

1 lb., 67c; 12½ lbs., \$3.15.

LINDANE INDUSTRIAL SPRAY

5%—Pt., 60c; qt., 85c; gal., \$2.50.

LINDANE 25% WETTABLE POWDER

1 lb. makes 50 to 100 gal., \$4.00.

LINDANE SPRAY 5%

Controls most all common insects 3 ways—when eaten—by contact—by fumes; protects foliage and flowers indoors and out (non-discoloring). Recommended as a safe residual spray for fly control.

4 oz., 75c; pt., \$2.40.

MALATHION SPRAY 55%

Emulsion Concentrate

(1 pt. makes 6 gal.)

4 oz., \$1.10; qt., \$4.75.

MALATHION DUST 4%

Controls mites, aphids, cabbage worms, bean beetles, Jap beetles, leaf hoppers, etc. Can be applied within 10 to 14 days of harvest without dangerous residues.

1 lb., 55c; 5 lbs., \$1.25; 50 lb. bag, \$7.35.

MARVEL SPRAY

4 oz., \$1.00; ½ pt., \$1.75.

MOLE-NOTS

Protects lawns, gardens, flower beds, golf courses, etc. No traps.

Pkg. of 8, 35c; pkg. of 50, \$1.00.

MOLOGEN

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

Use at approximate rate of 1 lb. per 20,000 to 30,000 cu. ft. of air space.

½ lb., 55c ea.; 12—\$5.65.

1 lb., \$1.00 ea.; 12—\$10.70.

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.

Lb., 95c.

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.

Lb., 59c; 5 lbs., \$2.59; 25 lbs., \$7.50.

PARATHION DUST 1%

Excellent control for wide variety of insects. Kills quickly with no harmful residue. Very dangerous however to humans and animals when being applied—use only with protecting mask.

100 lbs., \$8.50.

PARIS GREEN

(1 lb. makes 30 gal.)

Contains 55% arsenious oxide, gives quick control where extreme measures are necessary.

¼ lb., 30c; 1 lb., 85c;

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 in young or old trees.

Qt., \$1.45; gal., \$3.25.

PESTEX (Pest Repellent)

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

2 lbs., \$1.00.

PHYGON (Wettable)

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. 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.

PRUNING PAINT

Hammonds, ½ pt., 80c.

PYROX (With Nicotine)

Kills leaf-chewing insects, prevents blight and other diseases, also kills sucking insects, such as aphids, thrips, and leafhoppers.

20 oz., 60c; 5 lbs., \$2.25; 25 lbs., \$8.50; 50 lbs., \$13.50.

RED ARROW

1 oz. makes 8 gal.

Pyrethrum-Rotenone contact spray, non-poisonous, will not injure blossoms, foliage or fruit; positive death to almost all types of insects.

1 oz., 35c; 2 oz., 65c; 4 oz., \$1.00; 1 pt., \$2.85; gal., \$18.20.

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, drives off flea beetles and leafhoppers, prevents blight,

stimulates foliage, producing more and better potatoes.

1-lb. bag, 85c; 4-lb. bag, \$2.75.

ROSE DUST OR SPRAY

New up-to-date formula. Contains Malathion, Captan, DDT, and Sulphur. Kills insects and diseases on roses and other flowers. Controls mites, aphids, Japanese beetle, rose leaf beetle, leaf

roller, leaf hopper, black spot, mildew, leaf spot, rust, and other common pests. 1 pound makes 8 gallons of spray.

1 lb., 89c; 5 lbs., \$2.95; 50 lbs., \$18.75

ROSE SPRAY

Lindane-Rotenone

Aerosol 12 oz., \$1.49.

ROTENONE DUST

Strictly non-poisonous insecticide for the control of insects attacking vegetable crops. Should be used at rate of 15 to 25 lbs. per acre or as a spray 1 lb. to 10 gallons. Millers—¾%.

1 lb., 25c; 5 lbs., 85c; 50 lbs., \$4.85.

1% Rotenone—50 lbs., \$5.35; (Tubacide) with sulphur, 50 lbs., \$5.85.

ROTENONE

GARDEN GUARD

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

1-lb. sifter carton 50c; 4-lb. bag, \$1.25.

SCALE-TOX

Dormant spray, miscible oil.

Qt., 85c; gal., \$2.00; 5 gal., \$7.00.

SCALECIDE

(1 gallon to 15 gallons water.)

Qt., \$1.15; gal., \$2.75;

5 gals., \$10.75; 15 gals.

\$24.92; 30 gals., \$39.26;

55 gals., \$57.40.

SNAROL

Sure death to snails and slugs. Harmless to vegetation, not affected by rain or irrigation.

1 lb., 30c; 2½ lbs.,

75c; 6 lbs., \$1.65; 50

lbs., \$10.75.

Dusting and Spraying Materials

(Continued)

SNAROL CUTWORM BAIT

Contains toxaphene.

1 lb., 50c; 6 lbs., \$2.00; 50 lbs., \$13.00.

SPERGON

3 to 12 oz. treats 100 lbs. seed.

A seed protectant in powder form to be applied to seed before planting to prevent 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., 50c; 5 oz., \$1.75; 1 lb., \$2.50.

SPERGON GLADIOLUS DUST

2 oz., 50c; 1 lb., \$1.95.

STRAWBERRY DUST

Repels red spiders, stops clippers cutting off the blossoms.

10 lbs., \$1.85; 25 lbs., \$3.00; 100 lbs., \$9.50.

SULFOCID

(1 qt. makes 50 gal.)

A highly concentrated non-poisonous liquid sulphur fungicide—entirely distinct from lime sulphur.

Pt., \$1.00; qt., \$1.50; gal., \$3.00; 5 gals., \$11.50; 15 gals., \$27.75; 30 gals., \$47.50; 55 gals., \$73.00.

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, chrysanthemums, snapdragons, carnations, also red spiders on evergreen.

2-lb. carton, 65c.

SULPHUR

Commercial Flour of Sulphur.

10 lbs., 85c; 25 lbs., \$1.75; 100 lbs., \$5.50.

Superfine Dusting Sulphur.

10 lbs., 95c; 25 lbs., \$1.85; 50 lbs., \$3.00.

SULPHUR (DRITOMIC)

5-lb. bags, 75c.

50 lb., \$6.00.

TEROGEN

Especially formulated for fall soil treatment of roses.

10 lbs., \$4.75; 25 lbs., \$11.00; 100 lbs., \$40.00.

TOMATO DUST ACME

1-lb. sifter top, 60c.

4-lb. bag, \$1.50.

PRATT'S

1-lb. sifter, 50c.

5-lbs., \$1.50.

D1-C7

1% DDT—7% Copper

1 lb., 55c; 5 lbs., \$1.25.

50 lbs., \$5.50.

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., \$1.05.

VEGETABLE DUST OR SPRAY

(Pratt's)

Combined insecticide and fungicide containing rotenone and copper. Effective and safe.

1 lb., 85c; 3 lbs., \$1.49.

Weed Killers

ACME WEEDKILLER

Used around factory grounds, driveways, tennis courts, etc. Kills all vegetation and makes the soil barren for a year—do not use on lawns or near valuable plants.

1 part to 50 parts of water

(32.5% Arsenic Trioxide)

Qt., 75c; gal., \$2.05; 5 gal., \$9.00.

CRAG HERBICIDE 1

At rate of 4 oz. to 3,000 sq. ft. or 2 to 3 lbs. per acre (mineral soils), 5 to 6 lbs. per acre (organic soils). Harmless to foliage.

4 oz., \$1.50; 2 lbs., \$5.00.

DU PONT AMMATE

Poison ivy weed killer. 1 lb. to 1

gal. water treats 100 sq. ft.

2 lbs., \$1.15; 6 lbs., \$2.95.

DU PONT LAWN WEED KILLER

8 oz. \$1.00; 32 oz., \$2.95;

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 without 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., \$6.75;

5 gal., \$24.75.

Weedone Sprayer 59c ea.

WEEDUST

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., \$1.00.

TRI-OGEN

(Contains FERMATE)

A "Three Way" plant treatment.

Insecticide protection against chewing and sucking insects; fungicide protection against powdery mildew and black spot; plus plant stimulants. Especially recommended for Roses, Asters, Snapdragons, Chrysanthemums, and many other plants including vegetable garden produce.

E Economy Kit (makes 8 qts.) \$1.50

A Small Kit (makes 16 qts.) 2.35

B Medium Kit (makes 64 qts.) 6.00

C Large Kit (makes 32 gal.) 9.00

TRI-OGEN DUST

General purpose three-way insecticide-fungicide dust.

5 lbs., \$5.00.

WEEDONE BRUSH KILLER 32

(1 qt. makes 10 to 20 gal.)

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., \$3.75; 1 gal., \$7.95; 5 gals., \$37.75.

WEEDONE Concentrate 48

1/3 pt. to 1 gal. per acre according to crop.

Gal., \$4.57; 5 gal., \$21.65.

P. C. CRAB GRASS AND CHICK WEED KILLERS

Crab-Nott (Standard) 86%.

4 oz., 1.00; 16 oz., \$2.95; 6 lbs., \$10.95.

(Special—containing 2-4-D).

4 oz., \$1.25; 16 oz., \$3.50; 6 lbs., \$12.50.

Weedone (46% Potassium-Cynate).

6 1/2 oz., \$1.00; 26 oz., \$3.00; 6 1/2 lbs., \$8.85.

Millers (76% Potassium-Cynate).

