

Gloeckner

YEAR-ROUND

CHRYSANTHEMUM

MANUAL



1958





TERMS OF SALE

Fifty rooted cuttings of each variety is the minimum that can be supplied. More than 50 of a variety must be in multiples of 50.

Any changes or cancellation of chrysanthemum orders must be received at least 30 days before shipping date. Every effort is being made to deliver stock which is free from pests, but purchases must be made with the understanding that we assume no responsibility for losses which may result from same.

To facilitate deliveries, cuttings will be shipped on Monday and Tuesday of each week. However, we will gladly make shipment on Friday or Saturday, if specifically requested and provided the order is received one month prior to the requested shipping date.

WARRANTY AND LIMITATION OF LIABILITY: Subject to the limitations of liability herein set forth, we warrant that the seeds, plants or bulbs sold are as described on the container, within recognized tolerances. Our liability on this warranty is limited in amount to the purchase price of the seeds, plants or bulbs. In no event shall we be liable for the crop, or for any loss due to the failure, impairment or quality thereof or varietal variance therein, whether such loss results from breach of the foregoing warranty, from breach of any other provision of the buyer's contract for purchase of said seeds, plants or bulbs, or from any other

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Gloeckner YEAR-ROUND CHRYSANTHEMUM MANUAL

The 1958 edition of the Gloeckner Chrysanthemum Manual contains descriptions of onehundred and twenty-seven varieties never listed before. They result from the intensified breeding and trial programs of our propagators, and it is with pleasure that we introduce them to you here for the first time. Included among them are outstanding new varieties many of which round out the color selection in pot chrysanthemums. They are ideal growers, recommended for all seasons of the year.

In addition to these new varieties you will find in this thirteenth edition of your Gloeckner Chrysanthemum Manual a complete listing of available varieties, up-to-date information on how to produce money-making crops, plus comprehensive flowering schedules. Remember:

"OUR INTEREST IN YOU AND YOUR CROPS BY NO MEANS ENDS WITH THE SALE, AS WE ARE MORE THAN ANXIOUS TO HAVE THE MATERIALS WE SELL, GROW AND PROVE PROFITABLE TO YOU."



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Year-Round Flowering of Chrysanthemums

For the past twelve years we have seen cut chrysanthemums on the markets every month of the year. To assure high quality cut flowers the plants must be grown under optimum conditions. By optimum conditions we refer particularly to the basic conditions of a good soil, the disease-free condition of the plant material, the absence of any checks in growth from stock plant to the mature flowering plant, adequate means of temperature control for all stages of growth and the selection of the right varieties out of each group for the respective flowering periods. It is with this in mind that we prepare this Manual.

Response Group

Prior to year-round flowering of chrysanthemums, we

referred to varieties as to their natural flowering date. Now that year-round flowering is in general use, we refer to a variety as to its response to short-day treatment. When we say 9 week response, we mean that it will bloom 9 weeks after the short-day treatment is started. A 13-week group requires 13 weeks after short-day treatment is started, and so on with all the other response groups.

Daylength Control

When chrysanthemums are grown around the year, it is very necessary that we know when to apply shade or light to make the plants respond as we desire. The following schedule will give you the proper dates for lighting and shading for each response group.

	ROUND LIG		SHADING SCH	EDULE
Response Group	Shading to Stop in Fall	Lighting to Start in Fall	Shading to Start in Spring	Lighting to Stop in Spring
7 week	Aug. 25	July 14	Apr. 7	May 26
8 week	Sept. 1	July 21	Mar. 31	May 19
9 week	Sept. 8	July 28	Mar. 24	May 12
10 week	Sept. 15	Aug. 4	Mar. 17	May 5
11 week	Sept. 22	Aug. 11	Mar. 10	Apr. 28
12 week	Sept. 29	Aug. 18	Mar. 3	Apr. 21
13 week	Oct. 6	Aug. 25	Feb. 24	Apr. 14
14 week	Oct. 13	Sept. 1	Feb. 17	Apr. 7

Lighting

The chrysanthemum is generally referred to as a short day plant but it is rightfully a long night plant. It requires a long night period of at least twelve hours or more to bud and flower properly. When we want to prevent bud initiation we should reduce the night period to at least seven hours. This is done by lighting the plants three to four hours each night, starting at 10 p.m.

To prevent the initiation of flower buds, the light intensity must not be lower than 7 foot-candles. When growing seven or eight week varieties this minimum should be 9 foot-candles.

Usually we figure that it requires 11/4 watts per sq. ft. of area covered; that includes benches and walks. When lighting a single bench 42 inches to 48 inches

wide use 60-watt lamps in a reflector, spaced 4 feet apart, 2 to 3 feet above the tops of the plants. For two benches 42 to 48 inches wide use 100-watt lamps in a reflector, spaced 6 feet apart, 2 to 3 feet above the tops of the plants.

Lights must be used according to the schedule above. It has been found that best results are secured by interrupting the night. Begin lighting at 10 p.m. for the number of hours shown below:

ADDITIONAL LIGHTING SCHEDULE

- 3 Hours during the months of August, September, October, March, April and May.
- 4 Hours during the months of November, December, January and February.



Year-Round Flowering of Chrysanthemums

Shading

Use a good durable Black Cloth which when applied will reduce the light intensity to 2 foot-candles or less. More light intensity than this will result in delayed

flowering and unevenness of bloom.

The cloth should be applied at 5 p.m. and removed at 8 a.m. When the temperature is above 90 degrees at 5 p.m. delay the application of the cloth until 6 or 7 p.m. This will reduce the heat under the cloth and yet produce twelve hours or more of night necessary for proper development. Continue covering each evening on pompons until the latest buds show color and most of the flowers are well developed. For large flowering varieties, shading can be discontinued after all flowering buds have attained the diameter of approximately one-half inch.

Be sure that covering is complete on all benches shaded, as any leaks in light will cause uneven spots in the bench at blooming time.

Black cloth should be applied each evening. Missing one night a week will give fair results, but delayed flowering results when cloth is not applied each evening.

Temperature Control

For inter-connected units or crops at different stages of development the most efficient and effective temperature recommendations we can make are cool 60° crops. The house temperature is run at a straight 60° level night and day, cloudy or sunny. This is the lowest, safest minimum. It is the night temperature that counts. Eliminating fluctuation promotes steady, gradual growth. Keeping day temperatures down encourages more ventilation with corresponding reduction in relative humidity. This promotes stronger, heavier stems. On very bright days temperatures will frequently go higher but this should be due to radiant heat from the sun rather than convective greenhouse heat.

Excessive high temperatures prohibit the bud development, and during seasons of 90 degree night temperatures, it is suggested that the black cloth be raised after twilight and lowered again in the morning before daylight. This cooler temperature hastens the development of the buds. Air conditioning greenhouses has made it possible to grow chrysanthemums in locations where natural high temperatures prohibited the development of this crop.

Selection and Varieties

The careful selection of varieties in year-round flowering is very important. An intimate knowledge of varieties will eliminate the pitfalls associated with this crop. Knowing how to select varieties on the basis of response groups is equally as important as selecting varieties that will respond out of season.

In latitudes where seasons, temperature and light conditions are variable, it is to any grower's advantage that he grow only those varieties that will provide the highest yields and best quality for each period of the

The South is of course more fortunate in that light duration there and intensity fluctuates less than is experienced in the North, and even though only three or four response groups are used during a 52-week period, the need for meticulous varietal planning is just as important as it is for any one period in the North.

Your Gloeckner representative is well equipped to furnish you the details and the proper varieties for each particular flowering date. His intimate knowledge will eliminate the guess work associated with mum pro-

gramming.



Well Grown Year-Round Crops - Note lights and black cloth

Gloeckner

Year-Round Flowering of Chrysanthemums

INTERRUPTED LIGHTING FOR WINTER STANDARDS

When flowering December thru March crops of the standard varieties Indianapolis, Queen's and Mefo's the use of interrupted lighting has been tested and is recommended as a means of increasing petallage. This materially improves the appearance of the flower reducing the effect of decreased petallage and quilling known to be associated with abrupt shade during the short days of the winter period.

The essential requirements are:

- 1. Units planted to only the above mentioned varieties. The procedure has not been thoroughly tested on spray varieties or other standard varieties.
- 2. Accurate control of temperature. A 60° minimum night at all positions within the unit plus correspondingly higher day temperatures. Cloudy days were run at the 60° minimum. Bright days were between 65°-70°.
- 3. A rigid adherence to scheduled timing recommendations with interruption.
- 4. No extreme temperature reduction at or near the finish of the crop. Low temperature is known to be partly responsible for an increase of quilling in the Indianapolis varieties. A minimum of 55° is satisfactory only after buds show some color.



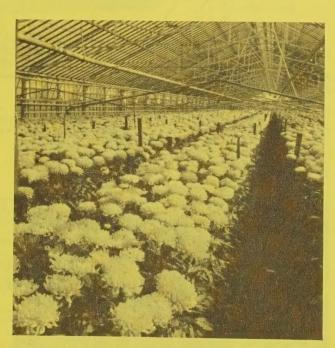
Well Grown House of Indianapolis For January Bloom

5. The method recommended is as follows:

For any given crop to be flowered during the December through March period determine from the schedule the date lights are stopped. Count back twelve (12) days and on this date start and maintain nine (9) continuous short days of no lights. At the end of this nine (9) short day period run twelve (12) continuous days of lights on. Then turn lights out and maintain normal short days.

Thus the total number of long days as called for by the schedule remains the same. This second long day period immediately following the first short day period of nine (9) days serves to slow down the early bud development stage resulting in a petallage increase of approximately 50%.

To illustrate: For flowering Indianapolis White (10 week) for December 15 the schedule calls for October 6 lights out. Counting back twelve (12) days gives September 24. Therefore run short days from September 24 to and including October 2 (9 continuous short days). Starting October 3, run twelve (12) long days to and including October 14. On October 15 start the final and continuous short day period. This is the nine (9) short day—twelve (12) long day formula for interrupted lighting.

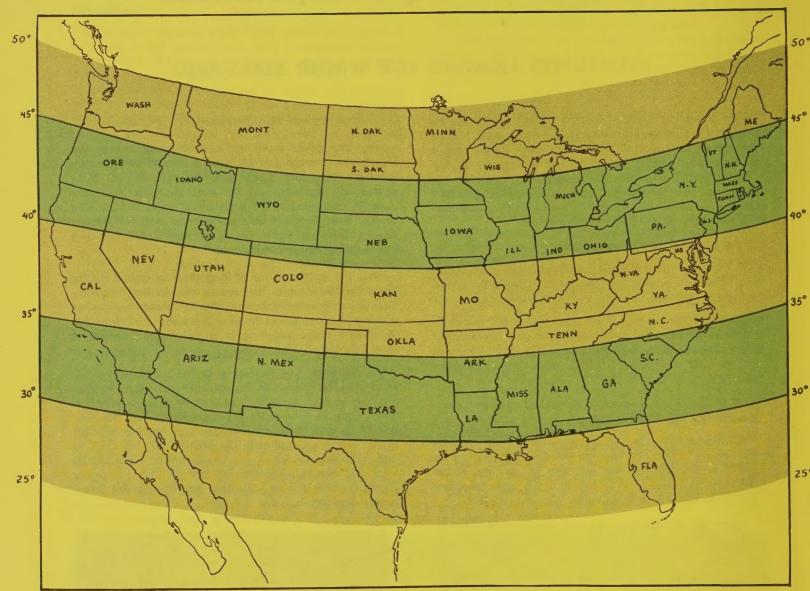


Supporting Standards with Wires and Cross Strings





Year-Round Flowering of Chrysanthemums



Copyright 1951 Fred C. Gloeckner & Co. INC



Standards in Saran House Protected with Polyethylene after Color Developed



THE MAP ABOVE WILL ASSIST YOU IN LOCATING THE LATITUDE IN WHICH YOUR GREEN-HOUSE IS LOCATED. YOU NEED THIS INFORMATION TO USE THE FLOWERING SCHEDULES THAT FOLLOW ON THE NEXT PAGES.





BLOOM JANUARY 5, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Aug. 18	Sept. 8	Sept. 1 —Sept. 29 Aug. 25—Oct. 6 Aug. 18—Oct. 13 Aug. 18—Oct. 20 Aug. 18—Oct. 27	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Aug. 25	Sept. 15	Sept. 1 —Sept. 29 Aug. 25—Oct. 6 Aug. 25—Oct. 13 Aug. 25—Oct. 20 Aug. 25—Oct. 27	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Sept. 1	Sept. 22	Sept. 1 —Oct. 6 Sept. 1 —Oct. 13 Sept. 1 —Oct. 20 Sept. 1 —Oct. 27	no no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Sept. 8	Sept. 29	Sept. 8 —Oct. 13 Sept. 8 —Oct. 20 Sept. 8 —Oct. 27	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
	s		THE STATE OF	Chattanooga December Glory	Marketeer	Crystal Queen Imp. Ind. White Meto
WHITE	P	Silversmith Snowcap Wh. Riviera	Acclaim Icecap Illini Alba Northwind Safellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
	S			Dk. Yel. Chai'n'ga Golden Pearson Yellow Glory	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellow Yellow Mefo Yellow Queen
YELLOW	P	Ill. Brighteyes Shamrock Sun Valley Yel. Riviera	Coronation Cinderella Dk. Yel. Satellite Corsair Gold Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Pippin Gold Ball Lollipop Souvenir Yel. Sculpture Yel. Taffeta	Heyday Yel. Iceberg Yellow Igloo Yel. Beauregard Yellow Shasta Yellowtop
	S			Oak Leaf Br. Pefer John	Calvert's Gold Valentine	Ind. Bronze Copper Queen
& RED	P	Br. Riviera Merrymaker Topaz	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation	Beauregard Climax Br. Portrait
	S			Pink Peter John	Ed Seidewitz Thanks. Pink	Ind. Pink Orchid Queen
PINK	P	Alvoda Riviera Rosalind	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile





BLOOM JANUARY 12, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
	Lot	N Inch I was	Sept. 1 -Oct. 6	no	14 Week
	1	A TOPIC DAY	Aug. 25-Oct. 13	no	13 Week
40-45°	Aug. 18	Sept. 8	Aug. 18-Oct. 20	no	12 Week
			Aug. 18-Oct. 27	no	11 Week
	1		Aug. 18-Nov. 3	no	10 Week
			Sept. 1 -Oct. 6	no	14 Week
	Aug. 25	Sept. 15	Aug. 25-Oct. 13	no	13 Week
35-40°			Aug. 25-Oct. 20	no	12 Week
			Aug. 25-Oct. 27	no	11 Week
			Aug. 25-Nov. 3	no	10 Week
			Sept. 1 -Oct. 13	no	13 Week
30-35°	Sept. 1	Sept. 22	Sept. 1 -Oct. 20	no	12 Week
30-33	Jepi. I	Sepi. 22	Sept. 1 -Oct. 27	no	11 Week
			Sept. 1 —Oct. 20	no	10 Week
			Sept. 15-Oct. 20	no	12 Week
25-30°	Sept. 15	Oct. 6	Sept. 15-Oct. 27	no	11 Week
			Sept. 15-Nov. 3	no	10 Week
		AFAIR NI - BI AA-AL - L DI			

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
	s			Chattanooga December Glory	Marketeer	Crystal Queen Imp. Ind. White Meto
WHITE P	P	Silversmith Snowcap Wh. Riviera	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
	S			Dk. Yel. Chat'n'ga Golden Pearson Yellow Glory	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellov Yellow Mefo Yellow Queen
YELLOW	P	Ill. Brighteyes Shamrock Sun Valley Yel. Riviera	Coronation Cinderella Dk. Yel. Satellite Corsair Gold Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Pippin Gold Ball Lollipop Souvenir Yel. Sculpture Yel. Taffeta	Heyday Yel. Iceberg Yellow Igloo Yel. Beauregard Yellow Shasta Yellowtop
BRONZE	S			Oak Leaf Br. Peter John	Calvert's Gold Valentine	Ind. Bronze Copper Queen
& RED	P	Br. Riviera Merrymaker Topaz	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation	Beauregard Climax Br. Portrait
	S			Pink Peter John	Ed Seidewitz Thanks. Pink	Ind. Pink Orchid Queen
PINK	P	Alvoda Riviera Rosalind	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile





BLOOM JANUARY 19, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Aug. 25	Sept. 15	Sept 1 —Oct. 13 Aug. 25—Oct. 20 Aug. 25—Oct. 27 Aug. 25—Nov. 3 Aug. 25—Nov. 10	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Sept. 1	Sept. 22	Sept. 1 —Oct. 13 Sept. 1 —Oct. 20 Sept. 1 —Oct. 27 Sept. 1 —Nov. 3 Sept. 1 —Nov. 10	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Sept. 8	Sept. 29	Sept. 8 —Oct. 20 Sept. 8 —Oct. 27 Sept. 8 —Nov. 3 Sept. 8 —Nov. 10	no no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Sept. 22	Oct. 13	Sept. 22—Oct. 27 Sept. 22—Nov. 3 Sept. 22—Nov. 10	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
	S		res l	Chattanooga December Glory	Marketeer	Crystal Queen Imp. Ind. White Meto
WHITE	P	Silversmith Snowcap Wh. Riviera	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
YELLOW	s	with the second	and the extension	Dk. Yel. Chat'n'ga Golden Pearson Yellow Glory	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellow Yellow Mefo Yellow Queen
IELLOW	P	Ill. Brighteyes Shamrock Sun Valley Yel. Riviera	Coronation Cinderella Dk. Yel. Satellite Corsair Gold Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Pippin Gold Ball Lollipop Souvenir Yel. Sculpture Yel. Taffeta	Heyday Yel. Iceberg Yellow Igloo Yel. Beauregard Yellow Shasta Yellowtop
	S			Oak Leaf Br. Peter John	Calvert's Gold Valentine	Ind. Bronze Copper Queen
BRONZE & RED	P	Br. Riviera Merrymaker Topaz	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation	Beauregard Climax Br. Portrait
	S	end to promise		Pink Peter John	Ed Seidewitz Thanks. Pink	Ind. Pink Orchid Queen
PINK	P	Alvoda Riviera Rosalind	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile





BLOOM JANUARY 26, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START	RESPONSE GROUP
			Sept. 1 -Oct. 20	no	14 Week
			Sept. 1 —Oct. 27	no	13 Week
40-45°	Sept. 1	Sept. 22	Sept. 1 -Nov. 3	no	12 Week
			Sept. 1 —Nov. 10	no	11 Week
			Sept. 1 —Nov. 17	no	10 Week
	000		Sept. 8 -Oct. 20	no	14 Week
	Sept. 8	Sept. 29	Sept. 8 Oct. 27	no	13 Week
35-40°			Sept. 8 -Nov. 3	no	12 Week
			Sept. 8 -Nov. 10	no	11 Week
			Sept. 8 -Nov. 17	no	10 Week
	Dill		Sept. 15-Oct. 27	no	13 Week
30-35°	Sept. 15	Oct. 6	Sept. 15-Nov. 3	no	12 Week
30-33	3epi. 13	Oci. 0	Sept. 15-Nov. 10	no	11 Week
			Sept. 15-Nov. 17	no	10 Week
	201		Sept. 22-Nov. 3	no	12 Week
25-30°	Sept. 22	Oct. 13	Sept. 22-Nov. 10	no	11 Week
			Sept. 22-Nov. 17	no	10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	S			Chattanooga December Glory	Marketeer	Crystal Queen Imp. Ind. White Melo
P		Silversmith Snowcap Wh. Riviera	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
YELLOW	s		99,57	Dk. Yel. Chat'n'ga Golden Pearson Yellow Glory	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yel. Yellow Mefo Yellow Queen
TELEOW	P	Ill. Brighteyes Shamrock Sun Valley Yel. Riviera	Coronation Cinderella Dk. Yel. Satellite Corsair Gold Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Pippin Gold Ball Lollipop Souvenir Yel. Sculpture Yel. Taffeta	Heyday Yel. Iceberg Yellow Igloo Yel. Beauregard Yellow Shasta Yellowtop
BRONZE	S	3		Oak Leaf Br. Peter John	Calvert's Gold Valentine	Ind. Bronze Copper Queen
& RED	P	Br. Riviera Merrymaker Topaz	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation	Beauregard Climax Br. Portrait
PINK	s			Pk. Peter John	Ed. Seidewitz Thanks. Pink	Ind. Pink Orchid Queen
	P	Alvoda Riviera Rosalind	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile





BLOOM FEBRUARY 2, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Sept. 1	Sept. 22	Sept. 1 —Oct. 27 Sept. 1 —Nov. 3 Sept. 1 —Nov. 10 Sept. 1 —Nov. 17 Sept. 1 —Nov. 24	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Sept. 8	Sept. 29	Sept. 8 —Nov. 3 Sept. 8 —Nov. 10 Sept. 8 —Nov. 17 Sept. 8 —Nov. 24	no no no	13 Week 12 Week 11 Week 10 Week
30-35°	Sept. 22	Oct. 13	Sept. 22—Nov. 3 Sept. 22—Nov. 10 Sept. 22—Nov. 17 Sept. 22—Nov. 24	no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Sept. 29	Oct. 20	Sept. 29-Nov. 10 Sept. 29-Nov. 17 Sept. 29-Nov. 24	no no no	12 Week 11 Week 10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week 19 2 2 2 2 2 2	12 Week	11 Week	10 Week
WHITE	s			Chattanooga December Glory	Marketeer	Crystal Queen Imp. Ind. White Meto
	P	Silversmith Snowcap Wh. Riviera	Acclaim Icecap Illini Alba Northwind Satellife Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
YELLOW	S			Dk. Yel. Chat'n'ga Golden Pearson Yellow Glory	Harvester	Cream Meto Gordon Wells Imp. Ind. Yellow Yellow Meto Yellow Queen
	P	Ill. Brighteyes Shamrock Sun Valley Yel. Riviera	Coronation Cinderella Dk. Yel. Satellite Corsair Gold. Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Pippin Gold Ball Lollipop Souvenir Yel. Sculpture Yel. Taffeta	Heyday Yel. Iceberg Yellow Igloo Yel. Beauregard Yellow Shasta Yellowtop
BRONZE	S			Oak Leaf Br. Peter John	Calvert's Gold Valentine	Ind. Bronze Copper Queen
& RED	P	Br. Riviera Merrymaker	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation	Beauregard Climax Br. Portrait
PINK	S			Pk. Peter John	Ed. Seidwitz Thanks. Pink	Ind. Pink Orchid Queen
	P	Alvoda Riviera Rosalind	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile





