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DESCRIPTIVE CATALOGUE
OF
VEGETABLES *for* CANNERS

Associated Seed Growers

Incorporated

New Haven, Connecticut

Number Three

Associated Seed Growers, Inc.

Breeders and Growers of Vegetable Seeds

New Haven, Conn., U. S. A.

Consolidating

THE EVERETT B. CLARK SEED CO., Est. 1857

JOHN H. ALLAN SEED CO., Est. 1856

N. B. KEENEY & SON, INC. Est. 1860

Cable Address: Asgrow.

Growing Stations and Principal Warehouses at

LeRoy, New York
Green Bay, Wisconsin
Greeley, Colorado
Rigby, Idaho
Rexburg, Idaho
Teton, Idaho
Bonners Ferry, Idaho
Hamilton, Montana
Mt. Vernon, Washington
Sacramento, California

Milford, Connecticut
Sheboygan, Wisconsin
St. Paul, Minnesota
St. Anthony, Idaho
Ashton, Idaho
Filer, Idaho
Powell, Wyoming
Bozeman, Montana
Fairfield, Washington
Salinas, California

Gervais, Oregon

Various Sub-stations at other Advantageous Points

Departments of Breeding at

Hamilton, Montana
Milford, Connecticut
Milpitas, California
Sun Prairie, Wisconsin
Bonners Ferry, Idaho

Powell, Wyoming
Filer, Idaho
Greeley, Colorado
Green Bay, Wisconsin
Wenona, Illinois

Sales Branches and Distributing Warehouses at

Atlanta, Georgia

Indianapolis, Indiana

Salinas, California

ASSOCIATED SEED GROWERS, INC., gives no warranty, express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs or plants it sells, and will not be responsible for the crop.

FOREWORD

We have pleasure in presenting herewith a descriptive catalogue of the leading varieties of vegetables suitable for canners' use. For some time we have felt that we should make available to our patrons such a catalogue. It is, however, a work of years to assemble the supporting data for such descriptions. We should not care to issue descriptions based on the findings of a single season. When one considers the number of species and the several varieties of each, also the carefully conducted trials and detailed readings that are necessary during two or more seasons,—in some species several seasons,—it will be realized that a great deal of preliminary work is required before writing such descriptions as are herein contained.

We have endeavored to give accurate data with respect to each variety, presenting the facts as we have found them. We hope the arrangement of the material, measurements, days to maturity, etc., will be found convenient for reference.

Our position in the breeding and growing of vegetable seeds is based on the notable work of Calvin N. Keeney, Everett B. Clark and John H. Allan, who were the heads of the three firms which were amalgamated to form our present company. These three firms were founded in 1856, 1857 and 1860. Mr. Keeney was the first American to do pure-line breeding of Peas. He likewise was an outstanding breeder of Beans, and the first to develop and commercially introduce stringless types. He originated fourteen varieties of stringless Beans, which are in common use. Everett B. Clark's name is associated primarily with Sweet Corn, many varieties of which were originated by him. Mr. Clark was, so far as we can ascertain, the first to breed, produce and distribute Sweet Corn for seed purposes in a commercial way. Likewise Onion, Beet and Carrot were developed and greatly improved under his continuous, discriminating selection. Later the Clark firm became one of the leading intensive breeders and growers of Peas and Beans. John H. Allan focused his attention on Peas and was prominent in the commercial introduction and production of leading varieties.

In these later times, one of the major problems of the seed growing industry arises from the fact that not all species can successfully be produced in any one area. Thus it is necessary for a grower producing as broad a list of items as we grow, to establish growing stations in various parts of the country,—of the world, in fact,—and to maintain a widely distributed organization of men experienced in seed growing operations. We have within the United States twenty-eight warehouses strategically located and adequately manned by trained and experienced staffs.

Under the direction of skilled Geneticists supported by competent plant breeders trained in specialized lines, our foundation breeding work is being continued on the leading vegetables. Progeny performance is the criterion by which selection is determined. As a result of this program, we are in position to furnish you pedigreed seeds of genuine merit.

ASSOCIATED SEED GROWERS, INCORPORATED

New Haven, Connecticut

January 5, 1935

ASGROW

WELL BRED VEGETABLE SEEDS

Asgrow Seed Laboratory and Greenhouse at our Milford, Connecticut, Breeding Grounds

A trained analyst makes soil or germinator tests of all stocks before shipments are made. Winter reproduction of special progenies is carried on, and hybridization for the development of new and distinct types. Disease resistance tests are also conducted.

ARTICHOKE

Native of Southern Europe

Culture — Sow seed in plant bed of rich, rather moist soil in rows 10 inches apart. When plants are 3 to 4 inches high transfer to field in rows 4 to 6 feet apart with 3 to 4 feet between plants. Frequent cultivation and plenty of moisture are essential. 6 ounces of seed are required for an acre.

LARGE GREEN GLOBE OR PARIS

Used for home garden planting, canning, and shipping; grown extensively in California; heads large, slightly elongated; scales thick at base. Quite different from Jerusalem Artichoke, which is grown for its tuberous root.

ASPARAGUS

Native of Europe

Culture — Sow the seed in the spring in drills about 18 inches apart in light, rich soil. Place seeds one inch apart and cultivate regularly during the summer; plants will be ready to set in the field the following spring. One ounce of seed will produce 700 plants. Deep plowed soil, rich in humus and well drained is best for this crop. Plants should be set 4 to 5 inches deep, spaced 1 foot, in rows 4 feet apart.

MARY WASHINGTON

The latest development of rust resistant asparagus; larger than the original Washington, with very tight tips of fine quality, good for canning.

PALMETTO

Desirable for home and market garden use; likewise popular as a canning variety. Stalks dark green, pointed at tip. Early and very productive.

BEANS

The bean plant, native of the Far East, has been cultivated from the earliest times.

Through intensive hybridization and selection we have developed sixteen of the leading varieties of stringless beans. These choicer and more desirable sorts are gradually replacing the older, coarser, stringy varieties. In addition to creating new and better types on our breeding grounds we continually apply the thoroughly proven pure-line method of breeding whereby we are able to maintain pure stocks of the standard varieties which meet the needs of the discriminating canner in a uniformly satisfactory manner.

In listing the number of days from planting to picking, we have used average results secured over a period of years. These figures apply to plantings under normal rainfall conditions, and will vary somewhat in different sections of the country. However, the number of days indicated is valuable in showing the relative earliness of the different varieties.

Culture — For best results beans require strong, well-drained, loamy soil. In the North, plantings should be made after danger of frost is past, during latter May and early June. Plant 6 to 8 seeds to the foot, 2 inches deep in rows 24 to 30 inches apart depending on the richness of the land. It takes about 60 pounds of seed to plant an acre.

Air View of Bean Breeding Farm at Filer, Idaho, Showing Segregated One Acre Blocks

Dwarf Green Podded Varieties

	Length of pod inches	Width of pod inches	Days from planting to canning
ASGROW STRINGLESS GREEN POD	6 to 6½	¾	53
Our recent development introduced in 1930. Received All-American Gold Medal Award for 1933. Highly desirable for canners and market gardeners. Similar to Full Measure, but hardier, and a more dependable cropper. Plant medium large, erect, somewhat thick stemmed, heavily productive. Pods nearly straight, dark green, round, meaty, succulent; absolutely stringless, totally without fiber, of outstanding quality. Seeds 67 per oz., oblong, purple mottling on buff with brownish cast. Tendergreen is a similar variety.			

BEANS—Continued

Asgrow Stringless Green Pod Beans
 Developed on our Idaho Bean Breeding Farm

	Length of pod inches	Width of pod inches	Days from planting to canning
BURPEE'S STRINGLESS GREEN POD	6	7/16	52
An early, sturdy, productive variety originated by Calvin N. Keeney and introduced in 1894. Plant large, erect, very productive. Pods round, medium green, very meaty, perfectly stringless and fiberless and of excellent quality. Seeds coffee-brown, 75 per oz. Used extensively for cut beans by canners and for market by gardeners.			
FULL MEASURE	6 to 6½	¾	54
A well-known variety for canners and market gardeners, having an upstanding prolific plant. Pods round, straight, very fleshy, stringless and tender; medium green. Seeds 66 per oz., reddish brown mottled with buff. Of same season as Giant Stringless Green Pod but less hardy and more susceptible to disease than most green podded sorts.			

BEANS—Continued

Keeney's Stringless Green Refugee Beans

An Outstanding Contribution to Canners of Beans

	Length of pod inches	Width of pod inches	Days from planting to canning
GIANT STRINGLESS GREEN POD	6 to 6½	7/16	54
<p>Originated by Calvin N. Keeney and introduced in 1898. One of the favorite stringless green podded sorts, extensively used for canning. Plant large, sturdy, prolific. Pods round, meaty, strictly stringless and brittle; with marked indentations between the beans; color medium green. Seeds 72 per oz., oval, solid yellowish brown.</p>			
KEENEY'S STRINGLESS GREEN REFUGEE	5 to 5½	¾	70
<p>An outstanding development originated by Calvin N. Keeney, and introduced in 1908. A medium late variety very popular with canners and desirable for home and market garden. Plant large, very spreading, with many tendrils and drooping branches; heavily productive. Pods silvery green, round, absolutely stringless, brittle, without fiber. Seeds violet-purple, splashed with pale buff; 97 per oz.</p>			
MOSAIC RESISTANT STRAINS OF STRINGLESS GREEN REFUGEE			
IDAHO REFUGEE	5½	¾	65
<p>Developed by Dr. W. H. Pierce and introduced by the University of Idaho in 1934; resistant to common bean mosaic. Plant of true Refugee type and strongly prolific. Pods longer than regular Refugee, straight, round, silver green, stringless, without fiber; seeds purple blue splashed with buff. 4 to 6 days earlier than Keeney's Stringless Green Refugee. Canning tests show high quality.</p>			
U. S. No. 1 REFUGEE	4½ to 5	5/16	60
<p>Developed by the Division of Fruit and Vegetable Crops and Diseases of the United States Department of Agriculture and introduced in 1934. A cross between Stringless Green Refugee and Wells Red Kidney; tolerant to common bean mosaic. Plant of medium bush type and very prolific. Pods nearly round, straight, stringless, somewhat darker in color and shorter and smaller in diameter than Stringless Green Refugee. Canning tests indicate good quality. Seed cream splashed with pale pink.</p>			

BEANS—Continued

	Length of pod inches	Width of pod inches	Days from planting to canning
WISCONSIN REFUGEE	5 to 5½	⅜	70
Developed by Dr. J. C. Walker and introduced by the University of Wisconsin in 1934; resistant to common bean mosaic; in season and plant character very similar to Keeney's Stringless Green Refugee. Pods slightly curved, medium long, round, stringless, of fine quality. Scores high in canning test.			
KONSERVA	5	⅜	53
A recent introduction by David Sachs, particularly desirable for canning young pods, whole. Plant medium, erect, heavily productive. Pods medium green, round, slightly curved, stringless, somewhat fibrous at mature stage, of good flavor, and very attractive. Seeds 85 per oz., white with faint pink splashing.			
LOW'S CHAMPION	5	⅝	55
Also known as Red Cranberry. Used by canners and market gardeners in the Eastern States. Plant medium, erect, dark green, moderately productive. Pods deep green, straight, flat, stringless, and of excellent quality. Seeds 50 per oz.; ox-blood red.			
RED KIDNEY	5 to 6	½	95
Originally introduced from South America. A commercial variety of fine quality for dry bean use. Plant large, vigorous, productive. Pods waxy green color, oval flat, stringy, tough and fibrous. Seeds reddish brown; 50 per oz. Used for canning.			
WHITE PEA OR WHITE NAVY	4	⅜	90
Robust and Scofield are selected strains. Best known of commercial varieties. Plant large, spreading, with many runners; heavily productive. Pods flat, tough, stringy. Seeds small, round-oval, white; 130 per oz. Used by canners.

