Historic, Archive Document

Do not assume content reflects current scientific
knowledge, policies, or practices

SB115
-Z9A895
R

A
DESCRIPTIVE CATALOGUE
OF
VEGETABLES
FOR PROCESSING

Associated Seed Growers, Inc.
New Haven, Connecticut

No. 18

Foreword

SINCE the last edition of this catalog was published, our Department of Breeding and Research has made some notable advances. We now have concentrated much of its western program at the Asgrow Research Center near Twin Falls, Idaho (see pages 27, 47) and important work is being done there on the improvement and development of varieties adapted to the cropping, harvesting and processing requirements of the canning and freezing industries. Our customers and friends are always welcome there and at our other stations, listed on the next page.

About forty new or recently introduced varieties are now listed for the first time in our catalog. Among these will be found developments from the Asgrow breeding program to which we invite attention, particularly our new peas, Pixie and Nome in the Alaska group and, in the wrinkled seed group, Early Sweet 11, Freezer 33, Freezer 37 and Laxton 8.

In beans, our new Topmost is one result of an intensive program of breeding from which other introductions will shortly be made. It has been so successful in our own and commercial tests that we have full confidence in recommending it. Three of our new sweet corn hybrids similarly merit consideration: Asgrow Golden 50, Asgrow Golden 60 and Asgrow Cogent 132.

Names given in parentheses represent, for the most part, older strains or varieties which differ by little, if anything, from the variety with which they are listed.

The number of days is relative in each case and intended only to provide a basis of comparison, not a fixed interval between planting and harvest, which is obviously conditioned by variable factors. So also with the measurements of size and weight, though the figures and information have been compiled from the averages of our observations and records extending over many years.

It is almost impossible that such a catalog as this should be entirely free from error, and we shall welcome corrections, criticisms or suggestions which will help to make the descriptions in a future edition of greater service.

Associated Seed Growers, Inc.

New Haven, Conn.

20 January 1955

Associated Seed Growers, Inc.

Main Office: New Haven 2, Connecticut

Growing stations and warehouses

Ashton, Idaho	Nampa, Idaho
Carson City, Michigan	Powell, Wyoming
Fairfield, Washington	Rexburg, Idaho
Filer, Idaho	Rigby, Idaho
Fremont, Nebraska	Rupert, Idaho
Genesee, Idaho	St. Anthony, Idaho
Gonzales, California	San Antonio, Texas
Kalispell, Montana	Salinas, California
Milford, Connecticut	Sheboygan, Wisconsin
Mt. Vernon, Washington	
Brooks and Medicine Hat, Alberta, Canada	

Breeding stations

Franklin, Indiana	Bradenton, Florida
Milpitas, California	San Antonio, Texas
Orange, Connecticut	Twin Falls, Idaho
Asgrow Research Center : Twin Falls Idaho	

Sales Branches and distributing warehouses

Atlanta 2, Georgia	Memphis 2, Tennessee
Cambridge, New York	Milford, Connecticut
El Centro, California	Oxnard, California
Exmore, Virginia	Oakland 4, California
Indianapolis 25, Indiana	Salinas, California

Packet Seed Division

RICE DIVISION, CAMBRIDGE, N.Y.
Downey, Calif. Indianapolis

Distributors for Texas and New Mexico

ASGROW TEXAS CO., SAN ANTONIO 11, TEXAS
Crystal City Robstown Weslaco

Distributors for Florida

THE KILGORE SEED COMPANY
Plant City, Florida, and branches

International Division

ASGROW EXPORT CORPORATION
Milford, Connecticut
Cable Address: Asgrow

U.S. ASGROW

PRODUCTION BRANCHES

- 1 Ashton, Idaho
- 2 Carson City, Mich.
- 3 Fairfield, Wash.
- 4 Filer, Idaho
- 5 Fremont, Nebr.
- 6 Genesee, Idaho
- 7 Gonzales, Calif.
- 8 Kalispell, Mont.
- 9 Milford, Conn.
- 10 Mt. Vernon, Wash.
- 11 Nampa, Idaho
- 12 Powell, Wyoming
- 13 Rexburg, Idaho
- 14 Rigby, Idaho
- 15 Rupert, Idaho
- 16 St. Anthony, Idaho
- 17 Salinas, Calif.
- 18 Sheboygan, Wisc.

SALES BRANCHES

- 1 Atlanta, Ga.
- 2 Cambridge, N.Y.
- 3 Crystal City, Texas
- 4 Downey, Calif.
- 5 El Centro, Calif.
- 6 Exmore, Va.
- 7 Indianapolis, Ind.
- 8 Memphis, Tenn.
- 9 Milford, Conn.
- 10 Oakland, Calif.
- 11 Oxnard, Calif.
- 12 Robstown, Texas
- 13 Salinas, Calif.
- 14 San Antonio, Texas
- 15 Weslaco, Texas
- 16 Asgrow Export Corp.

Breeding and Research Stations

- 1 Franklin, Ind.
- 2 Milpitas, Calif.
- 3 Orange, Conn.
- 4 Bradenton, Fla.
- 5 San Antonio, Tex.
- 6 Twin Falls, Idaho

A Asgrow Texas Co.
San Antonio, Texas

B Grimm Alfalfa Seed Growers of Alberta, Ltd.
Brooks, Alberta, Canada

C Asgrow Export Corporation
Milford, Conn.

ASPARAGUS

* CALIFORNIA 500

An early strain of Washington type with tight, green spears practically free from purple overcast and from enlarged nodes, giving a uniform, green pack.

SNAP BEANS

The first stringless varieties were developed by one of the early Asgrow men, Calvin N. Keeney, about 60 years ago, and since then we have bred many of the most popular through hybridization and intensive selection at our breeding stations. In addition, a systematic program of line breeding is carried on, so that Asgrow stocks of standard varieties may be maintained at their best.

DAYS: In listing the number of days to marketable condition, we have used the average results secured over a period of years. These figures apply to normal conditions, and will vary somewhat in different sections of the country, but the number of days indicated will serve to show the relative maturity of the varieties.

Green Podded Bush Varieties

	Length of pod inches	Width of pod inches	Days
* ASGROW STRINGLESS GREEN POD (Tendergreen) Asgrow	5¾	¾	50
Has long been a popular variety. Plant medium large, erect, hardy. Pods nearly straight, dark green, round, meaty; entirely stringless, and without fiber. Seeds oblong, purple mottling on buff with brownish cast: 65 per oz.			
See also Resistant Tendergreen, page 5.			
* BOUNTIFUL	6½	½	47
An early variety used for French style or shoestring beans. Plant medium large, prolific thrifty. Pods flat, light green, stringless. Seeds dark straw colored: 65 per oz.			
* BURPEE'S STRINGLESS GREEN POD Asgrow	5½	7/16	50
Since its origination in 1894 by our Calvin N. Keeney we have markedly improved this sturdy variety. Plant bushy and productive. Pods nearly round, slightly curved, stringless and fiberless. Seeds coffee-brown: 75 per oz.			
* GIANT STRINGLESS GREEN POD Asgrow	5¾	½	53
Plant large, sturdy, prolific. Pods almost round when fully matured, meaty, strictly stringless and brittle, with marked indentations between the beans; color medium green. Seeds solid yellowish brown: 70 per oz.			
* IDAHO REFUGEE	5	¾	64
Pods straight, round, silver-green, with some purple splashing, stringless, without fiber; seeds purple-blue splashed with buff: 100 per oz.			

* *Suitable for quick freezing.*

	Length of pod inches	Width of pod inches	Days
* RANGER Asgrow	5	3/8	56

A distinctive type, developed by Asgrow, distinguished by its disease-resistance, high yield and excellent quality, whether used fresh, canned, frozen or for dry beans. Plant spreading and with half-runners, vigorous and very prolific; resistant to common bean mosaic and powdery mildew. Leaves of Refugee form. Pods round, mostly straight, stringless, silvery green, the set largely concentrated in the crown. Seeds white and cylindrical: 110 per oz.

Ranger : a prolific half-runner of high quality

* RESISTANT TENDERGREEN	6	3/8	52
-------------------------------	---	-----	----

Similar in general to Asgrow Stringless Green Pod (Tendergreen), but resistant to common bean mosaic. Pods a little longer and of similar high quality. Seeds brownish purple with buff mottling: 82 per oz.

* SEMINOLE	6	3/8	53
------------------	---	-----	----

A distinctive variety of Tendergreen type introduced by the Florida (Everglades) Experiment Station. Plant rather short, spreading and prolific, with many pods close to the soil. Resistant to common mosaic, powdery mildew and some forms of rust. Pods stringless and with very little fiber, round and straight. Seeds dark brown with buff mottling: 85 per oz.

* Suitable for quick freezing.

BEANS (continued)

	Length of pod inches	Width of pod inches	Days
* SLENDERGREEN	6	5/16	54
A Tendergreen type with slim and somewhat smoother stringless pods, uniform in maturing. Seeds purple with buff mottling: 125 per oz.			
* SUPERGREEN	6	3/8	54
Developed by Rogers Bros. from Idaho Refugee and Full Measure. Plant of medium height. Pods fairly concentrated, slim, straight, round, stringless, dark green. Seeds brown, mottled with buff: 85 per oz.			

TENDERGREEN: See Asgrow Stringless Green Pod.

* TENDERLONG 15	<div>Asgrow</div>	6 1/4	3/8	50
Bred by Asgrow to retain and improve upon the features that made Tendergreen so popular, and adding resistance to disease. The plant is an erect, compact bush of medium height, resistant to common, New York No. 15 and pod mottle viruses and to at least one form of powdery mildew; with considerable tolerance to halo blight. Very prolific, bearing an unusually high percentage of the crop for first picking. The pods are round and straight, with color a pleasing dark shade of bean green; meaty, stringless and fiberless, of excellent flavor and quality for use fresh, frozen or canned. Seed dull, not shiny, with purplish black mottling on buff: 75 per oz.

Tenderlong 15 : round-podded, disease-resistant variety

* Suitable for quick freezing.