BLOOM FEBRUARY 9, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Sept. 8	Sept. 29	Sept. 8 —Nov. 3 Sept. 8 —Nov. 10 Sept. 8 —Nov. 17 Sept. 8 —Nov. 24 Sept. 8 —Dec. 1	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Sept. 15	Oct. 6	Sept. 15—Nov. 10 Sept. 15—Nov. 17 Sept. 15—Nov. 24 Sept. 15—Dec. 1	no no no no	13 Week 12 Week 11 Week 10 Week
30-35°	Sept. 29	Oct. 20	Sept. 29—Nov. 10 Sept. 29—Nov. 17 Sept. 29—Nov. 24 Sept. 29—Dec. 1	no no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Oct. 6	Oct. 27	Oct. 6 -Nov. 24 Oct. 6 -Dec. 1	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	s			Chattanooga December Glory	Marketeer	Crystal Queen Imp. Ind. White Melo
WHILE	P	Silversmith Snowcap Wh. Riviera	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
YELLOW	S			Dk. Yel. Chaf'n'ga Golden Pearson Yellow Glory	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellow Yellow Mefo Yellow Queen
	P	Ill. Brighteyes Shamrock Sun Valley Yel. Riviera	Coronation Cinderella Dk. Yel. Satellite Corsair Gold. Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Pippin Gold Ball Lollipop Souvenir Yel. Sculpture Yel. Taffeta	Heyday Yel. Iceberg Yellow Igloo Yel. Beauregard Yellow Shasta Yellowtop
HRONZE	S			Oak Leaf Br. Peter John	Calvert's Gold Valentine	Ind. Bronze Copper Queen
& RED	P	Br. Riviera Merrymaker	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation	Beauregard Climax Br. Portrait
	S			Pk. Peter John	Ed. Seidwitz Thanks. Pink	Ind. Pink Orchid Queen
PINK	P	Alvoda Riviera Rosalind	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile





BLOOM FEBRUARY 16, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Sept. 15	Oct. 6	Sept. 15—Nov. 17 Sept. 15—Nov. 24 Sept. 15—Dec. 1 Sept. 15—Dec. 8	no no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Sept. 22	Oct. 13	Sept. 22—Nov. 17 Sept. 22—Nov. 24 Sept. 22—Dec. 1 Sept. 22—Dec. 8	no no no no	13 Week 12 Week 11 Week 10 Week
30-35°	Oct. 6	Oct. 27	Oct. 6 —Nov. 24 Oct. 6 —Dec. 1 Oct. 6 —Dec. 8	no no no	12 Week 11 Week 10 Week
25-30°	Oct. 13	Nov. 3	Oct. 13—Dec. 1 Oct. 13—Dec. 8	no no	11 Week 10 Week
	2	For No Pinch Method: F	Plant and Light on Pinch Date		

		13 Week	12 Week	11 Week	10 Week
TAYREY TO E	S		Chattanooga	Marketeer	Crystal Queen Imp. Ind. White Mefo
WHITE	P	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitefop Feathertop
1	s		Dk. Yel. Chattan'ga Golden Pearson	Harvester	Cream Melo Gordon Wells Imp. Ind. Yellow Yellow Melo Yellow Queen
ELLOW	P	Cinderella Coronation Corsair Dk. Yel. Satellite Golden Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Etude Pippin Lollipop Souvenir Yel. Sculpture	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop
	S		Oak Leaf	Calvert's Gold Valentine	Ind. Bronze Copper Queen
RONZE RED	P	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation Thelma	Beauregard Bronzechip Br. Portrait
	S				Ind. Pink Orchid Queen
PINK	P	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile Bluechip



BLOOM FEBRUARY 23, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Sept. 22-Nov. 24	no	13 Week
40-45°	C 00	0-1 12	Sept. 22-Dec. 1	no	12 Week
40-45	Sept. 22	Oct. 13	Sept. 22-Dec. 8	no	11 Week
			Sept. 22—Dec. 15	no	10 Week
			Sept. 29-Dec. 1	no	12 Week
35-40°	Sept. 29	Oct. 20	Sept. 29—Dec. 8	no	11 Week
	OSPI: 27		Sept. 29—Dec. 15	no	10 Week
			Oct. 13—Dec. 1	no	12 Week
30-35°	Oct. 13	Nov. 3	Oct. 13—Dec. 8	no	11 Week
			Oct. 13—Dec. 15	no	10 Week
25-30°	Oct. 20	Nov. 10	Oct. 20-Dec. 8	no	11 Week
23-00	Oci. 20	1404. 10	Oct. 20-Dec. 15	no	10 Week
		For No Pinch Method:	Plant and Light on Pinch Date		

		13 Week	12 Week	11 Week	10 Week
ATERTIES	S		Chaffanooga	Marketeer	Crystal Queen Imp. Ind. White Meto
WHITE	P	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
ELLOW	s		Dk. Yel. Chaffan'ga Golden Pearson	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellow Yellow Mefo Yellow Queen
	P	Cinderella Coronation Corsair Dk. Yel. Satellite Golden Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Etude Pippin Lollipop Souvenir Yel. Sculpture	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop
	S		Oak Leaf	Calvert's Gold Valentine	Ind. Bronze Copper Queen
BRONZE & RED	P	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation Thelma	Beauregard Bronzechip Br. Portrait
	S				Ind. Pink Orchid Queen
PINK	P	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile Bluechip







BLOOM MARCH 2, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Sept. 29	Oct. 20	Sept. 29—Dec. 1 Sept. 29—Dec. 8 Sept. 29—Dec. 15 Sept. 29—Dec. 22	no no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Oct. 13	Nov. 3	Oct. 13—Dec. 8 Oct. 13—Dec. 15 Oct. 13—Dec. 22	no no no	12 Week 11 Week 10 Week
30-35°	Oct. 20	Nov. 10	Oct. 20—Dec. 8 Oct. 20—Dec. 15 Oct. 20—Dec. 22	no no no	12 Week 11 Week 10 Week
25-30°	Oct. 27	Nov. 17	Oct. 27—Dec. 15 Oct. 27—Dec. 22	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		13 Week	12 Week	11 Week	10 Week
	S		Chattanooga	Marketeer	Crystal Queen Imp. Ind. White Mefo
WHITE	P	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
	S		Dk. Yel. Chattan'ga Golden Pearson	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellow Yellow Mefo Yellow Queen
YELLOW	P	Cinderella Coronation Corsair Dk. Yel. Satellite Golden Acclaim Yellow Snowcrest	Omega Yellow Galaxy	Esquire Etude Pippin Lollipop Souvenir Yel. Sculpture	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop
	S		Oak Leaf	Calvert's Gold Valentine	Ind. Bronze Copper Queen
BRONZE & RED	P	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation Thelma	Beauregard Bronzechip Br. Portrait
	S				Ind. Pink Orchid Queen
PINK	P	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile Bluechip

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BLOOM MARCH 9, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Oct. 6	Oct. 27	Oct. 6 —Dec. 8 Oct. 6 —Dec. 15 Oct. 6 —Dec. 22 Oct. 6 —Dec. 29	no no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Oct. 20	Nov. 10	Oct. 20—Dec. 15 Oct, 20—Dec. 22 Oct. 20—Dec. 29	no no no	12 Week 11 Week 10 Week
30-35°	Oct. 27	Nov. 17	Oct. 27—Dec. 15 Oct. 27—Dec. 22 Oct. 27—Dec. 29	no no no	12 Week 11 Week 10 Week
25-30°	Nov. 3	Nov. 24	Nov. 3 —Dec. 22 Nov. 3 —Dec. 29	no no	11 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		13 Week	12 Week	11 Week	10 Week
WHITE	s		Chattanooga	Marketeer	Crystal Queen Imp. Ind. White Mefo
	P	Acclaim Icecap Illini Alba Northwind Satellite Snowcrest Snowstorm		Belray Carrara Paramount Sculpture Surfside	Iceberg Illini Igloo Shasta Whitetop Feathertop
YELLOW	S		Dk. Yel. Chat'n'ga Golden Pearson	Harvester	Cream Mefo Gordon Wells Imp. Ind. Yellow Yellow Mefo Yel. Queen
	P	Cinderella Coronation Corsair Dk. Yel. Satellite Golden Acclaim Yel. Snowcrest	Omega Yellow Galaxy	Esquire Etude Pippin Lollipop Souvenir Yel. Sculpture	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop
RONZE	S		Oak Leaf	Calvert's Gold Valentine	Ind. Bronze Copper Queen
RED	P	Christmas Star	Crackerjack Galaxy Orange Galaxy	Br. Jubilation Thelma	Beauregard Bronzechip Br. Portrait
INK	S				Ind. Pink Orchid Queen
	P	Debutante Eminence Pink Snowdrop	Delmar	Almega Celebrity Jubilation Rhythm Staccato	Pennant Portrait Profile Bluechip

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BLOOM MARCH 16, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Oct. 13	Nov. 3	Oct. 13—Dec. 22 Oct. 13—Dec. 29 Oct. 13—Jan. 5	no no no	12 Week 11 Week 10 Week
35-40°	Oct. 27	Nov. 17	Oct. 27—Dec. 22 Oct. 27—Dec. 29 Oct. 27—Jan. 5	no no no	12 Week 11 Week 10 Week
30-35°	Nov. 3	Nov. 24	Nov. 3 —Dec. 29 Nov. 3 —Jan. 5	no no	11 Week 10 Week
25-30°	Nov. 17	Dec. 8	Nov. 17—Dec. 29 Nov. 17—Jan. 5	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		12 Week	11 Week	10 Week
WHITE	S	Chaifanooga	Marketeer	Crystal Queen Fred Shoesmith Imp. Ind. White Mefo
	P	Illini Glacier	Belray Paramount Sculpture Surfside	Iceberg Illini Igloo Shasfa Whitetop Feathertop
	s	Dk. Yel. Chaf'n'ga Golden Pearson	Harvester	Cream Mefo Golden Shoesmith Gordon Wells Imp. Ind. Yellow Yellow Mefo Yellow Queen
ELLOW	P	Illini Wampum Omega Yellow Galaxy	Esquire Etude Pippin Lollipop Souvenir Yel. Sculpture	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop
RONZE	S	Oak Leaf	Calvert's Gold Valentine	Ind. Bronze Copper Queen
RED	P	Crackerjack Galaxy Orange Galaxy	Br. Jubilation Ranger Thelma	Beauregard Bronzechip Br. Portrait
	S			Ind. Pink Laughter Orchid Queen
INK	P	Delmar Illini Roseglow	Almega Celebrity Jubilation Rhythm Staccato	Bluechip Bonnie Portrait Profile

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BLOOM MARCH 23, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Oct. 20	Nov. 10	Oct. 20—Dec. 29 Oct. 20—Jan. 5 Oct. 20—Jan. 12	no no no	12 Week 11 Week 10 Week
35-40°	Nov. 3	Nov. 24	Nov. 3 —Jan. 5 Nov. 3 —Jan. 12	no no	11 Week 10 Week
30-35°	Nov. 10	Dec. 1	Nov. 10—Jan. 5 Nov. 10—Jan. 12	no no	11 Week 10 Week
25-30°	Nov. 24	Dec. 15	Nov. 24—Jan. 5 Nov. 24—Jan. 12	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

Crystal Queen Fred Shoesmith Imp. Ind. White Mefo Iceberg Illini Igloo Shasta Whitetop Feathertop Cream Mefo Golden Shoesmith Gordon Wells
Illini Igloo Shasta Whitetop Feathertop Cream Mefo Golden Shoesmith
Golden Shoesmith
Imp. Ind. Yellow Yellow Mefo Yellow Queen
Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop
Ind. Bronze Copper Queen
Beauregard Bronzechip Br. Portrait
Ind. Pink Laughter Orchid Queen
Bluechip Bonnie Portraif Profile

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BLOOM MARCH 30, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Nov. 3	Nov. 24	Nov. 3 —Jan. 12 Nov. 3 —Jan. 19	no no	11 Week 10 Week
35-40°	Nov. 10	Dec. 1	Nov. 10—Jan. 12 Nov. 10—Jan. 19	no no	11 Week 10 Week
30-35°	Nov. 24	Dec. 15	Nov. 24—Jan. 12 Nov. 24—Jan. 19	no no	11 Week 10 Week
25-30°	Dec. 1	Dec. 22	Dec. 1 —Jan. 19 Dec. 1 —Jan. 26 Dec. 1 —Feb. 2	no no no	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

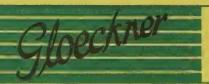
VARIETIES IN RESPONSE GROUPS

	11 Week	10 Week	9 Week	8 Week
S	Marketeer	Crystal Queen Fred Shoesmith Mefo	Ind. White Queen's Lace	
P	Belray Paramount Sculpture Surfside White Taffeta	Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Stardust Whitetop	White Keepsake Alaska Silver Cloud Halo	Pristine Silvertone
s	Harvester	Cream Meto Golden Shoesmith Gordon Wells Yellow Meto Yellow Queen	Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
P	Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop	Gold Coast Golden Herald Starbright Starlight	
S	Calvert's Gold Valentine	Copper Queen Nomago	Dk. Ind. Bronze Defroit News	
P	Br. Jubilation Ranger Thelma Olnura	Beauregard Br. Masterpiece Br. Portrait Climax	Bronzechip Buckskin Gaiety Wagonwheels	Paradise Resolute Talisman
s		Dk. Orchid Queen Laughter Merriment	Bunbu Ind. Pink	
P	Almega Celebrity Jubilation Rhythm Staccato	Bonnie Pennant Profile Portrait Delight	Bluechip Reveille	Mirth
	P S P	Belray Paramount Sculpture Surfside White Taffeta Harvester Esquire Efude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount S Calvert's Gold Valentine Br. Jubilation Ranger Thelma Olnura S Almega Celebrity Jubilation Rhythm	S Marketeer Crystal Queen Fred Shoesmith Meto Belray Paramount Sculpture Surfside White Taffeta Harvester Cream Meto Golden Shoesmith Gordon Wells Yellow Meto Yellow Queen Esquire Eftude Lollipop Pippin Souvenir Yel. Sculpture Yel. Sculpture Yel. Paramount S Calvert's Gold Valentine P Ranger Thelma Olnura Cream Meto Golden Shoesmith Gordon Wells Yellow Queen Heyday Yel. Beauregard Yel. Iceberg Yel. Wellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop S Calvert's Gold Valentine Beauregard Br. Masterpiece Br. Portrait Climax Almega Celebrity Jubilation Rhythm Bonnie Pennant Profile Portrait	S Marketeer Crystal Queen Fred Shoesmith Meto Belray Paramount Sculpture Surfside White Taffeta Shasta Stardust Whitetop Harvester Cream Meto Golden Shoesmith Gordon Wells Yellow Meto Yellow Queen Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yellow Shasta Yellow Ils Souvenir Yellow Shasta Yellow Shasta Yellow Shasta Yellow Open Shasta Yellow Open Shasta Yellow Shasta Yellow Open Shasta Yellow Open Open Open Open Open Open Open Open

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BLOOM APRIL 6, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Nov. 10	Dec. 1	Nov. 10—Jan. 19 Nov. 10—Jan. 26	no an	11 Week 10 Week
35-40°	Nov. 17	Dec. 8	Nov. 17—Jan. 19 Nov. 17—Jan. 26	no no	11 Week 10 Week
30-35°	Dec. 1	Dec. 29	Dec. 1 —Jan. 19 Dec. 1 —Jan. 26 Dec. 1 —Feb. 2	no no no	11 Week 10 Week 9 Week
25-30°	Dec. 8	Dec. 29	Dec. 8 —Jan. 26 Dec. 8 —Feb. 2 Dec. 8 —Feb. 9	no no no	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

		11 Week	10 Week	9 Week	8 Week
	s	Marketeer	Crystal Queen Fred Shoesmith Meto	Ind. White Queen's Lace	
VHITE	P	Belray Paramount Sculpture Surfside White Taffeta	Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Stardust Whitetop	White Keepsake Alaska Silver Cloud Halo	Pristine Silvertone
YELLOW	s	Harvester	Cream Melo Golden Shoesmith Gordon Wells Yellow Melo Yellow Queen	Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
	P	Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop	Gold Coast Golden Herald Starbright Starlight	
	S	Calvert's Gold Valentine	Copper Queen Nomago	Dk. Ind. Bronze Detroit News	
RED	P	Br. Jubilation Ranger Thelma Olnura	Beauregard Br. Masterpiece Br. Portrait Climax	Bronzechip Buckskin Gaiety Wagonwheels	Paradise Resolute Talisman
	s		Dk. Orchid Queen Laughter Merriment	Bunbu Ind. Pink	
PINK	P	Almega Celebrity Jubilation Rhythm Staccata	Bonnie Pennant Profile Portrait Delight	Bluechip Reveille	Mirth





BLOOM APRIL 13, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Nov. 17	Dec. 15	Nov. 17—Jan. 26 Nov. 17—Feb. 2 Nov. 17—Feb. 9	Mar. 9 Mar. 16 Mar. 23	11 Week 10 Week 9 Week
35-40°	Dec. 1	Dec. 29	Dec. 1 —Jan. 26 Dec. 1 —Feb. 2 Dec. 1 —Feb. 9	Mar. 9 Mar. 16 Mar. 23	11 Week 10 Week 9 Week
30-35°	Dec. 8	Jan. 5	Dec. 8 —Feb. 2 Dec. 8 —Feb. 9 Dec. 8 —Feb. 16	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
25-30°	Dec. 22	Jan. 12	Dec. 22—Feb. 2 Dec. 22—Feb. 9 Dec. 22—Feb. 16	Mar. 9 no no	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

enfunda distributa yang yang		11 Week	10 Week	9 Week	8 Week
TATELVINE	S	Marketeer	Crystal Queen Fred Shoesmith Melo	Ind. White Queen's Lace	
WHITE 1	P	Belray Paramount Sculpture Surfside White Taffeta	Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Stardust Whitetop	White Keepsake Alaska Silver Cloud Halo	Pristine Silvertone
	s	Harvester	Cream Mefo Golden Shoesmith Gordon Wells Yellow Mefo Yellow Queen	Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
rellow	P	Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop	Gold Coast Golden Herald Starbright Starlight	
RONZE	S	Calvert's Gold Valentine	Copper Queen Nomago	Dk. Ind. Bronze Detroit News	
& RED	P	Br. Jubilation Ranger Thelma Olnura	Beauregard Br. Masterpiece Br. Portrait Climax	Bronzechip Buckskin Gaiety Wagonwheels	Paradise Resolute Talisman
	s		Dk. Orchid Queen Laughter Merriment	Bunbu Ind. Pink	
PINK	P	Almega Celebrity Jubilation Rhythm Staccato	Bonnie Pennant Profile Portrait Delight	Bluechip Reveille	Mirth







BLOOM APRIL 20, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Nov. 24	Dec. 22	Nov. 24—Feb. 2 Nov. 24—Feb. 9 Nov. 24—Feb. 16	Mar. 9 Mar. 16 Mar. 23	11 Week 10 Week 9 Week
35-40°	Dec. 8	Jan. 5	Dec. 8 — Feb. 2 Dec. 8 — Feb. 9 Dec. 8 — Feb. 16	Mar. 9 Mar. 16 Mar. 23	11 Week 10 Week 9 Week
30-35°	Dec. 15	Jan. 12	Dec. 15—Feb. 9 Dec. 15—Feb. 16 Dec. 15—Feb. 23	Mar. 16 Mar. 23 no	10 Week 9 Week 8 Week
25-30°	Dec. 29	Jan. 19	Dec. 29—Feb. 9 Dec. 29—Feb. 16 Dec. 29—Feb. 23	Mar. 16 Mar. 23 no	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

	11 Week	10 Week	9 Week	8 Week
S	Marketeer	Crystal Queen Fred Shoesmith Mefo	Ind. White Queen's Lace	
P	Belray Paramount Sculpture White Taffeta Surfside	Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Stardust Whitetop	White Keepsake Alaska Silver Cloud Halo	Pristine Silvertone
S	Harvester	Cream Mefo Golden Shoesmith Gordon Wells Yellow Mefo Yellow Queen	Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
P	Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount	Heyday Yel. Beauregard Yel. Iceberg Yellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop	Gold Coast Golden Herald Starbright Starlight	
S	Calvert's Gold Valentine	Copper Queen Nomago	Dk. Ind. Bronze Detroit News	
P	Br. Jubilation Ranger Thelma Olnura	Beauregard Br. Masterpiece Br. Portrait Climax	Bronzechip Buckskin Gaiety Wagonwheels	Paradise Resolute Talisman
S		Dk. Orchid Queen Laughter Merriment	Bunbu Ind. Pink	
P	Almega Celebrity Jubilation Rhythm Staccato	Bonnie Pennant Profile Portrait Delight	Bluechip Reveille	Mirth
	PSSP	Belray Paramount Sculpture White Taffeta Surfside Harvester Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount Calvert's Gold Valentine Br. Jubilation Ranger Thelma Olnura S Almega Celebrity Jubilation Rhythm	S Marketeer Crystal Queen Fred Shoesmith Mefo Belray Paramount Sculpture White Taffeta Surfside Surfside Shasta Stardust Whitetop Harvester Cream Mefo Golden Shoesmith Gordon Wells Yellow Mefo Yellow Queen Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount Yellow Shasta Yellow Shasta Yellow Shasta Yellow Shasta Yellow Shasta Yellowfop S Calvert's Gold Valentine Ranger Thelma Olnura Beauregard Br. Masterpiece Br. Portrait Climax S Dk. Orchid Queen Laughter Merriment Almega Celebrity Jubilation Rhythm Bonnie Pennant Profile Pennant Profile Portrait	S Marketeer Crystal Queen Fred Shoesmith Mefo Belray Paramount Sculpture White Taffeta Surfside Harvester Cream Mefo Golden Shoesmith Gordon Wells Yellow Mefo Yellow Queen Esquire Etude Lollipop Pippin Souvenir Yel. Sculpture Yel. Paramount S Calvert's Gold Valentine S Calvert's Gold Valentine Br. Jubilation Ranger Thelma Olnura Cream Mefo Gold Lace Good News Imp. Ind. Yellow Luyona Gold Coast Golden Herald Starbright Starlight Starl

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BLOOM APRIL 27, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Dec. 8	Jan. 5	Dec. 8 —Feb. 16 Dec. 8 —Feb. 23 Dec. 8 —Mar. 2	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
35-40°	Dec. 15	Jan. 12	Dec. 15—Feb. 16 Dec. 15—Feb. 23 Dec. 15—Mar. 2	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
30-35°	Dec. 22	Jan. 19	Dec. 22—Feb. 16 Dec. 22—Feb. 23 Dec. 22—Mar. 2	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
25-30°	Jan. 5	Jan. 26	Jan. 5 — Feb. 16 Jan. 5 — Feb. 23 Jan. 5 — Mar. 2	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

		10 Week	9 Week	8 Week
	S	Crystal Queen Fred Shoesmith Melo	Ind. White Marblehead Queen's Lace	Silver Sheen Wh. Pink Chief
WHITE	P	Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Stardust Whitetop	Alaska Crystalite Halo Keepsake Memento Pinocchio Silver Cloud Thistledown White Keepsake White Popcorn	Blizzard Echo Pristine Silvertone
YELLOW	S	Cream Mefo Golden Shoesmith Gordon Wells Yellow Mefo Yellow Queen	Brighton Yellow Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
	P	Aztec Heyday Mary Hall Jealousy Luxury Sunfire Yel. Beauregard Yel. Iceberg Yellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop	Brilliancy Dandy Gondola Happiness Golden Herald Gold Coast Honeymoon Sauterne Starlight Statesman Sunup Yellow Halo	Sungold
	S	Copper Queen Mrs. Roy Nomago	Dk. Ind. Bronze Detroit News Fred Yule	
BRONZE & RED	P	Beauregard Climax Br. Portrait Amberhue Jetfire Rubicon	Bronzechip Buckskin Gaiety Salmonchip Wagonwheels	Calumet Paradise Resolute Talisman
PINK	S	Lavender Queen Laughter Merriment	Bunbu Ind. Pink Mary Garden	
	P	Bonnie Delight Pennant Profile Portrait	Bluechip Cheerful Handsome Pinkette Vogue	Enterprise Mayfair Mirth