Round Pod Kidney Wax or Brittle Wax Beans
The Leading Wax Variety for Canners

Dwarf Wax Podded Varieties

ROUND POD KIDNEY WAX OR BRITTLE WAX	5½ to 6½	⅜	52
Originated by Calvin N. Keeney, and introduced in 1900. An outstanding sort for canning. Plant large, erect, medium green, vigorous and productive. Pods handsome in appearance, medium yellow, round, slightly curved, deeply creasebacked, extremely brittle, fleshy, succulent, absolutely stringless and fiberless; the standard of highest quality. Seeds white, kidney shaped, with black eye; 78 per oz.			

BEANS—Continued

	Length of pod inches	Width of pod inches	Days from planting to canning
KEENEY'S IMPROVED STRINGLESS KIDNEY WAX	5½ to 6¾	5/16	52
Originated by Calvin N. Keeney. Excellent for canning and for home and market garden use. Plant large, erect, highly productive. Pods oval, light yellow in color, brittle, stringless, fleshy, and of fine flavor. Seeds white, kidney shaped with black eye; 75 per oz. Sometimes called Burpee's New Kidney Wax.			
REFUGEE WAX	4½ to 5	¾	53
Originated by Calvin N. Keeney. Desirable for canning and market garden use. Plant sprawling bush, with many runner-like branches, very productive. Pods round, curved, light yellow faintly splashed with purple; brittle, stringless, fine grained, and of excellent quality. Seeds cylindrical, bluish black splashed with pale buff; 100 per oz.			
WHITE SEEDED WAX	4½ to 5½	½	54
Originated by Calvin N. Keeney. Particularly desirable for canning of cut beans. Plant medium, erect, vigorous. Pods round, creamy yellow, fleshy, brittle, firm, strictly stringless, without fiber and of fine texture. Seeds short-oval, 95 per oz., solid white.			

Pole Green Podded Varieties

Culture — Sandy loam, well-enriched, is the best soil for pole beans. Plant in hills 4 feet each way 4 to 6 seeds to the hill about 2 inches deep. Poles 6 feet above ground should be set for the beans to climb on. It requires 30 to 35 pounds of seed to plant an acre.

Blue Lake Green Podded Pole Beans

BLUE LAKE	5 to 6	½	63
Early, vigorous, strongly productive; a good climber. Snap pods round, medium green, fleshy, stringless when young, tender and of fine quality. Seeds small, oval, ivory white; 120 per oz. Highly desirable for canning and for home garden.			

BEANS—Continued

	Length of pod inches	Width of pod inches	Days from planting to canning
KENTUCKY WONDER OR OLD HOMESTEAD.....	7½ to 8½	½	65

Also called Texas Prolific. The best known and most popular pole bean. Good for canning and for home and market garden. Strong climber, hardy, very prolific over long season. Pods nearly round, curved, with undulating surface, meaty, of good quality; stringless when young, fiberless, very brittle. Seeds 80 per oz., buff brown.

Bush Lima Beans

Culture — Lima beans are particularly susceptible to injury from cold, wet weather and therefore should not be planted until two weeks later than string beans. Sandy loam well manured or heavy sod plowed deeply is the best foundation for producing crops of this item. In some areas lima beans are planted in latter June as a second crop after peas in which case only moderate yields can be expected. Sow seed 1½ to 2 inches deep in rows 22 to 28 inches apart with 3 to 5 seeds to a foot in the row. 40 to 50 lbs. of seed are required to plant an acre.

HENDERSON'S BUSH	3 to 3¼	¾	68
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Sometimes called Baby Lima, and known in the South as Butter Bean. Used largely by canners. Plant small, dark green, erect, bushy, very early. Pods flat, containing 3 to 4 seeds. Green shell beans flat, small, of excellent quality. Dry beans creamy white; 90 per oz. Our stock is bred for earliness, uniformity in development and concentration in season and produces a large percentage of green colored beans at canning stage.

McCREA'S BUSH	3 to 3¼	¾	72
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Introduced by McCrea Seed Co., in 1934. Desirable for home garden, also adapted to canners' use. Plant medium, stocky, erect, dark green, of medium season, prolific. Pods thick-flat, slightly curved contain 3 to 5 seeds. Green shell beans thick potato type, small, green tinted, of good quality. Dry beans creamy white, 70 per oz.

Henderson's Bush Lima Beans

An Early Strain Concentrated in Pod Formation and Development

WOOD'S PROLIFIC	3¼ to 3½	13/16	69
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Similar to Henderson's Bush in type, but with larger plant and somewhat larger pod and seed; 65 per oz. Can be used for canning where medium size beans are desired.

BEET

In the production of Beets we have bred pedigreed strains well-adapted to canning requirements. Evenness of maturity, depth of color, uniformity and smoothness of roots are features of these stocks grown from mother beets selected with discriminating care. Our strains have substantial tops,—an important factor in harvesting by machinery.

Culture — Deep loam, well-fertilized with manure is best suited to the growth of beets. Sow seed in May, in rows 12 to 18 inches apart with $\frac{3}{4}$ inch covering. 8 to 12 pounds are required to plant an acre depending on distance between rows. Frequent cultivation is important.

Days from planting
to canning

ASGROW CANNER

68

Our latest development bred specially for canners' requirements; ready in 1935. Tops medium, erect, green and red. Roots globe-shape, smooth with small neck; dark maroon-red. Flesh deep ox-blood red with very indistinct red zones; exceptionally vivid and attractive when freshly cut; holds quality well until roots are full-grown.

Asgrow Canner Beet
Exceptional in Depth of Interior Color

ASGROW WONDER

56 to 58

Our development introduced in 1932. Received All-American Gold Medal, for 1934. A pedigreed stock, the result of many years of pure-line breeding. Good for canning baby beets; unsurpassed in earliness, uniformity, and in depth of interior color. Tops medium, erect, uniform. Roots semi-globular, deep red, smooth, with small neck and tap root. Flesh deep red with zones of slightly lighter shade; tender, and of excellent quality.

BEET—Continued

Days from planting
to canning
68

DETROIT DARK RED
A leading variety for canners, produce shippers and truckers. Our pure-bred line is a standard of quality. Tops medium, dark green tinged with red. Roots globular, smooth, uniform, attractive, with small tap root. Color deep ox-blood red. Flesh dark red with indistinct zones. Fine quality, sweet and tender.

Inspecting and Rating Beet Progenies at our Milford, Connecticut Breeding Grounds

OHIO CANNER 66
Developed by Dr. Roy Magruder at the Ohio Agricultural Experiment Station. A mid-season variety well adapted for canner and market garden use. Tops medium, erect. Roots flattened globe in shape, smooth, ox-blood red; flesh dark red with indistinct slightly lighter zones, sweet and tender.

PERFECTED DETROIT 68
A mid-season variety. Tops tall, green and red. Roots flattened globe-shape medium smooth, deep red; flesh dark red with somewhat lighter zones; of good quality. Adapted to the uses of market gardeners and canners.

BROCCOLI
A Cultivated Variety of Wild Cabbage

The Italian Sprouting or branching type is being used increasingly, and is a valuable addition to the list of vegetables that can readily be produced in most sections of the country.

Culture — Sow seed in plant bed in early May in rows 8 to 9 inches apart and plants will be ready to transfer to field in June. Set plants 1½ feet apart in rows 3 to 3½ feet apart. Rich soil with plenty of moisture is needed for strong development and tender stems and heads. 4 ounces of seed will plant an acre.

Days from
setting of plants
to first cutting
55 to 65

ITALIAN GREEN SPROUTING (CALABRESE).....
The leading variety for shippers, also used largely by market gardeners and in home gardens and for canning. A tall branching plant forms a central head of bluish green flower buds resembling a loose head of Cauliflower. After the main head is removed, side branches continue to develop throughout the season, and frequently form small heads, which, with the stems, are cut and served in the same way as Asparagus. It is a highly desirable, delicious vegetable, steadily gaining in favor.

CABBAGE

Native of Western Asia, Cultivated since the Earliest Times.

Our Cabbage seed is produced largely in the Puget Sound section of Washington under our personal direction from seed stocks of highest quality. Some strains are grown for us in sections of Europe where experience has shown that exceptionally high quality is assured. Each year the various varieties are checked at our Milford, Connecticut breeding farms to guard the vital factors of earliness, evenness of maturity and uniformity.

Culture — Sow seed in plant bed in drills 8 to 9 inches apart in May and plants will be ready to transplant in the field in July. Plants should be set at distance of 12 to 18 inches in rows 2 to 3 feet apart, so as to allow for machine cultivation. One ounce of seed will produce 4000 plants; 3 to 4 ounces required per acre. Rich, heavy clay loam with abundant moisture is the best soil for Cabbage.

	Diameter of head inches	Weight of head pounds	Days from set- ting of plants to market- able heads
COPENHAGEN MARKET	6½	3½ to 4	70 to 75
Dependably early and uniform, used largely for early kraut; desirable likewise as an early shipper. Few outer leaves, short stem; heads round, solid, and of superior quality. An excellent variety.			
ALL HEAD EARLY	9	6	75
A medium early variety, excellent for kraut and for shipping. Heads flat, slightly rounded at top, 7 inches deep, solid, uniform in size and color, and of good quality.			
GLORY OF ENKHUIZEN ...	8	5 to 8	80
Used largely for kraut, also by truckers and shippers. Heads large, round, solid, with few outer leaves; of excellent quality.			
STEIN'S EARLY DWARF FLAT DUTCH	11 to 12	11 to 12	90
Plants medium, vigorous, a good second early variety, with large, solid, flat heads, 6 inches deep; good for early kraut.