16 oz., \$2.10; 4 lbs., \$5.95.

Du Pont (52 1/2% Active Ingredient).

7 1/2 oz., \$1.00; 30 oz., \$2.95.

SCOTT'S WEED AND FEED

Kills broadleaved weeds via the action of 2-4-D (in dry form) and fertilizes at the same time.

Small box, treats 500 sq. ft. \$ 1.00

Large box, treats 2500 sq. ft. \$ 2.95

Bag, treats 11,000 sq. ft. \$11.75

SCOTT'S SCUTL

Destroys crabgrass, controls fungus diseases and seedling sprouts of most weeds without browning the desirable grasses.

Small box, treats 500 sq. ft. \$.79

Large box, treats 2000 sq. ft. \$ 2.75

Bag, treats 5500 sq. ft. \$5.45

Sprayers

64D

310B

SMITH NEW STREAMLINE BLIZZARD
CONTINUOUS SPRAYER

14Q

INSECT-O-GUN

711B

HUDSON

9A—Favorite, 1½ gal., galv.	\$ 9.49
291B—Booster, 3½ gal., galv.	8.58
220B—Bugweiser, 2½ gal., galv.	7.89
293B—Leader, 3½ gal., galv.	10.55
335B—Climax, 3½ gal., galv.	13.56
310B—Perfection, 4 gal., galv.	15.27

FLAME SPRAYER

711B—3½ gal., galv.	\$27.03
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BROWN OPEN-HED

68D—3 gal., galv.	\$17.50
64D—4 gal., galv.	19.55

KNAPSACK

Champion No. 1—All brass 4¼ gal.	\$31.80
547E—Du-More, (Knapsack) 4 gal.	\$39.90

SMITH JIM DANDY CART SPRAYER

5 gal. on wheels	\$37.40
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HAYES-ETTE	3.45
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SINGLE ACTION

222—Vapor, pint, tin	\$.45
403—Master Fog, quart, tin	.77
3G—Smith, quart, galv.	1.15
205—Bantam, 5 oz., glass	.32
409—Rapid, 2 qt. tin	1.89

BUCKET PUMPS

No. 12—G.S. Junior	\$6.95
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268G

CONTINUOUS SPRAYERS

428—Critic, 24 oz., Glass	\$2.15
447—Eclipse, 1 qt., Stainless Steel	5.43
431—Comet, quart, tin	1.22
433—Mercury, quart, tin	1.72
436—Cardinal, 3 qt., galv.	2.58
26BG—Brown, 1 qt., tin, glass jar	2.80
14Q—Blizzard, 1 qt., copper	5.25
8P—Bronx, 1 pt. glass bottle	2.15

INSECT-O-GUN

No pumping, attaches to water hose. One filling sprays 3 gallons.
\$5.95.

HUDSON
IDEAL
SPRAYER

3505—Hudson With Pressure Tank. 15 gallon galv. tank with a large removable barrel pump. Discharge equipment consists of 10 ft. spray hose, 3 ft. extension rod and angle spray nozzle (Illustrated)	\$81.60
No. 3504—Cushion Tire	70.40
No. 3503—Steel Wheels	65.60
3603—Sunshine, 12½ gal. cap.	35.20

HUDSON POWER SPRAYER

No. 1044H—Defender—15 gallon heavy gauge, galvanized steel tank with open top, drain plug in bottom of tank. 1½ g.p.m. discharge. 0 to 250 pound pressure gauge. 1 h.p. engine. Cushion tired wheel, 16" x 2" over all. Positive piston pump, mechanical and over-flow agitation. Rugged frame of steel pipe. 10 feet of ¾ inch Kem-Oil (oil- and chemical-proof) spray hose and adjustable spray gun \$189.50

Dusters

C/D

No. 103

BROWNS CRYSTAL—\$3.20

No. 103—Champion Bellows Duster, capacity 8 lbs. Easily filled adjustable nozzle, very efficient	\$9.85
673—Cadet	\$.66
674—Adjutant	1.18
612—Patrol	1.79
766B—Admiral	2.43
No. 806B—Capacity 12 to 25 lbs.	\$48.50
1A—Stauffer Knapsack. Hopper capacity 20 lbs.	\$36.90

FLAT-PAK PLANT FORCER

'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

BT—Soil Thermostat \$15.00

AT—AIR THERMOSTAT \$ 4.50

AUTOMATIC MICRO SWITCH \$3.00

HEATING CABLE 80 ft. \$4.50; 40 ft. \$2.25.

HOT BED SASH
3 Row, \$6.00; 4 Row, \$6.75.

HOT BED GLASS
1 Box will glaze 3 sash. Box 8 x 10, 9c ea., 90 panes, \$6.50; 10 x 12, 14c ea., 60 panes, \$6.50.

PEERLESS GLAZING POINTS
1/4 lb. Box (1000) 85c

CAULKING COMPOUND
Gun type, Grey, \$3.50 gal.; White, \$3.65 gal.

CAULKING GUN
Model D1—Barrel size 9 1/2 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, \$2.00.

SPRAY BULBS
Centrospray, 12 oz. \$1.80

48" FENCE RODS
\$3.15 doz.

BAMBOO PLANT STAKES
2 ft. Light 20c per doz.; \$1.00 per 100
3 ft. Light 25c per doz.; \$1.35 per 100
4 ft. Light 30c per doz.; \$1.75 per 100

HYACINTH STAKES—Green
18 in., 80c 100; \$4.75 per 1,000.

PLANT PROPS
16", 70c doz.; 30", \$1.75 doz.; 42", \$2.10 doz.; 66", \$3.50 doz.; 78", \$5.50 doz.

WOOD STAKES
3 ft. Green 6c ea.; \$5.50 per 100
5 ft. 33c ea.; 6 ft. 40c ea.

TRAIN-ETTS

Weatherized trellis netting.
No. 2—60 x 96 in., 35c.
No. 3—60 x 180 in., \$1.25.

CEMETERY VASE

Ground level, Aluminum finish, \$2.25.

FLOWER POTS

A complete line of regular pots, azalea pots, bulb pans and saucers. Size given indicates top diameter.

Size	Ea.	Doz.	100	1000	Each
1 1/2"	\$.05	\$.45	\$ 2.45	\$19.50	\$ --
2 "	.05	.45	2.45	19.50	--
2 1/2"	.05	.50	2.85	23.50	--
3 "	.06	.55	3.65	29.50	.06
4 "	.08	.80	5.45	46.50	.07
5 "	.15	1.35	9.85	--	.10
6 "	.20	2.00	14.85	--	.12
7 "	.30	3.00	21.50	--	.18
8 "	.45	4.25	31.00	--	.25
9 "	.65	6.25	--	--	.35
10 "	.85	8.50	--	--	.55
12 "	1.85	18.00	--	--	.85

RUBBER FLOWERPOT SAUCERS

Non-porous—safe to use on finished floors.
5 in., 30c; 7 in., 60c; 10 in., \$1.20; 12 in., \$2.40.

NEPONSET FLOWER POTS

Dia.	Red Shipping	per 100	per 1000
2 in.		\$ --	\$ 8.60
2 1/4 in.			8.60
2 1/2 in.		1.20	8.70
3 in.		1.30	9.15
3 1/2 in.			12.20
4 in.		2.00	14.70
5 in.			18.15
6 in.		3.00	22.25

FLOWER BOXES

Green, 7 1/2" wide and 5 3/4 inches deep. 20 in., \$3.25; 26 in., \$3.75; 32 in., \$4.25.

WINDOW BOX STANDS

32 in., \$6.00; 44 in., \$6.50.

GALVANIZED WATERING POTS

6 qt. \$2.25 10 qt. \$2.75
8 qt. \$2.50 12 qt. \$3.00

WOODEN LABELS

Painted
3 1/2 in.x5 1/2 in. Copper Wired \$4.20
4 in.x5 1/2 in. Wide, Pot, per 1000 3.25
5 in.x5 1/2 in. Wide, Pot, per 1000 3.60
6 in.x5 1/2 in. Wide, Pot, per 1000 4.00
8 in.x5 1/2 in. Wide, Pot, per 1000 6.00
10 in.x7 1/2 in. Wide, Garden, per 1000 9.60
12 in.x1 1/2 in. Wide, Garden, per 1000 16.00
Prices per 100—3 1/2 to 6 in., 60c; 8 in., 80c; 10 in., \$1.20; 12 in., \$1.85.

WATERPROOF PLANT BANDS (Fertilized)

Ready-to-use Plant Bands.

VITA BAND 10

2x2x2 1/2 in. 100, \$.80; 2000, \$ 9.10
2 1/2 x 2 1/2 x 3 in. 100, .90; 2000, 12.00
3x3x3 in. 100, 1.00; 1000, 6.90
4x4x3 in. 100, 1.20; 500, 4.50
4x4x4 in. 100, 1.65; 500, 5.63

VITA BAND D (Disintegrating)

2x2x2 1/2 in. 2000 \$9.30
2 1/2 x 2 1/2 x 3 in. 2000 12.10
3x3x3 in. 1000 7.05
4x4x4 in. 1000 11.60

PERENNIAL POTS

Height	Top Dia.	Per 1000
5 1/2"	5"	\$36.50
6 1/2"	6"	51.50
9 1/2"	7"	62.85
5 "	8"	60.00

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.), \$49.60.

METAL SEED FLAT

15x13x2 3/4 ins. deep. Sub-irrigated, brass drain screw. \$2.75.

CEDAR PLANT TUBS (Richmond Style)

Made of Selected Virginia White Cedar, bound with electric welded hoops, painted green.