		BLOOM N	MAY 4, 1959		
LATITUDE	PLANT	PINCH+	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Dec. 15	Jan. 12	Dec. 15—Feb. 23 Dec. 15—Mar. 2 Dec. 15—Mar. 9	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
35-40°	Dec. 22	Jan. 19	Dec. 22—Feb. 23 Dec. 22—Mar. 2 Dec. 22—Mar. 9	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
25-35°	Jan. 12	Feb. 2	Jan, 12—Feb, 23 Jan, 12—Mar, 2 Jan, 12—Mar, 9	Mar. 16 Mar. 23 Mar. 30	10 Weel 9 Weel 8 Weel
		BLOOM M	AY 11, 1959		
40-45°	Dec. 29	Jan. 26	Dec. 29—Mar. 2 Dec. 29—Mar. 9 Dec. 29—Mar. 16	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
35-40°	Jan. 5	Feb. 2	Jan. 5 —Mar. 2 Jan. 5 —Mar. 9 Jan. 5 —Mar. 16	Mar. 16 Mar. 23 Mar. 30	10 Week 9 Week 8 Week
25-35°	Jan. 19	Feb. 9	Jan. 19—Mar. 2 Jan. 19—Mar. 9 Jan. 19—Mar. 16	Mar. 16 Mar. 23 Mar. 30	10 Weel 9 Weel 8 Weel

*For No Pinch Method: Plant and Light on Pinch Date

		10 Week	9 Week	8 Week
WHITE	S	Crystal Queen Fred Shoesmith Mefo	Marblehead Queen's Lace Ind. White	Silver Sheen Wh. Pink Chief
	P	Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Stardust Whitetop	Alaska Crystalite Halo Keepsake Memento Pinocchio Silver Cloud Thistledown White Keepsake White Popcorn	Blizzard Echo Pristine Silvertone
VELLOW	S	Cream Mefo Golden Shoesmith Gordon Wells Yellow Mefo Yellow Queen	Brighton Yellow Gold Luce Good News Imp. Ind. Yellow Luyona	Blazing Gold
	P	Aztec Heyday Mary Hall Jealousy Luxury Sunfire Yel. Beauregard Yel. Iceberg Yellow Igloo Yel. Ill. Snowdrift Yellow Shasta Yellowtop	Brilliancy Dandy Gondola Happiness Golden Herald Gold Coast Honeymoon Sauterne Starlight Statesman Sunup Yellow Halo	Sungold
DANGE	S	Copper Queen Mrs. Roy Nomago	Dk. Ind. Bronze Detroit News Fred Yule	
RONZE RED	P	Beauregard Climax Br. Portrait Amberhue Jetfire Rubicon	Bronzechip Buckskin Gaiety Salmonchip Wagonwheels	Calumet Paradise Resolute Talisman
PINK	S	Lavender Queen Laughter Merriment	Bunbu Ind. Pink Mary Garden	
	P	Bonnie Delight Pennant Profile Portrait	Bluechip Cheerful Handsome Pinkelte Vogue	Enterprise Mayfair Mirth





BLOOM MAY 19, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Jan. 6	Feb. 3	Jan. 6 —Mar. 10 Jan. 6 —Mar. 17 Jan. 6 —Mar. 24	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
35-40°	Jan. 13	Feb. 10	Jan. 13—Mar. 10 Jan. 13—Mar. 17 Jan. 13—Mar. 24	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
25-35°	Jan. 27	Feb. 17	Jan. 27—Mar. 10 Jan. 27—Mar. 17 Jan. 27—Mar. 24	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
	E	LOOM M	AY 26, 1958		
40-45°	Jan. 20	Feb. 17	Jan. 20Mar. 17 Jan. 20Mar. 24 Jan. 20Mar. 31	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
25-40°	Feb. 3	Feb. 24	Feb. 3 —Mar. 17 Feb. 3 —Mar. 24 Feb. 3 —Mar. 31	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

		10 Week	9 Week	8 Week
	S	Crystal Queen Fred Shoesmith Meto	Ind. White Marblehead Queen's Lace	Silver Sheen Wh. Pink Chief
VHITE P	P	Feathertop Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Whitetop	Alaska Halo Keepsake Memento Pinocchio Silver Cloud Vesta White Keepsake White Popcorn	Blizzard Pristine Silvertone
YELLOW	S	Cream Mefo Gordon Wells Yellow Mefo Yellow Queen	Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
	P	Aztec Heyday Mary Hall Jealousy Luxury Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop	Dandy Golden Herald Gold Coast Gondola Happiness Honeymoon Sauterne Starbright Starlight Statesman Sunup Yellow Halo	
POWER	s	Copper Queen Mrs. Roy	Dk. Ind. Bronze Detroit News Fred Yule	
BRONZE RED	P	Beauregard Climax Jetfire Rubicon	Bronzechip Buckskin Gaiety	Calumet Paradise Talisman
PINK	S	Lavender Queen Laughter Merriment	Ind. Pink Mary Garden	
	P	Bonnie Delight Pennant Portrait	Bluechip Pink Dot Pinkette Reward Tempo Vogue	Mirth





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LATITUDE		PLANT	PINCH*		LIG	HTING PI	ERIOD	START SHADE	RESPONS GROUP
40-45°	F	eb. 3	Mar. 3		Feb.	3 -Ma 3 -Ma 3 -A	ar. 31	Mar. 24 Mar. 31 Apr. 7	10 Wee 9 Wee 8 Wee
25-40°	F	eb. 10	Mar. 3		Feb.	10Ma 10Ma 10Ap	ar, 31	Mar. 24 Mar. 31 Apr. 7	10 Wee 9 Wee 8 Wee
			BLOOM	JU	NE	9, 1	958		
25-45°	F	eb. 17	Mar. 10		Feb.	17—Mc 17—Ap	or. 7	Mar. 31 Apr. 7 Apr. 14	10 Wee 9 Wee 8 Wee
		E	LOOM	JU	NE :	16,	1958		The second secon
25-45°	F	eb. 24	Mar. 17		Feb.	24—Ap 24—Ap 24—Ap	or, 14	Apr. 7 Apr. 14 Apr. 21	10 Wee 9 Wee 8 Wee
Aprilied by Contribution State Office Contribution Contri			*For No Pinch M	IN F	ESPO		GROUPS		
established the same and same	Crystal Queen Fred Shoesmith Mefo Feathertop Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Whitetop		Mar	White blehead en's Lac			er Sheen Pink Chief		
WHITE			o w d rift	Mem Pino Silve Vest Whi	osake nento ecchio er Cloud	sake	Pris	zard line erione	
	s	Cream Me Gordon W			Lace News		Blaz	ing Gold	

	P	Feathertop Iceberg Illini Igloo Illini Snowdrift Pacesetter Shasta Whitetop	Alaska Halo Keepsake Memento Pinocchio Silver Cloud Vesta White Keepsake White Popcorn	Blizzard Pristine Silvertone
YELLOW	S	Cream Meio Gordon Wells Yellow Meio Yellow Queen	Gold Lace Good News Imp. Ind. Yellow Luyona	Blazing Gold
LLLOW	P	Aztec Heyday Mary Hall Jealousy Luxury Yel. Beauregard Yel. Iceberg Yel. Igloo Yel. Shasta Yellowtop	Dandy Golden Herald Gold Coast Gondola Happiness Honeymoon Sauterne Starbright Starlight Statesman Sunup Yellow Halo	
BRONZE	S	Copper Queen Mrs. Roy	Dk. Ind. Bronze Detroit News Fred Yule	
& RED	P	Beauregard Climax Jetfire Rubicon	Bronzechip Buckskin Gaiety	Calumet Paradise Talisman
	S	Lavender Queen Laughter Merriment	Ind. Pink Mary Garden	
PINK	P	Bonnie Delight Pennant Portrait	Bluechip Pink Dot Pinkelte Reward Tempo	Mirth







BLOOM JUNE 23, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
25-45°	Mar. 3	Mar. 24	Mar. 3 —Apr. 14 Mar. 3 —Apr. 21 Mar. 3 —Apr. 28	Apr. 14 Apr. 21 Apr. 28	10 Week 9 Week 8 Week
		BLOOM JU	NE 30, 1958		
25-45°	Mar. 10	Mar. 31	Mar. 10—Apr. 21 Mar. 10—Apr. 28 Mar. 10—May 5	Apr. 21 Apr. 28 May 5	10 Week 9 Week 8 Week
		BLOOM J	ULY 7, 1958		enempty philitistis - CE NET pung C History History History in zu das dieuwe
25-45°	Mar. 17	Apr. 7	Mar. 17—Apr. 28 Mar. 17—May 5 Mar. 17—May 12	Apr. 28 May 5 May 12	10 Week 9 Week 8 Week
		+F N Pt 1 - 24 - 1 - 1	Discount of the land of the land of		A CONTRACT OF THE PARTY OF THE

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		10 Week	9 Week	8 Week
	s	Giant Betsy Ross Sentinel Whirlwind	Marblehead Queen's Lace Silver Queen	Silver Sheen Wh. Pink Chief
WHITE	P	Feathertop Iceberg Illini Igloo Illini Snowdrift Madonna Shasta Whitetop	Alaska Halo Keepsake Memento Pinocchio Silver Cloud Vesta White Keepsake White Popcorn	Blizzard Pristine Silvertone
YELLOW	S	Chairman Yellow Betsy Ross	Gold Lace Good News Luyona	Blazing Gold
	P	Crescendo Mary Hall Luxury Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop	Dandy Golden Herald Gondola Happiness Honeymoon Sauterne Starlight Statesman Sunup Yellow Halo	
BRONZE & RED	P	Jetfire Beauregard	Bronze Dot Buckskin Sybil	Calumet Paradise Talisman
	S	Laughter		
PINK	P	Pennant	Bluechip Pink Dot Pinkette Reward Tempo	Mirth

S—Standard





BLOOM JULY 14, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
25-45°	Mar. 24	Apr. 14	Mar. 24—May 5 Mar. 24—May 12 Mar. 24—May 19	May 5 May 12 May 19	10 Week 9 Week 8 Week
		BLOOM JU	LY 21, 1958		
25-45°	Mar. 31	Apr. 21	Mar. 31—May 5 Mar. 31—May 12 Mar. 31—May 19	May 12 May 19 May 26	10 Week 9 Week 8 Week
		BLOOM JU	LY 28, 1958		
25-45°	Apr. 7	Apr. 28	Apr. 7 —May 5 Apr. 7 —May 12 Apr. 7 —May 19	May 19 May 26 June 2	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

		10 Week	9 Week	8 Week
	s	Giant Betsy Ross Sentinel Whirlwind	Marblehead Queen's Lace Silver Queen	Silver Sheen Wh. Pink Chief
WHITE	P	Feathertop Iceberg Illini Igloo Illini Snowdrift Madonna Shasta Whitetop	Alaska Halo (Ghs.) Keepsake Memento Pinocchio Silver Cloud (Ghs.) Vesta White Keepsake White Popcorn	Blizzard Pristine Silvertone
YELLOW	s	Chairman Yellow Betsy Ross	Gold Lace Good News Luyona	Blazing Gold
	P	Crescendo Mary Hall Luxury Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop	Dandy Golden Herald Gondola Happiness Honeymoon Sauterne Starlight Statesman Sunup Yellow Halo (Ghs.)	
BRONZE & RED	P	Jetfire Beauregard	Bronze Dot Buckskin Sybil	
-	S	Laughter		
PINK	P	Pennant	Bluechip Pink Dot Pinkette Reward Tempo	Mirth





Chrysanthemum MANUAL

Year-Round Chrysanthemum Flowering Schedule

BLOOM AUGUST 4, 1958

LATITUPE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
25-45 °	Apr. 14	May 5	Apr. 14—May 5 Apr. 14—May 12 Apr. 14—May 19	May 26 June 2 June 9	10 Week 9 Week 8 Week
	BL	OOM AUG	UST 11, 1958		·
25-45°	Apr. 21	May 12	Apr. 21—May 5 Apr. 21—May 12 Apr. 21—May 19	June 2 June 9 June 16	10 Week 9 Week 8 Week
	BL	OOM AUG	UST 18, 1958		
25-45°	Apr. 28	May 19	Apr. 28—May 5 Apr. 28—May 12 Apr. 28—May 19	June 9 June 16 June 23	10 Week 9 Week 8 Week
		*For No Pinch Method:	Plant and Light on Pinch Date		

		10 Week	9 Week	8 Week
WHITE	S	Giant Betsy Ross Sentinel Whirlwind	Marblehead Queen's Lace Silver Queen	Silver Sheen Wh. Pink Chief
	P	Feathertop Iceberg Illini Igloo Illini Snowdrift Madonna Shasta Whitetop	Alaska Halo (Ghs.) Keepsake Memento Pinocchio Silver Cloud (Ghs.) Vesta White Keepsake White Popcorn	Blizzard Pristine Silvertone
YELLOW	S	Chairman Yellow Betsy Ross	Gold Lace Good News Luyona	Blazing Gold
	P	Crescendo Mary Hall Luxury Yel. Beauregard Yel. Iceberg Yellow Igloo Yellow Shasta Yellowtop	Dandy Golden Herald Gondola Happiness Honeymoon Sauterne Starlight Statesman Sunup Yellow Halo (Ghs.)	
BRONZE & RED	P	Jeffire Beauregard	Bronze Dot Buckskin Sybil	
	S	Laughter		
PINK	P	Pennant	Bluechip Pink Dot Pinkette Reward Tempo	Mirth





BLOOM AUGUST 25, 1958

PLANT	PINCH*	V	START SHADE	RESPONSE GROUP
May 5	May 26		June 16 June 23 June 30	10 Week 9 Week 8 Week
BLOOM SE	PTEMBER	1, 1958	3	
May 12	June 2		June 23 June 30 July 7	10 Week 9 Week 8 Week
BLOOM S	EPTEMBER	8, 1958	3	
May 19	June 9		June 30 July 7 July 14	10 Week 9 Week 8 Week
	May 5 BLOOM SI May 12 BLOOM SI	May 5 May 26 BLOOM SEPTEMBER May 12 June 2 BLOOM SEPTEMBER	May 5 May 26 BLOOM SEPTEMBER 1, 1958 May 12 June 2 BLOOM SEPTEMBER 8, 1958	May 5 May 26 June 16 June 23 June 30 BLOOM SEPTEMBER 1, 1958 May 12 June 2 June 23 June 30 July 7 BLOOM SEPTEMBER 8, 1958 May 19 June 9

		10 Week	9 Week	8 Week
	S	Giant Betsy Ross Sentinel Whirlwind	Marblehead Queen's Lace Themesong	Silver Sheen Wh. Pink Chie
WHITE	P	Encore Feathertop Iceberg Illini Igloo Illini Snowdrift Madonna Shasta Stardust Whitetop	Alaska Crystalite Halo (Ghs.) Keepsake Memento Pinocchio Silver Cloud (Ghs.) Vesta Thistledown White Keepsake White Popcorn	Blizzard Echo Pristine Silvertone
ELLOW	s	Chairman Yellow Betsy Ross	Gold Lace Good News Luyona	Blazing Gold
	P	Crescendo Fanfare Luxury Sunfire Yel. Beauregard Yel. Iceberg. Yellow Igloo Yellow Shasta Yellowtop	Brilliancy Dandy Golden Herald Gondola Happiness Honeymoon Sauferne Starlight Stafesman Sunup Yellow Halo (Ghs.)	Sungold
	S		Fred Yule	
RONZE RED	P	Jetfire Beauregard	Bronze Dot Buckskin Sybil Wagonwheels	Resolute
	S	Laughter	Bunbu	
INK	P	Cheerful Pennant Profile	Bluechip Darkchip Pink Dot Handsome Pinkette Tempo	Mirth





BLOOM SEP	TEMBER	15, 1958	
PLANT	PINCH*	START SHADE	RESPONSE GROUP
May 26	June 16	July 7 July 14 July 21	10 Week 9 Week 8 Week
BLOOM SEP	TEMBER	22, 1958	
June 2	June 23	July 7 July 14 July 21	11 Week 10 Week 9 Week
BLOOM SEI	TEMBER	29, 1958	
June 2	June 23	July 14 July 21 July 28	11 Week 10 Week 9 Week
*For No Pin	ch Method: Plant on Pin	ch Date	
	May 26 BLOOM SEI June 2 BLOOM SEI June 2	May 26 June 16 BLOOM SEPTEMBER June 2 June 23 BLOOM SEPTEMBER June 2 June 23	May 26 June 16 July 7

		11 Week	10 Week was warden	9 Week	8 Week
	S		Giant Betsy Ross Crystal Queen Mefo	Albatross Ind. White Themesong	Silver Sheen Wh. Pink Chief
VHITE	P	White Taffeta Sculpture Highbrow Paramount	Freedom Whitetop Feathertop Iceberg Madonna Encore Pacesetter Illini Igloo Shasta Illini Snowdrift Stardust	White Popcorn White Keepsake Pinocchio Songster Vesta Memento Silver Cloud (Ghs.) Halo (Ghs.) Alaska Crystalite Thistledown	Blizzard Pristine Silvertone Echo
	S		Chairman Yellow Queen Cream Mefo Yellow Mefo	Luyona Good News Gold Lace Imp. Ind. Yellow	Blazing Gold
rellow	P	Yel. Sculpture Golden Chord Forty Niner Gold Ball Illini Goldilocks Lollipop Pippin Illini Sunspot Sultan Yel. Paramount Etude Souvenir Esquire	Yellowtop Aztec Mary Hall Crescendo Yel. Beauregard Yel. Iceberg Luxury Yellow Shasta Jealousy Yellow Igloo Heyday Yel. Pacesetter Fanfare Sunfire Yel. III. Snowdrift	Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Yellow Halo (Ghs.) Dandy Statesman Honeymoon Brilliancy	Sungold
	S	Mrs. Eisenhower	Nomago Copper Queen Mrs. Roy	Dk. Ind. Bronze Antique Detroit News Fred Yule	
RONZE	P	Thelma Ranger Olnura Bronze Minuet Rubaiyat	Jetfire Beauregard Rubicon Nectarine Samovar Bronze Pandora Climax Bronze Portrait Giltglow	Gaiety Bronze Dot Buckskin Sybil Bronzechip Salmonchip Buccaneer Wagonwheels Imp. Red Daisy	Calumet Paradise Resolute
	S		Dk. Orchid Queen Laughter Merriment	Ind. Pink Bunbu Mary Garden	Pink Chief
PINK	P	Taffeta Jubilation Illini Springtime Almega Minuet Illini Formal	Parisienne Delight Portrait Profile Bonnie Pennant Pandora Cheerful	Pinkeffe Vogue Reward Pink Dof Bluechip Darkchip Handsome Tempo Reveille	Mirth





Chrysanthemum MANUAL

Year-Round Chrysanthemum Flowering Schedule

BLOOM O	CTOBER 6,	1958	
PLANT	PINCH*	START SHADE	RESPONSI GROUP
June 9	June 30	July 21 July 28 Aug. 4	11 Weel 10 Weel 9 Weel
June 16	July 7	July 21 July 28 Aug. 4	11 Weel 10 Weel 9 Weel
BLOOM O	CTOBER 13,	1958	
June 16	July 7	July 28 Aug. 4 Aug. 11	11 Wee 10 Wee 9 Wee
June 23	July 14	July 28 Aug. 4 Aug. 11	11 Wee 10 Wee 9 Wee
	June 16 BLOOM O June 16	June 9 June 30 June 16 July 7 BLOOM OCTOBER 13, June 16 July 7	June 9 June 30 July 21 July 28 Aug. 4 June 16 July 7 July 28 Aug. 4 BLOOM OCTOBER 13, 1958 June 16 July 7 July 28 Aug. 4 Aug. 11 June 23 July 14 July 28 Aug. 4 Aug. 4 Aug. 4

		11 Week	10 Week	9 Week
	S		Giant Betsy Ross Crystal Queen Fred Shoesmith Meto	Albatross Marblehead Ind. White Themesong
VHITE	P	White Taffeta Sculpture Highbrow Paramount Belray Surfside	Freedom Whitetop Feathertop Iceberg Encore Pacesetter Illini Igloo Shasta Little America Illini Snowdrift	White Popcorn White Keepsake Pinocchio Vesta Memento Silver Cloud (Ghs.) Halo (Ghs.) Alaska Crystalite Thistledown
	S		Yelow Queen Yellow Meto Cream Meto Golden Shoesmith	Luyona Gold Lace Good News Imp. Ind. Yellow
TELLOW	P	Souvenir Yel. Sculpture Golden Chord Forty Niner Esquire Gold Ball Illini Goldilocks Yellow Highbrow Lollipop Pippin Yel. Paramounf Yellow Taffeta Etude	Yellowtop Aztec Mary Hall Yel. Beauregard Luxury Yellow Iceberg Yellow Shasta Jealousy Yellow Igloo Heyday Yel. Pacesetter Sunfire Yel. Ill. Snowdrift	Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Yellow Halo (Ghs.) Dandy Statesman Honeymoon Brilliancy
	S	Balcombe Perfection Mrs. Eisenhower Valentine	Copper Queen Mrs. Roy Nomago	Dk. Ind. Bronze Detroit News Fred Yule
RED RED	P	Thelma Ranger Rusticon Illini War Paint Olnura Bronze Minuet Rubaiyat Br. Jubilation	Jeffire Nectarine Beauregard Rubicon Bronze Portrait Climax Paragon Giltglow	Gaiety Bronze Dot Buckskin Buccaneer Imp. Red Daisy Salmonchip
	S	Rose Delight Thanks. Pink	Dk. Orchid Queen Laughter Merriment	Ind. Pink Bunbu
PINK	P	Taffeta Jubilation Magic Almega Minuet Illini Formal Celebrity Staccato	Parisienne Delight Portrait Bonnie Pennant Pandora Profile Cheerful	Pinkeffe Vogue Reward Pink Dof Bluechip Darkchip Tempo Handsome





Chrysanthemum MANUAL

Year-Round Chrysanthemum Flowering Schedule

	BLOOM O	TOBER	20, 1958		
LATITUDE	PLANT	PINCH*		START SHADE	RESPONSI GROUP
40-45°	June 16	July 7		Aug. 4 Aug. 11 no	11 Weel 10 Weel 9 Weel
25-40°	June 30	July 21		Aug. 4 Aug. 11 no	11 Weel 10 Weel 9 Weel
	BLOOM OC	TOBER	27, 1958		
40-45°	June 23	July 14		Aug. 11	11 Wee 10 Wee
25-40°	July 7	July 28		Aug. 11	11 Weel
		1			A CONTRACTOR OF THE PROPERTY O