	Length of pod inches	Width of pod inches	Days
* TOPCROP	6	$\frac{3}{8}$	48
Developed by the U.S.D.A. Plant vigorous and very prolific; less tall than Full Measure and carries its pods lower. Resistant to common bean mosaic. Pods medium green, round, stringless. Seeds oblong; brown mottled with tan: 75 per oz.

Topmost : Our new white-seeded, round-podded variety

* TOPMOST	Asgrow	6	$\frac{3}{8}$	48
The most recent introduction from the Asgrow breeding program. Notable for its earliness and white seeds. Plant of medium size, with medium green foliage, high yielding and concentrated in maturity, giving a heavy first pick. Resistant to common mosaic and some variant strains. Pods round, straight, stringless and of top quality, developing the seeds rather slowly. These factors, with the absence of dark pigment in the seeds, make possible an early and attractive pack. Seeds white: 80 per oz.				
* WADE		$5\frac{1}{4}$	$\frac{3}{8}$	56
Plant medium large, resistant to common bean mosaic and one or more forms of powdery mildew. Not concentrated in set or maturity. Pods round and of distinctive appearance, medium green and very glabrous, or smooth, almost as if waxed, stringless. Seeds variable in color, from reddish brown to dark mahogany: 80 per oz.				

* Suitable for quick freezing.

BEANS (continued)**Wax Podded Bush Varieties**

	Length of pod inches	Width of pod inches	Days
* BRITTLE WAX (Round Pod Kidney Wax) Asgrow	5 $\frac{3}{4}$	$\frac{3}{8}$	53
Plant large, erect, medium green. Pods medium yellow, round, slightly curved, brittle, fleshy, stringless and fiberless. Seeds white with black eye: 80 per oz.			
* KINGHORN	6	$\frac{3}{8}$	54
A selection from Brittle Wax introduced by F. H. Woodruff & Sons. Very similar in plant and pods, but with white seeds: 80 per oz.			
* PENCIL POD BLACK WAX Asgrow	6	$\frac{7}{16}$	55
Plant large, vigorous, and productive. Pods round, slightly curved, fleshy, golden yellow, tender, stringless and without fiber. Seeds oblong, solid black: 90 per oz.

Field tests of beans at the Asgrow Western Breeding Station

* Suitable for quick freezing.

Stringless Blue Lake : extensively used for freezing and canning

Pole Varieties

	Length of pod inches	Width of pod inches	Days
* BLUE LAKE Used in the West for processing. Pods nearly round, medium green, stringless when young, and of very good canning quality. Seeds small, ivory white: 110 per oz.	6	3/8	64
* KENTUCKY WONDER The Asgrow selection is noted for fine color and texture. Long pods in clusters, curved and indented; plump, meaty and brittle, with a distinctive and pleasing flavor. Seeds buff brown: 80 per oz.	9	1/2	65
* STRINGLESS BLUE LAKE 92 An Asgrow companion variety to Nos. 228 and 231, lighter vined and earlier. Plant relatively open at base and with less heavy foliage, resistant to common bean mosaic and certain strains of rust. Pods notably dark green fully round, straight, stringless at all stages, rather slow in seed development; hold their fine quality through larger sieve sizes. Seed small, white: 100 per oz.	6 1/2	3/8	55
* STRINGLESS BLUE LAKE 228 Similar to Strain No. 231 but earlier maturing.	6 3/4	3/8	57
* STRINGLESS BLUE LAKE 231 Developed at our Pacific Coast breeding station. The pods differ from those of regular Blue Lake in being stringless at all stages, somewhat longer and darker in color. Plant heavy, vigorous, and productive; resistant to common bean mosaic and certain strains of rust. Provides an excellent canned or frozen pack from the fleshy, stringless, nearly round pods, which retain their quality through the larger sieve sizes. Seeds small, white: 100 per oz.	6 3/4	3/8	64

* Suitable for quick freezing.

LIMA BEANS: Bush Varieties

		Length of pod inches	Width of pod inches	Days
* CLARK'S BUSH	Asgrow	2¾	¾	67
A green seeded baby lima developed by Asgrow especially for canning and freezing. Differs from Henderson's Bush in that the beans do not turn white as they pass the processing stage, though there may be some fading as the seeds dry out. Plant medium large, bushy and prolific, with heavy set concentrated near the base. Seeds green to whitish: 70 per oz.				
* EARLY THOROGREEN		2¾	¾	66
Generally similar to Clark's Bush but the plant is more spreading and the pods set somewhat differently. At processing stage the beans have attractive green color, holding well to later stages of maturity. We have selected an excellent strain of this popular variety. Seeds green to white: 70 per oz.				
* EVERGREEN	Asgrow	3	¾	69
A distinctively different baby lima. In addition to combining Fordhook quality with small size, they are green-seeded. Seeds mostly pale green: 90 per oz.

Asgrow Concentrated : for easier vining and better colored beans

* FORDHOOK, ASGROW CONCENTRATED	Asgrow	3¾	1	71
Bred at our Pacific Coast breeding station. Markedly different from the old Fordhook in that the pods are concentrated not only in regard to position but also in time of reaching maturity, and the beans are free from bluish color. The plants are stocky, without tendrils, and very prolific. Seeds white, tinged green: 30 per oz.				

* *Suitable for quick freezing.*

Limagreen : a prolific green-seeded variety

	Length of pod inches	Width of pod inches	Days
* FORDHOOK 242	3½	1	75
Developed by the U.S.D.A. Plant large and productive. Pods slightly curved, containing 3-4 large, thick-oval, light green beans. Yields well under high temperature conditions. Seeds greenish cream and light green: 30 per oz.			
* HENDERSON'S BUSH	2¾	¾	65
Sometimes called Baby Lima or Butter Bean. The Asgrow strain has been bred for increased yield and concentration in season. Plant small, erect, bushy. Pods flat, containing 3-4 flattish, small oval beans. Seeds creamy white: 70 per oz.			
* LIMAGREEN	2¾	¾	68
A recent Asgrow variety of the green-seeded type, primarily intended for freezing and canning. Similar in general characters to Clark's Bush, but in extensive tests over several seasons has averaged higher in yield. The beans are somewhat thicker and have good green color which holds well at harvest. A highly productive and attractive introduction. Seeds pale green: 70 per oz.			

Pole Varieties

CHALLENGER (Fordhook Pole)	4	1¼	92
A potato lima, with pod and seed of Fordhook type. Plant vigorous, hardy, a good climber and very productive.			

* Suitable for quick freezing.

Roots for the production of Asgrow beet stocks are individually inspected for shape, size, interior color and tops

BEET

In the production of leading varieties of beet we have bred pedigreed strains for the critical trade. Earliness, evenness of maturity, depth of color and small tap roots are features of the Asgrow stocks.

The number of days shows the time required under average conditions in the North from seed to the development of roots about $1\frac{3}{4}$ " in diameter.

	Days
ASGROW WONDER <p>Unsurpassed for the combination of earliness, uniformity and depth of interior color. Top erect, green, uniform in size and color. Root round when young, flattened globe later, deep red, smooth, with small tap root. Flesh deep dark red, tender, and of excellent quality.</p>	57
DETROIT DARK RED, SHORT TOP <p>Top relatively short, dark green tinged with red. Root globular, smooth, uniform, attractive, with small tap root. Color deep ox-blood red. Flesh dark red. Fine quality, sweet and tender.</p>	68
PERFECTED DETROIT <p>The Asgrow pure-bred strain of this standard variety is of excellent quality. Top tall, green and red. Root globular, medium smooth; flesh dark red and practically free from zoning; of very good quality. A first-class and reliable variety for the processor.</p>	70

BROCCOLI

Sprouting or Italian type

*DE CICCO

For spring and summer harvest in the South and East. Plant medium large, producing a large center head, generally of good texture and color, followed by a good yield of shoots. Under some conditions, the heads may show lighter colored areas due to variable age of the developing buds.

* GRAND CENTRAL

Asgrow

An Asgrow development maturing a little earlier than Medium and notable for its heavy yield of large center heads. Plant tall and vigorous, producing a large head of fine color and texture, followed by a good crop of shoots which develop rather slowly. Because of the vigorous plant growth, an adequate supply of boron in the soil is needed to prevent hollow stem. Particularly adapted for fall harvest in the south Atlantic states.

* K & V

A second early variety for late spring, summer and early fall harvest. The large center head is divided into segments which are readily separated, making it easy to handle in freezing operations. Plant tall, upright; head of good texture, color and quality.

* LATE

For late winter and spring harvest in the Southwest. Plant large, vigorous, with a large solid center head of good texture, color and quality. Side shoots develop slowly. Should not be planted in the spring.

Grand Central : an Asgrow introduction with large main head

* Suitable for quick freezing.

Waltham 29 : a new variety for fall and winter harvest

BROCCOLI (continued)

*** MEDIUM**

The most widely used variety in the West and Southwest, grown principally for fall and winter harvest. The vigorous plant produces a large, attractive, compact main head, and a high yield of side shoots, which mature over a long season.

*** MEDIUM LATE**

For winter and spring harvest in the West. Plant shorter, more compact than Late, but producing the same large, compact center head of good texture, color and quality. Side shoots develop slowly.

*** MIDWAY**

A second early variety for summer and early fall harvest, maturing a little later than De Cicco and about with K & V. Plant medium tall, forming a large compact head, with relatively few side shoots.

*** WALTHAM 29**

Developed by the Waltham (Mass.) Field Station. Adapted for fall harvest in the Atlantic states and the Northwest, and of promise for winter harvest in the valleys of the Southwest. Plant short and heavily branched, producing a good sized head of fine quality, followed shortly by numerous side shoots. If seeded or set out too early in the summer, the center heads may flower prematurely and be lost. Must be cut over a number of times to realize the high potential yield of shoots.

BRUSSELS SPROUTS

*** HALF DWARF IMPROVED, LONG ISLAND STRAIN**

Days

70

Plant 22"-26" tall; stems thickly set with firm cabbage-like balls about 1½" diameter, maturing successively.

** Suitable for quick freezing.*

CABBAGE

Our cabbage seed is produced largely in the Puget Sound section at our western Washington production branch from seed stocks of highest quality.