No.	Top Dia.	Bot. Dia.	Depth	
5	10	7 1/2	9	\$2.50
7	12	9	11	3.24
9	14	11	13	4.48
11	16	12 1/2	15	5.73
13	18	14 1/2	17	8.74

SOIL-SOAKER Made of Canvas

No. 1, 18 ft. — \$2.10
No. 2, 30 ft. — 3.05
No. 3, 50 ft., — 4.60

RUBBER HOSE

FLOWLINER. 5/8 in. 1 braid, 25 ft. lengths, \$3.95; 50 ft. lengths, \$6.95. (Couplings included.)

MAINLINER. 5/8 in. 2 braid, 25 ft. \$6.40; 50 ft., \$11.95 (Couplings included.)

MAINLINER. 3/4 in. 2 braid, black, smooth, 50 ft. lengths, \$15.50. (Couplings included.)

SPRAY HOSE. 3/8 inch, 25c per ft.

PLASTIC HOSE

SUPLEX LP. (Green). Plastic; tested under all climatic conditions and guaranteed for five years. 25 ft., \$4.65.

WORTHMORE Plastic Hose (Red). 25 ft. lengths \$3.40.

PLYMOUTH (Transparent Green). 25 ft., \$4.65; 50 ft., \$8.45.

FEATHERWEIGHT (Green). 75 ft., \$13.80.

HOSE NOZZLES

161 — \$1.20 155 — \$1.50
139—Shut off nozzle — \$2.75

OK-Trim Electric Hedge Trimmer
\$16.75

GRAFTING WAX

Trowbridge Brand. 1/4 lb., 45c; 1/2 lb., 65c; 1 lb., \$1.00.
FRUIT PICKER—Without pole, 85c.

MOLE TRAPS

200 Roddick (Illus.) \$2.00

PORTER 5403 2500

LOPPING SHEARS

PORTER POINT CUT No. 1—24-inch steel handles, adjustable draw-cut — \$8.90

5402—24 in. hdl. (drawcut) Clyde

8.85

530—30 in. Steel hdl. — 5.75

175—20 in. Lightweight — 2.50

2030—30 in. handle — 4.75

ASPARAGUS KNIFE

2500J—Short handle — \$.65

251J—Long handle, straight blade — .90

ASPARAGUS BUNCHER

No. 2 — \$5.50

THERMOMETERS

5140—7 1/2 in. indoor, maroon lac. — \$1.00

5126—6" indoor, walnut — 1.25

WEEDER

A—3 Tines, 9 1/4 in. length — \$.20

B—3 Tines, 18 in. length — .35

BB—3 Tines, 33 in. length — .50

C—4 Tines, 10 in. length — .35

D—4 Tines, 10 1/4 in. length with square blade — .50

E—4 Tines, 10 1/4 in. length with "V" blade — .50

G—4 Tines, 57 in. length — 1.75

H—4 Tines, 56 in. length with square blade — 1.85

K—4 Tines, 56 in. length with "V" blade — 1.85

YA—3 Tines, 15 in. length — 1.10

GRASS SHEARS

110H—6 in. steel blades, 12 1/2" length overall — \$1.50

Doo-Klip, long handle — 4.25

Miracle — 2.50

Miracle, long handle — 7.50

CORN KNIVES

Little Giant — \$.55

Cumberland Valley — .55

Nowatoco — .75

PRUNING SAW

118—18 inch — \$2.50
162—20 inch — 3.50
129—12 inch, Simonds curved — 1.25

PRUNING SHEARS

119

8S—Dura Shear—8 1/2". Easier Cutting — \$4.00

615—(Flower) 6 1/2 in. cuts and holds stem in one operation — \$2.25

110—Snap Cut, 8 in. Anvil — 2.95

P115—Heavy Duty — 2.25

A122—Pruner Clipper — 1.95

60—California — 1.59

711—Snips and Grips stem — 1.50

HAND GARDEN FORKS

300—3 Tine — \$.75

300—3 Tines, Long hdl. — 1.15

703—3 Tine, Gardex — .55

211—6" blade and shank, one piece — 1.50

GARDEN TROWELS

53—One piece aluminum — \$.85

217J—6 in. Transplanting — .30

215J—6 in. Steel blade — .45

222J—5 1/2 in. Strawberry — .40

212J—6 in. Hollow shank — .50

YC—6 in. blade Transplanting — 1.10

214E—Hand forged blade & shank — 1.90

DIBBLES

218J—Wood bent handle, steel point — \$1.50

Steel Points only Ea. .75

751—Steel — 1.29

3 in. Hole Digger — \$.79

Dan's Dandy Digger — 2.98

Rapi-Digger — 3.00

TREE PRUNER

8 ft. — \$1.50

10 ft. — 5.00

12 ft. — 5.50

PRUNING HOOKS

(Without Pole)

11—Telephone — \$4.40

12—Heavy duty — 8.25

166—Pruning shear and hook — 3.40

167—Pruning, curved saw, shear and hook — 4.50

168—Pruning straight saw, shear and hook — 4.50

HEDGE SHEARS

A54—9 inch, Lightning — \$3.95

A14—6 inch, Ladies — 2.25

K100—9 inch — 4.00

LEVEL HEAD CURVED TOOTH RAKES

ALS—14 teeth	\$1.90
251-14	14 Teeth 1.98
253-10	10 Teeth 1.59

ROUND BOW CURVED TOOTH RAKES

A14—14 teeth	2.35
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DANDELION RAKES

Teeth	
DT	26-3½ in. \$1.95
415	26-16¼ in. wide 2.19
B.D.R.—26 teeth	2.35

SPADING FORKS

Flat Tines	
A40S—4-11 in.	\$2.85
HPL—4-11 in.	3.60
HPS—4-11 in.	3.60

VICTORY CULTIVATOR

Tines	
#5	5 \$2.65
VC5	5 2.10
#152-3	3 2.29
#155-3	3 2.49

RIGID CULTIVATOR

Tines	
270J—36" Hdl. 3	\$1.00

SPEEDY CULTIVATORS

Tines	
#4	4 \$2.70
W3	3 2.50
R4	4 2.70

R248

HAWCS

TE

4BOL

SL19

#25

RHSC

USGT

THREE PRONG HOE

932—3¾" blade	\$1.98
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SHOVELS

Rd. Pt. Long Hdl.	
R248 Razor Back	\$2.70
903RS—Ingersoll	\$2.70
717—Ladies	2.60
Sq. Pt. Long Hdl.	
S3½—Floral Shovel	\$2.60
HAUL	1.40
No. 2-701 Ingersoll	2.35
S248 Razor Back	2.35
Sq. Pt. "D" Hdl.	
No. 6-956	3.30
Rd. Pt. "D" Hdl.	
902RS—Ingersoll	\$2.70

GARDEN HOES

FGS—6½ in. blade	\$2.55
FG5—5 in. blade	2.15

WEED CUTTERS

UWSC	\$1.65
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LAWN EDGER

Tc-Blade—9x4¾	\$1.95
Planet Jr. No. 2	2.95
402—Half Moon	2.19
400—Turf Edger	2.79

GRASS TRIMMERS

No. 61N "Swing Clip"	1.50
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SOIL KNIFE HOE

SL23	\$1.65
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SNOW PUSHER

#90	\$2.25
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BROOMS

Palmyrah	\$1.45
12B-BASS	1.45
Stable Push	2.00

WOOD LAWN RAKE

24 Teeth	\$1.50
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MANURE FORKS

Tines	
154½—5-13 in.	\$3.75

SHRUBBERY HOE

SL19—1¼x6 in.	\$.85
#171 Gardex	1.59

TWO PRONG HOES

S2PW—3½ in. blade	\$1.40
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ONION HOE

#25—6½ x 1¾ blade	\$2.50
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WARREN HOES

SL6—4¾ in. blade	\$1.80
G.W.R.S.—4¾ x 6½ in. blade	\$2.55

BRUSH HOOKS

7N36P—Brush Killer	\$3.25
C1130—3½ lb.	3.85
36" hdl.—12" blade	

POTATO HOOKS

Tines	
4BOL	4-6½ in. \$2.65

HAY FORKS

Tines	
A36	3-12 in. \$2.95
RHA36	3-12 in. 2.45

ENSILAGE FORKS

Oval Tines	
EN8	8-16 in. \$7.50
EN 10	10-16 in. 8.35

RAPID HOE

1408 Gardex	\$3.89
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CULTIVATOR HOE

932 Gardex	\$1.98
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SCUFFLE HOE

410-7	7 in. wide \$2.09
120-7	7 in. wide 2.09
121-7	Ladies 2.09
121-5	Ladies 1.98

VCH—3½ x 4" blade	\$2.05
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AXES

Collins, 3 to 4 lbs.	\$4.50
Jersey Pattern	

HAND PLOW

200-6 Gardex	\$2.98
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MATTOCKS

5 lb., 3½ in. cutter	\$3.50
(Handles extra)	

SNATH or SCYTHE HANDLES

Grass Snath, light	\$3.15
Bush Snath, heavy	3.45

SCYTHE STONES

Darby Creek (Flat)	\$.35
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NURSERY HOES

N2½—2½ in. blade	1.80
SL4—2½ in. blade	1.80

GRASS HOOKS

Little Giant	
Long Handle	\$1.50
No. 6N—Offset Hdl.	1.00
By Gum No. 3	.65

SCYTHES

32"-34" Grass	\$3.00
24"-28" Weed	3.00
22" Bush	3.00

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	\$.95
100 Hotkaps with Fibreboard Setter	3.15
250 Hotkaps with Fibreboard Setter	5.90
1000 Hotkaps	\$18.35 per 1000; 10,000, \$18.05 per 1000
Fibreboard Setter	20
Steel Setter	1.95

FLYING DISK

Scares birds, dogs, cats and other pests away from the garden. Set of 10—25c.