Danish Ball Head or Hollander Cabbage
A Leading Variety for the Manufacturing of Kraut

CABBAGE—Continued

	Diameter of head inches	Weight of head pounds	Days from set- ting of plants to market- able heads
DANISH BALL HEAD OR HOLLANDER	7 to 8	6 to 7	100 to 110
Most widely used and the best type of late cabbage; desirable for kraut, for storage and for shipping. Plants fairly large, sturdy, with short stem; outer leaves medium. Heads deep round, very hard; interior decidedly compact, leaves composing head smooth and closely arranged. Texture tender, crisp; flavor good; ideal for high quality kraut.			
PENN STATE BALL HEAD.....	7 to 8	5½ to 6½	110
A late variety, excelling in productivity and uniformity. Developed by Prof. C. E. Myers of Pennsylvania State College. Plants medium, with short stem. Heads attractive, flattened globe, extremely hard, 6 to 7 inches deep. Desirable for winter storage, and the manufacture of kraut.			
PREMIUM LATE FLAT DUTCH.....	10 to 11	9 to 11	95 to 105
A deservedly popular, large, late variety. Excellent for home and market garden use, for shipping and for kraut. Heads extremely large, flat, and solid; 6½ to 7 inches deep; of high quality.			

Yellows Resistant Strains

Developed by Dr. J. C. Walker and Dr. L. R. Jones, and associates, cooperatively between the University of Wisconsin and the United States Department of Agriculture. Highly valuable for use in areas infested with "cabbage yellows" disease.

ALL HEAD SELECT	9	4 to 6	65 to 70
Resembles standard strains of this variety but earlier; very uniform in leaf and head growth; flat, of fine quality. Good for early kraut and storage.			
IMPROVED GLOBE	8 to 9	4 to 6	75
A resistant improved stock of Glory of Enkhuizen. Heads large, solid; used for kraut.			
MARION MARKET	7	4 to 6	70
A development from Copenhagen Market, but with slightly larger, spherical, firm heads. Valuable for early kraut.

Threshing Cabbage Seed

CABBAGE—Continued

	Diameter of head inches	Weight of head pounds	Days from set- ting of plants to market- able heads
WISCONSIN ALL SEASONS	10 to 12	5 to 8	90
A mid-season general purpose variety; keeps well; used for kraut; slightly coarser than standard All Seasons; heads flat to drum head.			
WISCONSIN HOLLANDER No. 8	7 to 8	5 to 8	100 to 105
A late sort excellent for kraut and winter storage; heads flattened spherical. Produces heavy crops on land that is badly infested with yellows disease. This strain has been an important factor in bringing back to successful operation large acreages that were lost to cabbage production, on account of this disease. Similar in type to standard stocks of Hollander or Danish Ball Head.			

CARROT

Parent planting stocks are produced through progeny breeding and are carefully checked for adaptability to both eastern and western growing conditions. In giving the number of days for the development of roots, we have used the averages of readings for a period of years. These will vary somewhat in different locations. Carrots were originally developed in Europe.

Culture — For best development carrots require rich, sandy loam soil plowed deeply, and well drained. For field planting sow seed in rows 2 to 2½ feet apart to allow for machine cultivation; for smaller plots to be cultivated by hand, 18 inches between rows is sufficient. 3 to 5 pounds of seed are required to plant an acre.

	Length of root inches	Diameter at shoulder inches	Days from planting to canning
CHANTENAY, IMPROVED	5 to 6	2¼	72
An excellent, all-purpose, medium early variety; desirable for home and market garden, and for canners in packing diced carrots; a good cropper. Roots deep orange, smooth, tapered, stump-rooted; flesh deep orange with indistinct core.			
CHANTENAY, RED CORED	4½ to 5½	2¼	72
A desirable Chantenay with good interior color; valuable for canners and market gardeners. Roots somewhat shorter than Improved Chantenay; flesh reddish orange, with indistinct core of nearly the same color as the surrounding flesh; tender and sweet.			
NANTES IMPROVED CORELESS	5½ to 7	1¾	70
Excellent for forcing as well as for home and market garden use; also used for canning. Tops very small. Roots bright orange, cylindrical, blunt ended. Flesh reddish orange, crisp, tender, and of very delicate flavor; practically coreless.			

CARROT—Continued

Red Cored Chantenay Carrot

CAULIFLOWER

Culture — Sow seed in plant bed in drills 9 inches apart in May and transplant to fields in latter June or early July in rows 3 to 4 feet apart with $1\frac{1}{2}$ to 2 feet between plants in the row. Deep rich soil with an abundance of moisture is necessary for good crops. Frequent cultivation with top dressing of fertilizer insures rapid growth and delicate flavor. For blanching, the leaves should be gathered loosely and tied over the top of the head. 4 ounces of seed will produce plants sufficient to set an acre.

	Diameter of head inches	Days from setting of plants to marketable heads
EARLY SNOWBALL	6 to 7	55
The best and most widely used early variety. Good for use in packing mixed pickles. Plants dwarf, with short pale green leaves. Heads medium, firm, compact, solid, pure white, and of finest quality; a dependable header.		

SWEET CORN

Native of America

Sweet Corn has been an important item with us for seventy years, during which time we have originated a number of the best known canning varieties. Our breeding program includes the development of disease resistant strains as well as emphasizing the factors of uniformity in type, tenderness of hull and productivity. The number of days indicated for each variety to develop ears to canning stage represents average trial row readings for many years at our Milford, Connecticut breeding farms.

Through the use of more recent breeding methods for the improvement of Sweet Corn varieties, we have developed through twelve years of controlled pollination a number of inbred lines of high merit. The crossing of these produces hybrids of outstanding vigor, uniformity and productivity. Likewise the top-crossing of inbreds on open-pollinated stocks gives uniformity and yields far in advance of those obtained from standard stocks. We can now furnish stocks of some varieties that are highly resistant to Stewart's disease or Bacterial wilt.

From these years of experience and from trial plantings by canners and at Agricultural Experiment Stations in various states, we are in position to recommend to our canner customers the particular hybrids or top-crosses that are best adapted to their sections.

Country Gentleman Sweet Corn
A Leader in Quality among White Varieties

SWEET CORN—Continued

Culture — Sweet Corn thrives on a wide range of soils that have good fertility. Frequent cultivation during the early stages of the crop is essential. In most northern areas, seed should be planted during May when danger of frost is past. Plant in check rows 3 to 3½ feet apart each way or in drills with the same distance between rows. 8 to 12 pounds of seed will plant an acre. The best results are obtained from three plants to a hill.

White Varieties

	Height of stalk feet	Length of ear inches	Days from planting to canning
EARLY CROSBY	6	6½	82
A well-known popular variety, used widely by canners in sections having shorter growing season. Ears 14 to 16 rowed, with snowy white narrow kernels set compactly; tender hull, sweet, and of good flavor.			
CLARK'S EARLY EVERGREEN	8	7½ to 9	90
One of the best known and widely used canning varieties, also desirable for market gardeners. Originated by Everett B. Clark more than 50 years ago. Ears 16 to 20 rowed. Kernels very deep, ivory white, sweet, and tender.			
COUNTRY GENTLEMAN	7 to 8	7 to 7½	93
A late, prolific variety of excellent quality, used widely by canners for a fancy product; also desirable for home and market gardens. Stalks often with two ears. Kernels very deep, slender, sweet, with tender hull, and set irregularly without row formation.			
HOWLING MOB	6 to 7	6½ to 8	85
A popular, prolific, second early variety, with large ear, for home and market garden, and canning. Ears 12 to 16 rowed, thick butts, strong husks with green streamers. Kernels clear white, plump, and of fair quality.			
NARROW GRAIN OR MAINE STYLE EVERGREEN	8 to 10	7 to 8	95
Our own introduction in 1904. Bred for discriminating canners from Stowell's Evergreen by the Everett B. Clark Co.; it is unsurpassed in its attractive kernel type in all the Evergreen family. Ears 20 to 24 rowed, small cob. Kernels white, very deep, slender, of tender hull, sweet, and of fine flavor.			
NE PLUS ULTRA OR SHOE PEG	7	6½ to 7	92
Similar to Country Gentleman, but slightly earlier, with smaller ear and finer kernel. Stalks with medium leaves; ears cylindrical, 2 inches thick. Kernels white, deep, very slender; zig-zag, of tender hull, sweet, and of fine flavor.			
STOWELL'S EVERGREEN	8 to 10	8 to 9½	95
The best known late variety of Sweet Corn. Used extensively by canners in packing a standard product; also desirable for home and market garden. Stalks sturdy and erect; ears 2½ inches thick, uniform, 16 to 20 rowed. Kernels clear white, deep, of medium width, sweet and tender. Holds well in prime condition at canning stage.			

Yellow Varieties

BANTAM EVERGREEN	7 to 8	7 to 8	89
Sometimes called Golden Evergreen. Bred by the Everett B. Clark Seed Company and introduced in 1910. A cross of Golden Bantam on Stowell's Evergreen having Evergreen type of ear with 14 to 18 rows. Kernels rich golden yellow, deep with tender hull, sweet, and of fine quality. A superior, medium late variety excellent for canners and market gardeners.			
BURBANK BANTAM	5½ to 6	6	85
A second early yellow variety good for home garden and canning. Ears large, rather short with 10 to 14 rows. Kernels medium, tender and of good flavor. Holds up well under adverse weather conditions.			

SWEET CORN—Continued

Asgrow Golden Colonel Sweet Corn
A Valuable, New Introduction

	Height of stalk feet	Length of ear inches	Days from planting to canning
ASGROW GOLDEN COLONEL.....	7 to 8	7 to 7½	92
One of our newest developments ready for distribution from 1935 crop. The result of 10 years breeding in crossing White Country Gentleman and Golden Bantam. This new variety is identical in stalk and ear characteristics with regular Country Gentleman except for its golden color. The fine flavor and rich color of the Bantam parent has been retained. Stalks sturdy, often with two ears. Kernels very deep, narrow, tender, arranged irregularly without row formation. This variety is distinct from other yellow zig-zag types as it has a much larger, more attractive ear with typical Country Gentleman kernel pattern.			
GOLDEN BANTAM, IMPROVED	5½ to 6	6 to 6½	84
Our development introduced in 1922. A selection from the original strain of Golden Bantam resulting in a larger ear with more rows and greater productivity. Ears 10 to 14 rowed, uniform and attractive. Kernels golden yellow, medium wide, deep, sweet, and of fine flavor; remain tender longer than regular Golden Bantam. Particularly desirable for canners and market gardeners.			