*For No Pinch Method: Plant on Pinch Date

	11 Week	10 Week	9 Week
	s	Giant Betsy Ross Crystal Queen Fred Shoesmith Mefo	Albaiross Marblehead Ind. White Themesong
WHITE	White Taffeta Sculpture Highbrow Paramount Belray Surfside	Freedom Whitetop Feathertop Iceberg Encore Pacesetter Illini Igloo Shasta Little America Illini Snowdrift Stardust	White Popcorn White Keepsake Pinocchio Vesta Memento Silver Cloud (Ghs.) Halo (Ghs.) Alaska Crystalite Thistledown
	s	Yellow Queen Yellow Mefo Cream Mefo Golden Shoesmith	Luyona Gold Lace Good News Imp. Ind. Yellow
YELLOW	Souvenir Yellow Sculpture Golden Chord Forty Niner Esquire Gold Ball Illini Goldilocks Yellow Highbrow Lollipop Pippin Yellow Paramount Yellow Taffeta Etude	Yellowtop Aztec Mary Hall Yellow Beauregard Luxury Yellow Iceberg Yellow Shasta Jealousy Yellow Igloo Heyday Yellow Pacesetter Sunfire Yel. Ill. Snowdrift	Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Yellow Halo (Ghs.) Dandy Statesman Honeymoon Brilliancy
	Balcombe Perfection Mrs. Eisenhower Valentine	Copper Queen Mrs. Roy Nomago	Dark Ind. Bronze Detroit News Fred Yule
BRONZE & RED	Thelma Ranger Rusticon Illini War Paint Olnura Bronze Minuet Rubaiyat Br. Jubilation	Jeffire Nectarine Beauregard Rubicon Bronze Portrait Climax Paragon Giltglow	Gaiety Bronze Dot Buckskin Buccaneer Imp. Red Daisy Salmonchip
	Rose Delight Thanksgiving Pink	Dark Orchid Queen Laughter Merriment	Ind. Pink Bunbu
PINK	Taffeta Jubilation Magic Almega Minuet Illini Formal Celebrity Staccato	Parisienne Delight Portrait Bonnie Pennant Pandora Profile Cheerful	Pinkeffe Vogue Reward Pink Dol Bluechip Darkchip Tempo Handsome





BLOOM NOVEMBER 3, 1958

LATITUDE	PLANT	PINCH*	START SHADE	RESPONSE GROUP
40-45°	June 30	July 21	Aug. 11 Aug. 18 no	12 Week 11 Week 10 Week
30-40°	July 7	July 28	Aug. 11 Aug. 18 no	12 Week 11 Week 10 Week
25-30°	July 14	Aug. 4	Aug. 11 Aug. 18 no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant on Pinch Date

		12 Week	11 Week	10 Week
WHITE	S	Chattanooga	Marketeer	Ind. White Crystal Queen Meto Fred Shoesmith
	P	Silvercrest Illini Glacier Illini Peace Fortune	White Taffeta Sculpture Highbrow Paramount Belray Carrara Surfside	Whitetop Iceberg Encore Pacesetter Illini Igloo Shasta Little America Illini Snowdrift Stardust
AETTOM	S	Dk. Yel. Chattanooga Yel. Chattanooga Golden Pearson	Harvester	Imp. Ind. Yellow Yellow Queen Yellow Mefo Golden Shoesmith
	P	Goldsmith Highlander Illini Wampum Yellow Fortune Omega Yellow Galaxy	Golden Chord Forty Niner Gold Ball Yellow Paramount Yellow Highbrow Sultan Pippin Etude	Yellowfop Mary Hall Yellow Beauregard Yellow Iceberg Yellow Shasta Yellow Igloo Heyday Yellow Paceseffer
BRONZE	S	Oak Leaf	Balcombe Perfection Mrs. Eisenhower Calvert's Gold	Ind. Bronze Copper Queen Mrs. Roy
& RED	P	Illini Redwood Br. Goldsmith Galaxy Orange Galaxy Crackerjack	Rusticon Thelma Rubaiyat Illini War Paint Olnura Bronze Minuet Bronze Jubilation	Jetfire Beauregard Rubicon Bronze Pandora Climax Giltglow Nectarine
PINK	S	Pink Peter John Dark Pink Peter John	Calvert's Pink Thanks. Pink	Ind. Pink Dark Orchid Queen
	P	Illini Roseglow Delmar Nugano	Jubilation Illini Springtime Almega Magic Celebrity Staccato	Delight Portrait Bonnie Pennant Pandora Cheerful





BLOOM NOVEMBER 10, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	June 30	July 21	None None Aug. 4 —Sept. 1	Aug. 18 no no	12 Week 11 Week 10 Week
30-40°	July 7	July 28	None None Aug. 4 —Sept. 1	Aug. 18 no no	12 Week 11 Week 10 Week
25-30°	July 14	Aug. 4	None None Aug. 4 —Sept. 1	Aug. 18 no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		12 Week	11 Week	10 Week
e1+00010001	S	Chattanooga	Marketeer	Ind. White Crystal Queen Wefo Fred Shoesmith
WHITE	P	Silvercrest Illini Glacier Illini Peace Fortune	White Taffeta Sculpture Highbrow Paramount Belray Carrara Surfside	Whitetop Iceberg Encore Pacesetter Illini Igloo Shasta Little America Illini Snowdrift
	S	Dk. Yel. Chattanooga Yel. Chattanooga Golden Pearson	Harvester	Imp. Ind. Yellow Yellow Queen Yellow Mefo Golden Shoesmith
XELLOW	P	Goldsmith Highlander Illini Wampum Yellow Fortune Omega Yellow Galaxy	Golden Chord Forty Niner Gold Ball Yellow Paramount Yellow Highbrow Sultan Pippin Etude	Yellowtop Mary Hall Yellow Beauregard Yellow Iceberg Yellow Shasta Yellow Igloo Heyday Yellow Pacesetter
	s	Oak Leaf	Balcombe Perfection Mrs. Eisenhower Calvert's Gold	Ind. Bronze Copper Queen Mrs. Roy
BRONZE & RED	P	Illini Redwood Br. Goldsmith Galaxy Orange Galaxy Crackerjack	Rusticon Thelma Rubaiyat Illini War Paint Olnura Bronze Minuet Bronze Jubilation	Jeffire Beauregard Rubicon Bronze Pandora Climax Gilfglow Nectarine
	S	Pink Peter John Dark Pink Peter John	Calvert's Pink Thanks. Pink	Ind. Pink Dark Orchid Queen
PZNIC	P	Illini Roseglow Delmar Nugano	Jubilation Illini Springtime Almega Magic Celebrity Staccato	Delight Portrait Bonnie Pennant Pandora Cheerful



BLOOM NOVEMBER 17, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	July 7	July 28	None None None Aug. 4 —Sept. 8	Aug. 18 Aug. 11 no no	13 Week 12 Week 11 Week 10 Week
30-40°	July 14	Aug. 4	None None None Aug. 4 —Sept. 8	Aug. 18 Aug. 11 no no	13 Week 12 Week 11 Week 10 Week
25-30°	July 21	Aug. 11	None None Aug, 4 —Sept. 8	Aug. 11 no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		13 Week	12 Week	11 Week	10 Week
WHITE	s		Chattanooga White Peter John	Marketeer	Ind. White Crystal Queen Mefo Fred Shoesmith
	P	Acclaim Cotillion Yukon Satellite Icecap	Silvercrest Illini Glacier Illini Peace White Valencia Fortune	White Taffeta Sculpture Highbrow Paramount Surfside	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrift
YELLOW	S		Dk. Yel. Chat'n'ga Yel. Chattanooga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yellow Yellow Queen Yellow Meto Golden Shoesmith
	P	Coronation Golden Acclaim Cinderella Dk. Yel. Satellite Corsair	Goldsmith Highlander Sunnyside Illini Wampum Yellow Fortune Omega Yellow Galaxy	Yel. Highbrow Forty Niner Klondike Yel. Paramount Golden Chord Sultan Etude	Yellowtop Yel. Beauregard Yel. Iceberg Yel. Shasta Yellow Igloo Heyday Jealousy
BRONZE & RED	S		Oak Leaf Bronze Peter John	Balcombe Perfectior Calvert's Gold Mrs. Eisenhower	Ind. Bronze Copper Queen Anaconda
	P	Christmas Star Flame Minstrel Dk. Br. Minstrel Red Minstrel	Illini Redwood Br. Goldsmith Apricot Valencia Galaxy Crackerjack	Rusticon Thelma Rubaiyat Br. Jubilation Bronze Minuet	Beauregard Climax Giltglow Rubicon Br. Masterpiece
PINK	S		Pink Peter John Dk. Pk. Peter John	Calvert's Pink Thanks. Pink	Ind. Pink Orchid Queen
	P	Eminence Debutante Minstrel Imp. Pk. Minstrel	Delmar Illini Roseglow Valencia Heritage	Almega Minuet Celebrity Stacatto	Portrait Profile Rose Masterpiece Cheerful



BLOOM NOVEMBER 24, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	July 14	Aug. 4	None None Aug. 11—Sept. 8 Aug 4—Sept. 15	Aug. 25 no no no	13 Week 12 Week 11 Week 10 Week
30-40°	July 21	Aug. 11	None None Aug. 11—Sept. 8 Aug 4—Sept. 15	Aug. 25 no no no	13 Week 12 Week 11 Week 10 Week
25-30°	July 28	Aug. 18	None Aug. 11—Sept. 8 Aug 4—Sept. 15	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		13 Week	12 Week	11 Week	10 Week
WHITE	s		Chattanooga White Peter John	Marketeer	Ind. White Crystal Queen Meto Fred Shoesmith
	P	Acclaim Cotillion Yukon Satellite Icecap	Silvercrest Illini Glacier Illini Peace White Valencia Fortune	White Taffeta Sculpture Highbrow Paramount Surfside	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrift
YELLOW	S		Dk. Yel. Chat'n'ga Yel. Chattanooga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yellow Yellow Queen Yellow Mefo Golden Shoesmith
	P	Coronation Golden Acclaim Cinderella Dk. Yel. Satellite Corsair	Goldsmith Highlander Sunnyside Illini Wampum Yellow Fortune Omega Yellow Galaxy	Yel. Highbrow Forty Niner Klondike Yel. Paramount Golden Chord Sultan Etude	Yellowfop Yel. Beauregard Yellow Iceberg Yellow Shasfa Yellow Igloo Heyday Jealousy
RONZE	S		Oak Leaf Br. Peter John	Ralcombe Perfectior Calvert's Gold Mrs. Eisenhower	Ind. Bronze Copper Queen Anaconda
KEU	P	Christmas Star Flame Minstrel Dk. Br. Minstrel Red Minstrel	Illini Redwood Br. Goldsmith Apricot Valencia Galaxy Crackerjack	Rusticon TheIma Rubaiyat Br. Jubilation Bronze Minuet	Beauregard Climax Giltglow Rubicon Br. Masterpiece
	S		Pink Peter John Dk. Pk. Peter John	Calvert's Pink Thanks. Pink	Ind. Pink Orchid Queen
PINK	P	Eminence Debutante Minstrel Imp. Pk. Minstrel	Delmar Illini Roseglow Valencia Heritage	Almega Minuet Celebrity Stacatto	Portrait Profile Rose Masterpiece Cheerful





BLOOM DECEMBER 1, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			None	Aug. 25	14 Week
			None	no	13 Week
40-45°	July 21	Aug. 11	Aug. 18-Sept. 8	no	12 Week
	,		Aug. 11—Sept. 15	no	11 Week
			Aug. 4 —Sept. 22	no	10 Week
			None	Aug. 25	14 Week
			None	no	13 Week
30-40°	July 28	Aug. 18	Aug. 18-Sept. 8	no	12 Week
30-40			Aug. 11-Sept. 15	no	11 Week
			Aug. 4 —Sept. 22	no	10 Week
			Aug. 18—Sept. 8	no	12 Week
25-30°	Aug. 4	Aug. 25	Aug. 11-Sept. 15	no	11 Week
			Aug. 4 —Sept. 22	no	10 Week

		14 Week	13 Week	12 Week	11 Week	10 Week
	S		Dec. White Smith's White	Chattanooga December Glory	Marketeer	Ind. White Crystal Queen Fred Shoesmith
WHITE	P	Silversmith Snowcap White Riviera Elegance	Acclaim Icecap Illini Alba Illini Starlef Satellite Snowcrest	Silvercrest Illini Glacier Illini Peace Fortune	Highbrow Paramount Belray Surfside Carrara	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrift
YELLOW	S		Chalice Tobin's Yellow Meteore	Dk. Yel. Chat'n'ga Yel. Chattanooga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yellow Yellow Queen Golden Shoesmith
	P	Yellow Riviera Shamrock Vibrant Golden Elegance Sun Valley	Gold Acclaim Dk. Yel. Satellite Coronation Yel. Snowcrest Corsair	Highlander Illini Wampum Yellow Fortune Omega Yellow Galaxy	Yel. Highbrow Etude Forty Niner Lollipop Yel. Paramount	Yellowtop Yel. Beauregard Yellow Shasta Yellow Igloo Heyday
PROMPT	S		engagagagagagagagagagagagagagagagagagaga	Oak Leaf Bronze Peter John	Balcombe Perfec Calvert's Gold	Ind. Bronze Copper Queen
BRONZE & RED	P	Bronze Riviera Topaz Christ. Greet'gs Merrymaker Poinsettia	Christmas Star Flame Minstrel Dk. Br. Minstrel Red Minstrel	Galaxy Orange Galaxy Holiday Crackerjack	Rusticon Thelma Rubaiyat Br. Jubilation	Beauregard Climax Giltalow Rubicon Br. Masterpiece
PINK	S	MAN AT LOW DOLLAST N	ANIMATOR TO THE WARRY CALLEST AND ANIMATOR AND ANIMATOR AND ANIMATOR AND ANIMATOR AND ANIMATOR AND ANIMATOR AN	Pink Peter John Dk. Pk. Peter John	Calvert's Pink	Ind. Pink Orchid Queen
- 44421	P	Riviera Rosalind Defiance Alvoda	Eminence Debutante Minstrel Imp. Minstrel	Delmar Valencia Heritage	Jubilation Magic Celebrity Stacatto	Portrait Profile Rose Masterp'ce Cheerful





BLOOM DECEMBER 8, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	July 21	Aug. 11	None None Aug. 18—Sept. 15 Aug. 11—Sept. 22 Aug. 4—Sept. 29	Aug. 25 no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
30-40°	July 28	Aug. 18	None None Aug. 18—Sept. 15 Aug. 11—Sept. 22 Aug. 4—Sept. 29	Aug. 25 no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
25-30°	Aug. 11	Sept. 1	Aug. 18—Sept. 15 Aug. 11—Sept. 22 Aug. 4 —Sept. 29	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
WARRED PROCESS	S		Dec. White Smith's White	Chattanooga Dec. Glory	Marketeer	Ind. White Crystal Queen Fred Shoesmith
WHITE	P	Silversmith Snowcap White Riviera Elegance	Acclaim Icecap Illini Alba Illini Starlet Satellite Snowcrest	Silvercrest Illini Glacier Illini Peace Fortune	Highbrow Paramount Belray Surfside Carrara	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrifs
	S		Chalice Tobin's Yellow Meteore	Dk. Yel. Chat'n'ga Yel. Chattanooga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yel. Yellow Mefo Gol. Shoesmith
YELLOW	P	Yellow Riviera Shamrock Vibrant Gol. Elegance Sun Valley	Gold. Acclaim Dk. Yel. Sat. Coronation Yel. Snowcrest Corsair	Highlander Illini Wampum Yellow Fortune Omega Yellow Galaxy	Yellow Highbrow Etude Forty Niner Lollipop Yel. Paramount	Yellowtop Yel. Beauregard Yel. Shasta Yellow Igloo Heyday
	S			Oak Leaf Br. Peter John	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
BRONZE & Red	P	Bronze Riviera Topaz Christ. Greet'gs Merrymaker Poinsettia	Christmas Star Flame Minstrel Dk. Br. Minst'l. Red Minstrel	Galaxy Orange Galaxy Holiday Crackerjack	Rusticon Theima Rubaiyat Br. Jubilation	Beauregard Climax Giltglow Rubicon Br. Masterpiece
William (1-10-10 довожубых п _е передаг _{ей} поддаг _{ей}	S	Prince for Annual Security and Control of the Contr		Pk. Peter John Dk. Pk. Peter John	Calvert's Pink	Ind. Pink Orchid Queen
PINK	P	Riviera Rosalind Defiance Alvoda	Eminence Debutante Minstrel Imp. Minstrel	Delmar Valencia Heritage	Jubilation Magic Celebrity Staccato	Portrait Profile Rose Mast'p'ce Cheerful



BLOOM DECEMBER 15, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	July 28	Aug. 18	None Aug. 25—Sept. 15 Aug. 18—Sept. 22 Aug. 11—Sept. 29 Aug. 4—Oct. 6	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Aug. 4	Aug. 25	None Aug. 25—Sept. 15 Aug. 18—Sept. 22 Aug. 11—Sept. 29 Aug. 4—Oct. 6	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Aug. 11	Sept. 1	None Aug. 25—Sept. 15 Aug. 18—Sept. 22 Aug. 11—Sept. 29 Aug. 4—Oct. 6	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
25-30°	Aug. 8	Sept. 8	Aug. 18-Sept. 22 Aug. 11-Sept. 29 Aug. 4 -Oct. 6	no no no	12 Week 11 Week 10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

	14 Week	13 Week	12 Week	11 Week	10 Week
S		Dec. White Smith's White	Chattanooga Dec. Glory	Marketeer	Ind. White Crystal Queen Fred Shoesmith
WHITE P	Silversmith Snowcap White Riviera Elegance	Acclaim Icecap Illini Alba Illini Starlet Satellite Snowcrest	Silvercrest Illini Glacier Illini Peace Fortune	Highbrow Paramount Belray Surfside Carrara	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrift
S YELLOW P		Chalice Tobin's Yellow Meteore	Dk. Yel. Chat'n'ga Yel. Chattan'ga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yel. Yellow Mefo Gol. Shoesmith
	Yel. Riviera Shamrock Vibrant Gol. Elegance Sun Valley	Gold. Acclaim Dk. Yel. Sat. Coronation Yel. Snowcrest Corsair	Highlander Illini Wampum Yellow Forfune Omega Yellow Galaxy	Yellow Highbrow Etude Forty Niner Lollipop Yel. Paramount	Yellowtop Yel. Beauregard Yel. Shasta Yellow Igloo Heyday
S			Oak Leaf Br. Peter John	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
& RED	Br. Riviera Topaz Christ. Greet'gs Merrymaker Poinsettia	Christ. Star Flame Minstrel Dk. Br. Minstrel Red Minstrel	Galaxy Orange Galaxy Holiday Crackerjack	Rusticon Thelma Rubalyaf Br. Jubilation	Beauregard Climax Giltglow Rubicon Br. Masterpiece
S			Pink Peter John Dk. Pk. Peter John	Calvert's Pink	Ind. Pink Orchid Queen
PINK	Riviera Rosalind Defiance Alvoda	Eminence Debutante Minstrel Imp. Minstrel	Delmar Valencia Heritage	Jubilation Magic Celebrity Staccato	Portrait Profile Rose Mast'p'ce Cheerful





BLOOM DECEMBER 22, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			None None	no	15 Week
			Sept. 1 —Sept. 15	no	14 Week
40-45°	Aug. 4	Aug. 25	Aug. 25—Sept. 22 Aug. 18—Sept. 29	no	13 Week 12 Week
			Aug. 11—Oct. 6	no	12 Week
			Aug. 5 —Oct. 13	no	10 Week
			Aug. 3 — Oct. 10	110	IU YYEEK
			None	no	15 Week
	Aug. 18	Sept. 8	Sept. 1 —Sept. 15	no	14 Week
35-40°			Aug. 25—Sept. 22	no	13 Week
33-40			Aug. 18-Sept. 29	no	12 Week
			Aug. 18-Oct. 6	no	11 Week
			Aug. 18-Oct. 13	no	10 Week
			Aug. 25-Sept. 22	no	13 Week
20.250	A 25	Cont 15	Aug. 25-Sept. 29	no	12 Week
30- 35°	Aug. 25	Sept. 15	Aug. 25-Oct. 6	no	11 Week
			Aug. 25-Oct. 13	no	10 Week
			Aug. 25-Sept. 29	no	12 Week
25-30°	Aug. 25	Sept. 15	Aug. 25-Oct. 6	no	11 Week
			Aug. 25-Oct. 13	no	10 Week
		*For No Pinch Method:	Plant and Light on Pinch Date	no	1

^{*}For No Pinch Method: Plant and Light on Pinch Date

		15 Week	14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	S			Dec. White Smith's White	Chaffanooga December Glory	Marketeer	Ind. White Crystal Queen Fred Shoesmith
	P	Revelation Snow Talmeda III. Cascade	Silversmith Snowcap White Riviera Elegance	Acclaim Icecap Illini Alba Illini Starlet Satellite Snowcrest	Silvercrest Illini Glacier Illini Peace Fortune	Highbrow Paramount Belray Surfside Carrara	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrift
TELL OW	S			Chalice Tobin's Yellow Meteore	Dk. Yel. Chat'n'ga Yel. Chattanooga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yel. Yellow Mefo Gol. Shoesmith
YELLOW	P	Siren Yuleflame Yel. Snow	Yellow Riviera Shamrock Vibrant Gol. Elegance Sun Valley	Gold. Acclaim Dk. Yel. Sat. Coronation Yel. Snowcrest Corsair	Highlander Illini Wampum Yellow Fortune Omega Yellow Galaxy	Yel. Highbrow Etude Forty Niner Lollipop Yel. Param'nt	Yellowtop Yel. Beauregard Yellow Shasta Yellow Igloo Heyday
	S				Oak Leaf Br. Peter John	Balcomble Perf. Calvert's Gold	Ind. Bronze Copper Queen
& RED	P		Br. Riviera Topaz Christ. Greet'gs Merrymaker Poinsettia	Christmas Star Flame Minstrel Dk. Br. Minstrel Red Minstrel	Galaxy Orange Galaxy Holiday Crackerjack	Rusticon Thelma Rubaiyat Br. Jubilation	Beauregard Climax Giltglow Rubicon Br. Masterpiece
	S				Pink Peter John Dk. Pk. Pet. John	Calvert's Pink	Ind. Pink Orchid Queen
PINK	P		Riviera Rosalind Defiance Alvoda	Eminence Debutante Minstrel Imp. Minstrel	Delmar Valencia Herifage	Jubilation Magic Celebrity Staccato	Portrait Profile Rose Mast'p'ce Cheerful





BLOOM DECEMBER 29, 1958

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Aug. 11	Sept.1	None Sept. 1 —Sept. 22 Aug. 25—Sept. 29 Aug. 18—Oct. 6 Aug. 11—Oct. 13 Aug. 11—Oct. 20	no no no no no no	15 Week 14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Aug. 18	Sept. 8	None Sept. 1 —Sept. 22 Aug. 25—Sept. 29 Aug. 18—Oct. 6 Aug. 18—Oct. 13 Aug. 18—Oct. 20	no no no no no	15 Week 14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Aug. 25	Sept. 25	Aug. 25—Sept. 29 Aug. 25—Oct. 6 Aug. 25—Oct. 13 Aug. 25—Oct. 20	no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Sept. 1	Sept. 22	Sept. 1 —Oct. 6 Sept. 1 —Oct. 13 Sept. 1 —Oct. 20	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

			VARI	ETIES IN RES	PONSE GROUPS		
		15 Week	14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	S			Dec. White Smith's White	Chattanooga December Glory	Marketeer	Ind. White Crystal Queen Fred Shoesmith
	P	Revelation Snow Talmeda III. Cascade	Silversmith Snowcap White Riviera Elegance	Acclaim Icecap Illini Alba Illini Starlet Satellite Snowcrest	Silvercrest Illini Glacier Illini Peace Fortune	Highbrow Paramount Belray Surfside Carrara	Whitetop Iceberg Illini Igloo Shasta Illini Snowdrift
Antrom	S			Chalice Tobin's Yellow Meteore	Dk. Yel. Chat'n'ga Yel. Chattanooga Golden Pearson	Harvester Marie DePetris	Imp. Ind. Yel. Yellow Meto Gol. Shoesmith
	P	Siren Wuleflame Yel. Snow	Tellow Riviera Thumrock Vibrant Gol. Elegance Sun Valley	Gold. Acclaim Dk. Yel. Sat. Coronation Wel. Snowcrest Corsair	Highlander Illini Wampum Yellow Forfune Omega Yellow Galaxy	Yel. Highbow Etude Forty Niner Lollipop Yel. Paramount	Yellowfop Yel. Beauregard Yellow Shasta Yellow Igloo Heyday
BRONZE	S				Oak Leaf Br. Peter John	Balcomble Perf. Calvert's Gold	Ind. Bronze Copper Queen
& RED			M'onze Riviera Topaz Christ. Greef'gs Merrymaker Poinsettia	Christmas Star Flame Minstrel Dk. Br. Minstrel Red Minstrel	Galaxy Orange Galaxy Holiday Crackerjack	Rusticon Thelma Rubaiyat Br. Jubilation	Beauregard Climax Giltglow Rubicon Br. Masterpiece
PINK	S				Pink Peter John Dk. Pk. Pet. John	Calvert's Pink	Ind. Pink Orchid Queen
Daniel	<u></u>		Riviera Rosalind Defiance Alvoda	Eminence Debutante Minstrel Imp. Minstrel	Delmar Valencia Heritage	Jubilation Magic Celebrity Staccato	Portrait Profile Rose Mast'p'ce Cheerful





Chrysanthemum MANUAL

Chrysanthemum Pot Plant Culture



Pink Deluxe

High quality pot plants can only be grown when all cultural conditions are optimum. By optimum conditions we refer particularly to the basic conditions of a good soil, disease-free cuttings, the absence of any checks in growth from cutting to the mature flowering plant, adequate means of temperature control and the selection of the right varieties.