TWIST-EMS

B—8 in. box of 100, 25c.

D—16 in. box of 100, 50c.

250 foot continuous roll \$1.00.

Utility Twist-ems, (1/4 in.) per 1000, 8 in.

\$1.75; 12 in. \$2.75; 16 in. \$3.45.

25,000 or more less 20%.

RUBBER BANDS

No. 8	7/8 in. x 1/8 in.	8,500 per lb.	\$2.50
10	1 1/4 in. x 1/8 in.	6,000 per lb.	2.50
14	2 in. x 1/8 in.	3,750 per lb.	2.50
16	2 1/2 in. x 1/8 in.	3,000 per lb.	2.50
2	Red Ty Bands	1,600 per lb.	1.65

Asparagus Tape, 1000 yd. tube \$3.35.

Binder Twine, 5 lb. \$1.65; Bale \$13.80.

Cotton Cord, 3, 4, 6 and 8 ply Lb. 90c; 10 lbs. \$8.50.

Jute Cord, 2 ply, 60c per lb.; 10 lb. \$5.25; 50 lb. coils 50c per lb.

Raffia, Natural color, first quality, 75c lb.

BACK BANDS

Padded E-56	\$.45
351-L	50

KNEE PADS

JUDSON. Top quality molded rubber with soft sponge rubber cushion, adjustable straps, nonslip, grips wet or slippery surfaces. For "Every down on the knee job." Pair, \$2.50.

GARDEN CART

Light, strong, welded all-steel body, steel axle and wheels with solid rubber tires. 18 in. wide, 27 in. long; capacity 2 3/4 cubic feet.

Standard\$7.75

BARROW CART—All purpose garden cart. Seamless steel flat bed tray; 3 cu. ft. heaped capacity. Rubber tired, steel wheels.\$11.98

WHEELBARROWS

No. 3-162. Bed 26 1/2 in. long by 18 1/4 and 23 1/2 in. wide, 10 1/2 in. deep, wheel 16 in. x 2 in. semi-pneumatic tire. \$24.65.

No. M4-22RB

No. M4-22RB.

Size of tray 37 by 28 in., capacity 4 cubic feet, with 2 ply 4:00 x 8 pneumatic rubber tired wheel, roller bearing.

\$38.30

No. 174

Size of tray 37 by 28 ins.; capacity 4 cubic ft.

\$21.40

No. 174

Middy No. 275. Three cubic ft., 10 in. x 2.75 semi pneumatic tire.

\$15.60

WHIZ

Home Barrow

3 cu. ft. heaped capacity, tray 32 1/2 in. x 25 in. reinforced rolled edges, tubular

steel frame, channel steel legs; 10 in. cushion tired wheel protects turf from indentations and permits easy wheeling. Oilite bearings require a minimum of care—no punctures.\$13.49

JAX-Delux. Square front-ball bearing. \$17.10.

CHILDRENS BARROWS

Junior \$3.98

Chappie \$7.49

HANDLES

Axe, 34 in., Bent	\$.85
Cultivator, Rough, pair	2.00
Hammer, 14 in.	15
Hatchet, 14 in. Bobolink	25
Hay Fork, 4 1/2 ft., with ferrule	1.25
Hay Fork, 6 ft. with ferrule	1.15
Hay Fork, No. 38A, 6 ft. with ferrule	1.30
Hoe, 4 1/2 ft. plain	90
Manure Fork, "D" hdl. 8" ferrule	2.00
Mattock, 36 in.	1.00
Plow, Rough, pair	2.25
Rake, 6 ft. with ferrule	1.25
Rake, No. 321, 5 1/2 ft.	1.00
Shovel, 4 1/2 ft., single bend	1.25
Shovel, 4 1/2 ft., double bend	1.35
Shovel, No. 1004, Razor Back, 4 ft.	1.50
Shovel, No. 1005, Razor Back, 27 in. "D" Hdl.	1.00
Sledge, 36 in.	75
Spading Fork, "D" top, with ferrule	1.35
Window Brush, 12 ft.	1.45

WATER BALLAST LAWN ROLLERS

Equipped with roller bearings.

\$7.25

701—14x24, Empty 70 lbs., Filled 175 lbs.	\$14.39
702—18x24, Filled 265 lbs.	18.49
703—24x24, Empty 110 lbs., Filled 420 lbs.	23.49

SPRINKLERS

5044	1.20
156—Tulip	1.75
5041—Ring	\$1.75
5011—Greenlawn	2.75
133—Gold Label	4.75
5018—Propeller, Jr.	2.90
200—Du Wet	3.50

Naturain. Primary Unit comes complete with end cap and adjustable stand. Use any number of Extension Units with one primary unit according to size of lot and water pressure.

Primary Unit 5 ft. long	\$2.95
Extension Units 5 ft. long	2.75 ea.

SKINNER ROTO SPRINKLER

Waters 75 ft. circle, \$17.50.

No. B3 Walking Sprinkler. Heavy Duty for estates, parks using 75 to 125 ft. hose. \$36.95.

METCO-WAVE SPRINKLERS

Model J—Waters 1700 sq. ft., adjustable	\$ 9.95
Model M—Waters 2000 sq. ft., aluminum tube frame, adjustable	12.95
Model 28—Waters 2700 sq. ft., aluminum tube frame; adjustable; built in filter; individual bronze jets; extra power—operates on extremely low pressure.	19.95

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. 14 in., \$23.50; 16 in., \$24.50; 18 in., 25.70.

GRASS GROOMER BALL BEARING

Attractive streamline mower, 5 blades, self-sharpening; 10 in. dia. wheels, semi-pneumatic rubber tires, rubber roller. 16 in., \$22.50; 18 in., \$23.50.

STERLING

Light weight; 5 1/2 in. dia. ball bearing revolving cutters. Four heat treated crucible steel knives; 8 in. dia. wheels. 12 in., \$16.00; 14 in., \$16.25.

TERRACE SPECIAL

Light weight, 8 in. dia. Solid rubber tires, ball bearing. 12 in., \$14.25.

SPECIAL

Ball bearing; 10 in. solid rubber tired wheels; five knives. 16 in., \$17.25.

DIAMOND LAWN EDGER AND TRIMMER

The diamond is one-half a small lawn mower with edging device. Will cut very close to wall or tree. Takes the place of Grass shears or grass hook; revolving cutter has 4 knives; 8 in. dia. wheel. \$17.85. Without edger \$15.75.

ECLIPSE MODEL "L"

5 blades, rib tread tires. 16 in. \$34.50.
18 in. \$36.00; 16 in. Hi-Cut, \$36.00.

ECLIPSE ZEPHYR

5 Blades, rib tread tires. 16 in., \$30.00.

GRASS CATCHERS

For hand lawn mowers 14 thru 18 inches. \$2.50.
For power mowers. \$3.75.

A popular type of glove—for MEN and WOMEN—specially designed for garden wear.
Size 6, 7, 8\$1.65 Pair Size 9, 10\$1.75 Pair
Kreme Skin 7 & 8\$1.98
Soft Touch. Feel like fine kid leather, washable, water-proof material, durable, retain sense of touch. \$.85 pair.

ECLIPSE POWER MOWERS

ECLIPSE ROCKET POWER MOWER

Briggs & Stratton 4 cycle motor, semi-pneumatic tires, 5 blades, self-sharpening, 20 in. cut. \$134.50.

ECLIPSE PARKHOUND POWER MOWER—21 inch cut. \$164.50.

TURFMASTER (Dille and McGuire)

Mowing unit backed by 80 yrs. manufacturing experience plus Briggs and Stratton Motor means top performance and durability.

18 in. \$128.95 21 in. \$149.95

COOPER KLIPPER

A mower of super quality, designed to give years of economical, trouble free service. Exclusive patented adjustment provides a simple and quick method for adjusting cutting height from a low of 1/2 in. to a high of 2 3/4 in. giving far greater range of adjustment than any other mower. Cushion rubber tires 10" x 1 3/4"; rope starter, speed control operated by lever and throttle on upper segment of handle. Powered by Briggs and Stratton motor.

20" cut—1.6 H.P. \$139.50 (plus tax)

HOMKO ROTARY MOWERS

#R.M. 20—2 H.P. Briggs & Stratton 4 cycle, engine, large ball bearing wheels, all steel frame. 20 in. cut \$99.95.

Leaf mulcher extra \$ 4.00
#J.K.50—1.6 H.P. Briggs & Stratton engine, 18 inch cut. 81.95

Leaf mulcher extra 4.00
"CD 10—Electric, 16" cut, without cord. \$59.50

HOMKO LAWN SWEEPERS

20 inch \$34.95 24 inch \$44.95

does 26 jobs

FASTER!
CHEAPER!
EASIER!

\$248.00

Implements
Extra

Simplicity
U.S. PAT. OFF.