SWEET CORN—Continued

	Height of stalk feet	Length of ear inches	Days from planting to canning
GOLDEN BANTAM	5 to 5½	6 to 6½	80
Introduced by W. Atlee Burpee Company. First developed and most widely known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed; kernels broad, with tender hull, sweet, and of exceptionally fine flavor. Used widely for home gardens, by truckers, and for canning.			
GOLDEN GIANT	7	6½ to 7	87
A mid-season yellow variety, the result of crossing Golden Bantam and Howling Mob; good for home and market garden planting; also used for canning. Ears rather thick at the butt, 12 to 16 rowed. Kernels golden yellow; of fair quality.			
WHIPPLE'S EARLY YELLOW	6½	7 to 7½	84
Deservedly popular as a large eared second early sort, for home and market garden; also used by canners. Stalks sturdy and erect; ears 12 to 14 rowed, strong husks, well filled at tips. Kernels golden yellow, fairly deep, sweet, and of good flavor.			

HYBRIDS AND TOP-CROSSES

White Varieties

COUNTRY GENTLEMAN HYBRID 19 x 9	8½ to 9	8	93
Our introduction in 1932 developed from crossing inbred lines Asgrow 19 x Asgrow 9. Particularly desirable for canners. Stalks sturdy, upright with ears 3½ to 4 feet from ground. Ears long, cylindrical, well filled at tip. Kernels very fine, of shoepeg type, deep, tender and of excellent quality.			
COUNTRY GENTLEMAN HYBRID 19 x 24	8 to 9	7½ to 8	93
Another Country Gentleman Hybrid of our breeding, introduced in 1932 has a somewhat thicker ear and larger kernel type than Hybrid 19 x 9. Well adapted for canners in areas of heavy, rich, soil in the Eastern States. Stalks erect with good foliage and strongly prolific. Ears medium long, slightly tapered, well filled at tip.			
CROSGREEN	6 to 7½	7 to 8	86
A hybrid line developed by crossing Early Crosby on Stowell's Evergreen. Uniform and fairly prolific. Good for canners and truckers in areas of medium length season. Stalks sturdy with heavy foliage. Ears quite large, slightly tapered, 14 to 16 rowed; kernels medium wide and deep, cream white; cob medium.			
NARROW GRAIN HYBRID	8	7½	94
Developed by crossing inbred lines Asgrow 26 x Asgrow 15. Very uniform and highly desirable for canning. Stalks sturdy, upright with no suckers; leaves wide, dark green. Ears cylindrical with 20 to 22 rows. Kernels white, medium narrow, deep, tender.			
REDGREEN	9	8 to 8½	95
Developed by Dr. D. F. Jones and introduced by the Connecticut Agricultural Experiment Station. A hybrid strain well adapted to canners' and truckers' uses in areas having medium length of season. On account of strong close-fitting husks it is somewhat resistant to ear worms. Stalks upstanding, frequently develop two ears; foliage reddish green. Ears cylindrical, slender, 12 rowed. Kernels very white, not as deep as Evergreen; cob small.			

SWEET CORN—Continued

Stowell's Evergreen Hybrid 14 x 5, Sweet Corn
Well filled, Uniform Ears Make for Heavy Production

	Height of stalk feet	Length of ear inches	Days from planting to canning
STOWELL'S EVERGREEN HYBRID 14 x 5	9	9 to 9½	96
Our development from crossing inbred lines Asgrow 14 x Asgrow 5. Received All-American Special Mention for 1934. Highly valuable to canners and market gardeners. Stalks sturdy with close growing upright ears, 4 feet from ground; foliage medium green. Ears slightly tapered, uniform, with 16 to 18 rows. Kernels white, medium wide, deep; medium cob.			
TOP-CROSS COUNTRY GENTLEMAN	8½ to 9	8	91
Developed from crossing mid-western grown open pollinated Country Gentleman and Inbred 440. Particularly adapted to middle western conditions. Its uniformity in maturity makes it desirable for whole kernel pack. Stalks erect with strong foliage; highly productive. Ears slightly tapered, well filled at tip. Kernels zig-zag, medium fine, deep, tender, of very good quality. Introduced in 1933.			

SWEET CORN—Continued

Yellow Varieties

	Height of stalk feet	Length of ear inches	Days from planting to canning
ASGROW GOLDEN CANNER	8	7½	94
A cross of two outstanding Asgrow inbred lines. Very uniform, vigorous, heavily productive and of excellent quality. Stalks sturdy, upright, free from suckers; leaves wide, deep green. Ears nearly cylindrical with 18 to 22 rows. Kernels deep, golden yellow, narrow, sweet and tender. Our development, ready in 1935.

Bantam Evergreen Hybrid Sweet Corn

BANTAM EVERGREEN HYBRID	8	8	89
Our own development from crossing inbred lines Asgrow 24 x Purdue 39. Particularly valuable to canners and gardeners. Stalks upright, sturdy, uniform; leaves wide, dark green. Ears cylindrical, 14 to 16 rowed. Kernels golden yellow, medium wide and deep, with tender hull, sweet and of excellent quality.			
TOP-CROSS GOLDEN SUNSHINE	6	7½	81
An early canning strain produced by crossing Golden Sunshine and Purdue 39; particularly productive for an early type. Highly resistant to Stewart's disease. Stalks sturdy with vigorous leaves. Ears 12 to 16 rowed, of good size and nearly cylindrical; color golden yellow, similar to Golden Cross Bantam. Kernels medium, tender, sweet. Desirable in areas having short growing season.			

SWEET CORN—Continued

Golden Cross Bantam Sweet Corn

An Excellent Illustration of the Striking Uniformity of Stalk and Ear Growth in Hybrid Stock

	Height of stalk feet	Length of ear inches	Days from planting to canning
GOLDEN CROSS BANTAM	6	7½ to 8	88
Developed by Glenn M. Smith and introduced jointly by the United States Department of Agriculture and Purdue University Agricultural Experiment Station. Well adapted to canners' use and excellent for market gardeners. It is replacing other main crop yellow varieties. Stalks sturdy, with exceptionally broad, vigorous leaves. Ears 10 to 14 rowed, slightly lighter yellow than Golden Bantam. Kernels medium in width and depth. The result of crossing Purdue 39 and Purdue 51. This hybrid is extremely uniform in plant and ear characteristics and in maturity; highly resistant to Stewart's disease.			
TOP-CROSS BANTAM	6	7 to 7½	86
Our introduction developed from crossing a drought resistant Golden Bantam and a prepotent inbred. Excellent for canning. Similar in plant characteristics to Golden Cross Bantam — not quite as uniform — but earlier and rated by some canners higher in quality. Stalks sturdy with vigorous leaves. Ears 10 to 12 rowed; color deep yellow, similar to Golden Bantam. Kernels medium, tender and sweet. Highly resistant to Stewart's disease and very productive.			

CUCUMBER

The breeding of new strains and improvement of standard varieties is carried on at our breeding grounds at Greeley, Colorado. Exceptional care is exercised in the isolation of plots to prevent hybridization. The number of days indicates the time required from planting of seed to develop fruits to first picking of slicers. The time should be reduced several days for small pickles. Our stocks of the pickling varieties are uniform, true to type and very prolific.

Culture — Sandy loam, well-manured is the best soil for cucumbers. Sow seed in June after all danger of frost. Some growers prefer to plant in drills 5 to 6 feet apart to be thinned later, others plant in hills 5 to 6 feet apart each way. 2 pounds of seed will plant an acre.

CUCUMBER—Continued

	Length of fruit inches	Diameter of fruit inches	Days from planting to picking
BOSTON PICKLING, b. s.	6 to 6½	2½	58
Similar to Green Prolific. Very early and prolific. An excellent pickling variety. Fruits weigh 1½ pounds; medium green, slightly tapered.			
CHICAGO PICKLING, b. s.	6½	2½	59
A widely used pickling variety. Uniform and attractive; also good for slicing. Fruits medium green, square ended; very prolific.

National Association Pickling Cucumber

Noted for its Uniform, Firm, Solid Fruits

DAVIS BLEND b. s.	6	6½	57
A desirable pickling strain recently developed for the use of Pickle Packers. At full maturity the fruits weigh 1½ lbs.; deep green, squarish ended, uniform, productive. Resembles National Association Pickling.			
JERSEY PICKLING, b. s.	6 to 8	2 to 2½	63
A standard pickling variety. Fruits weigh 1½ pounds; medium green, tapered at both ends; uniform and slender.			
NATIONAL ASSOCIATION PICKLING, b. s.	6	2½	56
A highly desirable pickling strain developed at the Michigan Agricultural College in collaboration with the National Pickle Packers' Association. Full grown fruits weigh 1½ pounds; dark green, symmetrical, square ended; solid with thick wall structure. Resembles Snow's Perfection.			
SNOW'S PERFECTION PICKLING b. s.	5½ to 6	2½	56
A somewhat smaller sort than Chicago Pickling. Early, prolific and rightly popular. Fruits weigh 1½ pounds; deep green, strictly square ended, uniform and attractive. A widely used pickling sort.			
WEST INDIA GHERKIN	2	1	60
Native of Jamaica, distinct from Cucumber, used for very small pickles. Fruits weigh 3 to 4 ounces; pale green, covered with prickly spines; oval and uniform.			

DANDELION

Native of Europe

Culture — Mellow, well-fertilized loam produces the most satisfactory results. Sow seed in April in rows 14 to 16 inches apart and plants can be cut in late fall and in following spring. Only occasional cultivation is necessary. 5 to 6 pounds of seed will plant an acre.

ARLINGTON THICK LEAVED OR FRENCH BROAD LEAVED

A highly desirable variety; plant rather upright; forms a rosette of large, broad leaves 20 inches across. Leaves are thick, easily blanched. Used by gardeners and for canning Dandelion greens.

DILL

Native of Southern Europe

Culture — Sow seed $\frac{1}{2}$ to $\frac{3}{4}$ inch deep in well pulverized soil in rows 24 to 36 inches apart. 5 pounds of seed are required to plant an acre.

LONG ISLAND MAMMOTH

Plant 2 to 2½ feet high, with finely cut leaves; resembles Fennel. Seeds very flat, have strong, bitter flavor. Used for flavoring pickles or as a condiment.

MUSTARD

Native of Europe

Used extensively for greens in the South and for canning greens.

Culture — Sow seed in spring to mid-summer in mellow loam in rows 12 to 18 inches apart. Cultivate frequently when plants are well above ground to insure rapid growth. 5 pounds of seed will plant an acre.

FORDHOOK FANCY OR OSTRICH PLUME

A handsome, upright growing, mild variety, slow to bolt seed stalks; leaves bright green, plume-like, and deeply fringed on the edges; excellent for salads; seed reddish brown.

SOUTHERN GIANT CURLED

The best known and most popular sort for greens. Leaves long and wide, light green, tinged with yellow, heavily crumpled and curled at the edges. Seed small, reddish brown. Used widely in the South.