Varieties marked y.r. have been developed, mainly at the University of Wisconsin, for resistance to the cabbage-yellows disease. It is recommended that only these varieties be planted in infested areas.

The column of Days gives relative period to maturity from setting out plants.

	Diameter of head inches	Weight of head pounds	Days
BADGER BALLHEAD y.r. A new variety developed by the U.S.D.A. and the Wisconsin Agricultural Experiment Station. Plant generally similar to Wisconsin Ballhead but smaller, highly resistant to yellows and relatively resistant to mosaic.	6	6	100
COPENHAGEN MARKET Dependably early and uniform, used largely for early kraut. Outer leaves few and of gray-green color, short stem; head round, solid, and of superior quality. An excellent short season type.	6½	3½	69
DANISH BALLHEAD (Hollander) Plant fairly large, with short stem; outer leaves medium. Head deep round, very hard; interior decidedly compact. Texture crisp; flavor good; makes high quality kraut.	7½	6½	103
EARLY GLORY A recent introduction intended primarily to provide a head of the popular Glory of Enkhuizen type, but earlier. Head very similar, globular and solid, but a little smaller.	7	5	74
GLORY OF ENKHUIZEN An attractive second-early variety, used largely for kraut. Head large, round, solid, with few outer gray-green leaves; of excellent quality.	8	6	77
IMPROVED GLOBE, y.r. An improved, resistant strain of Glory of Enkhuizen. Large, round, solid head.	8	6	77
MAMMOTH RED ROCK (Red Danish: Red Dutch) A superior strain of Red Rock developed by careful selection for uniformity and quality. Head round, hard and heavy, deep colored throughout. A good pickler.	7	7	98
MARION MARKET, y.r. A development from Copenhagen Market but with slightly larger, later maturing, round firm head; leaves more blue-green. Favored for kraut.	6½	4½	79
PREMIUM FLAT DUTCH Deservedly popular for its heavy yield. Head very large, flat, and solid; leaves light gray-green; 6½"-7" deep; of high quality.	10	8	100
WISCONSIN HOLLANDER No. 8, y.r. Selected from Danish Ballhead at the University of Wisconsin. Head round, becoming slightly flattened, color blue-green.	7½	8	105

CARROT

Planting stocks are developed at our breeding stations from individual progenies which have met the most exacting specifications in performance. Smoothness and shapeliness of roots with depth of exterior and interior color are vital factors in rating parent lines.

In giving the number of days for the development of roots, we have used the average of readings for a period of years. These will vary considerably in different locations.

	Length of root inches	Diameter at shoulder inches	Days
* CHANTENAY	6	2	72
A well known and popular all-purpose variety; desirable for canners in packing diced carrots; a good cropper. Root deep orange, smooth, tapered, stump-rooted; flesh deep orange.			
* CHANTICLEER	^(Asgrow) 7	2	75
An Asgrow development of improved Long Chantenay type. Top strong and vigorous; root neat and shapely, tapering to a blunt end; deep colored flesh with indistinct core. Well suited to processing for baby food.			
* LONG IMPERATOR	^(Asgrow) 10	1½	77
This most popular shipping variety is being used successfully by some processors. Long and slim, with flesh of fine color and quality. Gives high tonnage where soil is deep and mellow.			
* NANTES	6	1¼	70
Excellent quality for canning and for quick freezing whole carrots. Top small. Root bright orange, cylindrical, blunt ended. Flesh reddish orange, crisp, tender, and of delicate flavor.			
* RED CORE CHANTENAY	5	2	72
A desirable Chantenay with good interior color; excellent for dicing. Root somewhat shorter than Chantenay; flesh reddish orange, with indistinct core of nearly the same color as the surrounding flesh.			

CAULIFLOWER

	Diameter of head inches	Days from setting of plants
* DWARF ERFURT	7	58
Plant has short pale green leaves. Head medium large, firm, compact, and of fine quality; a dependable header.		
* EARLY SNOWBALL	7¼	65
Plant has short pale green leaves. Head medium, firm, compact, and of fine quality; a dependable header.		
* SUPER-SNOWBALL	7	55
Starts heading early and uniformly. Head medium large, compact and very white.		

COLLARD

GEORGIA 912

A slow bolting strain of the hardy Georgia type, with more compact plant and broader, somewhat more savoyed leaves of attractive dark green color, developed at our South Eastern Breeding Station. Adapted to mechanical harvesting, and should do well as a winter crop for spring harvest.

VATES

A cold hardy variety developed at the Virginia Truck Experiment Station. Plant low growing, spreading and slow to bolt. Leaves large, heavy, dark green, with short stem; hold their color well in cold weather. Adapted to mechanical harvest because of its low height.

* *Suitable for quick freezing.*

SWEET CORN HYBRIDS

For three generations we have pioneered in sweet corn, since the time when, according to accepted tradition, Everett B. Clark grew the first crop of it which was intended to be used only for seed. In the following half-century we introduced several popular open-pollinated varieties and then, with the advent of modern breeding methods, were privileged to be the first to offer hybrid seed commercially, the hybrid being Redgreen, developed by Dr. D. F. Jones of the Connecticut Agricultural Experiment Station.

Most of our development work on sweet corn is conducted at the Eastern and Midwest Asgrow breeding stations, but in recent years our Southern stations have also had a share in the extensive program, which has produced many of the hybrids listed below, each one adapted to some special conditions of growth or use.

The column of Days is based on many recorded trials but is meant primarily to indicate relative periods to the picking stage, since maturity is likely to vary with differing conditions of climate and soil.

Varieties marked (y) have yellow kernels; those marked (w) have white.

	Height of stalk feet	Length of ear inches	Days
ASGROW COGENT 132(w)	7½	7½	96

Our new introduction in the Country Gentleman or non-rowed class, valuable particularly for its earliness in this class, high yield and excellent white color. Plant sturdy and upright, with few suckers, highly double eared and producing greater gross yields than other Cogent types. Ears cylindrical to slightly tapered, 17/8" diameter with medium fine, deep kernels of clear, bright white and high cut-off.

Asgrow Cogent 132 : a new Country Gentleman hybrid of high yield

Asgrow Golden 50 : large ears with deep kernels of superior quality

CORN HYBRIDS (continued)

	Height of stalk feet	Length of ear inches	Days
* ASGROW GOLDEN 50 (y) Asgrow	6½	8	88
Our recent introduction, notable for its deep, narrow kernels of unusual tenderness and superior flavor. Compared with Golden Cross Bantam, the plants are slightly taller, carry the ears about 5" higher on the stalk, withstand heat and dry weather well and are highly resistant to Stewart's (bacterial) wilt. The ears are larger, averaging 1¾" diameter, well filled to tip, mainly 14-16 rows of narrower, deeper kernels with distinctively rounded caps, and a significantly higher yield of cut corn. Uniform in maturing and suitable for mechanical harvesting.			
* ASGROW GOLDEN 60 (y) Asgrow	7	9	87
Newly introduced from our Midwest Breeding Station. A heavy-yielding mid-season hybrid, producing large, thick, cylindrical or slightly tapered ears averaging 1⅞" in diameter. The medium yellow kernels are narrow and deep, 14-16 rows, of very good flavor and texture, with very high cut-off. An attractive hybrid for the processor, especially for the cream-style pack, with excellent resistance to Stewart's (bacterial) wilt, to smut, and to heat and drought, with considerable tolerance of Northern leaf blight.			
* CAIUMET (y) Asgrow	7	8½	86
An exceptionally attractive Asgrow hybrid which has proven widely adapted, from Texas to New England. Plant vigorous, relatively resistant to drought and practically suckerless, with dark green leaves and ear carried 6"-8" higher than Golden Cross Bantam. Has excellent resistance to bacterial wilt. Ear long, slender and cylindrical, 1⅝" diameter, well filled to tip and with husks of good length. Kernels light yellow, medium wide, in 10-16 rows but mainly 12-14. Very uniform in maturing, high yielding, and suitable for mechanical harvesting.			

* Suitable for quick freezing.

	Height of stalk feet	Length of ear inches	Days
COGENT ILLINOIS No. 13 (w)	7	7½	100
Developed at the University of Illinois. Plant vigorous, with sturdy stalk, relatively few suckers, excellent tassels and excellent resistance to bacterial wilt. Ear said to "hold" well in the field, 1⅞" diameter.			
* ERIE (y)	<div>Asgrow</div> 6½	9	88
An exclusive Asgrow hybrid, having long cylindrical ears 1⅝" diameter, mainly 12-14 rowed. Plant vigorous, relatively resistant to drought, excellently resistant to bacterial wilt. In comparison with Golden Cross Bantam, this hybrid produces a plant 6" taller, bearing ears 4" higher on the stalk, maturing 3-4 days later. Widely adapted and high yielding.

Eric : long, cylindrical ears with deep, narrow kernels

* GOLDEN CROSS BANTAM (y)	6	7	85
Long a popular, widely-adapted hybrid. Plant sturdy and up-right, fairly resistant to bacterial wilt. Ear 10-14 rowed, 1¾" diameter, cylindrical; kernels of rich yellow color, medium in depth and width.			
* GOLDEN HYBRID No. 2439 (y)	<div>Asgrow</div> 7	7¾	87
An Asgrow development adapted to the East and irrigated sections. Plant vigorous, uniform, comparatively free from suckers; has good resistance to bacterial wilt. Ears cylindrical, 1⅞" diameter, 12-16 rowed with long husks. Kernels medium-narrow and deep.			

* Suitable for quick freezing.

Huron : produces attractive ears even in heat and drought

CORN HYBRIDS (continued)

		Height of stalk feet	Length of ear inches	Days
* HURON (y)	Asgrow	7	8½	89
This Asgrow hybrid shows unusual resistance to heat and drought. Plant sturdy, with excellent resistance to bacterial wilt; foliage dark green, ears carried high. Ears 1½" diameter with 12-16 rows, usually 14; deeper and narrower than those of Golden Cross Bantam and a little lighter in color. The yield is higher, in both gross weight and husked corn.				
* IOCHIEF (y)		7	8	87
Developed at the Iowa Experiment Station. Plant sturdy, with few suckers and considerably resistant to lodging and to drought. Ears 14-18 rowed, with deep and narrow light golden kernels. Compared with Golden Cross Bantam, the ears are larger both in length and diameter.