SIMPLICITY TRACTORS

2 H. P.	\$149.50
2 1/2 H. P.	208.00
5 H. P.	310.00
3 H. P.	248.00
Four Speeds; 1 1/2 H.P. Tractor with 4.00x12 Rubber Tires (Less Equipment)	\$150.00
Cultivator with rubber tired wheel and depth screw regulator, for models L & M	32.00
30 in. Sickle Bar Mower	54.00
24 in. Lawn Mower (Reel)	68.00
Lawn Mower Hitch for Hand Lawn Mower	7.50
6-12 in. Disc Harrow	26.00
6 1/2 in. Plow with Swivel rolling coulter and depth screw regulator	26.00
30 in. Snow Plow	19.50
Counterweight	7.00
Rotary Cultivator	25.00
8 in. Plow with rolling swivel coulter	30.00
8-12 in. Disc Harrow	28.00

FOB Factory

Free Descriptive Catalog Mailed Upon Request

LAWN SPREADER

SALEM

Automatic shut off; six quantity adjustments.

16 in., 22 lb. cap., \$7.85
20 in., 40 lb. cap., 12.75
30 in., 80 lb. cap., 19.40
36 in., 125 lb. cap. 39.50

BUCH SPREADERS

No. 1—15 in., 28 lb. capacity	\$ 6.29
No. 2—20 in., 40 lb. capacity	11.49
No. 3—30 in., 60 lb. capacity	13.98

SCOTT'S LAWN SPREADERS

Jr.—14 in.	\$ 7.95
25—17 in.	12.85
65—23 in.	19.50

Planet Jr. Garden Tools

PLANET JR. TUFFY

1 H.P. Tractor with 14" O.D. x 2 3/4" tires. The Multi-purpose Planet Jr. Tractor with its 1 H.P. engine is light, easy to handle, easy to park and useful for many different operations. The power unit for small home owners. (Less Equipment)

\$99.95

1 1/2 H.P. Tractor with 4:00x12 Rubber Tires (Less Equipment) (Model BP-1) \$162.50
Super Tuffy—1 1/2 H.P. \$141.50

DRILL SEEDER

FERTILIZER DISTRIBUTOR

4D	300A	\$27.95	219	\$21.50
300A (Illustrated)		36.95	219 (Illustrated)	
			220	57.50

19—Garden Plow with cultivator tooth, sweep and plow. \$9.75.

12—Double Wheel Hoe. \$22.50.

119—\$9.50

119W—\$10.50

ATTACHMENTS FOR TUFFY & SUPER TUFFY TRACTORS

A1—Cultivator	\$ 9.25
A60—Tiller	56.25
A53—Rotary Mower	25.50
10439X—Lawn Mower Hitch	10.75

ATTACHMENTS FOR 1 1/2 & 2 1/2 H.P. TRACTORS

B12—Cultivator	\$36.95
B1—Narrow One row Cultivator	35.50
B2—Narrow Two row Cultivator	37.50
AB56—Field Mower	\$72.50
AB35—Tow Row Seeder	88.50
B62—Disc Harrow	49.95
B21—6 in. Plow with Coulter	41.50

CULTIVATOR

101D—As illustrated, less wheel, weight 44 lbs. \$18.95

100D—As illustrated, less lever expander and wheel, weight 38 lbs. \$16.50.

HORSE HOE

8—(Illustrated.) \$34.50.

9D—Same as illustrated, less the depth regulator and steel lever wheel. \$26.95.

4D—As illustrated, less wheel and lever expanded, weight 49 lbs. \$22.50.

CULTIVATOR STEELS

No.	Size		No.	Size	
4064	1 x 8	\$.33	1888	1 1/4 x 10	\$.40
1156	1 1/4 x 8	.34	1249	1 3/4 x 10	.45
2367	1 3/4 x 8	.35	1199	2 1/4 x 10	.50
2368	2 1/4 x 8	.42	1200	3 x 10	.60
2369	3 x 8	.50	1201	4 x 10	.70
2370	4 x 8	.60			

IMPROVED SWEEPS

1494	5"	\$.65	1498	15"	\$1.60
1495	8"	.80	1499	18"	2.15
1496	10"	1.00	2731	3"	.50
1497	12"	1.25			

Root
QUALITY
BEE SUPPLIES

Let Us Send Complete Free Catalog For Quick Service

Mail Your Order To

J. MANNS & CO.

Ensor & Forrest Sts., Balto. 2, Md.

HONEY JARS

5439—Plain Round, 1 lb. size, \$1.95 case 2 doz.

6752—Plain Round, 2 lb. size, \$1.25 case 1 doz.

White Coated caps included

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. \$216.00.

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. \$432.00.

ONE ROW FERTILIZER ATTACHMENT, \$60.00.

TWO ROW FERTILIZER ATTACHMENT, \$120.00.

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, \$416.00.

CELERY PLANTER UNITS, \$94.00.

WATER BARREL AND ATTACHMENTS. For watering plants. \$20.00. **FOB Factory**

Illustrated Folder Mailed Upon Request

**FELINS
 VEGETABLE
 TYING MACHINE**

Save Hours of Labor with this Machine.

Bigger and Better Than Ever.

\$99.50

Electric Model \$205.00

"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	Weight	Price
6P	6 ft.	325 lbs.	\$117.00
808PL	8 ft.	400 lbs.	145.00
10PL	10 ft.		165.00

Many other models and sizes 3 ft. to 13 ft. wide.

Extra Spouts Complete \$1.65 Each

CORN SHELLERS

Red Chief \$5.00

RURAL MAIL BOX

1—18¾ in. long, 6¾ in. wide, 8¾ in. high \$3.00

2—23⅞ in. long, 11 in. wide, 13¾ in. high 7.00

DRAW SCOOPS

1—100 lbs., \$26.35

2— 90 lbs., 24.55

3— 80 lbs., 22.85

TIE OUT CHAINS

20 ft. \$.90 each

TRACE CHAINS

Lucky Mule, elec. welded; 7½-10-2. \$2.25 Pair.

Victory: 7 ft.—\$1.50 pair

OLIVER PLOW REPAIRS

	Mould-boards	Land-sides	Solid Shares	Slip Shares
A	\$3.20	\$1.15	\$.84	—
10	—	1.95	1.37	\$1.37
13	5.15	—	1.44	—
19	6.50	2.35	1.65	1.65
20	7.80	2.90	1.94	1.94
E	9.35	2.80	2.15	2.15
40 & 40-4X	9.45	3.45	2.30	2.30
83	9.15	—	—	—
84-88 12 in.	9.65	—	2.65	—
			35c	

SLIP POINTS

SYRACUSE PLOW REPAIRS

	Mould-boards	Land-sides	Solid Shares	Slip Shares
1-78	—	—	\$2.05	—
604	—	—	1.00	\$1.80
603 & 503	—	2.70	1.60	2.15
602 & 502	—	3.05	2.30	3.55
601 & 501	—	3.70	2.20	3.45
1462	—	—	—	—
1463	—	—	1.70	—
X1441 FQD, Hook or Bolt	—	—	2.35	—
			35c	

SLIP POINTS, A and B

CHATTANOOGA REPAIRS

	Mould-boards	Land-sides	Solid Share	Slip Share
65	—	—	\$1.94	\$2.24

MANN'S 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.

Rock-Red Cross	\$16.00 per 100
New Hampshire Reds	16.00 per 100
White Leghorns	16.00 per 100
Pullets—price on application.	

25 add .04c each—50 add .02c each

TURKEY POULTS,

Broad Breasted Mammoth Bronze, 25, \$25.00; \$90.00 per 100. Beltsville White. 25 for \$20.00; 100, \$70.00. Minimum order 25 Poults.

High Quality...Economical

Feeds

Starter • Grower • Egg Ration

Chick Grains • Scratch Feed

Rabbit Pellets • Pigeon Feed

PRICED RIGHT

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., \$1.00.
GERMOZONE, 4 oz., 50c; 12 oz., 90c; 32 oz., \$1.75; ½ gal., \$3.00; gal., \$5.25.
GIZZARD CAPSULES—Adult 50-75c; 100-\$1.35.
GIZZARD CAPSULES—Pullet 50-60c; 100-\$1.10.
GIZZARD CAPSULES—Chick 50-45c; 100-85c.
LEEMULSION, 4 oz., 60c; 12 oz., \$1.25; 32 oz., \$2.50.
SULFAMERAZINE, 4 oz., \$1.25; 12 oz., \$3.00.
TONAX, 2 lb., \$1.00.
VAPO-SPRAY, pt., 60c; qt., 90c; gal., \$2.50.

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 oz., \$1.00.

"T. S. F."

Kills chicken lice. ½ lb., 50c; 1 lb., 75c.

CHARCOAL

CHARCOAL—Fine or Coarse, 15c lb.; 50 lb. bag, \$4.35.
GRIT, Coarse and fine, 80 lbs., \$1.00.
OYSTER SHELL, coarse and fine, 100 lbs., \$1.25.

CEL-O-GLASS

Now guaranteed for 5 years. Un-breakable weather proof, transmits violet rays (Glass does not). Ideal for poultry house, fronts, windows, and doors, and many other uses. 36 inches wide, 45c per ft.; 50 ft. rolls 39c per foot.

R-V-LITE VITAPANE

36 inches wide (cord base) 24c lineal foot
 50 ft. roll (150 ft.) \$12.00 roll

PRESERVATIVES
 FOR
CUPRINOL®
 WOOD
 FABRIC - ROPE - LEATHER

Brush, spray, dip or cold soak. Penetrates deeply into the wood, becomes fixed and does not leach out. Coverage is 250 to 600 square surface feet per gallon depending on finish and porosity of the wood.