MUSTARD SPINACH OR TENDERGREEN

A quick growing type of Oriental origin, particularly desirable for the South. Leaves oblong, broad, fairly smooth, with light green center ribs; slow to seed, resistant to heat and drought; combines flavors of mustard and spinach.

OKRA OR GUMBO

Okra, native of South America, thrives best in warm climates, and is well adapted to the Southern States.

Culture — Sow the seed in warm sandy loam soil in rows about 2 feet apart. When plants are well above ground thin to 9 inches apart. Frequent cultivating and hoeing are essential for best results. Pods should be picked when quite green, and 2 to 2½ inches long. 8 to 10 pounds of seed are required to plant an acre.

	Height of plant feet
PERKINS' MAMMOTH	3½ to 4½
A medium early, productive sort. Pods bright, deep green, 7 to 8 inches long; slender, meaty, pointed, and ribbed. A valuable market and canning variety.	
WHITE VELVET	3 to 3½
Plants early, prolific; pods ivory white, 6 to 7 inches long, meaty, tender; smooth, and pointed, excellent for home garden and canning.	

ONION

The Onion Plant is Native of Western Asia

Culture — Rich, deep, sandy loam and muck land are good for onion production. Frequent cultivation and hand weeding are necessary. Sow seed in April or May. 4 to 5 pounds per acre in drills 12 to 15 inches apart.

	Days from planting to marketable bulbs
WHITE PORTUGAL OR SILVERSKIN	100 to 102
The most widely used white onion. It might be called an all-purpose variety, as it is excellent for sets, as a pickler, for green bunching, and for storage. Bulbs medium sized, thick-flat, clear white, hard, fine grained, and of pleasing flavor. It is a dependable cropper.	
WHITE QUEEN	90 to 92
Valuable for early market and pickling, and sometimes used for bunching and for sets. Bulbs small, flat, clear white, firm and mild.

Pea Breeding Grounds where Progeny Performance
is Studied and Recorded

PEAS

Native, it is believed, of Western Asia

By breeding pedigreed stocks through generations of pure-line cultures, we are continually improving existing leading varieties of peas. This intensive process, supported by careful inspection and checking of field crops, produces exceptionally high grade stocks. In addition to maintaining standard varieties, new strains are developed by means of hybridization and selection, which enable us to combine desirable plant characters such as disease resistance, productiveness, and quality of two or more parents in new and more useful introductions.

We have indicated in the number of days from planting to canning, average results under normal rainfall conditions. These figures will be of assistance in comparing the relative earliness or lateness of the various varieties when planted in any locality.

Culture — Peas are grown successfully on various types of well drained, non-acid, mellow soils but deep fertile loam with some clay mixture is best under rainfall conditions. In western areas, under irrigation, lava ash and less with good humus content produce the most satisfactory crops. Fall plowing is recommended, also application of lime where needed. Sow seed broadcast with grain drill as soon as land can be properly worked in the spring. When commercial fertilizer is used, direct contact between seed and fertilizer should be avoided. 3½ to 4½ bushels are required to plant an acre.

PEAS—Continued

Smooth Seeded Varieties

Height of vine inches	Length of pod inches	Days from planting to canning
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ALASKA	30	3	60
Used very extensively for canning; also by market gardeners for a first early variety. Vines slender, light green. Pods single, blunt, light green, round, straight, contain 6 to 8 peas of fair quality. Canned peas, round, medium-light green; sieve sizes 1 to 4, largely 3. Seeds small, round, smooth, bluish green. Crop matures evenly. Our strain, the first pure-line, pedigreed stock of this variety ever developed, is noted for its pod size and productivity.			
ALCROSS	26 to 30	2½	60
Developed by Prof. E.J. Delwiche and introduced by the Wisconsin Agricultural Experiment Station. A pure-line strain, partially resistant to Fusarium wilt, bred from Alaska for canners' use. Vines slender, light green, uniform in growth and maturity. Pods single, blunt, light green, round, straight, contain 6 to 7 peas of fair quality. Canned peas, round, medium-light green; sieve sizes 1 to 4. Seeds small, round, smooth, bluish green.			
ASGROW ALASKA	32	3	60
Fully resistant to Fusarium wilt. For canners' use in planting wilt infested areas. A development from our pure-line strain of pedigreed Alaska with the same cropping habit and evenness in maturity but with slightly larger vine. The 3 inch, round, plump pods contain 6 to 8 peas of fair quality. Canned peas, round, medium-light green; sieve sizes 1 to 4, largely 3.

First Generation Asgrow Alaska Peas

PEAS—Continued

	Height of vine inches	Length of pod inches	Days from planting to canning
HORAL	22	2	73
The result of crossing Horsford's Market Garden and Alaska it is characterized by considerable resistance to root-rot; exclusively a canning variety. Vines dark green, medium-stocky with short joints. Pods double, blunt, light green, straight, contain 7 to 9 small peas of very mediocre quality. Canned peas, round, light green; sieve sizes 1 to 4, largely 2 and 3. Seeds very small, green, wrinkled.			
WINNER	24	2	60
Developed and introduced by Rogers Bros. Seed Company. An early canning variety, used where small sizes are desired. Vines light. Pods single, narrow, light green, blunt, straight; contain 6 to 7 peas of fair quality. Canned peas, round, medium-light green; sieve sizes 1 to 3, largely 3. Seeds small, deeply dimpled or semi-wrinkled, light green.			

Wrinkled Seeded Varieties

ADVANCER	26	3¼	68
An older standard second early variety for canning, now largely replaced by Perfection; prolific, and of good quality. Vines dark green, stocky. Pods single and double, light green, blunt, plump; contain 6 to 7 peas of good quality. Canned peas, semi-round, medium green; sieve sizes 1 to 5, largely 3 and 4. Seeds wrinkled, medium light green.			
ALDERMAN OR TELEPHONE	40	4½ to 5½	74
A handsome large podded variety of the Telephone family. Excellent for home garden, for truckers, for shipping to distant markets, for canning large, luscious peas garden run style and for freezing; resistant to Fusarium wilt. Vines dark green, coarse. Pods single, very broad, plump, straight, dark green, pointed; contain 8 to 10 peas of highest quality. Canned peas, oblong, dark green; sieve sizes 3 to 7, and a few larger. Seeds large, wrinkled, light green. This variety can well be considered the standard of high quality.

A 250 Acre Field of Pure-Line Peas
Progenies are here Multiplied to Produce Parent Stocks for Volume Increase

PEAS—Continued

	Height of vine inches	Length of pod inches	Days from planting to canning
CANNER'S GEM	24	2¾	65
Can be classed in type between Premium Gem and Advancer, running more to single pods than the latter variety. Primarily for canners, it reaches canning stage half way between Alaska and Perfection. Vines dark green. Pods single and double, light green, blunt, straight; contain 6 to 7 peas of good quality. Canned peas, semi-round, medium green; sieve sizes 1 to 5, largely 3 and 4. Seeds medium, wrinkled, light green.			
CHARLES THE FIRST	32 to 34	3 to 3½	75
A main season canning variety following Perfection. Vines deep green, stocky, prolific. Pods single and double, pointed, curved, medium green; contain 7 to 9 peas of very good flavor. Canned peas, semi-round, medium green; sieve sizes 1 to 6, largely 3 and 4. Seeds wrinkled, medium green. About 80 per cent. resistant to Fusarium wilt.			
EARLY PERFECTION	28	3¼	66
Our own origination and introduction; a pure-line stock bred to mature 4 to 5 days in advance of regular Perfection strains. Particularly valuable to canners in giving them a desirable sweet wrinkled pea maturing between Surprise and Perfection. Vines dark green, thrifty. Pods single and double, blunt, light green, plump; contain 7 to 8 peas of good quality. Canned peas, semi-round, medium green; sieve sizes 1 to 6. Seeds medium sized, green, wrinkled.			
EVERBEARING	32	3	76
Used by canners in packing large size, ungraded peas; fully resistant to Fusarium wilt. Vines dark green, thick, coarse and branching. Pods double, light green, plump, blunt, straight; contain 4 to 5 large peas of good flavor. Canned peas, oblong, medium green; sieve sizes 3 to 7, and a few larger. Seeds very large, light green, flat, wrinkled.			
GREEN ADMIRAL	36 to 40	2¾ to 3	69
Developed and introduced by Rogers Bros. Seed Company. A dependable cropping variety for canners. Resistant to Fusarium wilt. Vines dark green, slender. Pods single, blunt, straight, plump and well filled, medium green; contain 6 to 8 medium small peas of uniform size. Canned peas, oblong, light green; sieve sizes 1 to 5, largely 2 and 3. Seeds small, very green wrinkled.			
HORSFORD'S MARKET GARDEN	28 to 30	3	76
Principally a canning variety, but sometimes planted in home gardens; very productive. Vines dark green, thick stemmed, and branching. Pods double, light green, plump, blunt, straight; contain 6 to 7 uniform peas of fair quality. Canned peas, semi-round, medium green; sieve sizes 1 to 5, largely 3, 4 and 5. Seeds medium sized, green, wrinkled.			
NUMBER 13	35	3¼	79
Introduced by Jerome B. Rice Seed Co. A late canning variety of good quality, and productive. Vines deep green, medium, stocky. Pods single and double, pointed, curved, medium green; contain 7 to 8 peas of good quality. Canned peas, semi-round, medium green; sieve sizes 1 to 6, largely 2, 3 and 4. Seeds wrinkled, medium green.			
PERFECTION	28 to 30	3½	70
An outstanding mid-season canning variety. Our Long Pod strain is a leader in pod size and productivity. Vines medium green, stocky. Pods single and double, medium green, blunt, slightly curved; contain 7 to 9 peas of good quality. Canned peas, semi-round, medium green; sieve sizes 1 to 6, largely 3, 4 and 5. Seeds wrinkled, green, medium sized.			

PEAS—Continued

	Height of vine inches	Length of pod inches	Days from planting to canning
WILT RESISTANT PERFECTION	28 to 30	3½	70

This recent important addition to the list of varieties fully resistant to Fusarium wilt was bred in its earliest stages by the Wisconsin Agricultural Experiment Station. It is similar in concentration of pod development, productivity and canning quality to our well-known strain of Perfection. This resistant Perfection permits the use on partially or wholly wilt-infested soils of this widely used variety without sacrificing yield or quality. Vines medium green, stocky. Pods single and double, medium green, blunt, slightly curved, contain 7 to 9 peas of good quality. Canned peas, semi-round, medium green; sieve sizes 1 to 6, largely 3, 4 and 5. Seeds wrinkled, green, of medium size.