New Asgrow processing plant recently completed at Fremont, Neb.

* Suitable for quick freezing.

Peoria : a high yielding hybrid with very white ears

	Height of stalk feet	Length of ear inches	Days
* IOANA (y) An attractive hybrid, with excellent resistance to bacterial wilt. Plants tall and sturdy. Ears 12-14 rowed, cylindrical, 1 7/8" diameter; well filled with medium-narrow, light yellow kernels.	6 1/2	8	87
* KENNEBEC (y) Ears a little shorter than Golden Cross Bantam but similar, including kernel type and husk coverage; 12-14 rowed, cylindrical.	6	7 1/2	82
NARROW GRAIN (Ill.) 14 x 11 (w) A late white type of heavy yield and high quality in shape and texture of kernels. Stalks tall and strong; ears large, 2" diameter, and well filled with 18-22 rows of narrow, deep kernels. Has excellent resistance to bacterial wilt.	8 1/2	7 3/4	90
PEORIA (w) A high quality, late hybrid developed at our Midwest breeding station. Plant tall and vigorous, almost suckerless, with ears carried high. Has excellent resistance to bacterial wilt. Ear long and cylindrical, 1 7/8" diameter, with 12-16 rows of very white, tender kernels; has consistently shown low ear worm damage. An exceptionally high-yielding hybrid. Holds unusually long at prime picking stage.	9	8 1/2	94
* TOP CROSS MAINE BANTAM (y) For the short season areas. Plant sturdy; ear slightly shorter than Golden Cross Bantam and somewhat thicker, very slightly tapered with 12-16 rows; kernels medium-narrow and golden yellow, tender. Fairly resistant to bacterial wilt.	6	7 1/2	83

* Suitable for quick freezing.

CUCUMBER

The number of days indicates the relative time required from first picking of fruits. The letters b.s. indicate black spined and w.s. white spined varieties.

CHICAGO PICKLING, b.s.	Days 59
Fruits medium green; well warted and ribbed at pickle size. Longer in relation to diameter than National Association. Mainly used for larger sizes.	
EARLIEST OF ALL, w.s.	58
A standard white-spined pickling variety widely grown in the South.

Model : well named for its shape, color and brining qualities

MODEL, w.s.	<div>Asgrow</div>	55
A distinctive variety developed at our Eastern breeding station. Of similar shape and size to National Association Pickling but white-spined and of darker green exterior color. Retains its firmness throughout the brining process. Trim in appearance and uniform. Adapted to the South.		
NATIONAL ASSOCIATION PICKLING, b.s.		58
A popular variety developed at the Michigan Agricultural College in collaboration with the National Pickle Packers' Association. Fruits medium green, symmetrical and full ended.		
OHIO MR 17, b.s.		57
Highly, though not fully, resistant to mosaic, making good crops possible where mosaic is prevalent. Fruits longer and somewhat darker than those of National Association. Firm in processing.		
OHIO MR 25, b.s.		56
A new introduction from the Ohio Experiment Station with a larger vine than Ohio MR 17, more resistant to mosaic. Fruits somewhat shorter and more blocky.		
PACKER, b.s.	<div>Asgrow</div>	58
Bred at our Pacific Coast breeding station to provide a pickling cucumber of National Association type but somewhat blockier in shape and more uniformly dark green in color. High yielding and gives a very attractive pack.

Ohio MR 17 : for resistance to mosaic

PRODUCER, w.s.	<div>Asgrow</div>	Days 54
Vine exceptionally prolific; fruits taper at both ends and are light in color.		
SNOW'S PICKLING, b.s.		58
Early, prolific, and popular on the Pacific coast. Fruits deep green and blunt ended, uniform and attractive.		
STAYS GREEN (Black Diamond), w.s.		60
Fruits symmetrical, nearly square ended; very dark green. A dual purpose variety extensively grown in the South for both pickling and slicing.		
WISCONSIN SR 6, b.s.		56
Developed at the Wisconsin Agricultural Experiment Station from Maine No. 2 and National Association Pickling. Resistant to scab or spot rot, <i>Cladosporium cucumerinum</i> , and therefore of value in northern areas of Wisconsin, Michigan and cool areas of the northeast. Not resistant to cucumber mosaic. Of National Association type, with good warting and color.		
WISCONSIN SMR 12, b.s.		56
Developed at the Wisconsin station from Wisconsin SR6 and Ohio MR20. A new variety with resistance to both scab and mosaic. Lighter in color than Wisconsin SR6, a little longer and in general resembling National Pickling.		
YORKSTATE, b.s.		58
Developed by H. M. Munger of Cornell University. Highly resistant to mosaic, not immune. Vine large, vigorous and prolific; fruits of National Association type, but under some conditions may be more pointed at blossom end.

Wisconsin SMR 12 : for resistance to scab and mosaic

CLASSIFICATION OF PEA VARIETIES*

Berry Color	Vine Type	Pod Shape	Seed Surface	Cotyledon Color	1st Bl. Node	Vine Color	Ave. Sieve Size	Variety	Adaptation				
Light green peas.	Tall (Indeterminate)	Blunt	Smooth (Starchy types)	Green	9-10	Lt.	2.3	Pixie	Early June canning & commercial				
					9-10	Lt.	2.6	Alaska					
					11	Lt.	2.9	Yukon					
					11	Med.	2.9	Alaska-45					
					10-11	Lt.	2.16	Nome					
		Pointed	Wrinkled (Sweet)	Yellow	10	Lt.	3	Pedigree Extra Early	Commercial				
					18	Lt.	3.5	Creole					
					9-10	Lt.	2.8	No. 4683					
					10	Lt.	3.8	Surprise					
					11	Lt.	3.8	Surpass					
Adapted to canning.	Med. Short (Determinate)	Blunt	Wrinkled (Sweet)	Yellow	11	Lt.	3.8	Early Harvest	Early Sweet canning types				
					11	Lt.	3.7	Early Sweet-11					
					11-12	Lt.	3.15	Lolo					
					No varieties currently catalogued in these classifications.								
		Pods small to medium size with peas filling the pod.	Med. Short (Determinate)	Blunt	Smooth	Yellow	18	Med.-Dk.	2.7	Willett's Wonder	Mkt. & Home garden		
							10	Dk.	3.5	Nott's Excelsior		Home garden	
							11	Dk.	3	Imp. Prem. Gem			
							10-11	Dk.	3.9	Laurel			Extra Early Perf. types for canning
							11	Dk.	2.9	Elf			
Wrinkled (Sweet)				11-12	Dk.	4.25	Loyalty	Early Perfection types for canning					
				13	Dk.	4.6	Pride						
				14	Dk.	3.75	No. 363						
				14	Dk.	2.9	No. 362						
				15	Dk.	2.9	Canner Prince						
Pointed	Wrinkled (Sweet)			Yellow	15	Dk.	4.5	Hardy	Early Perfection types for canning				
					13-14	Lt.	5.35	Canner King					
					15-16	Dk.	3.30	Res. Ey. Perf. No. 326					
					16-17	Dk.	3.7	Perfection		Canning			
					17-18	Dk.	5.5	Signal			Wales types for canning		
15	Dk.	5.25	Perfected Wales										
17	Lt.	5.35	Profusion										
18	Lt.	5.35	Prince of Wales										
		Pointed	Wrinkled	Green	14	Lt.	5	Dwarf Telephone	Home garden				

	Smooth		Green	10	Med.	2.3	Dark Pixie	Dark Alaska type																							
	Yellow								Market																						
Tall (Indeterminate)	Blunt	Wrinkled (Sweet)	Green	10	Med.	2.6	No. 671	Small sieve sizes																							
									Yellow	13-14	Dk.	4.65	Rainier	Freezing; Mkt. & home garden																	
	Wrinkled (Sweet)	Green	9-10	Med.-Lt.	4.56	Glacier	Excellent for freezing; Mkt. & home garden																								
								Yellow	10-11	Med.	5.4	Laxton-8																			
													13	Med.-Lt.	5.5	Teton															
																	Green	14	Med.-Lt.	5	Miracle	Mkt. & freezing									
	Yellow	17	Dk.	5.5	Alderman																										
						Pointed	Wrinkled (Sweet)	Green	9	Lt.	5	World's Record (w.r.)	Mkt.																		
	Blunt	Wrinkled (Sweet)	Green	10-11	Dk.									5.3	Freezer 37	Freezing Home garden & mkt.															
						11	Dk.	4.5	Little Marvel																						
										13-14	Dk.	4.2	Pluperfect																		
13-14																	Med.	4.8	Freezer 33												
																				14-15	Dk.	5.0	No. 640								
																								14-15	Dk.	3.8	Imp. Wyola (No. 626)				
																												14-15	Dk.	4.85	Victory Freezer
15-16	Dk.	4.6	Dark Skin Perf.																												
				16	Dk.	2.75	No. 647																								
Yellow	16	Dk.	4.0					Dark Perfection-139	Freezing																						
				Smooth	Green	11	Lt.			5	Laxton's Superb	Mkt.-not for freezing																			
Pointed	Wrinkled (Sweet)	Green	9					Dk.	5				Progress No. 9	Market																	
				11	Dk.	5	Multifold																								
										14-15	Dk.	5			No. 40																
																15	Dk.	5	Rondo												
																				15	Dk.	5	Stratagem								
																								9	Dk.	5	Laxton's Progress				
																												10	Dk.	5	Hundredfold
Yellow	9	Dk.	5	Laxton's Progress	Market																										
						10	Dk.	5	Hundredfold																						
15-17	Dk.	4.5	Lincoln																												
				Home garden																											

* This list includes not only our standard varieties but also some forthcoming Asgrow introductions.