#10 Green. Use on wood that will be in contact with water, soil or masonry. 98c pt.; \$1.75 qt.; \$4.70 gal.; \$22.00 5 gal.; \$210.00 50 gal.

#14 Green. Use around greenhouses. Recommended for dip or cold soak treatments. 5 gal., \$14.90; 50 gal., \$132.50.

#20 Clear. Use where natural wood finish is desired or as preservative under stain or varnish. 98c pt.; \$1.75 qt.; \$4.70 gal.; \$22.00 5 gal.; \$210.00 50 gal.

OIL BROODER

256B—54 inch; 8-gallon tank; 500 chicks. Without Fuel Stand. \$27.15.

ELECTRIC BROODERS

No. 50—Galv. 24"x36"x9½" deep, feed and water trough included, thermostat controlled, 100 chick cap. \$18.91.

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. \$18.95.

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.\$.57 H6360—36 in. galv. \$1.43
H5480—48 in. galv.\$2.00

GRILL TOP FEEDER

galv.\$2.55
H7480—48 in.

FOUNTAIN AND FEEDER

CG6—(Crystal). Fits any Mason Jar. 15c.

SINGLE WALL FOUNTAINS

HA8—2 gal. galv.\$1.45
HC3—3 gal. galv.2.19
HC5—5 gal. galv.2.86

SPIRAL BANDS

Dark blue, light blue, red, green, white.

Size	Per 100
¼ in.	\$.50
⅜ in.	.50
½ in.	.75
⅝ in.	.75
¾ in.	1.00

FLOCK FEEDERS

H258—60 in. galv.\$ 6.95
H288—96 in. galv.11.15

FOUNTAINS

HK5—5 gal. galv.\$4.24
HK5H—5 gal. with heater7.60

904—Automatic Valve and Float only1.40

FOUNTAIN HEATERS

H5H—Oil, fits any 15 or 15½ in. pan. \$3.00
H82—Lamp with burner and wick. \$2.10.
H570—Elec., fits any 5 to 10 gal. fountain. \$8.00.
Trumbull Electric \$4.25.

FEEDER AND WATERER

G16L—16 in. dia. 4½ in. high, 16 qt. capacity. \$3.25.

WAFER THERMOSTATS

T-347—DeLuxe. 3-in.\$.50

EGG CARTONS

Carry Safe, 3x4. 100, \$1.75; 250, \$3.85.
Eagle, 3x4. 250, \$3.60.
White Chief, 2x6. 250, \$5.75.
Hawk, 2x6. 250, \$4.35.

EGG PRESERVATIVE

Qt., 75c; gal., \$1.95

EGG CANDLER

8910

700\$2.00

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. \$9.50.

WIRE EGG BASKETS

EB15—Cap. 12 to 15 doz. \$1.30.

EGG CLEANERS

13\$.40

14—10 ft. Cleaning Cloth 1.15 517 Egg Grading\$2.00

ROOF SADDLE

440. Adjustable. 4 in., \$1.25.

HRS5—5 in., \$2.25.

CHICKEN HOUSE FLOOR SCRAPER

Pointed sides for corners. \$2.15.

METAL EGG CRATES

2-doz. size	\$2.25
3-doz. size	2.75
4-doz. size	3.25
6-doz. size	3.75

Postage Extra

SCALES

8910—Spring balance. Capacity 100 lbs. by 1 lb. \$6.00.

895—Spring Balance. Capacity 50 lbs. by 1 lb. \$3.95.

842

POULTRY NETTING

Galvanized After Weaving

150-FOOT ROLLS

2-inch Mesh	1-inch Mesh
20 gauge	20 gauge
24 inch...\$4.80	12 inch...\$5.30
36 inch...6.85	18 inch...7.70
48 inch...9.10	24 inch...9.90
60 inch...11.00	36 inch...14.40
72 inch...13.10	48 inch...18.80
25 to 150 foot lengths	
2-inch mesh 3c per sq. ft.	
1-inch mesh 5c per sq. ft.	

Hcx-Cel

BARBED WIRE GALVANIZED

4 point, 12 gauge, 6 ins.
between bars. 80 rod reel
\$8.50

POST HOLE DIGGERS \$3.75

EARTH AUGERS

8—8.14 in.\$11.45

TOWNSEND WIRE STRETCHER

No. 500. Has hickory
handle and malleable
clamp; can be quickly ad-
justed. \$3.50.

STICKIT WICKET FENCING

5 ft., 85c; 6 ft., \$1.10; 7 ft., \$1.25.

STICKIT WICKET FENCING

PROTECTS AND BEAUTIFIES

Easy to hammer
into hard ground

21" High, 12" Wide,
1/4" steel enameled green

\$2.40
Doz.

In cartons of two dozens
(makes 24 feet of fence)

FLOWER GUARD

Designed for protecting Flower Beds

22-inch, per foot, 14c; 100 ft. roll, \$12.00.

HARDWARE CLOTH

2x2	\$13 sq. ft.	4x4	\$15 sq. ft.
3x3	14 sq. ft.	8x8	21 sq. ft.
100 sq. ft. or more deduct 1c per sq. ft.			

ORNAMENTAL GATES

Heavy steel frames, filled to match the fence; fittings
for 1 7/8 in. iron posts included.

Width	Height	Price
42-inch	36-inch	\$7.75
42-inch	42-inch	9.00
42-inch	48-inch	9.50

How to cure a Bald-Headed Terrace

Use Bemis Erosionet

Sow Manns' DEEP ROOTING TERRACE MIXTURE and roll out the EROSIONET

Now you can grow grass
on that stubborn slope. Un-
roll this mesh blanket and
laugh at the rain. Your
seeds will not be washed
out, and you will get a
sturdy stand of grass.
45 in. wide; 25c yd.
100 yds or more; 20c yd.

HOSE REELS

REAL-REEL—Portable; unreel only hose actually
needed; 5 ft. accessory hose connects leafproof coupling
on side to water supply. Holds 150 foot of hose. Sturdy,
all metal constructed. \$16.50.

ORNAMENTAL LAWN FENCE

Very attractive and we believe the most durable wire
lawn fence made. Heavy galvanized. Spaces, 1 1/2 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	\$21	\$19.50	\$24	\$22.00
Double Loop	.28	25.00	.32	29.00
			.35	32.00

ELECTRIC FENCE CONTROLLER

SHOX-STOK: Precision built for long life, waterproof
steel case, charges up to 15 miles of fence. Complete
with fence tester, cord and plug.

Delux Electronic Model, Interrupted impulses. Fuse protection against overload	\$21.95
Electric Model P.H.5, No moving parts, continuous shock	\$15.95

EXTENSION LADDERS

Equipped with automatic locks, rope, and pulley. Rails are edge grained Spruce and Hickory rungs. (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. \$1.00 ft.

In lengths from 36 to 44 ft. inclusive. \$1.10 ft.

SINGLE STRAIGHT LADDERS

10 to 18 ft., 85c ft.

20 ft., 90c ft.

CHERRY SEEDERS

\$4.00

ELECTRIC CHURN

8 quart \$17.50

GLASS CHURNS

Size	Churns	
4 quart—2 quart	-----	\$3.35
6 quart—3 quart	-----	4.85
8 quart—4 quart	-----	6.85

GLASS JARS ONLY

2 qt., 75c; 4 qt., \$1.25; 6 qt., \$1.40; 8 qt., \$1.65.

ICE CREAM FREEZER

PARCHMENT BUTTER PAPER

Sizes 6x9, 9x12 Lb., 50c Postage Extra

DANDELION BUTTER COLORING

3 oz.	-----	\$.60
1 lb.	-----	2.50

Snowball (Triple Action). 2 qt., \$11.15; 4 qt., \$14.05; 6 qt., \$17.60.

HUDSON BARN EQUIPMENT

2A—Stall, \$14.20.
181W—Stanchion, \$5.35.
181—Stanchion, \$4.65.
89B—Water Bowls, \$5.88.
262—Hay Carriers, \$33.00.
268—Harpoon Fork, \$7.80.
249S—Rafter Brackets, 12c ea.
290—Hanger Hooks, 38c ea.
401—Track, 54c ft.

DAIRY SUPPLIES

Bag Balm, \$1.25.
Kow-Kare, 1¼ lbs., 75c; 2¾ lbs., \$1.35.
Conkeys Stock Tonic, 6 lbs., \$1.10.
CALF WEANERS, No. 103 Medium, \$1.25; No. 2, \$1.50.
TEAT DILATORS for Cows, box of 18, 25c.
PERFECTION ANTI-COW KICKERS, \$1.75.
MILLERS DAIRY SPRAY. (Ready to use) \$2.00 gal.
DAIRY SPRAY CONCENTRATE. (Millers) \$3.85 qt.; \$13.95 gal.

SAW FRAMES

No. 9—All steel saw frame; 3 to 5 H.P. with 30 in. blade and 50 lb. flywheel. \$68.50.

BLADES (Cross Cut)—Bore 1⅜-inch

18-inch, \$6.85; 24-inch, \$10.80; 26-inch, \$12.65; 28-inch, \$14.75; 30-inch, \$16.85.

SAWS

AA3—24 in. 8 pt. Penna. Hand Saw	-----	\$4.25
400—3 ft. Penna. One Man Saw	-----	4.60
400—3½ ft. Penna. One Man Saw	-----	5.30
800—5½ ft. Penna. Cross-Cut Saw	-----	6.60
800—6 ft. Penna. Cross-Cut Saw	-----	7.70
1½—Penna. Buck Saw	-----	2.25

FARM BELT

Rubber coated canvas transmission belting; 4 in. wide; 4 ply; flat sides; black, 45c ft.