Wilt Resistant Perfection Peas
A Highly Important New Introduction

PEAS—Continued

	Height of vine inches	Length of pod inches	Days from planting to canning
ONWARD	27	4	74
A medium late variety of recent introduction, very fine in quality and of strong productivity; good for gardeners and for canning where large size, tender peas are desired. Vines medium light green with heavy stem and foliage. Pods single and double, $\frac{3}{4}$ inch wide, medium green, blunt, straight, attractive; contain 6 to 8 large, succulent peas. Canned peas, oblong, dark green; sieve sizes 3 to 7. Seeds large, green, wrinkled.			
PREMIUM GEM, WILT RESISTANT	20 to 22	2 $\frac{3}{4}$	64
A new development fully resistant to Fusarium wilt. Used for home gardens and by some canners. Vines dark green, medium, productive. Pods single and double, light green, round, straight, blunt; contain 6 to 7 peas of good quality. Canned peas, oblong, medium green; sieve sizes 1 to 5, largely 3 and 4. Seeds wrinkled, green, medium sized. Our introduction in 1935.			
PRINCE OF WALES	40	3 $\frac{1}{2}$	74
A desirable sort for canning large sized garden run peas; also good for home garden use; resistant to Fusarium wilt. Vines medium green, coarse. Pods single and double, light green, blunt; contain 4 to 6 large peas. Canned peas, oblong, medium green; sieve sizes 3 to 7, and a few larger. Seeds large, wrinkled, cream and green.			
PROFUSION	42	3 $\frac{1}{2}$	75
A medium late sort for canning and home garden use; resistant to Fusarium wilt. Vines medium green, with stout stem. Pods single and paired, light green, plump, straight, blunt; contain 5 to 6 large peas of good quality. Canned peas, oblong, medium green; sieve sizes 3 to 7, and a few larger. Seeds large, wrinkled, cream and green.			
SENATOR	35	4	71
A productive medium late sort, for home garden and canning; resistant to Fusarium wilt. Vines stout, medium green. Pods single and paired, curved, pointed, plump, medium green; contain 6 to 8 large peas of good quality. Canned peas, oval, medium green; sieve sizes 3 to 7. Seeds moderately wrinkled, cream and green, medium sized.			
STRATAGEM, IMPROVED	26	4 $\frac{1}{2}$	79
Our improved strains of Stratagem and Potlatch are identical. A superior late variety for home and market garden, for canning and freezing, and for shipping to distant markets; resistant to Fusarium wilt. Vines deep green, stocky, and branching. Pods single and paired, $\frac{7}{8}$ inch wide, nearly round, straight, pointed, dark green; contain 8 to 10 tender, succulent peas. Canned peas, oblong, dark green; sieve sizes 3 to 7, and a few larger. Seeds large, wrinkled, green.			
SURPRISE	28 to 30	2 $\frac{3}{4}$ to 3	61
A popular early canning sort of first quality. Vines medium green, slender. Pods single, light green, plump, blunt; contain 6 to 8 peas. Canned peas, round, light green; sieve sizes 1 to 5, largely 2 to 5, also excellent when ungraded. Seeds small, wrinkled, green. This variety excels in tenderness of skin and sweetness of flavor. Our long podded pure-line is outstanding.			
WISCONSIN EARLY SWEET	26 to 30	2 $\frac{1}{2}$ to 2 $\frac{3}{4}$	61
Originated by Prof. E.J. Delwiche, and introduced by the Wisconsin Agricultural Experiment Station in 1932. An early, sweet, canning variety, similar to Surprise, resistant to Fusarium wilt, and of fine quality. Vines medium green, slender. Pods single, light green, plump, blunt; contain 6 to 7 peas. Canned peas, round, light green; sieve sizes 1 to 5, largely 2, 3 and 4. Seeds medium small, wrinkled, green. This new introduction has tenderness of skin, firmness and fine flavor, and is popular with canners.

Thomas Laxton Peas
Well Known for High Quality

PEAS—Continued

	Height of vine inches	Length of pod inches	Days from planting to canning
THOMAS LAXTON	30 to 36	3½ to 3¾	63
A popular, medium early variety, for home and market garden, also for canners. Vine medium green and medium heavy. Pods single, medium green, plump, broad, blunt; contain 7 to 8 large, tender peas of excellent quality. Canned peas, semi-round, olive green; sieve sizes 3 to 7. Seeds medium size, cream and green, wrinkled.			
YELLOW ADMIRAL	36 to 40	2¾ to 3	69
A productive canning variety, resistant to Fusarium wilt. Vines dark green, medium stem. Pods single, light green, straight, plump, blunt; contain 6 to 8 medium sized uniform peas. Canned peas, oblong, light green; sieve sizes 1 to 5, largely 2, 3 and 4. Seeds square, creamy yellow, wrinkled.			
YORKSHIRE HERO	28	3	75
A medium late sort, desirable for home garden, and for canning; resistant to Fusarium wilt. Vines dark green, stocky, and branching. Pods double, medium green, blunt, straight, plump; contain 5 to 6 large sweet peas of good quality. Canned peas, oblong, medium green; sieve sizes 3 to 7 and a few larger. Seeds large, flat, green, wrinkled.			

PEPPER

Native of South America, the pepper has come to be an important vegetable in the United States.

Culture — Peppers do best on sandy loam soil. Sow seed in hotbeds in February or March and transplant to field as soon as plants are ready and soil thoroughly warm. Plants should be set 18 inches apart in the row with 24 to 30 inches between rows. One ounce of seed will produce 1000 plants; 2 to 3 ounces required per acre.

PEPPER—Continued

	Length inches	Diameter inches	Days from setting of plants to picking
ANAHEIM CHILI	6 to 7	1	80
A hot, late variety, planted largely in the South and in California. Used for home and market garden, and for canning and drying. Fruits tapering, deep green, changing to bright scarlet at maturity.			
CALIFORNIA WONDER	4½	4	75
An outstanding medium late variety for market garden, shipping and canning. Plants vigorous, upright, prolific. Fruits 4-lobed, chunky; very attractive, smooth, uniform, and deep green, changing to bright crimson; flesh thicker than any other variety, sweet and mild.			
HUNGARIAN YELLOW WAX	5½ to 6½	6	65
A first early, hot sort, valuable for market gardeners and canners. Plants dwarf and prolific. Fruits medium slender, tapering, smooth and very pungent. Color waxy yellow changing to bright crimson at maturity.			
LONG RED CAYENNE	5	¾	70
A favorite hot variety, used largely for canning, and in pickles; also for drying. Plants large and productive. Fruits tapering, frequently twisted; very pungent; deep green changing to brilliant red.			
PIMIENTO	3½	2½	73
Also known as Perfection. Pre-eminently a canning variety; good also for home and market garden planting. Plants large, erect, prolific. Fruits heart-shaped, very smooth; color dark green, changing to bright crimson at maturity; flesh exceptionally thick, sweet and mild.			
RED CHERRY	1	1	82
Popular for use in pickles. Plants vigorous, upright, prolific. Fruits round, smooth, solid, exceedingly pungent; color deep green changing to deep scarlet.			
RED CHILI	2½	½	82
Plants of low spreading growth, 18 inches tall, very productive. Fruits erect, conical, extremely pungent; color, yellowish green, changing to deep red; used in making pepper sauce.			
TABASCO	1	¾	90 to 95
A very late, extremely hot variety, used in pickles and pepper sauce. Plants large and spreading. Fruits small, tapering, smooth; color greenish yellow, turning to scarlet red.			

PUMPKIN

Native of America

Culture — Pumpkins thrive on sandy loam and clay soil. Sow seed in May in hills 6 to 8 feet apart each way. Likewise pumpkins are grown successfully by planting sparingly in corn fields. 3 to 4 pounds of seed will plant an acre.

	Depth inches	Dia- meter inches	Days from planting to canning
CONNECTICUT FIELD	10 to 14	12 to 15	120
Extensively grown for making pies, for canning, and for stock feed; usually planted in corn fields. Fruits large, flattened at the ends, weigh 15 to 25 pounds. Surface hard, smooth, somewhat ribbed; deep orange in color; flesh thick, orange-yellow, coarse and sweet.			

PUMPKIN—Continued

	Depth inches	Dia- meter inches	Days from planting to canning
JAPANESE PIE Resembles the Cushaws in shape, but earlier and large. Skin dark green, with lighter green stripes. Flesh deep yellow, and of good quality. Weight 12 pounds. Seeds have markings resembling Japanese characters. Valuable for canning and stock feed.	12	8	115
KENTUCKY FIELD Widely used for canning, and for stock feed, particularly through the South. Fruits large, slightly ribbed, not fixed in shape, some being flat, others globular and elongated; weigh 10 to 15 pounds; color dull orange; flesh deep yellow, coarse, and of good flavor.		12 to 14	120
LARGE CHEESE Our pedigreed strain, exceptionally early and uniform, is particularly valuable to market gardeners and canners. Fruits very flat, weigh 10 pounds, slightly ribbed, cream colored; flesh very thick, orange-yellow, and of fine quality.	6 to 8	12	108
SMALL SUGAR OR NEW ENGLAND PIE Standard for general use, and particularly desirable for pies. Fruits round, flattened at ends, weigh 6 to 8 pounds; skin hard, smooth, somewhat ribbed, deep orange; flesh thick, sweet, orange-yellow and of high quality. Used also for canning.	8	10	118

Connecticut Field Pumpkin

RHUBARB
Native of Mongolia

Culture — Sow seed in the spring an inch deep in rows 10 to 12 inches apart and later thin to 4 to 6 inches between plants. Transplant to well-manured field in the fall, in rows 4 to 5 feet apart with plants 3 to 4 feet apart. The crowns of the roots should be set 2 inches below the surface of the soil. In transplanting, it is necessary to discard undesirable plants as all do not come true from seed. Blossom stalks should be cut back to the ground when they appear. It requires 3 pounds of seed to plant an acre.

RHUBARB—Continued

LINNEAUS

A second early variety with thick, long stalks, reddish in color, and of fine flavor. Used by gardeners and for canning.

VICTORIA

A main crop sort, vigorous in growth, with upstanding, thick, red stalks of excellent quality. Used by gardeners and for canning.

SPINACH

The time from planting to cutting of marketable plants varies considerably with the season of the year in which sowings are made. The accompanying schedule applies to spring planting in the Northern States. Spinach was developed from a wild plant in Western Asia.

Culture — For best results, spinach requires a large amount of humus in the soil. Sowings can be made in March and April for early summer harvest and in August and September for fall crop. Plant seed in rows 16 to 20 inches apart. 10 to 12 pounds of seed will sow an acre.

Days from sowing to cutting

BLIGHT RESISTANT SAVOY (VIRGINIA SAVOY)..... 39

A savoy-leaved sort, bred at the Virginia Experiment Station for blight resistance. Upstanding, vigorous plants, seeding rather early; highly desirable for planting in infested soil.