Soil

A good fibrous silt loam directly from the field, to which one-third to one-half of well-rotted manure or German peat has been added, plus an application of super-phosphate will give excellent results. Steam sterilization of the soil is advisable. You can plant immediately after steaming, provided you water heavily after planting the cuttings. Some growers are getting extra quick root action by using a top dressing of onehalf inch of German peat over their regular soil mixture in each pot and planting through this mulch of peat. It saves on watering and produces more breaks after pinching.

Watering and Humidity

After planting, water thoroughly to set the soil around the roots. Repeat this type of watering when the soil gets dry. Organic matter in the soil will facilitate watering and will tend to avoid extreme fluctuations in moisture supply. You can overwater a chrysanthemum as easily as a poinsettia plant. Overwatering will rot the roots, and the tops will take on a very yellow color.

For best results grow all potted chrysanthemums under glass. Do not shade the glass any more than necessary. Usually a light shade is necessary in mid-summer. Shade on the glass is only there for the convenience of the grower and not for the requirements of the plant. Keep humidity in the house by wetting down benches and walks, and by an occasional syringing over the plants.

Fertilizing

The foliage should retain a bright green luster throughout the life of the plant. The lower leaves should never

be allowed to turn a light green due to low fertility. A strong well-grown pot plant is a well-fed plant. Pot plants should be fed more frequently than those grown in a bench, as constant leaching lowers the nutrient level in pots faster than in bench culture.

Liquid fertilizers are very effective. Weekly feedings have produced excellent results. After the cuttings are planted, water the plants in with a weak solution (starter solution) of a complete soluble fertilizer and continue to feed weekly thereafter. Last feeding should be made when the plants are ready to sell. Maintain continuous and accurate feedings during the winter as well as during the remainder of the year. During the winter months cut the fertilizer concentration to I ounce to 8 gallons of water.

Feeding everytime you water with a Fert-O-Ject has proven to be very reliable method of fertilizing. Tests at Ohio State University confirmed this. They had the best results when plants were fertilized (1 oz. to 15 gal-

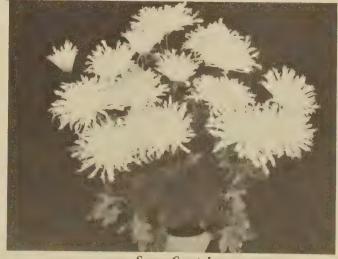
lons) each time they were watered.

Temperature

The optimum night temperature is 65 degrees. Day temperatures should be 75 to 85 degrees when the light intensity is high and 70 degrees during cloudy days. Heat checks develop when the night temperatures reach 90 degrees or higher. This check is very similar to the check that develops when plants are taken out of short-day treatment too early or when the black cloth treatment is missed too often. The only practical way to overcome this heat check is to install air conditioning to lower the temperatures. Growing the crop at less than a 65 degree night temperature results in uneven and delayed flowering. A gradual temperature drop to 55 degrees after buds show color is advisable for some pink and bronze varieties.

Shading and Disbudding

Use same procedure as for cut flower crop. Black cloth treatment should continue until the buds are taken. The last pinch is usually made the same day short-day treatment is started. However, if you are troubled with tall potted plants, delay the last pinch 10 to 14 days after starting the shading program. Disbud each shoot to one bud when buds are large enough to handle.



Snow Crystal

Chrysanthemum Pot Plant Culture



Incurved Delaware

Planting and Pinching

Plant the rooted cuttings which have been graded for height and stem diameter directly into the finishing pot. Rhizoctonia will develop in the stem when the cuttings are planted too deeply. It is better to plant the cuttings around the pot rather than the four with one in the center practice. Planting the cuttings on an angle will increase the number of breaks that develop after the pinch.

the pinch.

No-Pinch Method. Plant 7 to 9 cuttings in a 6-inch pot and give short day treatment immediately. The blooms will be very large and the stems will be much stronger than when growing pinched plants. The Indianapolis varieties are used in 8-inch pots, 10 cuttings per pot with no pinch, to provide premium plants.

Single-Pinch Method. The most practical method of growing potted plants today. It is much faster and produces a very uniform plant with strong stems. Plant 5 cuttings of Bonnaffon Deluxe or 6 cuttings of the other varieties in a 6-inch pot. Pinch the plants high in the soft growth according to the schedule found in the year-round program.

The term short, medium and tall treatment refers to the height of the plants and different treatments are given so as to make all varieties about the same



Mermaid

height when ready to sell. Wilson's White is given the short treatment by giving the plant 7 to 14 long days after the pinch before starting the short day treatment. With varieties like Bonnaffon Deluxe we give them the medium treatment, that is short days, the day we pinch. The tall treatment includes varieties such as Little America and Sunburst which receive 7 to 14 short days before pinching. Our year-round schedule takes this into consideration so that your plants should finish all about the same height.

Two-Pinch Method. The most common method a few years ago and still used some for Fall bloom, especially where larger plants are wanted. Plant 4 or 5 cuttings in 6-inch pots; 4 to 6 cuttings in 7-inch, and 7 to 9 cuttings in 8-inch pots. Pinch the plants the first time 14 days after planting and wait 21 days and pinch the second time. Long-day treatment should be maintained either naturally or through the use of additional light during this period. Short-day treatment should start at the time of the second pinch.

Modified Two-Pinch Method. This cultural method is recommended for those varieties that grow too tall or those which do not have sufficient number of blooms when grown with a single-pinch method. Queen's Lace, Royal Bronze, Little America and Copperhead, also the garden varieties for spring pot sales are benefited when grown with this modified two-pinch method. After the plants have been established give them seven short days before making the first pinch. Continue the short day treatment, pinch the second time 21 to 28 days later, depending on the time of year. This second pinch will not delay the flowering very much more than one week but will keep the plants much shorter with more blooms than if not given this second pinch.

What causes tall plants? Many factors contribute to this excessive growth, 1. Crowding. 2. Growing in a cool 60 degrees. 3. Night temperatures over 90 degrees. 4. Not applying black cloth regularly each night. 5. Growing with too much shade on glass. 6. Giving too many long days before pinching, then pinching too high. 7. Variety.



Snowclad





Chrysanthemum Pot Plant Culture

Garden Mum Pot Plants for Mother's Day

Garden mum plants in full bloom make ideal potted plants for Mother's Day. This should be a valuable addition to the list of spring pot plants. For best results, 5 cuttings should be planted in a 6-inch pot or 2 cuttings in a 4-inch pot. After these pot plants are

through flowering, they should be cut back to within 3 inches of the soil level and planted into the garden. These same plants will bloom again in the fall.

Many growers have greatly increased their sale of garden chrysanthemums by having collections in bloom during the spring season. Cuttings are planted one to a 3-inch or 31/2-inch pot using the procedure outlined below for Single-Pinch Method.

SINGLE - PINCH METHOD*

BLOOM	PLANT	LIGHTING PERIOD	PINCH	SHADE
EASTER	January 13	Jan. 13—Jan. 23	Jan. 23	no
MOTHER'S DAY	March 3	Mar. 3—Mar. 10	Mar. 10	Mar. 31
DECORATION DAY	March 17	Mar. 17—Mar. 24	Mar. 24	Mar. 31

^{*} For double-pinch method plant five weeks earlier and give first pinch seven days after planting. The second pinch should be made on the pinch date given in the single-pinch method. Be sure to light from the date of planting until date of second pinch.

VARIETIES:

WHITE

Chris Columbus Ostosa Benora Maestro Larry Gardenia

YELLOW

Yellow Chris Columbus Moonlight Astoria Sunburst Blazing Gold

BRONZE & RED

W. P. Snyder Aglow Mona Dolli-Ette Toronto Morocco Lipstick Coralhue Radiance Lee-Ette Bayonne Resolute

PINK

Spellbound
Mischief
Joybringer
Alert
Fuchsia Fairy
Cupid
Citation
Candytuft



Inca - 3-inch pot



Lee-Ette - 3-inch pot.



Dolli-Ette - 3-inch pot





BLOOM JANUARY 5, 1959

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold	Oct. 6	Oct. 6 - Oct. 20	Oct. 20	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Oct. 6	Oct. 6 - Oct. 27	Oct. 20	no
Chalk Cliff	Oct. 13	Oct. 13 - Oct. 27	Oct. 27	no
Queen's Lace	Oct. 13	Oct. 13 - Oct. 27	1st Nov. 3 2nd Dec. 1	no
Granite State	Oct. 13	Oct. 13 - Nov. 3	Oct. 27	no
Little America	Oct. 20	Oct. 20 - Oct. 27	Nov. 3	no
Luna Snowclad Blue Ribbon Queen of Pinks	Oct. 20	Oct. 20 - Nov. 3	Nov. 3	no

BLOOM JANUARY 12, 1959

Bonnaffon Deluxe Calvert's Gold	Oct. 13	Oct. 13 - Oct. 27	Oct. 27	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Oct. 13	Oct. 13 - Nov. 3	Oct. 27	no
Chalk Cliff	Oct. 20	Oct. 20 - Nov. 3	Nov. 3	no
Queen's Lace	Oct. 20	Oct. 20 - Nov. 3	1st Nov. 10 2nd Dec. 8	no
Granite State	Oct. 20	Oct. 20 - Nov. 10	Nov. 3	no
Little America Snow Crystal Ind. Varieties	Oct. 27	Oct. 27 - Nov. 3	Nov. 10	no
Luna	Oct. 27	Oct. 27 - Nov. 10	Nov. 10	no





BLOOM JANUARY 19, 1959

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold	Oct. 20	Oct. 20 - Nov. 3	Nov. 3	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Oct. 20	Oct. 20 - Nov. 10	Nov. 3	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Oct. 27	Oct. 27 - Nov. 10	Nov. 10	no
Queen's LaceGold Lace	Oct. 27	Oct. 27 - Nov. 10	1st Nov. 17 2nd Dec. 15	no
Granite State	Oct. 27	Oct. 27 - Nov. 17	Nov. 10	no
Little America	Nov. 3	Nov. 3 - Nov. 10	Nov. 17	no
Luna Snowclad Blue Ribbon Queen of Pinks	Nov. 3	Nov. 3 - Nov. 17	Nov. 17	no

BLOOM JANUARY 26, 1959

Bonnaffon Deluxe Calvert's Gold	Oct. 27	Oct. 27 - Nov. 10	Nov. 10	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Oct. 27	Oct. 27 - Nov. 17	Nov. 10	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Nov. 3	Nov. 3 - Nov. 17	Nov. 17	no
Queen's Lace	Nov. 3	Nov. 3 - Nov. 17	1st Nov. 24 2nd Dec. 22	no
Granite State	Nov. 3	Nov. 3 - Nov. 24	Nov. 17	no
Little America	Nov. 10	Nov. 10 - Nov. 17	Nov. 24	no
Luna	Nov. 10	Nov. 10 - Nov. 24	Nov. 24	no





BLOOM FEBRUARY 2, 1959

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold	Nov. 3	Nov. 3 - Nov. 17	Nov. 17	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Nov. 3	Nov. 3 - Nov. 24	Nov. 17	no
Chalk Cliff	Nov. 10	Nov. 10 - Nov. 24	Nov. 24	no
Queen's LaceGold Lace	Nov. 10	Nov. 10 - Nov. 24	1st Dec. 1 2nd Dec. 29	no
Granite State	Nov. 10	Nov. 10 - Dec. 1	Nov. 24	no
Little AmericaInd. VarietiesSnow Crystal	Nov. 17	Nov. 17 - Nov. 24	Dec. 1	no
Luna Snowclad Blue Ribbon Queen of Pinks	Nov. 17	Nov. 17 - Dec. 1	Dec. 1	no

BLOOM FEBRUARY 9, 1959

Bonnaffon Deluxe Calvert's Gold	Nov. 10	Nov. 10 - Nov. 24	Nov. 24	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Nov. 10	Nov. 10 - Dec 1	Nov. 24	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Nov. 17	Nov. 17 - Dec. 1	Dec. 1	no
Queen's LaceGold Lace	Nov. 17	Nov. 17 - Dec. 1	1st Dec. 8 2nd Jan. 5	no
Granite State	Nov. 17	Nov. 17 - Dec. 8	Dec. 8	no
Little AmericaInd. VarietiesSnow Crystal	Nov. 24	Nov. 24 - Dec 1	Dec. 8	no
Luna	Nov. 24	Nov. 24 - Dec. 8	Dec. 8	no





BLOOM FEBRUARY 16, 1959

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold	Nov. 17	Nov. 17 - Dec. 1	Dec. 1	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Nov. 17	Nov. 17 - Dec. 8	Dec. 1	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Nov. 24	Nov. 24 - Dec. 8	Dec. 8	no
Queen's Lace	Nov. 24	Nov. 24 - Dec. 8	1st Dec. 15 2nd Jan. 12	no
Granite State	Nov. 24	Nov. 24 - Dec. 15	Dec. 8	no
Little America	Dec. 1	Dec. 1 - Dec. 8	Dec. 15	no
Luna	Dec. 1	Dec. 1 - Dec. 16	Dec. 15	по

BLOOM FEBRUARY 23, 1959

Bonnaffon Deluxe Calvert's Gold	Nov.	24	Nov. 24 - Dec. 8	Dec. 8	no
Yellow Delaware	Nov.	24	Nov. 24 - Dec. 15	Dec. 8	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Dec.	1	Dec. 1 - Dec. 15	Dec. 15	по
Queen's LaceGold Lace	Dec.	1	Dec. 1 - Dec. 15	1st Dec. 22 2nd Jan. 19	no
Granite State	Dec.	1	Dec. 1 - Dec. 22	Dec. 15	no
Little America	Dec.	8	Dec. 8 - Dec 15	Dec. 22	no
Luna	Dec.	8	Dec. 8 - Dec. 22	Dec. 22	no



BLOOM MARCH 2, 1959

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold	Dec. 1	Dec. 1 - Dec. 15	Dec. 15	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Dec. 1	Dec. 1 - Dec. 22	Dec. 15	no
Chalk Cliff	Dec. 8	Dec. 8 - Dec. 22	Dec. 22	no
Queen's LaceGold Lace	Dec. 8	Dec. 8 - Dec. 22	1st Dec. 29 2nd Jan. 26	no
Granite State	Dec. 8	Dec. 8 - Dec. 29	Dec. 22	no
Little AmericaInd. VarietiesSnow Crystal	Dec. 15	Dec. 15 - Dec. 22	Dec. 29	no
Luna	Dec. 15	Dec. 15 - Dec. 29	Dec. 29	no
GardeniaBlazing Gold	Dec. 22	Dec. 22 - Jan. 5	Jan. 5	no
	BLOO	M MARCH 9, 195	9	
Bonnaffon Deluxe Calvert's Gold	Dec. 8	Dec. 8 - Dec. 22	Dec. 22	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Dec. 8	Dec. 8 - Dec. 29	Dec. 22	no
Chalk Cliff	Dec. 15	Dec. 15 - Dec. 29	Dec. 29	no
Queen's LaceGold Lace	Dec. 15	Dec. 15 - Dec. 29	1st Jan. 5 2nd Feb. 2	no
Granite State	Dec. 15	Dec. 15 - Jan. 5	Dec. 29	no
Little AmericaInd. VarietiesSnow Crystal	Dec. 22	Dec. 22 - Dec. 29	Jan. 5	no
Glamour. Luna. Monty	Dec. 22	Dec. 22 - Jan. 5	Jan. 5	no
CMCCM OF PARTIES				







	BLOOM	MARCH 16, 19)59	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHAD
Bonnaffon Deluxe Calvert's Gold	Dec. 15	Dec. 15 - Dec. 29	Dec. 29	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Dec. 15	Dec. 15 - Jan. 5	Dec. 29	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Dec. 22	Dec. 22 - Jan. 5	Jan. 5	no
Queen's Lace	Dec. 22	Dec. 22 - Jan. 5	1st Jan. 12 2nd Feb. 9	no
Granite State Wilson's White Wilson's Yellow	Dec. 22	Dec. 22 - Jan. 12	Jan. 5	no
Little AmericaInd. VarietiesSnow Crystal	Dec. 29	Dec. 29 - Jan. 5	Jan. 12	no
Crest	Dec. 29	Dec. 29 - Jan. 12	Jan. 12	no
Gardenia Blazing Gold	Jan. 5	Jan. 5 - Jan. 15	Jan. 15	no
	PLOOM	WADCH 22 TO	50	
	BLOOM	MARCH 23, 19	33	
Bonnaffon Deluxe Calvert's Gold	Dec. 22	Dec. 22 - Jan. 5	Jan. 5	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Dec. 22	Dec. 22 - Jan. 12	Jan. 5	no
Chalk Cliff Oregon Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Dec. 29	Dec. 29 - Jan. 12	Jan. 12	no
Queen's Lace Illini Snowdrift Gold Lace	Dec. 29	Dec. 29 - Jan. 12	1st Jan. 19 2nd Feb. 16	no
Granite State Wilson's White Wilson's Yellow	Dec. 29	Dec. 29 - Jan. 19	Jan. 12	no
Little AmericaInd. VarietiesSnow Crystal	Jan. 5	Jan. 5 - Jan. 12	Jan. 19	no
Crest Glamour Luna Monty Snowclad	Jan. 5	Jan. 5 - Jan. 15	Jan. 15	no
Blue RibbonQueen of Pinks				





BLOOM MARCH 30, 1959

	PLANT 5 OR 6		DIALGLE	SHADE
VARIETIES	CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	JHADE
Bonnaffon Deluxe Calvert's Gold	Dec. 29	Dec. 29 - Jan. 12	Jan. 12	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Dec. 29	Dec. 29 - Jan. 19	Jan. 12	no
Chalk Cliff	Jan. 5	Jan. 5 - Jan. 15	Jan. 15	no
Illini Snowdrift Queen's Lace Gold Lace	Jan. 5	Jan. 5 - Jan. 15	1st Jan. 22 2nd Feb. 19	no
Granite State	Jan. 5	Jan. 5 - Jan. 22	Jan. 15	no
Little America	Jan. 12	Jan. 12 - Jan. 15	Jan. 22	no
Crest Glamour Luna Monty Snowclad Blue Ribbon Queen of Pinks	Jan. 12	Jan. 12 - Jan. 22	Jan. 22	no
GardeniaBlazing Gold	Jan. 19	Jan. 19 - Jan. 29	Jan. 29	no

BLOOM APRIL 7, 1958

Yellow Delaware	
Oregon	10
Criterion	10
	no
Oueen's Lace	no
Granite State	no
Little America	no
Luna	no
Gardenia	no





	BLOO	M APRIL	14, 19	58	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING P	ERIOD	PINCH	SHADE
Bonnaffon Deluxe	Jan. 13	Jan. 13 -	Jan. 23	Jan. 23	Mar. 10
Yellow Delaware Delaware	Jan. 13	Jan. 13 -	Jan. 30	Jan. 23	Mar. 17
Oregon Yellow Calypso Criterion Humdinger Personality Red Humdinger	Jan. 20	Jan. 20 -	Jan. 30	Jan. 30	Mar. 17
Illini Snowdrift Queen's Lace Yel. Illini Snowdrift Gold Lace	Jan. 20	Jan. 20	Jan. 30	1st Feb. 6 2nd Mar. 6	Mar. 17
Granite State	Jan. 20	Jan. 20 - I	Feb. 6	Jan. 30	Mar. 24
Little America	Jan. 27	Jan. 27	Jan. 30	Feb. 6	Mar. 17
Luna Monty Blue Ribbon Queen of Pinks	Feb. 3	Feb. 3 - 1	Feb. 10	Feb. 10	Mar. 24
GardeniaBlazing Gold	Feb. 10	Feb. 10 - F	eb. 17	Feb. 17	Mar. 31
	BLOO	M APRIL 2	1, 19	58	
Bonnaffon Deluxe	Jan. 20	Jan. 20 - J	lan. 30	Jan. 30	Mar. 10
Yellow Delaware Delaware	Jan. 20	Jan. 20 - F	eb. 6	Jan. 30	Mar. 17
Oregon	Feb. 3	Feb. 3 - F	eb. 10	Feb. 10	Mar. 17
Illini Snowdrift	Feb. 3	None		1st Feb. 10 2nd Mar. 10	Mar. 17
Granite State	Feb. 3	Feb. 3 - F	eb. 17	Feb. 10	Mar. 24
Little America	Feb. 3	None		Feb. 10	Mar. 17
Luna	Feb. 10	Feb. 10 - F	eb. 17	Feb. 17	Mar. 24
GardeniaBlazing Gold	Feb. 17	Feb. 17 - F	eb. 24	Feb. 24	Mar. 31





BLOOM APRIL 28, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	6" POT Feb. 3	Feb. 3 - Feb. 10	Feb. 10	Mar. 10
Yellow Delaware Delaware	Feb. 3	Feb. 3 - Feb. 17	Feb. 10	Mar. 17
Oregon	Feb. 10	Feb. 10 - Feb. 17	Feb. 17	Mar. 17
Illini Snowdrift Queen's Lace Gold Lace	Feb. 10	None	1st Feb. 17 2nd Mar. 17	Mar. 17
Granite State Wilson's White Wilson's Yellow	Feb. 10	Feb. 10 - Feb. 24	Feb. 17	Mar. 24
Little AmericaInd. VarietiesPortrait Varieties	Feb. 10	None	Feb. 17	Mar. 17
Luna Monty Red Ethrelda Blue Ribbon Ethrelda Queen of Pinks Reveille	Feb. 17	Feb. 17 - Feb. 24	Feb. 24	Mar. 24
Benora Chris Columbus Gardenia Larry Maestro Ostosa Pilgrim Astoria Blazing Gold Sunburst Yel. Chris Columbus Yellow Spoon Aglow Bayonne Coralhue Dolli-Ette Lee-Ette Lipstick Mona Morocco Mrs. DuPont Radiance Resolute W. P. Snyder Alert Cupid Fuchsia Fairy Joybringer Mischief Spellbound	Feb. 24	Feb. 24 - Mar. 3	Mar. 3	Mar. 31

^{*}Recommended to follow with second tip pinch within three weeks.