LOOSE GRINDSTONES (centered) 20-22 in. dia. by 2 in. face. \$9.00.

SALT BRICKS

Worcester, 4 lb. brick 20c; 15 bricks, \$2.85.
Worcester Mineralized. 4 lb. brick, 25c; 15 bricks, \$3.50.

MEAT CURING PRODUCTS

Mortons Sugar Cure, (Smoke Salt) 7½ lbs., \$1.20.
Mortons Tender Quick, 2 lbs., 69c.
Mortons Meat Pump, \$2.25.
Mortons Sausage Seasoning, 10 ozs., 65c.

KUR-A-LEKE

A semi-liquid mastic or cement-like composition, not affected by extreme heat or cold; absolutely water tight wornout tin, galvanized iron or concrete and fireproof. It "kures" the leaks in position roofings. Gal., 95c; 5 gals., \$3.50.

ROOFING MATERIAL SMOOTH SURFACED

	Weight	Per
	Lbs.	Roll
Everlastic, heavy	55	\$2.95
Everlastic, extra heavy	65	3.25

(Underwriters' label)

5V-GALVANIZED METAL ROOFING

8 ft. or 10 ft. sheets, \$14.50 per 100 sq. ft.

Fertilizers — Plant Foods

Plants require nitrogen, phosphorus, potassium (the three most important), and minor elements.

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), ammonium sulphate (tending toward an acid reaction), urea and potassium nitrate. The organic materials are safest to use as they react slowly.

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 an all-purpose fertilizer.

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.

100 lbs. 2-50's)	\$5.00	\$4.55	\$5.80
50 lbs.	2.55	2.30	3.00
25 lbs.	1.70	1.70	2.20
10 lbs.	.95	.95	1.15
5 lbs.	.55	.55	.65

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.

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 1½ lbs. per 100 running feet.

ESSKAY 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, 95c; 25 lb. bag, \$1.85; 50 lb. bag, \$3.10; 100 lb. bag, \$4.55.

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. 5 lbs., 53c; 10 lbs., 95c; 25 lbs., \$1.70; 50 lbs., \$2.55; 100 lbs., \$4.85.

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.

1 lb.	15¢	5 lbs.	\$.55	10 lbs.	\$.95
25 lbs.	1.70	50 lbs.	2.50		

SCOTTS TURF BUILDER

25 lbs., \$2.50; 50 lbs., \$3.95; 100 lbs., \$7.85.

GREEN NUTRO

Natural Soil Builder

Available 0-2-5; Total 0-18-7

Finely ground natural rock containing phosphorus, potash and thirty minor and trace elements plus an activated carbon base. On lawns and gardens use 10 lbs. per 100 sq. ft. Large areas ½ ton per acre. \$2.75 per 80 lbs. \$50.00 ton.

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, \$2.79.

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., \$1.25; 20 lbs., \$2.60. lbs., \$15.00.

AGRINITE

All-Organic Plant Food
8½% Nitrogen

80 lb. bag	\$5.00
50 lb. bag	3.35
25 lb. bag	1.90

AGRICO BULE FOOD

10 lbs.	\$1.30
5 lbs.	.80

AGRICO FOR TURF (6-8-2)

50% Organic Nitrogen

80 lb. bag	\$4.35
50 lb. bag	3.00

Plant Foods — Hormones — Soil Conditioners

DUPONT SOLUBLE PLANT FOOD

(19-22-16)

6 oz., 59c; 1½ lbs., \$1.75; 4 lbs., \$3.25.

GRO-STUF

(20-20-20 Soluble Fertilizer)

For Leaf or Root Feeding

Use on house plants (African Violets, Philodendron, Ivy, Begonias) roses, flower and vegetable gardens, shrubs and lawns. Contains all the necessary chemicals—nitrogen, phosphoric acid, potash—plus hormones and trace elements needed to make stuff grow.

5 oz. can \$0.49
1 lb. can 1.25
4 lb. can 3.75

HY-GRO SOLUBLE PLANT FOOD

13-26-13-Plus Trace Elements

3 oz., 30c; 2 lbs., \$1.40; 10 lbs., \$4.50; 100 lbs., \$26.00.
(Gat Spray Head \$1.50)

HYPONEX

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 gallons50
1 lb. makes 100 gallons 1.00
10 lbs. makes 1000 gallons 8.00
25 lbs. makes 2500 gallons 15.00

NUTRI-LEAF (16-16-16)

The Miracle Plant Food Concentrate Soluble Fertilizer and Foliage Spray

3 lbs. to 50 gal. water or spray material

10 oz. \$.60
22 oz. 1.00
3 lbs. 1.75
30 lbs. (10-3's) 8.50

NUTRI-LEAF "60"

(20-20-20)

1 lb. \$1.00
5 lb. 2.85
30 lb.28 lb.

FULTON'S
PLANTABBS
Odorless Plant Food Tablets
Containing Vitamin B₁

10 Tablets, 10c; 30 Tablets, 25c; 75 Tablets, 50c; 200 Tablets, \$1.00; 500 in pot, \$2.00; 1000 Tablets, \$3.50.
(By mail add 10%.)

VHPF—(6-25-15)

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., 75c; 3 lbs., \$1.50; 30 lbs., \$7.50.

ES-MIN-EL

Essential minor elements not present in depleted soils. ft., 50 lbs., per acre. 5 lbs., \$1.25; 100 lbs., \$10.25.

FRUITONE
REG. U. S. PAT. OFF.

When sprayed on blossoms of tomatoes or beans it produces better set and larger crop. 2/5 oz., 25c; 2-oz., \$1.00; 12-oz., \$5.00.

Reg. U. S. Pat. Off.
TRANSPLANTONE

Very beneficial to transplanted seedlings, shaded lawns and backward garden plants. 1 ounce makes 10 gal. transplanting solution or 900 gal. watering solution. ½ oz. pkt., 25c; 3 oz., \$1.00; 1b. \$4.00.

ROOTONE
Reg. U. S. Pat. Off.

For rooting cuttings, also assures better germination of seeds, produces better plants with longer roots, greater top growth and vigor.

¼ oz. will treat 2½ 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.

Rootone #10 for woody cuttings, 2 oz. \$ 2.00
1 lb. 10.00

Soil Conditioners

(FOR CLAY SOIL)

1 lb. treats approx. 10 sq. ft. 6 in. deep or 300 sq. ft. for surface mulch.

KRILIUM (Merloam). Dry formulation. Mix thoroughly with clay soils, 6 in. deep for gardens or ½ in. deep for surface treatment on crusted lawn soils or to help control erosion. 1 lb., \$1.39; 5 lbs., \$4.95.

SOILIFE

DRY DUST. ½ lb., \$1.00; 1 lb., \$1.40; 3 lbs., \$3.00.

WETTABLE FLAKES (Concentrated). ¼ lb., \$1.25; ½ lb., \$2.00; 1 lb., \$3.75; 2 lb., \$6.75.

A.C.P. SOIL CONDITIONER

Contains the two types of acrylonitrile plus fertilizer, plant hormones and essential mineral elements. Powder can be worked into the soil or mixed with water and sprinkled on. ½ lb., 80c; 2½ lb., \$2.80; 10 lb., \$7.95.

VERMICULITE (Terra-Lite Brand)

Cuttings of even very difficult varieties are easily rooted. Vermiculite has many other horticultural uses such as soil corrective, mulch, for bulb storage, etc. 20 lb. bag, \$2.25; 12 lb. bag, \$1.75; ½ Bu., 85c; ½ Pk., 40c.

Fertilizers

LIST PRICE

Crop	Analysis	Per Ton	80 lb. Bag
Asparagus, Corn, Peas, Potatoes and non-legume pastures.	10-10-10	\$73.65*	\$4.40
Top dresser, Spinach, Kale, Cabbage, Lettuce, etc., Lawns, Trees, Shrubs.	10- 6- 4	62.80*	3.75
Potato, Lima Beans, Snap Beans, Tomato.	5-10-10	\$\$.70*	3.45
Alfalfa, Clover, Soybeans, Cowpeas, Wheat, Rye, Pastures, Barley, Turf-grasses, Top dress legumes.	0-14-14 0-20-20	50.90* 68.80*	3.00 4.10
Corn, Tomatoes, Peas, Beans, Strawberry, Asparagus, Leafy Vegetables.	5-10- 5	51.10*	2.75
20% Superphosphate	0-20- 0	37.50*	2.30

*Ton Price, less 10% C.O.D. If hauled from factory deduct \$2.00 additional per ton. Let us quote other analyses.

Most analyses available with borax or other minerals at slightly higher cost.

Inoculate all Legume Seeds with

NITRAGIN

OVER FIFTY YEARS OF SERVICE

When ordering, Always state name of seed.

ALFALFA AND CLOVERS (AB) Size Retail 1 bu. ea.\$.55 2 bu. ea.95	PEANUTS, COW PEAS (E) Size Retail 100 lb. size ea...\$.50
LESPEDEZA (L) 100 lb. size ea...\$.55	BIRDFOOT Trefoil— Broadleaf and Narrow-leaf 4 lb. ea.\$.15 1/2 bu. ea.40
PEAS, VETCHES (All But Crown) (C) 100 lb. size ea...\$.50	SPECIAL CULTURES— Give name of seed when ordering. Big Trefoil, Crown Vetch, Kudzu, Garbanzo (Chick Pea), Lima Bean, Sanfoin, Sesbania, Astragalus Sp. (Milkvetch), Leucaena glauca. Others upon request. 1/2 bu. ea.\$.18 1 bu. ea.65
SOYBEANS (S) 2 bu. ea.\$.40 5 bu. ea.60 25 bu. ea. 2.70	GARDEN SIZE— Peas, Beans Sweet Peas, Lupines, Lima Beans and Edible Soybeans. Enough for 8 lbs. seed —Retail Price 15c ea.
BEANS (D) Navy, Pinto, Wax, String, Kidney and Great Northern 1 bu. ea.\$.55	

Let us quote 5 ton and carload lots.