BLOOMSDALE SAVOY, LONG STANDING 42

Only a few days later than the regular Bloomsdale Savoy, it holds twelve to fourteen days longer before throwing seed stalks. Plants are very uniform and sturdy, with very attractive, highly crumpled and blistered dark green leaves. Exceptionally valuable for home and market gardens, for canning and for shipping from the extreme South.

GIANT NOBEL OR GIANT THICK LEAVED..... 45

A recent European introduction of high merit. Very valuable for market gardens and canning. Plants large, vigorous, and spreading. It is slow to form seed stalks, and an extremely heavy yielder. Leaves very large, thick, smooth, pointed, with rounded tip; deep green, tender. The best of the Giant Thick Leaved sorts.

Giant Nobel or Giant Thick Leaved Spinach

A Comparatively Recent Introduction of Fine Quality

SPINACH—Continued

	Days from sowing to cutting
JULIANA	48
A splendid, second early, long standing sort, for home gardens, shipping, and canning. Plants compact and dense, growing close to the ground. Leaves rounded, with short stems; thick, crumpled, very dark green; slow in producing seed stalks.	
KING OF DENMARK	46
An exceptionally long standing sort, highly desirable for canning, and for market gardens. The large, spreading plants carry broad, rounded, very dark green leaves, which are somewhat crumpled. Excellent for spring planting, as seed stalks are slow in forming.	
PRICKLY WINTER	43
A late, prickly seeded, long standing canning sort, used extensively on the Pacific Coast for fall planting. Plants large, upstanding, and vigorous. Leaves arrow-shaped, thick, medium dark green.	
PRICKLY WINTER, DARK GREEN OR HOLLANDIA	43
More attractive and productive than the regular strain, it is highly desirable for canners and market gardeners. The leaves are large, broad, arrow-shaped, and very dark green. Used extensively in California.	
ROUND THICK LEAF	42
Standard for home and market gardens and good for canning. Plants upright, hardy, and vigorous. Leaves arrow-shaped with blunt points; large, broad, light green, crumpled. Is an excellent sort to follow Savoy in season.	
VIROFLAY	45
An extremely large mid-season, vigorous growing variety, with long, broad, pointed, thick, smooth leaves, of deep green color. Excellent for canners, home gardens, and for truckers.	

SQUASH

Native of America

Of all the vegetables, squashes exhibit the greatest range in plant and fruit characters and hybridize most readily under average field conditions. Consequently they are given special care and attention on our breeding grounds in Colorado, California and Connecticut. Pedigreed lines are established by covering the flowers with bags to control pollination. Increase blocks are grown in fields well-isolated from any other squash variety. The number of days indicates the time from planting of seed to mature fruits. The measurements apply to fully grown fruits at canning stage.

Culture — Squashes require, practically the same soil conditions as pumpkins. Sow seed after warm weather is assured in hills 6 to 8 feet apart each way. 3 pounds of seed will plant an acre.

	Depth inches	Dia-meter inches	Days from planting to canning
BOSTON MARROW	12	9	97
A very productive, late fall variety, extensively used for canning. Resembling Hubbard in size and shape, the fruits weigh 6 to 8 pounds. The deep orange skin is somewhat rough, and quite hard; flesh is yellow, thick, and firm. Vines of trailing type.			
GOLDEN DELICIOUS MARROW	10 to 12	8	100
Highly desirable for canning, on account of its extremely dry flesh. Vines of trailing type. Fruits top-shaped, weigh 7 pounds. Color bright reddish orange, with deep green tip at blossom end. Flesh thick, medium grained, golden orange, sweet and dry. Excellent for home use.			

SQUASH—Continued

	Depth inches	Dia- meter inches	Days from planting to canning
GOLDEN DELICIOUS X BOSTON MARROW	10 to 12	8-9	100
By crossing Golden Delicious Marrow on Boston Marrow and selecting from the progenies through a period of years, we have produced a strain that has a uniform deep orange color and excellent canning consistency. Vines are of trailing type. Fruits weigh 6 to 8 pounds; flesh thick, medium grained, golden orange, sweet, of fine flavor.			
GOLDEN HUBBARD	11	8	100
Similar to Green Hubbard, but earlier, smaller, and more prolific. Popular with home and market gardeners and canners. Fruits somewhat pointed at each end, weigh 8 to 10 pounds, moderately warted, orange-red, with faint cream colored stripes toward blossom end; flesh deep orange, dry, and of fine quality; it keeps well.

Golden Delicious Squash
Noted for its Dry, Sweet, Golden Flesh

TOMATO

Native of South America, and formerly called Love Apple

New varieties and new strains are being developed at our Milford, Connecticut, seed farms, and older varieties improved through individual cultures produced under expert direction. Disease resistance, attractiveness of color, thickness of walls, and heavy cropping qualities, have been attained to a high degree. The number of days indicated represents the time required from setting of plants to produce fruits ripe for canning. It takes 5 to 6 weeks to produce plants for field setting.

TOMATO—Continued

Culture — Tomatoes thrive on various types of well-enriched soils but strong sandy loam is preferable. Sow seed in hotbeds in March and April and transplant to field in June when danger of frost is past. Set plants 3 to 4 feet apart in the row with 4 to 5 feet between rows. One ounce of seed will produce about 2500 plants; 2 to 3 ounces will plant an acre. In localities where seed is sown in the field without transplanting, 1 to 2 pounds are required per acre.

Early Varieties

	Days from setting plants to canning
ASGROW SCARLET DAWN	70
Our development introduced in 1934. Received All-American Gold Medal Award for 1935. A cross of Clark's Early and Marglobe, earlier in season than either parent. Vine of medium growth, fairly open, very prolific. Fruits medium large, globular with thick wall structure, smooth, free from flat sides, bright scarlet ripening well to the stem, exceptionally attractive. Highly desirable for home garden and shipping; also for early canning.	
BONNY BEST	74
Standard second-early variety, valuable for canners, market gardeners and shippers. Vine medium, not very hardy. Fruits medium sized, apple-shaped, smooth, solid, bright scarlet in color, of excellent quality.	
BREAK O'DAY	70
Originated by the late Dr. F. J. Pritchard, of the United States Department of Agriculture, in 1930. A cross of Marglobe and Marvana, resistant to Wilt and Nail-head rust. Plant light, of open, spreading habit, with medium foliage; early and very prolific. Fruits medium large, orange-red, uniform, globe-shaped, smooth; walls not as thick as in Marglobe. The yellow cast in color, and light vine growth are drawbacks to this variety.	
CHALK'S EARLY JEWEL	75
A second early sort for home gardeners and truckers, also good for canning in the North. Plant medium, with open growth; prolific. Fruits medium large, smooth, scarlet, flattened globe-shaped.	
CLARK'S EARLY	72
Our origination introduced in 1919. A medium early variety extensively used in the extreme South for green wrapping and shipping. Vine of medium growth, open, very prolific. Fruits medium large, globe-shaped, bright scarlet, smooth, solid, with thick walls. An excellent early variety for canning.	
JOHN BAER	70
An early sort maturing between Earliana and Bonny Best. Excellent for gardeners serving local markets and for canning. Vine of medium height and open growth. Fruits medium sized, semi-globular, very attractive bright scarlet-red, smooth and quite firm. We have an exceptionally early strain.	
MONUMENTAL	74
A medium early variety used in some sections of the West and South for canning and for shipping. Vine of medium growth, somewhat open, quite prolific. Fruits medium large, deep-flat, scarlet, solid.	

Main Crop Varieties

GREATER BALTIMORE, IMPROVED	82
Our improved strain is particularly desirable, as it is earlier and deeper than most stocks. Vine large and medium heavy. Fruits large, thick-flat, smooth, deep red, solid and attractive. Used extensively for canning and by market gardeners.	

TOMATO—Continued

Clark's Special B Tomato
An Excellent Main Crop Canning Variety

	Days from setting plants to canning
CLARK'S SPECIAL B.....	81
A pedigreed stock developed by ourselves as a main crop canning variety. Plant vigorous, somewhat open, prolific. Fruits large, deep-flat, bright red, quite free from cracks, solid; interior color deep red; small seed cells. Resembles Indiana Baltimore, but deeper and somewhat smoother.	
INDIANA BALTIMORE	83
A strain of Greater Baltimore well-adapted to mid-western cropping conditions. Vine large, vigorous, somewhat open. Fruits flat but thick, deep scarlet, medium large, solid and firm. Highly desirable for canners and market gardeners.	
MARGLOBE	79
Recently introduced by the United States Department of Agriculture, this main crop variety has come into wide use by truckers and shippers, and in some sections by canners. Plant vigorous, with heavy foliage, resistant to Wilt and Nail-head rust; moderately productive. Fruits medium large, nearly globular, smooth, solid, with thick walls and cross-sections; of fine quality.	
MATCHLESS	83
A reliable mid-season sort, well-adapted to canning. Plant heavy in growth, erect, strongly productive. Fruits large, thick-flat, quite smooth, bright cardinal-red.	

TOMATO—Continued

Days from setting
plants to canning

CLARK'S SPECIAL C.....
Our introduction developed particularly for canners' use. Resembles Stone, but is more uniform, and ripe fruits quite free from green collar about the stem. Vine heavy, vigorous, and prolific. Fruits very large, deep scarlet-red, globe-shaped, flattened; very smooth and solid. Follows Clark's Special B in season.

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Marglobe Tomato

NORTON WILT RESISTANT
A wilt resistant variety, similar to Stone, introduced some years ago by the United States Department of Agriculture. Plant medium heavy and productive. Fruits large, flattened globe-shape, deep cardinal-red; solid, and of excellent quality. Good for canning and for shipping.

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PRITCHARD OR SCARLET TOPPER
A scarlet, self-topping, disease-resistant variety originated by the late Dr. F. J. Pritchard, of the United States Department of Agriculture, in 1931. It is a cross between Marglobe and Cooper's Special, and has inherited fine qualities from each parent; heavily productive. Fruits large, smooth, globular, solid, with thick walls and cross-sections; color light scarlet, not as intense as could be desired. Valuable for market garden use, for long distance shipping, and for canning.

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TOMATO—Continued

Days from setting
plants to canning
86

STONE, IMPROVED

A medium late variety, deservedly popular with canners and market gardeners; our strain ripens evenly, and is uniform. Vine large, dense, very productive. Fruits large, flattened, but deep, smooth, attractive scarlet-red, of fine flavor.

Tomato Plant Beds at our Milford, Connecticut Breeding Grounds

TURNIP

Native of Europe or Western Asia

The number of days represents the time required, from sowing of seed, to produce roots of marketable or storage size, at our Milford, Connecticut, breeding farm. Our purebred stocks of the leading varieties are standards of quality.

Culture — Seed should be sown in July or early August for main crop. Drill in rows 2 feet apart and thin to 6 to 8 inches between plants. Highly desirable to make sowings just before rain to insure rapid growth at the start. On clean, strong land it is possible to sow the seed broadcast and get satisfactory results. It requires 2 pounds of seed to an acre.