DILL

Plant 2 - 2½ feet high, with leaves cut into thread-like divisions.	Days 70
---	------------

KALE

	Height of plant inches	Days
DWARF BLUE SCOTCH Plant has wide-spreading, finely curled blue-green, plume-like leaves. The Asgrow pedigreed strain is uniform and handsome.	14	55
DWARF GREEN SCOTCH Similar in habit of growth and appearance to Dwarf Blue Scotch, except for color, which is bright, deep dark green.	14	55

MUSTARD

	Days
FORDHOOK FANCY A handsome, upright growing, mild variety; leaves bright green, plume-like, deeply fringed and cut. The Asgrow strain is exceptionally fancy.	50
SOUTHERN GIANT CURLED Leaves long and wide, light green, tinged with yellow, heavily crumpled and curled at the edges.	40
SOUTHERN GIANT CURLED, Long Standing An improved strain which has largely replaced the original, though a little later, because of its ability to stand longer without bolting to seed. Plants large, brightly colored and attractive.	45

OKRA

	Height of plant feet	Mature pods inches	Days
CLEMSON SPINELESS Developed at the South Carolina Experiment Station. A very uniform, spineless variety. Plant has less foliage than Perkins'; pods rich green, angular, ridged.	4½	6	55
EMERALD Developed by Campbell Soup Co. and introduced in 1950. Plant vigorous, semi-dwarf. Pods round, spineless, slender, thick-walled; can be snapped off instead of cut.	4	8	55
PERKINS' SPINELESS An improved smooth-podded variety bred by the Campbell Soup Co. replacing the old spiny Perkins' Mammoth, to which it is much superior. Plants dwarf, early and prolific; pods bright green, slender, ribbed and spineless.	3	7	50

PICKLING ONIONS

WHITE QUEEN (White Pearl) Bulb medium sized, almost spherical, clear white, hard, fine grained.	100
--	-----

THE ASGROW RESEARCH CENTER

At Twin Falls, Idaho, in the heart of our main seed-growing area, we have brought together what is required for the application of modern science to the production of better seeds, better varieties and better methods of culture. The activities of the Center include plant breeding, both for new varieties and the maintenance of old standards; testing many thousands of seed samples annually; evaluation of agricultural chemicals; processing vegetables in a pilot plant with panel tests of cooking and eating quality.

One of the germinator rooms where field climates can be simulated

Evaluating peas at our Western Breeding Station

PEAS

Asgrow pea seed stocks are bred at our Western Breeding Station, located in the high, dry Rocky Mountain area where climatic conditions are excellently suited for the purpose. Its first duty is the maintenance of standard varieties at their best, thus avoiding that relapse to coarser, rougher forms which so frequently occurs in cultivated plants without man's skilled control. Its next duty is the development of improved strains or new varieties embodying disease resistance, yield, quality or other desired characters to meet particular needs.

DAYS : The figures given in the column of days are intended only to be of assistance in comparing relative earliness or lateness. They have been compiled from our records of many observations, but obviously will be subject to some variance in different seasons and under widely divergent conditions of soil and climate.

Smooth - Seeded

		Height of plant inches	Length of pod inches	Days
ALASKA, Asgrow Strain	Asgrow	28	2 $\frac{5}{8}$	57
The Asgrow strain—the first progeny line, pedigreed stock of this variety ever developed—is noted for its pod size and productivity. Fully resistant to Fusarium wilt. Used very extensively for first early canning. Vine slender, light green, very uniform in maturing. Pods single, blunt, light green, round, straight, contain 6-8 peas; sieve sizes 1 to 4, largely 2 and 3. Seeds small, round, smooth, bluish green: 140 per oz.				
NOME	Asgrow	36	2 $\frac{1}{2}$	65
This later companion to Pixie has been developed in the Asgrow pea-breeding program and is notable for its high yield of very small sieve-size peas. Vine of the normal Alaska type, slender and light green; fully resistant to Fusarium wilt; somewhat later in maturity than other Alaskas, thus extending that season. Pods single, round, straight; sieve sizes 1 to 3, largely 2 and 3. Seeds small, round, smooth: 185 per oz.				

PEAS (continued)

	Height of plant inches	Length of pod inches	Days
PIXIE	28	2½	57

This recently introduced small-sieve variety is of the regular Alaska type in plant form and habit of growth, but the vine color is slightly darker and the pods more slender, with 25% to 50% doubles instead of the normal single pods. Fully resistant to Fusarium wilt and yielding with the best Alaska strains. Extensive tests by commercial canners have proved its ability to provide an early and attractive pack of small peas. Sieve sizes 1 to 3, largely 2 and 3, with very few 4. Seeds small, round, smooth: 175 per oz.

YUKON	35	2¾	59
-------------	----	----	----

A more vigorous vined Alaska reaching canning maturity about two days later than regular Asgrow Alaska. Pods are similar but slightly larger; resistant to Fusarium wilt and a reliable cropper under adverse conditions. Of particular value to packers of Alaska type peas, helping to meet AIS standards and offering larger yields of high quality, small sieve sizes when harvested early. Sieve sizes 1 to 5, largely 3 and 4. Seeds: 130 per oz.

Pixie ; a new Asgrow introduction for early, attractive small peas

PEAS (continued)

	Height of plant inches	Length of pod inches	Days
Wrinkled-Seeded			
* ALDERMAN (Dark-Podded Telephone)	60	4½	72
A handsome large podded variety for freezing. Vine dark green, coarse, resistant to Fusarium wilt. Pods single, large, plump, straight, dark green, pointed; contain 8-10 peas of highest quality. Frozen peas oblong, dark green; sieve sizes 4 to 8. Smaller sizes should not be frozen. Seeds: 90 per oz.			
CANNER KING	<div>Asgrow</div> 34	3½	67
A popular Asgrow development. Vine similar to Perfection but with more open habit of growth; color medium green. Resistant to Fusarium wilt. Pods slightly curved, single and double, medium green, blunt, contain 7-9 peas. Approximate sieve sizes at Tenderometer 95-100 : 1 and 2-8%; 3 and 4-40%; 5 and over -52%. Seeds : 100 per oz.			
* DARK SKIN PERFECTION	30	3¼	70
Resembles regular Perfection rather closely in general type, but peas are of dark or "freezer" color. This new variety is thus specially suited for freezing. Approximate sieve sizes at Tenderometer 95-100 : 1 and 2-11%; 3 and 4-39%; 5 and over -50%. Seeds : 125 per oz.			
EARLY HARVEST	<div>Asgrow</div> 32	2¾	59
Our development, resistant to Fusarium wilt. An early-sweet canning type showing more vigor than either Surprise or Wisconsin Early Sweet. Vine slender, medium green. Pods single, light green, plump, blunt; contain 6-8 peas having tender skins and excellent flavor. Canned peas round, light green. Approximate sieve sizes at Tenderometer 95-100 : 1 and 2-35%; 3 and 4-60%; 5 and over -5%. Also very attractive run-of-pod. Seeds small : 140 per oz.

Early Sweet 11 : a higher yielding Asgrow variety of the Surprise type

* Suitable for quick freezing.

	Asgrow	Height of plant inches	Length of pod inches	Days
EARLY SWEET 11		32	2¾	59
Newly introduced from our pea-breeding program as a higher yielding variety of the Surprise type. Vine vigorous, slender, medium green; resistant to Fusarium wilt. Pods 50% doubles, plump and blunt, with 6-8 peas of medium green. Approximate sieve sizes at Tenderometer 95-100 : 1 and 2-12% ; 3 and 4-62% ; 5-26% ; as a whole somewhat smaller than Surprise and the pack comparable in quality and appearance. Seeds small : 170 per oz.

Freezer 37 : early, determinate, high yielding

* FREEZER 33	Asgrow	36	3½	64
This newly introduced variety was expressly developed by Asgrow for the frozen pack and has given excellent results in commercial trials. Vine medium in height and foliage, resistant to Fusarium wilt, somewhat earlier than comparable varieties yet bearing a heavy crop. Pods mostly double, straight, blunt, with 7-8 dark green peas of excellent quality. Sieve sizes 2 to 6, largely 4 and 5. Seeds : 105 per oz.				
* FREEZER 37	Asgrow	30	3½	62
This new Asgrow freezing variety has been bred to combine the fine quality and earliness of Thomas Laxton with the advantages of a determinate vine. The earliest variety in the Perfection class, with vine similar to our Dark Skin Perfection; resistant to Fusarium wilt, high yielding and a reliable cropper. Pods single and double, straight, blunt, well filled with dark peas of brilliant green color, excellent flavor and texture. Sieve sizes 3 to 6, averaging 5. Seeds : 100 per oz.				
* GLACIER	Asgrow	32	3¼	61
Of Laxton type but resistant to Fusarium wilt. Vine dark green and medium heavy. Pods single, dark green, blunt ended, plump and well filled with 7-8 deep green, semi-round peas of excellent quality for canning or freezing. Seeds large : 100 per oz.				

* Suitable for quick freezing.

Laxton 7 : A new, prolific, wilt-resistant Thomas Laxton type

PEAS (continued)

	Asgrow	Height of plant inches	Length of pod inches	Days
HARDY		32	3 1/4	67
Vine dark green, vigorous, wilt-resistant and very high-yielding. Pods mostly double, blunt, plump, light green; contain 7-8 peas of very good canning quality. Approximate sieve sizes at Tenderometer 95-100 : 1 and 2 - 20% ; 3 and 4 - 42% ; 5 and over - 38%. Seeds : 130 per oz.				
HORSFORD'S MARKET GARDEN		28	3	72
Vine productive, dark green. Pods double, light green, blunt, straight; contain 6-7 peas; sieve sizes slightly smaller than Perfection. Seeds : 140 per oz.				
LAUREL	Asgrow	24	3	63
An early Perfection type developed by Asgrow for canners desiring a dwarf pea maturing one week ahead of regular Perfection. Podding very concentrated and prolific. Vine dark green and determinate. Pods double, light green, and straight. Approximate sieve sizes at Tenderometer 95-100 : 1 and 2-25% ; 3 and 4 - 52% ; 5 and over - 23%. Seeds small: 135 per oz.				
* LAXTON 7	Asgrow	38	3 1/2	61
A new Asgrow variety closely resembling Thomas Laxton in plant and pod, but resistant to Fusarium wilt and somewhat more prolific. Sieve sizes 3 to 7, average 5.5. An excellent all-purpose and widely adapted variety, giving particularly good results in freezing. Seeds : 95 per oz.				
* LAXTON 8	Asgrow	38	3 1/2	62
Now introduced from the Asgrow breeding program as a vigorous Laxton type slightly later in maturity. Vine strong and productive, resistant to Fusarium wilt, holds well in the field before yellowing. Pods single, plump, blunt; well filled with dark green peas of excellent quality. Sieve sizes 3 to 7, averaging 5. Seeds : 98 per oz.				