BLOOM MAY 5, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Feb. 10	Feb. 10 - Feb. 17	Feb. 17	Mar. 10
Yellow Delaware Delaware	Feb. 10	Feb. 10 - Feb. 24	Feb. 17	Mar. 17
Oregon Yellow Calypso Red Humdinger Criterion Humdinger Personality	Feb. 17	Feb. 17 - Feb. 24	Feb. 24	Mar. 17
Illini Snowdrift Queen's Lace Gold Lace	Feb. 17	None	1st Feb. 24 2nd Mar. 24	Mar. 17
Granite State	Feb. 17	Feb. 17 - Mar. 3	Feb. 24	Mar. 24
Little America	Feb. 17	None	Feb. 24	Mar. 17
Luna	Feb. 24	Feb. 24 - Mar. 3	Mar. 3	Mar. 24
*Benora *Chris Columbus *Gardenia *Larry *Maestro *Ostosa *Pilgrim *Astoria Blazing Gold *Sunburst *Yel. Chris Columbus *Yellow Spoon *Aglow *Coralhue Dolli-Effe *Lee-Effe *Lipstick *Mona *Morocco Mrs. DuPont *Radiance Resolute *W. P. Snyder *Alert *Cupid Fuchsia Fairy *Joybringer *Mischief *Spellbound	Mar. 3	Mar. 3 - Mar. 10	Mar. 10	Mar. 31

^{*}Recommended to follow with second tip pinch within three weeks.





BLOOM MAY 12, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Feb. 17	Feb. 17 - Feb. 24	Feb. 24	Mar. 10
Yellow Delaware Delaware	Feb. 17	Feb. 17 - Mar. 3	Feb. 24	Mar. 17
Oregon	Feb. 24	Feb. 24 - Mar. 3	Mar. 3	Mar. 17
Illini Snowdrift	Feb. 24	None	1st Mar. 3 2nd Mar. 31	Mar. 17
Granite State	Feb. 24	Feb. 23 - Mar. 10	Mar. 3	Mar. 24
Little America	Feb. 24	None	Mar. 3	Mar. 17
Luna Monty Red Ethrelda Blue Ribbon Ethrelda Queen of Pinks *Reveille	Mar. 3	Mar. 3 - Mar. 10	Mar. 10	Mar. 24
*Benora *Chris Columbus *Gardenia *Larry *Maestro *Ostosa *Pilgrim *Astoria Blazing Gold *Sunburst *Yel. Chris Columbus *Yelow Spoon *Aglow Bayonne *Coralhue Dolli-Effe *Lee-Effe *Lipstick *Mona *Morocco Mrs. DuPont *Radiance Resolufe *W. P. Snyder *Alert *Cupid Fuchsia Fairy *Joybringer *Mischief *Spellbound	Mar. 10	Mar. 10 - Mar. 17	Mar. 17	Mar. 31

^{*}Recommended to follow with second tip pinch within three weeks.





BLOOM MAY 19, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Feb. 24	Feb. 24 - Mar. 3	Mar. 3	Mar. 10
Yellow Delaware Delaware	Feb. 24	Feb. 24 - Mar. 10	Mar. 3	Mar. 17
Oregon	Mar. 3	Mar. 3 - Mar. 10	Mar. 10	Mar. 17
Illini Snowdrift Queen's Lace Gold Lace	Mar. 3	None	1st Mar. 10 2nd Apr. 7	Mar. 17
Granite State	Mar. 3	Mar. 3 - Mar. 17	Mar. 10	Mar. 24
Ind. Varieties	Mar. 3	None	Mar. 10	Mar. 17
Luna Monty Red Ethrelda Blue Ribbon Ethrelda Reveille	Mar. 10	Mar. 10 - Mar. 17	Mar. 17	Mar. 24
Benora Chris Columbus Gardenia Larry Maestro Ostosa Pilgrim Astoria Blazing Gold Sunburst Yel. Chris Columbus Yellow Spoon Aglow Bayonne Coralhue Dolli-Effe Lee-Effe Lipstick Mona Morocco Mrs. DuPont Radiance Resolute W. P. Snyder Alert Cupid Fuchsia Fairy Joybringer Mischief Spellbound	Mar. 17	Mar. 17 - Mar. 24	Mar. 24	Mar. 31

^{*}Recommended to follow with second tip pinch within three weeks.





BLOOM MAY 26, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Mar. 3	Mar. 3 - Mar. 10	Mar. 10	Mar. 10
Yellow Delaware Delaware	Mar. 3	Mar. 3 - Mar. 17	Mar. 10	Mar. 17
Oregon Yellow Calypso Criterion Personality	Mar. 10	Mar. 10 - Mar. 17	Mar. 17	Mar. 17
Illini SnowdriftQueen's Lace	Mar. 10	None	1st Mar. 17 2nd Apr. 24	Mar. 17
Granite State	Mar. 10	Mar. 10 - Mar. 24	Mar. 17	Mar. 24
Red Humdinger Humdinger Portrait Varieties	Mar. 10	None	Mar. 17	Mar. 17
Luna	Mar. 17	Mar. 17 - Mar. 24	Mar. 24	Mar. 24
Benora Chris Columbus Gardenia Larry Maestro Ostosa Pilgrim Astoria Blazing Gold Sunburst Vel. Chris Columbus Vellow Spoon Aglow Bayonne Coralhue Dolli-Ette Lipstick Mona Morocco Mrs. DuPont Radiance Resolute Resolute W. P. Snyder Alert Cupid Fuchsia Fairy Joybringer Mischief Spellbound	Mar. 24	Mar. 24 - Mar. 31	Mar. 31	Mar. 3

^{*}Recommended to follow with second tip pinch within three weeks.





BLOOM JUNE 2, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Mar. 10	Mar. 10 - Mar. 17	Mar. 17	Mar. 17
Yellow Delaware	Mar. 10	Mar. 10 - Mar. 24	Mar. 17	Mar. 24
OregonWhitehouseYellow Calypso	Mar. 17	Mar. 17 - Mar. 24	Mar. 24	Mar. 24
Illini SnowdriftQueen's Lace	Mar. 17	None	1st Mar. 24 2nd Apr. 21	Mar. 24
Granite State	Mar. 17	Mar. 17 - Mar. 31	Mar. 24	Mar. 31
Red Humdinger	Mar. 17	None	Mar. 24	Mar. 24
Luna	Mar. 24	Mar. 24 - Mar. 31	Mar. 31	Mar. 31
Gardenia Blazing Gold	Mar. 31	Mar. 31 - Apr. 7	Apr. 7	Apr. 7

BLOOM JUNE 9, 1958

Mar. 17	Mar. 17 - Mar. 24	Mar. 24	Mar. 24
Mar. 17	Mar. 17 - Mar. 31	Mar. 24	Mar. 31
Mar. 24	Mar. 24 - Mar. 31	Mar. 31	Mar. 31
Mar. 24	None	1st Mar. 31 2nd Apr. 28	Mar. 31
Mar. 24	Mar. 24 - Apr. 7	Mar. 31	Apr. 7
Mar. 24	None	Mar. 31	Mar. 31
Mar. 31	Mar. 31 - Apr. 7	Apr. 7	Apr. 7
Apr. 7	Apr. 7 - Apr. 14	Apr. 14	Apr. 14
	Mar. 17 Mar. 24 Mar. 24 Mar. 24 Mar. 24 Mar. 31	Mar. 17 Mar. 17 - Mar. 31 Mar. 24 Mar. 24 - Mar. 31 Mar. 24 None Mar. 24 Apr. 7 Mar. 24 None Mar. 31 Apr. 7	Mar. 17 Mar. 17 - Mar. 31 Mar. 24 Mar. 24 Mar. 24 - Mar. 31 Mar. 31 Mar. 24 None 1st Mar. 31 Mar. 24 Mar. 24 - Apr. 7 Mar. 31 Mar. 24 None Mar. 31 Mar. 31 Mar. 31 - Apr. 7 Apr. 7





BLOOM JUNE 16, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Mar. 24	Mar. 24 - Mar. 31	Mar. 31	Mar. 31
Yellow Delaware	Mar. 24	Mar. 24 - Apr. 7	Mar. 31	Apr. 7
Oregon	Mar. 31	Mar. 31 - Apr. 7	Apr. 7	Apr. 7
Illini Snowdriff Queens' Lace Gold Lace	Mar. 31	None	1st Apr. 7 2nd May 5	Apr. 7
Granite State	Mar. 31	Mar. 31 - Apr. 14	Apr. 7	Apr. 14
Red Humdinger	Mar. 31	None	Apr. 7	Apr. 7
Luna Monty Blue Ribbon	Apr. 7	Apr. 7 - Apr. 14	Apr. 14	Apr. 14
Gardenia Blazing Gold	Apr. 14	Apr. 14 - Apr. 21	Apr. 21	Apr. 21

BLOOM JUNE 23, 1958

Bonnaffon Deluxe	Mar. 31	Mar. 31 - Apr. 7	Apr. 7	Apr. 7
Yellow Delaware	Mar. 31	Mar. 31 - Apr. 14	Apr. 7	Apr. 14
OregonYellow CalypsoWhitehouse	Apr. 7	Apr. 7 - Apr. 14	Apr. 14	Apr. 14
Illini Snowdrift Queen's Lace Gold Lace	Apr. 7	None	1st Apr. 14 2nd May 12	Apr. 14
Granite State	Apr. 7	Apr. 7 - Apr. 21	Apr. 14	Apr. 21
Red Humdinger	Apr. 7	None	Apr. 14	Apr. 14
Luna Moniy Blue Ribbon	Apr. 14	Apr. 14 - Apr. 21	Apr. 21	Apr. 21
GardeniaBlazing Gold	Apr. 21	Apr. 21 - Apr. 28	Apr. 28	Apr. 28





BLOOM JUNE 30, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Apr. 7	Apr. 7 - Apr. 14	Apr. 14	Apr. 14
Yellow Delaware	Apr. 7	Apr. 7 - Apr. 21	Apr. 14	Apr. 21
Oregon	Apr. 14	Apr. 14 - Apr. 21	Apr. 21	Apr. 21
Wilson's WhiteGeorgia	Apr. 14	Apr. 14 - Apr. 28	Apr. 21	Apr. 28
LunaBlue Ribbon	Apr. 21	Apr. 21 - Apr. 28	Apr. 28	Apr. 28
GardeniaBlazing Gold	Apr. 28	Apr. 28 - May 5	May 5	May 5

BLOOM JULY 7, 1958

Apr. 14	Apr. 14 - Apr. 21	Apr. 21	Apr. 21
Apr. 14	Apr. 14 - Apr. 28	Apr. 21	Apr. 28
Apr. 21	Apr. 21 - Apr. 28	Apr. 28	Apr. 28
Apr. 21	Apr. 21 - May 5	Apr. 28	May 5
Apr. 28	Apr. 28 - May 5	May 5	May 5
May 5	May 5 - May 12	May 12	May 12
	Apr. 14 Apr. 21 Apr. 21 Apr. 28	Apr. 14 Apr. 14 - Apr. 28 Apr. 21 Apr. 21 - Apr. 28 Apr. 21 Apr. 21 - May 5 Apr. 28 Apr. 28 - May 5	Apr. 14 Apr. 14 - Apr. 28 Apr. 21 Apr. 21 Apr. 21 - Apr. 28 Apr. 28 Apr. 21 Apr. 21 - May 5 Apr. 28 Apr. 28 Apr. 28 - May 5 May 5

BLOOM JULY 14, 1958

Bonnaffon Deluxe	Apr. 21	Apr. 21 - Apr. 28	Apr. 28	Apr. 28
Yellow Delaware	Apr. 21	Apr. 21 - May 5	Apr. 28	May 5
Oregon Red Humdinger Humdinger Personality Portrait	Apr. 28	Apr. 28 - May 5	May 5	May 5
Wilson's White Georgia	Apr. 28	Apr. 28 - May 12	May 5	May 12
Luna Blue Ribbon	May 5	May 5 - May 12	May 12	May 12
GardeniaBlazing Gold	May 12	May 12 - May 19	May 19	May 19





BLO	DOM	JULY	21,	1958	
VARIETIES	PLANT 5 CUTTING	GS IN		PINCH	SHADE
Bonnaffon Deluxe	Apr.	28		May 5	May 5
Yellow Delaware	Apr.	. 28		May 5	May 12
Oregon Red Humdinger Humdinger Personality Portrait	May	5		May 12	May 12
Wilson's WhiteGeorgia	May	5		May 12	May 19
LunaBlue Ribbon	May	12		May 19	May 19
Gardenia Blazing Gold	May	19		May 26	May 26
BL	DOM	JULY	28,	1958	
Bonnaffon Deluxe	May	5		May 12	May 12
Yellow Delaware	May	5		May 12	May 19
Chalk Cliff Oregon Luminary Humdinger Pink Deluxe Portrait	May	12		May 19	May 19
Wilson's White	May	12		May 19	May 26
Crest Luna Snowclad Blue Ribbon Glamour	May	19		May 26	May 26
Blazing Gold	May	26		June 2	June 2
BLO	OM A	UGUS	T 4,	1958	
Bonnaffon Deluxe	May	12		May 19	May 19
Yellow Delaware	May	12		May 19	May 26
Chalk Cliff Oregon Luminary Humdinger Pink Deluxe Portrait	May	19		May 26	May 26
Wilson's White	May	19		May 26	June 2
Crest Luna Snowclad Blue Ribbon Glamour	May	26		June 2	June 2
Blazing Gold	June	2		June 9	June 9





DM A	UGUST	11,	1958			
CUTTING	S IN		PINC	СН	SHAI	DE
May	19		May	26	May	26
May	19		May	26	June	2
May	26		June	2	June	2
May	26		June	2	June	9
June	2		June	9	June	9
June	9		June	16	June	16
OM AI	TOUGH	12	1958			
		10,		2	lune	2
						_
May	26		June	2	June	9
June	2		June	9	June	9
June	2		June	9	June	16
June	9		June	16	June	16
June	16		June	23	June	23
OM AI	UGUST	25.	1958			
				9	June	2
					June	
June	9		June	16	June	16
June	9		June	16	June	23
June	16		June	23	June	23
	May May May May May May June June	PLANT 5 OR 6 CUTTINGS IN 6" POT May 19 May 26 May 26 June 2 June 9 DM AUGUST May 26 May 26 June 2 June 2 June 2 June 2 June 9 June 9	PLANT 5 OR 6 CUTTINGS IN 6" POT May 19 May 19 May 26 May 26 June 2 June 9 DM AUGUST 18, May 26 June 2 June 9 June 16 DM AUGUST 25, June 2 June 9 June 9	May 19 May 19 May 19 May 26 June 2 June 9 May 26 June 9 May 26 June 9 May 26 June 9 May 26 June 16 DM AUGUST 25, 1958 June 2 June 2 June 2 June 2 June 2 June 3 June 2 June 3 June 4 June 5 June 6 June 6 June 7 June 9 June	PLANT 5 OR 6 CUTTINGS IN 6" POT May 19 May 26 May 26 May 26 June 2 June 2 June 9 June 9 June 16 DM AUGUST 18, 1958 May 26 June 2 June 9 June 16 June 23 DM AUGUST 25, 1958 June 2 June 9 June 16	Plant 5 or 6 Pinch Sha





BLOON	I SEF	TEM	BER 1, 1958	3	
VARIETIES	PLANT 5 CUTTING 6" PC	S IN	PIN	СН	SHADI
Bonnaffon Deluxe	June	9	June	16	June
Yellow Delaware	June	9	June	16	June :
Chalk Cliff Oregon Luminary Criterion Humdinger Personality Pink Deluxe Portrait Varieties	June	16	June	23	June :
Wilson's White Wilson's Yellow Barbara Fuller	June	16	June	23	June :
Royal Bronze	June	23	1st June 2nd July		June 3
Crest	June	23	June	30	June (
Blazing Gold Bayonne Resolute	June	30	July	7	July
BLOOM	SEP	TEME	BER 8, 1958		
Bonnaffon Deluxe	June	16	June	23	June 1
Yellow Delaware Delaware Incurve Delaware	June	16	June	23	June 3
Chalk Cliff Dregon Luminary Criterion Humdinger Wermaid Personality Pink Deluxe Portrait Varieties	June	23	June	30	June 3
Wilson's White Wilson's Yellow Barbara Fuller	June	23	June	30	July
Royal Bronze	June	30	1st July 2nd July		July
Crest					

July 7

July 14

July 14





BLOOM SEPTEMBER 15, 1958

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	PINCH	SHADE
Bonnaffon Deluxe	June 23	June 30	June 23
Yellow Delaware Delaware Incurve Delaware Mermaid	June 23	June 30	July 7
Chalk Cliff Oregon Luminary Criferion Humdinger Personality Pink Deluxe Portrait Varieties	June 30	July 7	July 7
Wilson's White Wilson's Yellow Barbara Fuller	June 30	July 7	July 14
Royal Bronze	July 7	1st July 14 2nd Aug. 4	July 14
Crest Luna Snowclad Blue Ribbon Glamour	July 7	July 14	July 14
Blazing Gold Bayonne Resolute	July 14	July 21	July 21

BLOOM SEPTEMBER 22, 1958

Bonnaffon Deluxe	June	30	July	7	June 30
Yellow Delaware	June	30	July	7	July 14
Chalk Cliff Oregon Luminary Criterion Humdinger Mermaid Personality Pink Deluxe Portrait Varieties	July	7	July	14	July 14
Wilson's White	July	7	July	14	July 21
Royal Bronze	July	14	1st July 2nd Aug.		July 21
Crest Luna Snowclad Blue Ribbon Glamour Queen of Pinks	July	14	July	21	July 21
Blazing Gold	July	21	July	28	July 28





BLOOM	SEPTEMB	ER 29, 1958	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	PINCH	SHADE
Bonnaffon Deluxe	July 7	July 14	July 7
Yellow Delaware Delaware Incurve Delaware Mermaid	July 7	July 14	July 21
Chalk Cliff Oregon Luminary Criterion Humdinger Personality Pink Deluxe Portrait Varieties	July 14	July 21	July 21
Wilson's White	July 14	July 21	July 28
Queen's Lace	July 21	1st July 28 2nd Aug. 18	July 28
Crest Luna Monty Snowclad Blue Ribbon Glamour Queen of Pinks	July 21	July 28	July 28
Gardenia Blazing Gold Bayonne Resolute	July 28	Aug. 4	Aug. 4
BLOO	м остове	R 6, 1958	
Bonnaffon Deluxe	July 14	July 21	July 14
Yellow Delaware	July 14	July 21	July 28
Chalk Cliff Oregon Luminary Criterion Humdinger Personality Pink Deluxe Portrait Varieties	July 21	July 28	July 28
Wilson's White Wilson's Yellow Barbara Fuller	July 21	July 28	Aug. 4
Queen's Lace	July 28	1st Aug. 4 2nd Aug. 25	Aug. 4
Crest Luna Monty Snowclad Blue Ribbon Glamour Queen of Pinks	July 29	Aug. 4	Aug. 4
Gardenia Blazing Gold Bayonne Resolute	Aug. 4	Aug. 11	Aug. 11



Chrysanthemum MANUAL

	BLOOM	OCTOBER 13, 1	958	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	July 21	None	July 28	July 21
Yellow Delaware Delaware Incurve Delaware Mermaid	July 21	None	July 28	Aug. 4
Chalk Cliff Oregon Luminary Yellow Calypso Bronze Calypso Red Humdinger Criterion Humdinger Personality Pink Deluxe Portrait Varieties	July 28	None	Aug. 4	Aug. 4
Granite State	July 28	July 28 - Aug. 11	Aug. 4	Aug. 11
Queen's Lace	Aug. 4	None	1st Aug. 11 2nd Sept. 1	Aug. 11
Crest Luna Monty Snowclad Blue Ribbon Glamour Queen of Pinks	Aug. 4	Aug. 4 - Aug. 11	Aug. 11	Aug. 11
Gardenia	Aug. 11	Aug. 11 - Aug. 18	Aug. 18	Aug. 18
	BLOOM	OCTOBER 20, 19	958	
Bonnaffon Deluxe	July 28	None	Aug. 4	Aug. 4
Yellow Delaware	July 28	July 28 - Aug. 11	Aug. 4	Aug. 11
Chalk Cliff	Aug. 4	Aug. 4 - Aug. 11	Aug. 11	Aug. 11
Granite State	Aug. 4	Aug. 4 - Aug. 18	Aug. 11	Aug. 18
Queen's Lace	Aug. 11	Aug. 11 - Aug. 18	1st Aug. 18 2nd Sept. 8	Aug. 18
Crest Luna Monty Snowclad Blue Ribbon Glamour Handsome Queen of Pinks	Aug. 11	Aug. 11 - Aug. 18	Aug. 18	Aug. 18
GardeniaBlazing Gold		Aug. 18 - Aug. 25	Aug. 25	Aug. 25