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.

Standard Bale (approx. 36x19x19) 100 to 120 lbs. when packed. German Horticultural.

Bale, \$4.90; Bu., 75c; 1/2 pk., 20c.

ORCHARD PEAT (Osmunda Fibre)

1 lb., 50c; Bale, \$12.00.

Agricultural Chemicals, Etc.

	lb.	10 lbs.	25 lbs.	100 lbs.
Aluminum Sulphate	\$.10	\$.75	\$1.50	\$4.85
Asparagus Salt	---	.40	.75	2.15
Borax	.10	.60	---	---
Calcium Chloride	---	.60	1.25	4.50
Copper Sulphate (powdered)	.30	2.00	4.25	15.00
Epsom Salts	.10	.75	1.50	5.00
Hydrated Lime, (50 lbs., 75c)	---	.25	---	1.25
Iron Sulphate (Crystal)	.20	1.00	2.00	4.00
Muriate of Potash	.10	.75	1.5	5.00
Nitrate of Soda	.10	.80	1.50	4.75
Sulphate of Ammonia	.10	.75	1.50	5.00
Sulphate of Potash	.10	.75	1.50	5.00
Super Phosphate (20%)	.10	.40	.75	2.35
Top Soil, (500 lbs., \$7.50)	---	.25	.50	1.65
Zinc Sulphate	.20	---	---	---

Organic Plant Foods

	lb.	5 lbs.	10 lbs.	25 lbs.	50 lbs.	100 lbs.
Blood Meal	\$.20	\$.85	\$1.50	\$3.50	\$6.50	\$10.85
Bone Meal, Raw	---	---	.85	1.75	---	5.75
Bone Meal, Steamed	---	---	---	---	---	5.25
Cottonseed Meal	---	.50	.85	2.00	---	7.00
Cow Manure	---	.45	.80	1.60	2.75	4.25
Ground Phosphate Rock	---	---	---	---	---	1.85
Pulverized Ground Limestone	---	---	80 lb. 75c; 160 lbs.	---	---	\$1.25
Sheep Manure	---	.45	.80	1.00	2.75	4.25
Tobacco Dust	.15	.35	.60	1.25	2.50	4.00
Tobacco Stem Meal	---	---	.50	1.00	1.50	2.50

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.

NEW LAWNS, 1 to 3 lbs.; OLD LAWNS, 1 to 2 lbs.

AMOUNT TO APPLY PER SQUARE FOOT

GARDENS AND FLOWER BEDS, 2 to 4 lbs.

5 lbs., 25c; 10 lbs., 40c; 25 lbs., 90c; 50 lbs., \$1.40; 100 lbs., \$2.25; 500 lbs., \$10.00; 1000 lbs., \$17.50; ton, \$32.00.

SPHAGNUM MOSS

Finest quality. Free from sticks and other refuse. 1/2 Pk., 25c; Bu., \$1.65; Bale, \$3.75.

AFRICAN VIOLET SOIL

Specially prepared organic potting soil for African Violets. 4 lb. pkg., 35c; 48 lbs., \$3.50.

BUCKWHEAT HULL MULCH

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), \$1.60; 250 lbs., \$7.75; 500 lbs., \$14.50; Ton, \$50.00.

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 ACIDITY KIT—Tests for acidity only. Complete with instructions and charts **\$1.49**
HOME GARDEN MODEL (as illustrated)—Contains enough soil testing solutions to make 20 individual tests. **\$2.98**

POPULAR GARDEN MODEL—Makes 50 individual tests for nitrogen, phosphorus, potash and acidity. Cased in handsome sturdy imitation leather. **\$5.89**

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. **\$14.95**

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. **\$29.95**

TESTING FLUID for refill. Specify whether for nitrogen, phosphorus, potash or acidity. **2 oz., \$1.00; 6 oz., \$2.00.**

ACID OR ALKALINE PREFERENCES

(Letters refer to degree of acidity in chart below)

VEGETABLES, GRAINS, GRASSES, ETC.

Alfalfa	A	Cucumber	B	Plums	D
Asparagus	A	Currants	C	Potatoes	D
Barley	A	Eggplant	B	Pumpkin	D
Beans	C	Endive	B	Radish	B
Beets	A	Gooseberry	C	Raspberries	B
Bent Grass	D	Grapes	D	Red Clover	B
Blue Berries	E	Kale	E	Rhubarb	B
Blue Grass	A	Laurel	E	Rye	C
Broccoli	B	Leek	B	Spinach	B
Cabbage	A	Lettuce	A	Squash	C
Carrots	A	Muskmelons	B	Strawberries	C
Cauliflower	A	Oats	C	Tobacco	C
Celery	A	Onions	A	Tomato	C
Chicory	B	Parsley	A	Turnip	C
Corn	B	Parsnips	D	Rutabaga	C
Clover	A	Peas	B	Watermelon	B
Cowpeas	C	Peppers	C	Wheat	A
Cranberries	E				

FLOWERS

Azaleas	E	Forget Me Not	A	Narcissus	B
Anemone	B	Fuchsia	B	Nasturtium	A
Aster	B	Gardenia	E	Orchid	D
Begonia	B	Genista	A	Pansy	B
Bleeding Heart	C	Geranium	A	Peony	B
Bouvardia	C	Gerbera	A	Primula	B
Calendula	A	Gladiolus	B	Poinsettia	B
Candy-tuft	B	Godetia	B	Petunia	A
Canna	A	Heather	D	Phlox	C
Carnation	B	Heliotrope	A	Poppy	B
Centaurea	B	Holly	E	Rhododendron	C
Cineraria	A	Hyacinth	B	Rose	B
Chrysanthemum	B	Hydrangea Blue	E	St. Paulia	B
Clarkia	B	Hydrangea Pink	C	Scabiosa	B
Clematis	A	Iris	C	Schizanthus	B
Columbine	B	Lady Slipper	E	Snapdragon	B
Cosmos	B	Larkspur	B	Stocks	B
Cyclamen	C	Lilac	B	Swainsonia	A
Dahlia	B	Lily	C	Sweet Peas	A
Delphinium	C	Lupine	C	Tulips	B
Didiscus	B	Marigold	B	Violet	B
Easter Lily	C	Mignonette	B	Westeria	B
Euphorbia	C	Morning Glory	A	Woodbine	B
Feverfew	B	Myosotis	B	Yucca	B
Ferns	C			Zinnia	B

4pH	5pH	6pH	6½	7pH	7½	8pH
E	D	C	B	A		

Acid

Alkaline

Neutral

B, C, D and E indicate degrees of acidity from 7 pH, which is neutral, to 4 pH which is extremely acid. "A" indicates a slightly alkaline condition.—(1000 lbs. Hydrated Lime per acre will change a sandy loam from pH 5 to pH 6.)

Bird Feeders

CDD

IDA

W16

CT24

DIogenes (IDA), Old fashion lantern design. Made of sturdy metal has glass chimney. Easy to fill, feeds seed automatically. **\$5.45.**

BIRDS FILLING STATION (BH52), Has two cake holders and will hold 4 to 5 pounds of seed. Seed reservoir is glassed in so that one can see when to refill. **\$4.95.**
BIRD CAFE (W16), Glass top protects food from snow and rain, easily attached to window sill from inside. Contains cake holders. **\$5.95.**

COMMUNITY DINER (CDD), For clinging and perching birds. Filled with Seed Suet and Pressed Peanut Suet moulded into paper cups. **\$1.95.**

CHICADEE TIDBITS (CT24), Refills for above box of 24 cups. **\$1.25.**

WILD BIRD CAKES. 35c ea.; Cage 90c ea.

WILD BIRD SEED, 5 lb., 75c; 25 lbs., \$3.50; 100 lbs., \$12.00.

SUNFLOWER, Giant plump seed, 5 lbs., \$1.25; 25 lbs., \$5.75; 100 lbs., \$21.00.

RAT KILLERS

WARFARIN. The amazingly effective rat killing ingredient perfected by the Wisconsin Alumni Research Foundation.

K.R.O. CONCENTRATED. Warfarin Rat and Mouse Killer. Active ingredient .5% Warfarin. 2 oz. makes 2½ lbs. bait. 2 oz., \$1.25; 4 oz., \$2.00.

D-CON READY MIX. Active ingredient .025% Warfarin. 1 lb., \$1.69.

SLA-RAT. Contains .025% Warfarin. 8 oz. can, 65c; 1 lb., \$1.00.

RED SQUILL RAT KILLERS are Non-Poisonous to Pets or Live Stock.

K.R.O. Ready Mix 1½ oz., 50c; ½ lb., \$1.25.

K.R.O. Powder. 2 oz. (Mix with 2 lbs. bait) **\$1.00.**

RAT NOTS. 9 "Nots," 35c; 50 "Nots," \$1.00.

MOUSE NOTS. 9 "Nots," 35c; 50 "Nots," \$1.00.

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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 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,

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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