* *Suitable for quick freezing.*

	Height of plant inches	Length of pod inches	Days
LOLO Asgrow	38	3	63
A very hardy, double-podded, early sweet type for high temperature conditions. Reaches canning stage about six days after Surprise and Surpass. Vine very vigorous, medium green. Fully resistant to Fusarium wilt. Pods light green, plump, blunt, contain 6-8 peas of good quality and flavor. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 42% ; 3 and 4 - 48% ; 5 and over - 10%. Seeds : 130 per oz.			
LOYALTY Asgrow	28	3¼	64
A dwarf early sweet type possessing an ability to crop under adverse weather conditions. In developing this variety at our pea-breeding station, particular attention was given to incorporating the factors for resistance to heat, moisture, and aphids. Fully resistant to Fusarium wilt. Vine dark green with concentrated pod setting; pods double, straight, plump, well filled with 7-9 medium green round peas. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 16% ; 3 and 4 - 44% ; 5 and over - 40%. Seeds : 120 per oz.			
* NUMBER 40 Asgrow	28	5	74
Vine dark green, stocky and branching; resistant to Fusarium wilt. Pods single and double, round, dark green, plump, pointed curved at tip; contain 8-10 large, succulent peas; sieve sizes 3 to 7 and a few larger. Medium dark green when frozen. Seeds: 90 per oz.			
NUMBER 4683	28	2¾	60
An early canning variety adapted to Wisconsin conditions. Vine slender, light green. Pods single, straight, blunt, with 6-8 peas similar to Alaska but a sweet, semi-wrinkled pea. Approximate sieve sizes at Tenderometer 95-100: 1 and 2-30% ; 3 and 4 - 57% ; 5 and over - 13%. Seeds : 195 per oz.

Lolo : a vigorous early sweet with considerable resistance to heat

* Suitable for quick freezing.

Resistant Early Perfection 326 : Vigorous, prolific and of high quality

PEAS (continued)

	Height of plant inches	Length of pod inches	Days
PERFECTION	30	3 $\frac{1}{4}$	70
The Asgrow strain is known for its uniform, attractive pods. Vine medium green, stocky, resistant to Fusarium wilt. Pods double, medium green, blunt, slightly curved; contain 7-9 peas. Approximate sieve sizes at Tenderometer 95-100: 1 and 2-19%; 3 and 4-47%; 5 and over -34%. Seeds: 130 per oz.			
* PLUPERFECT	(Asgrow) 30	3 $\frac{1}{4}$	64
An exceptionally attractive Asgrow introduction for freezing, affording a pack of excellent flavor and eye appeal. Plant of Perfection type, determinate and high yielding. Pods mostly double, straight, blunt, well filled with 7-9 medium sized, dark green peas of fine texture and quality. Cotyledons green. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 24% ; 3 and 4-45% ; 5 and over -31%. Seeds : 120 per oz.			
PRIDE	(Asgrow) 30	3 $\frac{1}{2}$	65
Vine dark green, sturdy, uniform, resistant to Fusarium wilt and very resistant to aphids. Pods mainly double, straight, plump, dark green, well filled with 7-9 medium deep green, semi-round peas. Approximate sieve sizes at Tenderometer 95 - 100: 1 and 2 - 14% ; 3 and 4 - 43% ; 5 and over - 43%. Highly concentrated in season and produces crops of quality peas under adverse conditions. Seeds: 120 per oz.			
PROFUSION (Prince of Wales)	42	3 $\frac{1}{4}$	72
A medium late canning variety; resistant to Fusarium wilt. Vine medium green, with stout stem. Pods single and paired, light green, plump, straight, blunt; contain 5-6 large, oblong peas of good quality. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 4% ; 3 and 4 - 34% ; 5 and over - 62%. Seeds : 90 per oz.			

* Suitable for quick freezing.

	Height of plant inches	Length of pod inches	Days
* RAINIER (Asgrow)	40	3¾	66
A distinctive variety bred by Asgrow to extend the Thomas Laxton season, especially for quick freezing. Plant tall, of indeterminate type, resistant to Fusarium wilt; pods single and double, blunt, with very dark peas of highly attractive appearance, texture and flavor. Sieve sizes similar to Laxton 7. Seeds : 125 per oz.			
RESISTANT EARLY PERFECTION No. 326 (Asgrow)	36	3¼	68
An Asgrow development of Early Perfection type which in a few years has become the leader in its class. Vine dark green and vigorous, resistant to Fusarium wilt. Pods double, light green, contain 7-8 peas of high quality. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 28% ; 3 and 4 - 44% ; 5 and over - 28%. Seeds : 140 per oz.			
SIGNAL (Asgrow)	34	3¼	72
A late dwarf Profusion type but with green rather than yellow cotyledons, developed at our pea-breeding station to meet the need of canners for a late, large sized, run-of-pod variety of determinate growth habit. Vine dark green; fully resistant to Fusarium wilt. Pods paired, light green, plump, containing 6-8 very large peas of olive shape and excellent quality. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 8% ; 3 and 4 - 19% ; 5 and over - 73%. Seeds : 85 per oz.			
SURPASS (Resistant Surprise) (Asgrow)	28	2⅝	57
Introduced by Asgrow in 1940 to provide a variety with the desirable canning qualities of Surprise, plus resistance to Fusarium wilt and greater vigor. Vine sturdy, vigorous and prolific. Pods single, plump, blunt, contain 6-8 peas. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 19% ; 3 and 4 - 45% ; 5 and over - 36%. Seeds : 150 per oz.			
SURPRISE (Asgrow)	28	2⅝	57
An early canning variety, long popular for peas with tender skin and sweet flavor. Pods single, light green, plump, blunt; contain 6-8 peas. Seeds : 150 per oz.			
* TETON (Asgrow)	34	3¾	64
Vine dark green, fully resistant to Fusarium wilt. Pods single, large, straight, blunt, dark green, concentrated in season; well filled with 7-8 large peas of fine quality. Seeds : 105 per oz.			
* THOMAS LAXTON See Laxton 7 and Laxton 8, page 32.			
* VICTORY FREEZER (Asgrow)	29	3¼	65
A prolific, mid-season variety well adapted for freezing. Vine dark, slim, resistant to wilt. Pods double, dark, blunt ended. Peas dark and of excellent quality. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 2% ; 3 and 4 - 29% ; 5 and over - 69%. Seeds : 100 per oz.			
* WYOLA (No. 626) (Asgrow)	30	3	66
Developed to provide the freezing industry with a midseason variety of small-sized dark-colored peas. Plant of medium length, wilt-resistant and very prolific. Pods dark, highly double, blunt, well filled with 7-9 small, dark peas. Approximate sieve sizes at Tenderometer 95 - 100 : 1 and 2 - 32% ; 3 and 4 - 46% ; 5 and over - 22%. Seeds : 125 per oz.			

* Suitable for quick freezing.

Cowpeas for Southern Canners

	Height of plant inches	Length of pod inches	Days
BLACKEYE	40	7	70
Green peas large and attractive; reach full maturity about 15 days later for dried peas. Seeds : 160 per oz.			
BLACKEYE EXTRA EARLY	24	7	62
Compact plant of bush type with few runners, early and very productive. Seeds : 175 per oz.			
BROWN CROWDER	28	7	75
Plant thick-stemmed and branching. Pods filled with brownish peas crowded tightly together. Seeds brown : 155 per oz.			
CREAM CROWDER	28	7	75
Quite similar to Brown Crowder, but the peas are light green. Seeds cream : 150 per oz.			
CREAM LADY	26	7	75
Pods oval, straight, blunt, closely filled with light green tender peas. Seeds creamy white : 215 per oz.			
DIXIELEE	40	8	75
A new, highly prolific variety with considerable resistance to nematodes. Widely adapted. Peas light green, of fine table quality.			
PURPLE HULL 49	30	7	65
A cross between Blackeye Extra Early and regular Purple Hull. Compact plant, purple pods. Seeds : 160 per oz.

Yolo Wonder : of California Wonder type but resistant to mosaic

PEPPER

	Length inches	Diameter at stem inches	Days
ANAHEIM (California) CHILI	7	1½	80
A medium hot variety. Plant large, somewhat spreading, very prolific. Fruits pendent, long, tapered, smooth, deep green turning to deep scarlet.			
CALIFORNIA WONDER	4½	3¾	75
Plant vigorous, upright, prolific. Fruits largely 4-lobed, upright and pendent; short oblong with little or no taper; very attractive, smooth, uniform and deep green changing to bright crimson; flesh very thick, sweet and mild.			
EARLY CALWONDER	4	3½	69
An Asgrow early strain of California Wonder maturing a week to ten days earlier. Plant stocky and sturdy, vigorous, prolific. Fruits 3- and 4-lobed, upright, attractive, smooth, uniform.			
FLORAL GEM	2¼	1	75
A hot variety used chiefly in the Southwest by processors. Fruits small, conical, yellowish green, maturing to deep red.			
LONG RED CAYENNE, thick type	5¼	1	70
This Asgrow strain of the favorite hot pepper is notably more substantial, averaging an inch in diameter at the shoulder or somewhat larger, and borne plentifully.			
LONG RED CAYENNE, Original thin type	5	½	70
Used largely for canning, and in sauces, pickles, etc. Plant large and productive. Fruits tapering, pendent, frequently twisted; very pungent; deep green changing to brilliant red.			
PIMENTO, PERFECTION	3½	2½	80
A popular canning variety. Plant large, erect, prolific. Fruits heart-shaped, pendent, very smooth; color dark green, changing to bright crimson, flesh exceptionally thick, sweet and mild.			
SUNNYBROOK	2¼	2¾	73
A tomato-shaped pepper. Plant vigorous and fairly productive. Fruits pendent, flattened globe, deep green turning to deep red; flesh thick, sweet and mild.			
YOLO WONDER	4½	3¾	73
Of California Wonder type but resistant to tobacco mosaic. Plants are compact, permitting close setting and affording protection from sun scald. Fruits are largely pendent and closely resemble those of California Wonder: thick-walled and blocky.