	BLOOM	OCTOBER 27, 1	958	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe	Aug. 4	None	Aug. 11	Aug. 11
Yellow Delaware Delaware Incurve Delaware Mermaid	Aug. 4	Aug. 4 - Aug. 18	Aug. 11	Aug. 18
Chalk Cliff Oregon Luminary Yellow Calypso Bronze Calypso Red Humdinger Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Aug. 11	Aug. 11 - Aug. 18	Aug. 18	Aug. 18
Granite State	Aug. 11	Aug. 11 - Aug. 25	Aug. 18	Aug. 25
Queen's Lace	Aug. 18	Aug. 18 - Aug. 25	1st Aug. 25 2nd Sept. 15	Aug. 25
Crest Luna Monty Snowclad Blue Ribbon Glamour Handsome Queen of Pinks	Aug. 18	Aug. 18 - Aug. 25	Aug. 25	Aug. 25
	BLOOM	NOVEMBER 3, 19	958	
Bonnaffon Deluxe	Aug. 11	Aug. 11 - Aug. 18	Aug. 18	Aug. 18
Yellow Delaware Delaware Incurve Delaware Mermaid	Aug. 11	Aug. 11 - Aug. 25	Aug. 18	Aug. 25
Chalk Cliff Oregon Luminary Yellow Calypso Bronze Calypso Red Humdinger Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Aug. 18	Aug. 18 - Aug. 25	Aug. 25	Aug. 25
Granite State	Aug. 18	Aug. 18 - Sept. 1	Aug. 25	Sept. 1
Queen's Lace	Aug. 25	Aug. 25 - Sept. 1	1st Sept. 1 2nd Sept. 22	Sept. 1
Crest Luna Monty Snowclad Blue Ribbon Glamour Handsome Queen of Pinks	Aug. 25	Aug. 25 - Sept. 1	Sept. 1	Sept. 1





	BLOOM	NOVEMBER 10,	1958	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold Calvert's Pink	Aug. 18	Aug. 18 - Aug. 25	Aug. 25	Aug. 25
Yellow Delaware Delaware Incurve Delaware Mermaid	Aug. 18	Aug. 18 - Sept. 1	Aug. 25	Sept. 1
Chalk Cliff Oregon Yellow Calypso Bronze Calypso Red Humdinger Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Aug. 25	Aug. 25 - Sept. 1	Sept. 1	Sept. 1
Granite State	Aug. 25	Aug. 25 - Sept. 8	Sept. 1	no
Little America	Aug. 25	Aug. 25 - Sept. 1	Sept. 8	Sept. 1
Queen's Lace	Sept. 1	Sept. 1 - Sept. 8	1st Sept. 8 2nd Sept. 29	no
Crest Luna Monty Snowclad Blue Ribbon Glamour Handsome Queen of Pinks	Sept. 1	Sept. 1 - Sept. 10	Sept. 10	no
	BLOOM	NOVEMBER 17,	1958	300 2000 kalalalar (gor) y MacDM 20002 / Aggressed La Principal (gor)
Bonnaffon Deluxe Calvert's Gold Calvert's Pink	Aug. 25	Aug. 25 - Sept. 1	Sept. 1	Sept. 1
Yellow Delaware Delaware Incurve Delaware Mermaid	Aug. 25	Aug. 25 - Sept. 8	Sept. 1	Sept. 8
Chalk Cliff. Oregon. Yellow Calypso. Bronze Calypso. Red Humdinger. Criterion. Humdinger. Personality. Pink Deluxe. Portrait Varieties.	Sept. 1	Sept. 1 - Sept. 10	Sept. 10	Sept. 10
Granite State	Sept. 1	Sept. 1 - Sept. 17	Sept. 10	no
Little America Snow Crystal Ind. Varieties	Sept. 1	Sept. 1 - Sept. 8	Sept. 15	Sept. 8
Queen's Lace	Sept. 8	Sept. 8 - Sept. 15	1st Sept. 15 2nd Oct. 13	no
Crest Luna Monty Snowclad Blue Ribbon Glamour Handsome Queen of Pinks	Sept. 8	Sept. 8 - Sept. 17	Sept. 17	no





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	BLOOM	NOVEMBER 24,	1958	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold Calvert's Pink	Sept. 1	Sept. 1 - Sept. 10	Sept. 10	Sept. 10
Yellow Delaware Delaware Incurve Delaware Mermaid	Sept. 1	Sept. 1 - Sept. 17	Sept. 10	no
Chalk Cliff Oregon Yellow Calypso Bronze Calypso Red Humdinger Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Sept. 8	Sept. 8 - Sept. 17	Sept. 17	no
Granite State	Sept. 8	Sept. 8 - Sept. 24	Sept. 17	no
Little America	Sept. 8	Sept. 8 - Sept. 15	Sept. 22	no
Queen's Lace	Sept. 15	Sept. 15 - Sept. 22	1st Sept. 22 2nd Oct. 20	no
Luna Monty Snowclad Blue Ribbon Glamour Handsome Queen of Pinks	Sept. 8	Sept. 8 - Sept. 20	Sept. 20	no
200	BLOOM	DECEMBER 1, 19	958	
Bonnaffon Deluxe Calvert's Gold Valentine Calvert's Pink	Sept. 8	Sept. 8 - Sept. 17	Sept. 17	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Sept. 8	Sept. 8 - Sept. 24	Sept. 17	no
Chalk Cliff Oregon Red Humdinger Criterion Humdinger Personality Pink Deluxe Portrait Varieties	Sept. 8	Sept. 8 - Sept. 20	Sept. 20	no
Granite State	Sept. 8	Sept. 8 - Sept. 27	Sept. 20	no
Little America	Sept. 15	Sept. 15 - Sept. 22	Sept. 29	no
Queen's Lace	Sept. 22	Sept. 22 - Sept. 29	1st Sept. 29 2nd Oct. 27	no
Luna Monty Snowclad Blue Ribbon Handsome Queen of Pinks	Sept. 15	Sept. 15 - Sept. 27	Sept. 27	no





16				
ì	BLOOM	DECEMBER 8, 19	58	
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold Valentine Calvert's Pink	Sept. 8	Sept. 8 - Sept. 20	Sept. 20	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Sept. 8	Sept. 8 - Sept. 27	Sept. 20	no
Chalk Cliff	Sept. 15	Sept. 15 - Sept. 27	Sept. 27	no
Granite State Wilson's White Wilson's Yellow	Sept. 15	Sept. 15 - Oct. 4	Sept. 27	no
Little AmericaSnow CrystalInd. Varieties	Sept. 22	Sept. 22 - Sept. 29	Oct. 6	no
Queen's LaceGold Lace	Sept. 29	Sept. 29 - Oct. 6	1st Oct. 6 2nd Nov. 3	no
Luna Monty Snowclad Blue Ribbon Handsome Queen of Pinks	Sept. 22	Sept. 22 - Oct. 4	Oct. 4	no
	BLOOM	DECEMBER 15, 1	958	
Bonnaffon Deluxe Calvert's Gold Valentine Calvert's Pink	Sept. 15	Sept. 15 - Sept. 27	Sept. 27	no
Yellow Delaware Delaware Incurve Delaware Mermaid	Sept. 15	Sept. 15 - Oct. 4	Sept. 27	no
Chalk Cliff	Sept. 22	Sept. 22 - Oct. 4	Oct. 4	по
Granite State	Sept. 22	Sept. 22 - Oct. 11	Oct. 4	no
Little America Snow Crystal Ind. Varieties	Sept. 29	Sept. 29 - Oct. 6	Oct. 13	no
Queen's LaceGold Lace	Oct. 6	Oct. 6 - Oct. 13	1st Oct. 13 2nd Nov. 10	no
Luna	Sept. 29	Sept. 29 - Oct. 13	Oct. 13	no





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BLOOM DECEMBER 22, 1958						
VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE		
Bonnaffon Deluxe Calvert's Gold Valentine Calvert's Pink	Sept. 22	Sept. 22 - Oct. 4	Oct. 4	no		
Yellow Delaware Delaware Incurve Delaware Mermaid	Sept. 22	Sept. 22 - Oct. 11	Oct. 4	no		
Chalk Cliff Oregon Red Humdinger Criterion Personality Pink Deluxe Portrait Varieties	Sept. 29	Sept. 29 - Oct. 13	Oct. 13	no		
Granite State	Sept. 29	Sept. 29 - Oct. 20	Oct. 13	no		
Little America	Oct. 6	Oct. 6 - Oct. 13	Oct. 20	no		
Queen's Lace	Oct. 6	Oct. 6 - Oct. 20	1st Oct. 20 2nd Nov. 17	no		
Luna Monty Snowclad Blue Ribbon Handsome Queen of Pinks	Oct. 6	Oct. 6 - Oct. 20	Oct. 20	no		
	BLOOM	DECEMBER 29, 1	958			
Bonnaffon Deluxe	Sept. 29	Sept. 29 - Oct. 13	Oct. 13	по		
Yellow Delaware Delaware Incurve Delaware Mermaid	Sept. 29	Sept. 29 - Oct. 20	Oct. 13	no		
Chalk Cliff Oregon Red Humdinger Criterion Personality Pink Deluxe Portrait Varieties	Oct. 6	Oct. 6 - Oct. 20	Oct. 20	no		
Granite State	Oct. 6	Oct. 6 - Oct. 27	Oct. 20	no		
Little America	Oct. 13	Oct. 13 - Oct. 20	Oct. 27	no		
Queen's Lace	Oct. 13	Oct. 13 - Oct. 27	1st Oct. 27 2nd Nov. 24	no		
Luna	Oct. 13	Oct. 13 - Oct. 27	Oct. 27	no		





Fast Disbuds and Fast Sprays

Varieties suitable for this program include not only a number of popular standard types such as the Indianapolis group, but also numerous large flowered pompon, single, decoratives, and anemone types, which, when disbudded to one flower, result in three to four inch blooms, this being the size range that is generally sought for. Stem lengths generally range from 24 to 30 inches.

Why are They Becoming Popular?

First of all, they are distinctively beautiful and versatile in their use. The chrysanthemum, as is known in European floriculture, is devoted exclusively to these intermediate to large disbuds. It is thought that this method of culture partly resulted because the greatest percentage of flowers produced are purchased directly for home use. Thus, they can justifiably be called "Homesize-mums" with great future potential as we on the North American continent look forward to an expansion in our present home markets. The retail designer will use them to the same advantage as he does a carnation or a snapdragon because of their individuality in arrangement, but will favor the disbudded mum because of its rigid durability both in handling and in keeping qualities.

Efficient Croppers and Money Makers for the Producer

The schedule allows for approximately 3 and 1/3 crops to be produced on a given bench area within a 52-week period which will produce a total of 36 to 40 individual flowers per sq. ft. As markets are both developed and educated to absorb these shorter stemmed disbuds, even greater efficiencies in reducing total crop time will be possible.

How are They Grown?

SPACING—Allowing a minimum of 12 sq. inches for each flowering stem during the higher light periods of the year ranging to a maximum of 15 to 18 sq. inches per stem during the lowest and poorest light periods, has been found to be sufficiently adequate to produce this crop.

Since this crop is to be pinched, the recommendation is to plant either 4" x 6" apart and prune each plant to two stems or plant 6" x 6" and prune each plant to three stems.

Optimum grade uniformity is generally achieved by permitting only two stems to remain on each plant. This procedure is specifically recommended when the

large standard types of mums (Indianapolis, etc.) are to be grown in this fast schedule, whereas many of the intermediate type disbud varieties will readily support three stems per plant. Either method of handling will provide the same total production per given sq. ft. of bench area.



Market Pack of Fast Disbud

RECOMMENDED SPACING

Summer Flowering 6" x 4" Two stems per plant 5pring & Fall 6" x 5" Two stems per plant Winter Flowering 6" x 6" Two stems per plant

PRUNING—Selecting the two or three most uniformly vigorous shoots on each pinched plant and removing the remaining or extra breaks should be done at the earliest possible time. If growth is freely active, this pruning operation can be done 10 to 14 days after the pinch. Careless delay in the pruning operation will shorten the height of the crop below that which is normally possible with the given schedule.

DISBUDDING—Much like the pruning operation. In order to achieve maximum flower development and size, select the one flowering bud, usually the terminal bud, early, whenever the side buds are firm and can be rolled or snapped off easily.

CULTURAL POINTERS — The principles of growing Fast Disbuds as related to soils, planting, fertilizing, temperature, watering, insect and disease control, are essentially the same as are recommended and required in the production of a regular scheduled crop of either pompons or standards.





FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Sept. 15-Oct. 13	no	12 Week
January 5, 1959	Sept. 15	Oct. 6	Sept. 15-Oct. 20	no	11 Week
, , , , , , , , , , , , , , , , , , , ,	30pi. 10	001.	Sept. 15-Oct. 27	no	10 Week
			Sept. 15-Nov. 3	no	9 Week
			Sept. 15-Oct. 20	no	12 Week
January 12, 1959	Sept. 15	Oct. 6	Sept. 15-Oct. 27	no	11 Week
	·		Sept. 15-Nov. 3	no	10 Week
			Sept. 15-Nov. 10	no	9 Week
			Sept. 22-Oct. 27	no	12 Week
January 19, 1959	Sept. 22	Oct. 13	Sept. 22-Nov. 3	no	11 Week
	· ·		Sept. 22-Nov. 10	no	10 Week
			Sept. 22-Nov. 17	no	9 Week
			Sept. 29-Nov. 3	no	12 Week
January 26, 1959	Sept. 29	Oct. 20	Sept. 29-Nov. 10	no	11 Week
			Sept. 29-Nov. 17	no	10 Week
			Sept. 29-Nov. 24	no	9 Week
Fohmum, 2, 1050	0. (0 . 0=	Oct. 6 -Nov. 17	no	11 Week
February 2, 1959	Oct. 6	Oct. 27	Oct. 6 -Nov. 24	no	10 Week
			Oct. 6 -Dec. 1	no	9 Week
F.I. 0. 1070			Oct. 13-Nov. 24	no	11 Week
February 9, 1959	Oct. 13	Nov. 3	Oct. 13-Dec. 1	no	10 Week
			Oct. 13—Dec. 8	no	9 Week
Fah	0		Oct. 20-Dec. 1	no	11 Week
February 16, 1959	Oct. 20	Nov. 10	Oct. 20-Dec. 8	no	10 Week
			Oct. 20—Dec. 15	no	9 Week
Fohrusmy 22 1050	0.4 0.7	N. 1	Oct. 27—Dec. 8	no	11 Week
February 23, 1959	Oct. 27	Nov. 17	Oct. 27—Dec. 15	no	10 Week
			Oct. 27—Dec. 22	no	9 Week

		THE THE THE GROUPS				
	12 Week	11 Week	10 Week	9 Week		
WHITE	White Peter John Illini Glacier Champ	White Norma Marketeer L. I. Beauty Ermine John Baumann	Iceberg	Imp. Ind. Yellow Ind. Yellow		
YELLOW	Yellow Peter John Yellow Glory	Suzanne Miller Yel. L. I. Beauty Yellow Marketeer	Yellow Iceberg Gordon Wells	Luyona Yellow Ivanhoe Ind. Yellow		
BRONZE & RED	Bronze Peter John Forever Amber Red Empress	Calvert's Gold Olnura Valentine	Copperhead	Ivanhoe Ind. Bronze Ind. Apricot		
PINK	Pink Peter John Orchid Valencia Empress Desire Spray	Dark Norma Dk. Pk. L. I. Beauty Thanks. Pink Vedova Venoya Ed Seidewitz	Portrait Varieties Cadenza Laughter Merriment Southdown Pink Plum	Ind. Pink		





Year-Round Fast Schedule

FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Nov. 3 -Dec. 15	no	11 Week
March 2, 1959	Nov. 3	Nov. 24	Nov. 3 —Dec. 22	no	10 Week
			Nov. 3 —Dec. 29	no	9 Week
			Nov. 10-Dec. 22	no	11 Week
March 9, 1959	Nov. 10	Dec. 1	Nov. 10-Dec. 29	no	10 Week
			Nov. 10—Jan. 5	no	9 Week
			Nov. 24—Dec. 29	no	11 Week
March 16, 1959	Nov. 24	Dec. 15	Nov. 24—Jan. 5	no	10 Week
OPERATOR STATE OF THE PARTY OF			Nov. 24-Jan. 12	no	9 Week
			Dec. 1 —Jan. 5	no	11 Week
March 23, 1959	Dec. 1	Dec. 22	Dec. 1 —Jan. 12	no	10 Week
			Dec. 1 —Jan. 19	no	9 Week
			Dec. 8 —Jan. 12	no	11 Week
March 30, 1959	Dec. 8	Dec. 29	Dec. 8 —Jan. 19	no	10 Week
			Dec. 8 —Jan. 26	no	9 Week
			Dec. 15—Jan. 26	no	10 Week
April 6, 1959	Dec. 15	Jan. 5	Dec. 15—Feb. 2	no	9 Week
			Dec. 15—Feb. 9	no	8 Week
			Dec. 29-Feb. 2	no	10 Week
April 13, 1959	Dec. 29	Jan. 19	Dec. 29-Feb. 9	no	9 Week
			Dec. 29-Feb. 16	no	8 Week
		200 D	Jan. 6 —Feb. 10	Mar. 17	10 Week
April 21, 1958	Jan. 6	Jan. 27	Jan. 6 —Feb. 17	Mar. 24	9 Week
	un-y-y-y-y-y-y-y-y-y-y-y-y-y-y-y-y-y-y-y		Jan. 6 — Feb. 24	Mar. 31	8 Week
	Congress		Jan. 20—Feb. 17	Mar. 17	10 Week
April 28, 1958	Jan. 20	Feb. 10	Jan. 20—Feb, 24	Mar. 24	9 Week
	- Constitution of Constitution		Jan. 20-Mar. 3	Mar. 31	8 Week

	11 Week	10 Week	9 Week	8 Week
WHITE	White Norma Marketeer L. I. Beauty Nevada Belray John Baumann Ermine	Iceberg Ice Cream Shasta Ensign Stardust Spray	Imp. Ind. White Silver Bow Queen's Lace Moontide	
YELLOW	Suzanne Miller Yel. L. I. Beauty Yellow Nevada Sultan Yellow Marketeer Etude Spray	Yellow Shasta Chairman Gordon Wells Yellow Iceberg	Imp. Ind. Yellow Ind. Yellow Gondola Luyona Gold Lace Yellow Ivanhoe Brighton Yellow	Harvest Golden Sunburst Blazing Gold
BRONZE & RED	Calvert's Gold Olnura Valentine	Daybreak Copperhead Paragon	Ind. Bronze Ind. Apricot Dorothy Hyde	Amber Bright
PINK	Dark Norma Thanks. Pink Vedova Venoya Ed Seidewitz	Portrait Varieties Cadenza Southdown Pink Plum Laughter Merriment	Ind. Pink Blue Ribbon Bunbu	San Strands Land & Strands of American





FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
May 5, 1958	Jan. 27	Feb. 17	Jan. 27—Feb. 24 Jan. 27—Mar. 3 Jan. 27—Mar. 10	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
May 12, 1958	Feb. 3	Feb. 24	Feb. 3 —Mar. 3 Feb. 3 —Mar. 10 Feb. 3 —Mar. 17	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
May 19, 1958	Feb. 10	Mar. 3	Feb. 10—Mar. 10 Feb. 10—Mar. 17 Feb. 10—Mar. 24	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
May 26, 1958	Feb. 17	Mar. 10	Feb. 17—Mar. 17 Feb. 17—Mar. 24 Feb. 17—Mar. 31	Mar. 17 Mar. 24 Mar. 31	10 Week 9 Week 8 Week
June 2, 1958	Mar. 3	Mar. 17	Mar. 3 —Mar. 24 Mar. 3 —Mar. 31 Mar. 3 —Apr. 7	Mar. 24 Mar. 31 Apr. 7	10 Week 9 Week 8 Week
June 9, 1958	Mar. 10	Mar. 24	Mar. 10—Mar. 31 Mar. 10—Apr. 7 Mar. 10—Apr. 14	Mar. 31 Apr. 7 Apr. 14	10 Week 9 Week 8 Week
June 16, 1958	Mar. 17	Mar. 31	Mar. 17—Apr. 7 Mar. 17—Apr. 14 Mar. 17—Apr. 21	Apr. 7 Apr. 14 Apr. 21	10 Week 9 Week 8 Week
June 23, 1958	Mar. 31	Apr. 14	Mar. 31—Apr. 14 Mar. 31—Apr. 21 Mar. 31—Apr. 28	Apr. 14 Apr. 21 Apr. 28	10 Week 9 Week 8 Week

	10 Week	9 Week	8 Week
WHITE	Iceberg Ice Cream Shasta Sentinel	Marblehead Silver Bow Ind. White Alaska Queen's Lace	Wh. Pink Chief
AETTOM	Luxury Yellow Shasta Chairman Yellow Iceberg Gordon Wells	Golden Herald Gondola Luyona Gold Lace Good News Yellow Ivanhoe Ind. Yellow Imp. Ind. Yellow	Harvest Golden Celestra Sunburst Blazing Gold
BRONZE & RED	Nectarine Copperhead	Ind. Bronze Dk. Ind. Bronze Ivanhoe Detroit News Fred Yule	Mayford's Triumph Amber Bright
PINK	Portrait Varieties Cadenza Laughter Merriment Humdinger	Ind. Pink Blue Ribbon Thomas Johnson Mary Garden	







FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
June 30, 1958	Apr. 7	Apr. 21	Apr. 7 —Apr. 21 Apr. 7 —Apr. 28 Apr. 7 —May 5	Apr. 21 Apr. 28 May 5	10 Week 9 Week 8 Week
July 7, 1958	Apr. 14	Apr. 28	Apr. 14—Apr. 28 Apr. 14—May 5 Apr. 14—May 12	Apr. 28 May 5 May 12	10 Week 9 Week 8 Week
July 14, 1958	Apr. 21	May 5	Apr. 21—May 5 Apr. 21—May 12 Apr. 21—May 19	May 5 May 12 May 19	10 Week 9 Week 8 Week
July 21, 1958	Apr. 28	May 12	Apr. 28—May 5 Apr. 28—May 12 Apr. 28—May 19	May 12 May 19 May 26	10 Week 9 Week 8 Week
July 28, 1958	May 5	May 12	no	May 19 May 26 June 2	10 Week 9 Week 8 Week
August 4, 1958	May 12	May 19	no	May 26 June 2 June 9	10 Week 9 Week 8 Week
August 11, 1958	May 19	May 26	no	June 2 June 9 June 16	10 Week 9 Week 8 Week
August 18, 1958	May 26	June 2	no	June 9 June 16 June 23	10 Week 9 Week 8 Week
August 25, 1958	June 2	June 9	no	June 16 June 23 June 30	10 Week 9 Week 8 Week