	Diameter inches	Days from planting to harvest
PURPLE TOP WHITE GLOBE	4 to 6	55 to 60

An all-purpose variety, extensively used for home and market gardens, and for shipping; also for canning mixed vegetables. Our purebred strain is noted for its uniformity and productivity. Tops dark green, large, erect, strap leaved. Roots large, globe-shaped, very smooth, upper part purple-red, white below; flesh white, sweet, crisp and tender.

TURNIP—Continued

Purple Top White Globe Turnip
A Pedigreed, Highly Productive Stock

SEVEN TOP

A very hardy sort, grown principally for greens, and also for forage. Popular throughout the South. The young shoots are very tender. Used for canning turnip greens. Roots are tough and undesirable for food.

SHOGIN OR JAPANESE FOLIAGE

A rather recent introduction to America, already widely used in the South. Tops 18 to 20 inches tall, erect, bright green, strap leaved. Roots semi-globular, white throughout, mild and tender. Used for canning turnip greens.

RUTABAGA OR SWEDE TURNIP

A Turnip-rooted Member of the Cabbage Family

	Diameter inches	Days from planting to harvest
AMERICAN PURPLE TOP	5 to 7	88
Our Connecticut grown strain is noted for its uniformity of shape, and heavy yielding quality. A dependable variety for storage and shipping and for use in canning mixed vegetables. Roots large, round, with small neck and slight tap root; yellow with purple top; flesh light yellow, firm, sweet and tender.

Soil Test of Peas Showing Typical Seedling Development

SEED TESTING

Asgrow Seeds are Tested in Terms of Field Performance

Our reason for testing seeds for germination is to determine their ability to develop into normal plants under favorable field conditions. We have found that the only reliable method of determining the germination percentage of seeds in terms of field performance is to make actual growing tests in soil. This method permits our seed analysts to evaluate the plant producing ability of our seeds by observing completely developed seedlings and also to interpret germinator tests in terms of soil tests. A greenhouse and several controlled germinating rooms are used to make soil tests where growing conditions are properly regulated to allow the developing plants to continue long enough to show whether the seedlings are capable of continued growth.

Greenhouse Tests showing Typical Development of
Country Gentleman Sweet Corn Seedlings

PRINCIPAL BREEDING GROUNDS

180 Acres of Increase Blocks of Progeny Lines of Peas

HAMILTON, MONTANA

Intensive pea breeding operations are conducted on 300 acres at this location. Many individual plant selections are made each year, and from these a few of the very best progenies are saved. These are carefully reproduced for five or six generations in well isolated fields, to guard against mixtures of any kind. Also, new varieties are developed by means of hybridization, followed by selection to fix a particularly desired type.

POWELL, WYOMING

Advanced generations of pure line peas are grown each year in isolated blocks on our 250 acre breeding grounds. These blocks of pea seed stocks represent from four to five years of intensive pureline culture from individual plant selections. Breeders familiar with the culture of peas over a period of years make observations as to trueness to type. Seed stocks passing this rigid inspection are ready to be graduated from the breeding grounds to general seed production.

MILFORD, CONNECTICUT

At this location, 100 acres are used for breeding and increase work on the cross-pollinating species, *Sweet Corn*, *Beet*, *Broccoli*, *Cabbage*, *Kale*, *Onion*, *Turnip*, and on self-pollinated species such as *Tomato* and *Pepper*. Many of the cross-pollinated varieties are difficult to handle in a breeding program, and a number of methods, such as paper bags, and cloth cages, are used to maintain pedigreed stocks. Plant hybridization and the testing of stocks for disease resistance are conducted in a modern greenhouse and laboratory during the winter months.

FILER, IDAHO

For twenty years our 80 acre bean breeding farm in southern Idaho has been used exclusively for the purpose of developing and maintaining pure stocks of beans. The pure line cultures of the different varieties are isolated to guard against mixtures and chance cross-pollination. Our expert bean breeders examine all plants in our foundation stocks, to make certain they are of the correct type. In this way bean stocks are kept exceptionally pure.

PRINCIPAL BREEDING GROUNDS

Panoramic View of Breeding Grounds at Milpitas, California

MILPITAS, CALIFORNIA

Most of the important vegetables can be grown successfully on our Pacific Coast breeding ranch, which is located in the Santa Clara Valley. However, special attention is given to, *Carrot*, *Celery*, *Lettuce*, *Onion*, *Pole* and *Lima Beans*. Field work is carried on throughout the year. This feature materially aids in the breeding of biennials by shortening the hazardous storage period. Block increases of progeny lines are grown here, the product of which becomes basic seed stock for field production.

GREELEY, COLORADO

Cucumbers, *squashes*, and *melons* thrive exceptionally well in the valleys of Colorado. Our plant breeders at the Greeley breeding grounds utilize the progeny performance method to determine the value of a selection for future stock seed purposes, since this group of species is highly cross-pollinated. The cucumber, squash, and melon fruits are harvested, and careful records are taken to determine the most desirable pedigreed lines.

WENONA, ILLINOIS

Our middle western sweet corn strains are bred in the heart of the corn belt, to insure adaptation to this region of the country. Isolated seed stocks of open-pollinated varieties are maintained, and hybridization work is carried on to develop uniform high-yielding hybrids.

Bean Breeding Farm at Filer, Idaho

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VEGETABLE PLANTING CHART

Variety	Seed required for 50 ft. of row	Seed required to sow an acre	Seed required to produce a given No. of plants	Distance between rows inches	Distance apart in row inches	Depth of planting inches
Artichoke	¼ oz.	6 to 8 oz.	1 oz. to 500	40 to 48	18 to 24	1
Asparagus	½ oz.	4 lbs.	1 oz. to 700	14 to 24	3 to 6	1
Beans, Bush	½ lb.	50 to 60 lbs.		24 to 32	2 to 3	1½ to 2
Beans, Lima	½ lb.	30 to 50 lbs.		26 to 48	3 to 6	1½ to 2
Beans, Pole	½ lb.	30 to 35 lbs.		40 to 48	6 to 8	1½ to 2
Beet	½ oz.	8 to 12 lbs.		14 to 24	1 to 3	½ to 1
Beet, Mangel	½ oz.	4 to 5 lbs.		18 to 30	2 to 6	½ to 1
Broccoli	¼ oz.	3 oz.	1 oz. to 5000	20 to 36	16 to 22	½ to 1
Brussels Sprouts....	¼ oz.	3 oz.	1 oz. to 5000	20 to 36	16 to 22	½ to ¾
Cabbage	¼ oz.	3 oz.	1 oz. to 5000	24 to 36	14 to 24	½
Cardoon	½ oz.	5 oz.		20 to 32	20 to 30	½ to 1
Carrot	¼ oz.	3 lbs.		16 to 24	1 to 3	½
Cauliflower	¼ oz.	5 oz.	1 oz. to 4500	24 to 30	20 to 24	½
Celery	⅞ oz.	5 oz.	1 oz. to 8000	24 to 40	4 to 6	½
Chicory	½ oz.	5 lbs.		20 to 36	2 to 3	½ to 1
Collards	¼ oz.	5 oz.	1 oz. to 4000	24 to 30	14 to 18	½
Corn, Pop	3 oz.	6 to 8 lbs.		34 to 40	6 to 8	1
Corn, Sweet	4 oz.	10 to 14 lbs.		34 to 42	5 to 6	1
Corn Salad	2 oz.	10 to 12 lbs.		14 to 18	3 to 4	¾
Cress	1 oz.	10 lbs.		12 to 18	2 to 4	½
Cucumber	½ oz.	2 to 3 lbs.		48 to 60	36 to 48	½ to ¾
Dandelion	½ oz.	5 to 6 lbs.		18 to 22	6 to 10	½
Dill	½ oz.	5 lbs.		20 to 36	4 to 6	½
Egg Plant		6 to 8 oz.	1 oz. to 2000	24 to 30	18 to 24	½
Endive	½ oz.	4 to 5 lbs.		18 to 24	8 to 12	¾
Fennel	½ oz.	3 to 4 lbs.		24 to 32	5 to 6	¾
Kale	½ oz.	4 to 5 lbs.		24 to 32	18 to 22	½
Kohl Rabi	¼ oz.	4 to 5 lbs.		14 to 24	4 to 6	½
Leek	¼ oz.	4 lbs.		14 to 24	2 to 3	¾
Lettuce	¼ oz.	3 to 4 lbs.		12 to 18	4 to 8	¾
Melon, Musk	½ oz.	2 to 3 lbs.		70 to 80	48 to 60	¾
Melon, Water	1 oz.	4 lbs.		90 to 100	72	¾
Mustard	½ oz.	4 lbs.		14 to 24	4 to 6	½
Okra	1 oz.	8 to 10 lbs.		24 to 40	18 to 24	1 to 2
Onion	½ oz.	4 to 5 lbs.		18 to 24	3 to 4	¾
Onion (for sets) ...		50 to 80 lbs.		12 to 14	Not thinned	¾
Parsnip	½ oz.	3 to 4 lbs.		18 to 24	3 to 4	¾
Parsley	½ oz.	3 to 4 lbs.		12 to 20	4 to 6	¾
Peas, Smooth	¾ lb.	180 to 240 lbs.		broadcast		1 to 2
Peas, Wrinkled	¾ lb.	224 to 280 lbs.		broadcast		1 to 2
Pepper	⅛ oz.	1 to 2 lbs.	1 oz. to 1000	20 to 30	18 to 20	½
Pumpkin	2 oz.	3 to 4 lbs.		95 to 110	60 to 80	¾
Radish	½ oz.	8 to 10 lbs.		12 to 18	1 to 2	¾
Rhubarb	½ oz.	3 lbs.		24 to 42	20 to 24	¾
Rutabaga	½ oz.	2 to 4 lbs.		18 to 24	4 to 7	¾
Sage	½ oz.	4 to 5 lbs.		20 to 24	6 to 10	½
Salsify	1 oz.	7 to 8 lbs.		20 to 24	2 to 3	¾
Sorrel	½ oz.	4 to 5 lbs.		12 to 22	2 to 3	½
Spinach	1 oz.	10 to 14 lbs.		14 to 18	3 to 5	¾
Squash, Bush	1 oz.	3 to 5 lbs.		42 to 48	42 to 48	¾
Squash, Vining	2 oz.	3 lbs.		70 to 90	60 to 90	¾
Sunflower	2 oz.	7 to 8 lbs.		50 to 70	10 to 12	1
Tomato		2 to 4 oz.	1 oz. to 2000	40 to 60	36 to 40	½
Tobacco		2 oz.	1 oz. to 4500	36 to 48	24 to 36	½
Turnip	½ oz.	2 lbs.		12 to 20	2 to 4	½