 The logo consists of the word "Asgrow" in a stylized, serif font, enclosed within an oval border.

PUMPKIN

The column of Days indicates the relative time from seed to mature fruits. The measurements indicate full size.

	Length inches	Diameter inches	Days
CONNECTICUT FIELD	12	14	118
Fruits deep globe shaped; 15-20 lb. Surface smooth, somewhat ribbed; deep orange in color; flesh thick, orange-yellow, somewhat coarse.			
DICKINSON	18	12	120
A selection from Kentucky Field for elongated shape with thick flesh. Vine strong and productive; fruits about 20-lb. with tan exterior, orange interior, sweet and of good canning quality.			
SMALL SUGAR (New England Pie)	8	10	108
One of the best varieties for general use. Of small handy size, but tonnage equals others. Fruits round, flattened at ends, 6-8 lb., skin hard, smooth, somewhat ribbed, deep orange.

Boston Marrow : for heavy tonnage of fine-grained squash

SQUASH

	Length inches	Diameter inches	Days
BOSTON MARROW	12	9	97
Fruits of Hubbard size and shape, weigh 12-16 lb. The deep orange skin is somewhat rough, and quite hard; flesh is yellow, thick, firm, fine grained, moist. Vine of trailing type.			
GOLDEN DELICIOUS MARROW	11	8	100
Fruits top-shaped, weigh about 7-lb. Color bright reddish orange, with deep green tip at blossom end. Flesh thick, medium grained, golden orange, sweet and dry.			
GOLDEN HUBBARD	11	8	100
Fruits somewhat pointed at each end, weigh 8-10 lb., moderately warted, orange-red, with faint cream colored stripes toward blossom end; flesh deep orange, dry, and of fine quality.			

SPINACH

Varieties marked s.s. are smooth seeded; those marked p.s. are prickly seeded.

	Days
* AMERICA, s.s.	48
A new variety from a cross between Viking and Bloomsdale Long Standing. Leaves dark green, savoyed and thick. Withstands heat better than others of this type and is slower to bolt.	
* BLOOMSDALE SAVOY, LONG STANDING, s.s.	42
Plant large, uniform, erect and sturdy, with dark green leaves, highly crumpled.	
* GIANT NOBEL (Giant Thick Leaf), s.s.	45
Plant vigorous and spreading; slow to bolt, and a heavy yielder. Leaves large, thick, smooth, pointed with rounded tip; medium green, tender.	
* HOLLANDIA (Prickly Winter), p.s.	39
More attractive and productive than the old Prickly Winter. The leaves are large, broad, arrow-shaped, and dark green. Popular in California.	

*Hybrid spinach
highly resistant
to downy mil-
dew or blue
mold*

HYBRID spinach has been developed by Dr. H. A. Jones, U.S.D.A. and seed of the first in a series, at present identified as Hybrid No. 7, is being grown in the 1955 Asgrow crops. It has considerable hybrid vigor, the large, upright plants developing rapidly. The leaves are large, with savoying about midway between Virginia Savoy and Viroflay. Hybrid No. 7 is highly resistant to blue mold, or downy mildew, though a few plants may not be so. Other hybrids immune to blue mold, and differing in plant and leaf type, will follow shortly.

* OLD DOMINION, s.s.	40
Resistant to mosaic and of long standing character. Plant similar to Virginia Savoy but with leaves somewhat more pointed.	
* VIKING (Northland: Heavy Pack) s.s.	45
A darker-leaved selection from Nobel. Plant large, spreading, vigorous, long standing and heavily productive. Leaves large, thick, medium dark green.	
* VIRGINIA SAVOY (Blight Resistant), s.s.	39
Bred at the Virginia Experiment Station for mosaic resistance. Vigorous and not long standing. Leaves somewhat smoother than other strains of Savoy.	
* VIROFLAY, s.s.	40
An old, vigorous growing variety, with long, broad, pointed, thick, smooth, deep green leaves. Adapted to fall and winter in California and Texas.	

* Suitable for quick freezing.

TOMATO

New varieties are being developed at our breeding stations and older varieties improved. Disease resistance, attractiveness of color, thickness of walls, and heavy cropping qualities have been attained to a high degree. Seed is also available of leading varieties, certified as to purity and freedom from disease by various State Departments of Agriculture.

DAYS: The number of days indicated represents the time required from setting of plants to produce marketable fruits.

		Days
ASSOCIATED BALTIMORE	Asgrow	82
Our selected strain of this well-known canning type. Vine large, vigorous, somewhat open. Fruits medium large, flattened globe, deep scarlet, fairly solid and firm. The regular strain, Greater Baltimore, is also available.		
BROOKSTON		83
A new Fusarium wilt resistant canning variety developed at the Ohio (Wooster) Experiment Station. Vine indeterminate, maturing a few days before Rutgers, and setting fruit better under unfavorably high temperatures. Fruits large, slightly flattened, of good red interior color.		
CHESAPEAKE		90
Developed at the University of Maryland and well adapted to canning in the Tri-State area. Vine indeterminate, reported tolerant to Fusarium wilt. Fruits large, somewhat flattened globe, have the even ripening factor, resistant to cracking, of good color and solids content.		
CLARK'S SPECIAL EARLY (Bonny Best : John Baer),	Asgrow	72
Vine of medium growth, open, prolific. Fruits medium large, globe-shaped, bright scarlet, smooth, solid, with thick walls.		
EARLYPAK		78
Introduced by the Ferry-Morse Seed Co. in 1951. Vine short, compact, determinate; productive, with concentrated set. Fruits globular, slightly flattened; thick-walled and firm; bright scarlet with fair interior color.		
GARDEN STATE		84
Developed by Campbell Soup Co. Vine vigorous, partially resistant to Fusarium wilt and late blight; fruits slightly flattened globe shape, attractive in quality, color and size, thick-walled and mild flavored.		

GREATER BALTIMORE

85

Vine large, vigorous, somewhat open. Fruits flat, medium large, deep scarlet, fairly solid and firm.

HOMESTEAD

84

Developed at the Southeastern Vegetable Breeding Laboratory, U.S.D.A., primarily as a green wrap type, but of some interest for canning. We have selected this somewhat variable variety for greater uniformity. Vine determinate, large and heavy, giving good fruit protection and setting well. Fruits medium large, slightly flatter than Rutgers, of acceptable color and quality. Resistant to Fusarium wilt.

INDARK

88

A new Fusarium wilt resistant Rutgers type developed at the Arkansas Agricultural Experiment Station. Vine indeterminate, vigorous, of erect growth habit. The deep globe fruits are medium large, relatively free from cracking, of good color and solidity.

JEFFERSON

82

Developed at our Midwest breeding station. Vine medium to heavy, vigorous and prolific, resistant to Fusarium wilt. Fruits globe-shaped, a little smaller than Rutgers in size, dark red in color both inside and outside, thick-walled with small core and relatively free from cracking.

KOKOMO

84

A wilt-resistant variety in the Rutgers class, comparable with Jefferson, introduced by the Indiana Agricultural Experiment Station in 1953. Vine indeterminate, somewhat smaller than Rutgers, immune to Fusarium wilt. Fruits globular, a little smaller than Rutgers, slightly larger than Jefferson; of medium to deep red color, thick walled, smooth, with small blossom end scar. Midseason pickings exceed Rutgers but total yield is similar.

KOPIAH

83

Developed at the Mississippi Agricultural Experiment Station and named for Copiah County. Vine stocky, indeterminate, well foliated; resistant to Fusarium wilt. Fruits medium to full globe, ripening evenly dark red to stem end, better in this regard than Rutgers but paler in interior color.

Jefferson : An Asgrow variety resistant to Fusarium wilt

TOMATO (continued)

	Days
LORAN BLOOD VR	70
Introduced by the Utah Experiment Station to provide a variety with resistance to Verticillium wilt. Large fruits of flattened globe shape and good red color.	
LONGRED	75
Developed at the New York Experiment Station, Geneva, N.Y. Vine medium in size, with many branches; leaves small but abundant. Fruits globular to deep globular, of medium size, solid and well colored.	
MANALUCIE	86
Bred at the Gulf Coast branch of the Florida Agricultural Experiment Station. Vine vigorous, prolific and indeterminate, resistant to Fusarium wilt, gray leaf spot, early blight and leaf mold, with some resistance to black spot stem canker and tobacco mosaic. Fruits large, globular, slow in ripening, relatively resistant to cracking and blossom end rot.	
MARGLOBE	77
Vine vigorous, with heavy foliage, partially resistant to Fusarium wilt and nail-head rust; moderately productive. Fruits medium large, deep globe, smooth, solid, with thick walls. The Asgrow strain is distinguished for its freedom from puffiness and heavier yield.	
MOSCOW VR	74
Vine compact and prolific, resistant to Verticillium wilt. Fruits round, smooth and firm.	
PEARSON IMPROVED	90
Vigorous, determinate vine with ample foliage and heavy set, fruits medium large, smooth, semi-globe and of good red color. Unusually free from cracks or other defects. The leading variety for canning in California.

Pearson Improved : particularly adapted to California conditions

Rutgers : a standard midseason variety of wide adaptation

	Days
PURDUE 1361	82
A mid-season canning variety developed at the Purdue Experiment Station; of earlier maturity and better fruit setting ability than Rutgers. Vine large, determinate. Fruits medium large, flattened globe shape, of acceptable color for processing. Has shown high seedling vigor and rapid emergence when direct seeded. Not resistant to Fusarium wilt.	
RED TOP	74
A paste-type variety introduced by the New York Experiment Station at Geneva. Vine determinate and compact, much branched with thick foliage. Fruits oval shape, 2½" - 3½" long, 1" - 1½" diameter; 7 to 10 fruits per lb., deep red, mostly 2-celled; in concentrated set that can be harvested in two pickings.	
RUTGERS	86
An excellent canning variety of wide adaptation. Vine large and prolific with thick stems and vigorous growth; partially resistant to Fusarium wilt. Fruits globular, bright red, smooth, with thick walls and small seed cells. By careful selection over a period years, we have developed a very choice deep fruited strain, notable for its uniformity and high yield of U.S. No. 1 fruits.	
Certified Rutgers, in sealed Asgrow containers, is our strain with State Department of Agriculture certification of trueness to type and and freedom from seed borne diseases.	
SAN MARZANO (Improved King Humbert)	80
A small fruited variety used for canning solid pack, paste, and puree. Vine medium, rather open, very prolific. Fruits largely rectangular, 3½" long x 1½", two-celled, borne in clusters, deep red, with little juice and of very mild flavor. The Asgrow strain is notably thick, uniform and solid.	
SCARLET DAWN	70
Vine of medium growth, fairly open, prolific. Fruits medium large with thick wall structure, globular, smooth, bright scarlet, ripening well to the stem, exceptionally attractive.	

TOMATO (continued)

SIOUX	Days 70
Vine determinate; relatively open with finely-divided leaves. Fruits of medium size, almost globular, thick-walled and very free from hard core, have the uniform ripening factor.	
STOKESDALE	73
Introduced by the Francis C. Stokes Co.; an attractive second early variety of wide adaptability and heavy yielding ability. Fruits smooth and practically spherical, medium large in size and of good red color.	
URBANA	80
Developed at the Illinois Agricultural Experiment Station. Should be grown only on soils of high fertility because of the heavy set. Vine determinate, compact and bushy, affording good protection from sun scald. Fruits globular, a little smaller than Rutgers, of good color and quality.	
WILTMASER	86
A new wilt resistant canning variety developed at the Delaware Experiment Station. Generally similar to Rutgers but the heavy yielding, large, indeterminate vine has heavier, denser foliage. Fruits globular, thick walled, with small seed cavity, of fine color.	

SMALL FRUITED

Red or Yellow Cherry, Pear and Plum — a variety of shapes in either color, very prolific and disease-resistant.

ASGROW VIGORPAK* SEED

From long research we have found a way to process and package small seeds so that they will keep their initial vitality for years under almost any conditions, short of killing temperatures. After being brought to optimum dryness, the seeds are treated with a protectant, packed in cans and hermetically sealed. Thus they are safeguarded from high humidity, from damage by vermin or pests and from danger of mixtures.

* Reg. U.S. Patent Office

TURNIP

The number of days represents the time required from sowing of seed to roots of marketable or storage size, at our Eastern breeding station, Orange, Connecticut.

Shogoin :
for greens and roots

	Diameter inches	Days
PURPLE TOP WHITE GLOBE	4	55
Top dark green, large, erect, cut leaved. Root globe-shaped, very smooth, upper part purple-red, white below; flesh white, sweet, crisp and tender. The Asgrow strain is very uniform and attractive.		
SEVEN TOP		35
A very hardy sort used in the South for canning "greens." The young shoots are very tender; roots tough and unsuitable for food.		
SHOGAIN		30
A popular fast growing variety, for early greens and small roots. Top 18"-20" tall, erect, bright green, strap leaved. Root semi-globular, white throughout, mild and tender.		
WHITE EGG	2¼	60
Top medium sized, upright, cut leaved. Root white, egg-shaped, 3"-3½" long, white throughout; smooth, fine grained.		

RUTABAGA : SWEDE TURNIP

AMERICAN PURPLE TOP	5	90
Root large, globular, inclined towards top shape; yellow with purple top; flesh light yellow, firm and of good texture.		

WATERMELON

	Weight pounds	Days
CITRON, GREEN SEEDED	12	95
Used only for preserving; extremely productive. Fruits round with alternate dark and light green striping. Flesh white and solid; seeds quite plump, smooth, glossy green.		
CITRON, RED SEEDED	10	95
Practically identical with Green Seeded Citron, except that it is slightly smaller and has red seeds. Used for preserving.		

The Asgrow Program of Research and Breeding

FOR the past century we have been engaged in the production of vegetable seed. This period of time largely coincides with the development of the canning industry, with which, as with the freezing industry in later years, we have continuously had close and friendly relations. Our work in maintaining or improving standard varieties and in the breeding of others has therefore been chiefly directed towards the needs of processors. These needs have arisen from advances in canning or freezing technique, in the ever-increasing spread of plant diseases and even in the vagaries of public taste in foods.

Six Asgrow breeding stations are now in operation, situated in as many different parts of the country, their locations having been determined by the needs of the species to be grown at each. The stations are charged with the following duties:

- (1) The maintenance of high quality parent Asgrow stocks to be multiplied annually in seed crops destined for distribution to our customers.
- (2) The production of new or improved types to meet special needs.
- (3) To cooperate with federal and state agricultural experiment stations.
- (4) To determine the value of new or improved strains for particular localities.
- (5) To render service to customers by investigating special problems or furnishing specific information.

Part of the Asgrow Eastern Breeding Station at Orange, Conn.

Seed analysis section in the Asgrow Research Center

Good seed, as we understand the term, is viable, clean, disease-free, and true to type.

The most essential character of any lot of Asgrow seed is its ability to germinate and produce normal plants under average conditions.

One of the first functions of a seed laboratory is that of determining seed viability so that such seed may be evaluated for use by our customers. Viability implies ability both to germinate and to grow when proper environmental conditions are provided. Broken, malformed or other seedlings incapable of producing plants are considered as not having germinated.

A second function is to determine the purity of seed stocks by computing freedom from dirt, chaff, other crop seeds, and weed seeds. If weed seeds or other crop seeds are present, it is necessary to identify them accurately and to report if any noxious weeds are present. A third function of a seed laboratory is to determine if seed may be contaminated either internally or externally with bacterial or fungus organisms that are pathogenic to the seed or the plants that are expected to develop from the seed. Our germination and analytical laboratory at the Asgrow Research Center, Twin Falls, Idaho, is properly equipped and staffed to perform these functions efficiently and on a large scale. As we handle a very large number of samples, room germinators are used. (See page 27.)

Complete and accurate records are made and kept of all operations in the laboratory. These records are on permanent file, for ready reference. Purity and germination samples are retained in a systematic file for at least one year after the entire crop represented by these samples has been distributed.

A PLANTING TABLE

<i>Species</i>	<i>Seed for 100 ft. ounces</i>	<i>Seed for an acre, pounds</i>	<i>Approx. no. seeds per oz.</i>	<i>†Rows apart, feet</i>	<i>§ Plants apart in rows, inches</i>	<i>‡Planting depth, inches</i>
Asparagus	60 plants		1,500	2½	20	6
Beans, bush	8	50-70	60-90	2½	3-4	1½
Beans, pole	6	30-40	70-120	3-4	9, or hills	1½
Lima beans, bush ..	8	35-60	20-70	2	3-4	1½
Lima beans, pole ..	6	25-40	20-65	3-4	9, or hills	1½
Beet	½	8-10	1,500	2½	3-4	½
Broccoli	⅛	2-3; or ¼*	9,000	2	18	¼
Brussels Sprouts ...	⅛	2-3; or ¼*	8,000	2	18	¼
Cabbage, early	⅛	2-3; or ¼*	8,500	2	12	¼
Cabbage, late	⅛	2-3; or ¼*	8,500	2	18	¼
Carrot	⅛	2-3	25,000	1½	1	¼
Cauliflower	⅛	¼*	10,000	2	18	¼
Celery	⅓	1-2; or ¼*	50,000	2-3	5	⅛
Collard	⅛	2-3; or ¼*	8,000	2½	8-12	¼
Corn, early	2	6-8	100-200	3	12	1½
Corn, main crop	2	6-8	100-200	3	12	1½
Cucumber	½	1½-2	1,000	4	24	¾
Egg Plant	⅓	¼-½*	6,000	3	30	½
Kale	⅛	2-3	7,500	2½	24	¼
Mustard	¼	1-2	15,000	1½	4-5	¼
Okra	¼	5-6	500	3	15	1
Onion	¼	3-4	8,000	1½	3-4	½
Peas	8-12	200-300	90-150	2-3	1-2	1
Pepper	⅓	3-4; or ¼*	4,000	2½	24	¼
Pumpkin	⅛	1-2	100	8	60	1
Rhubarb	20 plants			4	48	
Spinach	¼	10-15	2,500	1½	6	¾
Squash, bush	½	3-4	300	4	36	1
Squash, vining	¼	2-3	100	6	60	1
Tomato	⅓	¼-¾; or ⅛*	10,000	3-6	24-48	¼
Turnip	⅛	2-3	9,000	1½	4-6	¼
Rutabaga	⅛	1-2	8,000	2	6	¼
Watermelon	⅛	3-4	200-300	8	96	1

* When plants are raised in greenhouse or hotbed.

† Varies with method of cultivation, etc.

§ The figures refer to stand of plants, not rate of seeding.

‡ For medium soils. A little more in sandy soils, a little less in heavy soils. Moisture is also a factor.

PLANTS REQUIRED TO SET AN ACRE

<i>Inches apart</i>	<i>Number of plants</i>	<i>Inches apart</i>	<i>Number of plants</i>	<i>Inches apart</i>	<i>Number of plants</i>
12 x 3	174,000	24 x 18	15,500	36 x 24	7,260
12 x 12	43,500	24 x 24	11,000	36 x 36	4,840
18 x 3	116,000	30 x 6	35,000	36 x 48	3,500
18 x 12	29,000	30 x 12	17,500	36 x 60	2,900
18 x 18	19,000	36 x 3	58,000	48 x 60	2,000
24 x 2	130,000	36 x 12	14,500	60 x 60	1,700
24 x 12	21,780	36 x 18	9,680	72 x 72	1,210

Asgrow Seeds are BRED - not just grown