	10 Week	9 Week	8 Week
White	Iceberg Ice Cream Ensign Shasta Sentinel Stardust Spray	Marblehead Ind. White Silver Bow Queen's Lace Moontide Themesong Camille Baumann	Wh. Pink Chief
Yellow	Luxury Yellow Shasta Chairman	Imp. Ind. Yellow Ind. Yellow Yel. Marbiehead Luyona Golden Herald Good News Yellow Ivanhoe	Harvest Golden Celestra Sunburst Amber Bright Topflight Spray
BRONZE	Daybreak	Dorothy Hyde	Resolute
Pink	Plum Pennant Laughter Humdinger	Bunbu	POLICY COLOR IN THE PLANT OF COLOR C







FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH .	START SHADE	RESPONSE GROUP
September 1, 1958	June 9	June 16	June 23 July 30 July 7	10 Week 9 Week 8 Week
September 8, 1958	June 16	June 23	June 30 July 7 July 14	10 Week 9 Week 8 Week
September 15, 1958	June 23	June 30	July 7 July 14 July 21	10 Week 9 Week 8 Week
September 22, 1958	June 30	July 7	July 7 July 14 July 21	11 Week 10 Week 9 Week
September 29, 1958	July 7	July 14	July 14 July 21 July 28	11 Week 10 Week 9 Week
October 6, 1958	July 14	July 21	July 21 July 28 Aug. 4	11 Week 10 Week 9 Week
October 13, 1958	July 21	July 28	July 28 Aug. 4 Aug. 11	11 Week 10 Week 9 Week
October 20, 1958	July 21	Aug. 5	Aug. 4 Aug. 11 Aug. 18	11 Week 10 Week 9 Week
October 27, 1958	July 28	Aug. 11	Aug. 11 Aug. 18 no	11 Week 10 Week 9 Week

	11 Week	10 Week	9 Week	8 Week
WHITE	Marketeer John Baumann Ermine	Iceberg Ice Cream Shasta Sentinel Ensign Stardust Spray	Moonfide Themesong Camille Baumann Marblehead Silver Bow Queen's Lace Ind. White	White Pink Chief
YELLOW	Illini Goldilocks Sultan Yellow Marketeer Etude Spray	Luxury Yellow Shasta Chairman Yellow Iceberg	Imp. Ind. Yellow Yel. Marblehead Golden Herald Luyona Gold Lace Yellow Ivanhoe	Harvest Golden Celestra Sunburst Blazing Gold Topflight Spray
BRONZE & RED	Calvert's Gold Illini War Paint Olnura	Daybreak Nectarine The Titan Bronze Pandora Copperhead Paragon	Dorothy Hyde Duchess Stuart Ogg Ind. Bronze Dk. Ind. Bronze Ivanhoe Fred Yule	Resolute Amber Bright
PINK	Almega Marion Breedon Thanks. Pink Rose Delight	Plum Portrait Varieties Pennant Cadenza Salmon Pandora Laughter Merriment Humdinger	Bunbu Mary Garden Ind. Pink	Pink Chief







FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
November 3, 1958	July 28	Aug. 11	no no	Aug. 18	11 Week 10 Week
November 10, 1958	Aug. 4	Aug. 18	no no Aug, 11—Sept, 1	Aug. 18 Aug. 25 no	12 Week 11 Week 10 Week
November 17, 1958	Aug. 11	Aug. 25	no no Aug. 11—Sept. 8	Aug. 25 no no	12 Week 11 Week 10 Week
November 24, 1958	Aug. 18	Sept. 1	no Aug. 18—Sept. 8 Aug. 18—Sept. 15	no no no	12 Week 11 Week 10 Week
December 1, 1958	Aug. 18	Sept. 8	Aug. 18—Sept. 8 Aug. 18—Sept. 15 Aug. 18—Sept. 22	no no no	12 Week 11 Week 10 Week
December 8, 1958	Aug. 25	Sept. 15	Aug. 25—Sept. 15 Aug. 25—Sept. 22 Aug. 25—Sept. 29	no no no	12 Week 11 Week 10 Week
December 15, 1958	Aug. 25	Sept. 15	Aug. 25—Sept. 22 Aug. 25—Sept. 29 Aug. 25—Oct. 6	no no no	12 Week 11 Week 10 Week
December 22, 1958	Sept. 1	Sept. 22	Sept. 1 —Sept. 29 Sept. 1 —Oct. 6 Sept. 1 —Oct. 13	no no no	12 Week 11 Week 10 Week
December 29, 1958	Sept. 8	Sept. 29	Sept. 8 —Oct. 6 Sept. 8 —Oct. 13 Sept. 8 —Oct. 20	no no no	12 Week 11 Week 10 Week

	12 Week	11 Week	10 Week
WHITE	White Peter John Champ White Valencia December Glory Illini Glacier	White Norma Marketeer L. I. Beauty Nevada Belray John Baumann Ermine	Iceberg Shasta Imp. Ind. White
YELLOW	Yellow Peter John Yellow Glory	Illini Goldilocks Susanne Miller Yel. L. I. Beauty Yellow Nevada Yellow Marketeer Etude Spray	Yellow Iceberg Yellow Shasta Chairman Gordon Wells Imp. Ind. Yellow Ind. Yellow
BRONZE & RED	Red Empress Forever Amber Apricot Valencia Bronze Peter John	Valentine Calvert's Gold Illini War Paint Olnura	Ind. Bronze Dark Ind. Bronze Copperhead Paragon
PINK	Pink Peter John Orchid Valencia Empress Desire Spray	Vedova Venoya Dark Norma Almega Thanks. Pink	Ind. Pink Plum Southdown Pink Laughter Merriment



Better Chrysanthemums

CUTTINGS

The cuttings you receive are produced for direct planting. They are of excellent quality, properly rooted. These cuttings all have a pedigree record as to their productiveness and freedom from diseases. Each variety is increased from single plant selections. This contributes to more uniform growth and flowering.

Handling Cuttings

The cuttings you receive have been propagated in a material containing some organic matter which naturally has some plant food. Consequently these cuttings can be planted directly into the final location. Ordinarily they will not require shading, but if they have been several days in transit and have softened up some, or if they are planted during warm, bright weather, shading with aster cloth or paper is advisable. Under no circumstances leave the covering on the plants during dull weather or at night. It is well to syringe the plants frequently until they stand up and are showing signs of growth. Some evidence shows that watering with a starter solution (weak nutrient solution) within 48 hours after planting will speed up the growth.

Deliveries

With the advent of the time pinch and the precision method of culture, it is necessary to have your cuttings arrive at a definite date. To insure proper delivery, you must plan your cutting requirements months in advance of the date wanted. We would appreciate it if you could let us know your requirements so that our propagator can plan his growing of stock plants and cuttings even more systematically than he does.

To facilitate deliveries, cuttings will be shipped on Monday and Tuesday of each week. However, we will gladly make shipment on Friday or Saturday if specifically requested and provided the order is received one month prior to the required shipping date.

Delays

With the reduced delivery schedule of the Railway Express Agency, there may be delays in delivering your shipments. Chrysanthemum cuttings can be injured from cold as well as being too long in transit. If the cuttings are slightly wilted, they should be immersed in water for a short period and then planted. They will react perfectly to such treatment. If the cuttings have been slightly frozen, placing them in a cool room and thawing them out gradually, or placing them in a pail of cool water to take the frost out will bring them through so that they will do just as well as cuttings that have had nothing happen to them. Of course, if stock is badly frozen, or if long delays have occurred so that the cuttings are heated, yellow or rotted, you should file a claim at once with the express company.

Air Freight

We have been very well satisfied with the use of Air Freight to deliver rooted cuttings this past season. Customers who are close to an airport are naturally served better than those who have to have their shipment reconsigned via Railway Express. If you plan to use air freight, you should have your telephone number appear on all shipping labels.







Cultural Pointers

SOILS

Maintain an open, well-aerated soil that drains well in addition to having some moisture retention capacity. Periodic additions of organic matter to greenhouse soils has become a necessary practice for maintaining these desired properties that are associated with good soil management. The reason for the great care in soil preparation is to permit penetration of water and a uniform supply of fertilizer. If water remains on the surface of your soil for more than a few moments after watering, your soil is not of good structure.

watering, your soil is not of good structure.

When light is a limiting factor, the chrysanthemum plant is much more sensitive to overwatering and to soluble salt content than at any other period of the year. We continue to see marked improvement and benefits when sterilization is arranged to just precede

the planting for the winter crops.

Steam Sterilization

Steam sterilization has become an integrated part of good soil management. In the past, steaming green-house soils once each year was thought to be adequate, but year-round producers of chrysanthemums have found that steam sterilization before each crop pays off with better quality and greater productivity. Steaming not only improves soil aggregation, but does produce magic-like effects upon growth where a continuous one-crop system is practiced.

Chemical Sterilization

If steam is not available chemical sterilization should be used. A chemical which has proven its worth is Larvacide. This material must be used when the greenhouses are empty to avoid injury to adjoining crops. The soil temperature should be at least 60 degrees or higher. When used properly you can expect favorable control of insect, diseases and weed seeds. Dowfume MC 2 is a combination of Methyl Bromide with a small percentage of Chloropicrin. This too should be applied similar to Larvacide and will give fair control of diseases such as those associated with this crop. Vapam is easy to apply and will give good control of weed seeds, nematodes and many fungi.

Soil Management

Soils vary a great deal over the country, and yet many good crops of chrysanthemums are grown on all types of soil. Soil itself is not the most important factor, but soil management is of extreme importance. In considering the management of soil, the following steps are suggested:

I. Apply a quarter of the volume of manure, peat or other organic substitute once a year, usually just before steam sterilization. Rototill organic matter into the soil. When growing on ground beds, watch the tilling so that no impervious layer is formed which will later cause poor drainage.

2. Steam sterilize the soil so that the coolest point is heated to 180 degrees F. for 30 minutes. Sterilize before each crop.

3. Test soil for acidity, nitrates, phosphates, potassium and soluble salts and make corrections before

planting.

4. Add several bushels of granular peat per 100 sq. ft. of area before planting and working into the top inch of soil.

5. Plant immediately after the soil cools. Waiting a week or two will increase the soluble salts into a dangerous concentration.

6. Water heavily after planting so that the soil is firmed around the roots of the cutting. Water the plants with a half strength liquid fertilizer immediately after the first watering. Continue to water heavily until the plants have become well established.

7. Maintain the following Spurway nutrient levels:
Nitrate Nitrogen
Phosphorus
Potassium
Calcium
pH
Solubridge reading (1-5 dilution)
10-25 p.p.m.
10-25 p.p.m.
20-40 p.p.m.
200-250 p.p.m.
6.0-7.0

8. Apply a complete fertilizer at time of bud initiation. Heavy watering and frequent light fertilizing will make chrysanthemums grow.



Uniform Growth Is The Result of Good Soil Management



FERTILIZERS

Soil structure is the key to soil fertility. The response of chrysanthemums to fertilization depends upon a favorable soil structure. It is known that plants require nutrients, water and air for growth. Good soil structure will provide proper air and water relationships. Therefore, it behooves us to give proper attention to the soil before starting the crop. Good open soil is a necessity.

Feeding

Chrysanthemums do much better right from the start if the soil is not too rich. Very often this crop will start off faster in new soil as compared to old soil that has been sterilized just because of the lower nutrient level in new soil. When using new soil, apply 5 pounds of superphosphate per 100 sq. ft. of area, plus a liberal application of manure before planting. Phosphorus moves slowly within the soil mixture. It should always be added before the crop is benched so that it may be mixed thoroughly into the soil. Liquid feeding with water-soluble fertilizers is fast becoming the popular method of applying fertilizer. Water soluble fertilizers are available in many different analyses and therefore you can apply the fertilizer your soil requires. Many growers are feeding soluble fertilizers through their automatic watering systems. Remember to apply weaker solutions of fertilizer more frequently rather than heavy doses less frequently. When using complete fertilizers in dry form we usually figure on using two applications at 2 pounds per 100 sq. ft. of area starting shortly after the plants have started to grow and ending when the buds are visible. Remember that the plant is the best guide to fertilizer requirements and that more mums are ruined by overfeeding than by nutrient deficiencies.

Levels of Nutrition

When using sterilized soil, the best recommendations to follow would be to analyze your soil from time to time. We have found that when the following Spurway nutrient levels are kept, good crops are the result. Nitrate nitrogen should be 10-25 p.p.m.; phosphorus 5-10 p.p.m.; potassium 20-40 p.p.m. and calcium near 200 p.p.m. To increase the nitrate level, feed one pound of ammonium sulfate per 100 sq. ft. of area, and to bring up the potassium, apply muriate of potash not to exceed 1 pound per 100 sq. ft. If phosphorus is needed, apply mono-calcium phosphate at the rate of 1 pound per 100 sq. ft.

A liberal application of calcium sulfate (gypsum), 5 pounds per 100 sq. ft., after steam sterilization will prevent injury to young roots. High phosphorus also reduces toxicity after sterilization.

In the cooler weather and shorter days of September, omit the nitrogen if the plants are growing freely. The mum assimilates more phosphorus and potassium during the time of bud initiation. Therefore, it is desirable to apply a complete fertilizer shortly after the buds are visible.

Soluble Salts

Soluble salts are chemical compounds consisting of an acid part (ion) and a basic part (ion). For example, common table salt, sodium chloride, consists of one ion of chloride and one of sodium. Chloride is an acid-forming ion, and sodium a basic or alkali-forming ion. The two combine in chemically equivalent quantities to form a neutral salt. Other common acidic ions are sulfate, nitrate, bicarbonate and phosphate. Other common basic ions are calcium, magnesium, potassium and ammonium. Any basic ion may combine with any acidic ion giving rise to a great variety of salts.

All plant nutrients which are absorbed by plants from the soil or from culture solutions are absorbed in the form of salts or their constituent ions. All organic materials become "mineralized" through decay processes, and the nutrients in them are converted into salts before being absorbed by plants. Some salts contain plant nutrients and are beneficial in the small quantities required for plant growth. Others contain no nutrients. All salts are harmful beyond the small quantity required for plant growth. A little is bad, more is worse, up to the point where plants will be killed. Salts are found in most water and are applied as fertilizer. Improper watering may permit a concentration into the harmful range. Instruments called Wheatstone's bridges are available which measure total soluble salts in terms of electrical conductivity or conductance. Many laboratories of the Agricultural Extension Service are equipped with Solubridge instruments for use in assisting with soluble salt problems.

It has been found that when planting rooted cuttings, the Solubridge readings should not be higher than 40, while established plants do not withstand readings of 100 without showing some harmful effects. To remedy excess soluble salts, apply 2 to 3 gallons of water per sq. ft. and leach out this high salt content.



Gates Watering System





Cultural Pointers

NEWEST METHOD OF LIQUID FERTILIZING

The benefits of liquid fertilizing have been clearly pointed out in the last several years. Pot plant growers in particular are finding it possible to feed much more often than they could afford to under the old system of applying dry fertilizer. Most growers heartily endorse liquid feeding, but usually find that it is a cumbersome procedure. Up until now much of the equipment available to the trade for injecting or proportioning fertilizer into a water line has either been undependable, too complicated, or too costly. The FERT-O-JECT is the first reasonably priced unit designed to inject fertilizers into a water line without cutting the water pressure. This unit, designed and developed expressly for work with fertilizers, is precision built, yet any grower can tear it down and reassemble it.

How Fert-O-Ject Works

Fertilizer is injected into the water line by positive displacement and does not use a diaphragm or complicated linkage. The FERT-O-JECT operates with an Automatic Flow Rate Anticipator. Regardless of the number of people watering or the volume of water being used, the correct amount of feed is injected into the system. The accuracy of the FERT-O-JECT is truly amazing. The unit automatically turns off when the watering is finished.

Growers throughout the country are liquid feeding very weakly every time they water. This system was advocated by W. D. Holley of Colorado A & M several years ago and many growers in the Colorado area have been feeding in this manner. This popular system has been spreading rapidly, with other universities and authorities recommending its use.

Method is Practical

Perhaps the statement that most clearly emphasizes the practicalness of feeding weakly with every watering is: "The rate a plant uses water is the best available measure of its fertilizer requirements". A plant is constantly using fertilizer so it is therefore feasible to assume it is right to feed it constantly. In the winter months, plants are watered less and consequently receive less feed. Cutting benches, shaded areas, and cooler crops receive less water and therefore less feed.

Major results are observed in nutrient levels after such a method of fertilizing — mainly soluble salts drop and other nutrient levels remain very constant.

The labor involved in applying and watering-in dry feed, while not a major item, can be eliminated and at the same time a more dependable and a more uniform application of fertilizer will result.

The switch from a weak fertilizer to clear water can be made by simply turning one water valve.

The fact that fertilizer stands in the water lines scares many growers, but the solution is so weak that water systems twenty years old are not affected when a new unit is installed.

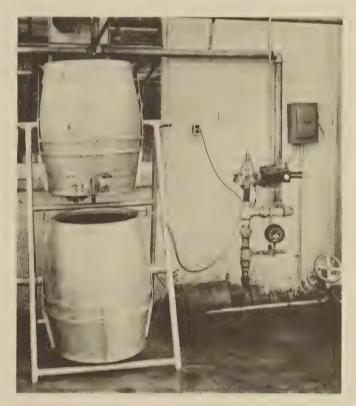
Application Rates

The amount of fertilizer used with the FERT-O-JECT will of course vary with the grower, locality, and crop, but many growers are putting 50 lbs. of ammonium nitrate and 30 lbs. of muriate of potash per barrel, which in turn makes 10,000 gallons of weak fertilizer. All FERT-O-JECT, MODEL E's, are set at the factory at a proportion of 1:200. Any soluble fertilizer can be used with the system.

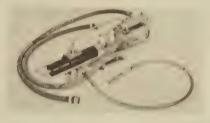
With the advent of satisfactory surface watering systems, liquid feeding regularly is even more important. These newer watering systems do such a satisfactory job of watering that more fertilizer is leached from the soil.

Growers have successfully grown chrysanthemums, roses, and carnations at the same range with one FERT-O-JECT and one fertilizer formula.

The simplicity and accuracy of the FERT-O-JECT, make it a popular piece of equipment with growers once they see it operate.



Fertilizer injector set up which injects liquid fertilizer concentrate into water line.



(Above) Portable Fert-O-Ject, Model PR, for pot plant growers. Proportion 1:35. \$235 F.O.B. Whittier, Calif.

(Right) Fert-O-Ject, Model E, for permanent installation seen in the large photograph above. \$435 F.O.B. Whittier, Calif.







Cultural Pointers

PLANTING

Chrysanthemum's grow equally as well on a raised bench or on a ground bed. The care is slightly different in that raised benches dry out more frequently during the summer and early fall months. It must be remembered that a good circulation of air is desirable, yet a direct draft is not advisable.

Planting Date

The proper date of planting will naturally vary according to when the crop is to bloom. For natural blooming we prefer to plant 3 or 4 weeks before the last pinching date. When flowering from August to October, we suggest you plant 3 weeks before the pinching date. In the year-round flowering schedule where no pinch is followed, we have given the advised planting dates in that schedule.

Planting Rooted Cuttings

Many florists are planting rooted cuttings directly into permanent locations. This not only reduces several handlings and production costs, but also produces a better-quality bloom. We fully realize that it is often an impossibility for all to treat their chrysanthemums this way. However, we have found that young, soft plants are superior to hard, woody plants. Never plant cuttings any deeper than what they were in the propagating media; too deep will cause stem rot. Water heavily after planting. If new white roots are not formed within the first 12 hours, something is not quite right.

Single-Stem or No-Pinch Method

Cuttings are planted and allowed to grow without pinching. It is an essential practice if 3 crops a year are to be realized in the year-round flowering schedule. Where crops are planted from September 15 to February 1, no-pinch method produces a superior crop, whereas a pinched crop is weaker and of poorer quality.

Light Intensity

When planting rooted cuttings into their permanent position, it is necessary to shade the glass or to put aster cloth directly over the young plants until they are established. When shading the glass, be sure that the material is applied lightly.

material is applied lightly.

When growing quality chrysanthemums, the higher the light intensity or the least amount of shade over the plants during the growing season, the better the quality of bloom. Shade on the glass is only there for the convenience of the grower and not for the require-

ments of the plant. For cloth houses, the amber Saran is superior to the green because of more light under the amber covering. Naturally the plants require more water when growing under high light intensities.

It is recommended to shade the plants when flowers are about one-half open to prevent them from sunburning. When growing standards, a good practice would be to stretch muslin directly over the open blooms. This not only prevents sunburning but also keeps the blooms free from dirt.

Distance of Planting

For good quality pompons, we prefer to plant 7x7 inches or 8x8 inches pinched once, and thin the shoots to 3 per plant. The outside rows will support one more stem than the center rows in the bed. Nothing is gained by planting at a closer distance. Light intensity should be high at the base of the plant for quality blooms, and if planted too closely, we have lost the factor which promotes quality. Large-flowered varieties are generally planted 8x8 inches or 7x7 inches; this also applies to disbud anemone and single varieties.

For single stem, no-pinch method pompons should be spaced 4x6 and standards 5x6. When further spacing is used the sprays of the pompons become too large. A slightly closer spacing is recommended when growing conditions are more favorable. Mini-mums (fast disbuds) should be spaced 4x6 in the summer

flowering period and 6x6 in the winter.

PLANTING DISTANCE FOR NO-PINCH METHOD

Pompons 4 x 6 inches
Standards 5 x 6 inches

Fast-mums 4 x 6 inches (Summer)
6 x 6 inches (Winter)



Applying Additional Light to an Entire House





Cultural Pointers

PINCHING

For a good number of years, the reason for pinching was to regulate the number of stems on the plant. In recent years, we have learned that in the case of pompons or singles the pinching determines the type of spray formation. With standards, pinching will determine the type of bud formation, whether it be a crown or terminal bud. Always pinch in the soft wood.

Pinching

Under the heading "Chrysanthemum Flowering Schedule" you will find the exact pinching dates for all planting dates. The table below will indicate the time to pinch after planting, according to various planting dates:

When planting Nov. 15 to Feb. 14 allow 4 weeks plant to pinch.

When planting Feb. 15 to Nov. 14 allow 3 weeks plant to pinch.

Time pinching standards will eliminate the formation of the crown bud and produce terminal buds which will in turn produce a much straighter flowering stem.

Pruning

Another important factor is to remove all shoots but 3 or 4 per plant. In a few instances only 2 shoots are allowed to mature. Allow more shoots to develop on the outside rows than on the center rows of a bed. When fewer breaks are selected, the planting distance should be closer.

Standards are usually pinched once to induce breaks so that they may be grown 2 per plant. The strongest breaks are selected and all others removed. It is well to pinch on the date suggested in the general list. Careful observation has shown us that neckiness with some varieties is eliminated by pinching on the respective dates. Singles and anemones are usually grown 3 to 4 stems per plant.

Condition of Plant

When pinching, remove only the soft growth, never cut into the woody stems as this will not produce the type of breaks you desire. It is our experience that it is best not to pinch until the plant has become well established in its permanent location. In all cases, it is better to have at least 8 to 10 inches of growth on the plants before pinching. (Photos below.)

If by chance you are delayed in planting, and your plants will be too tall, it is advisable to pinch early enough before benching so that the breaks will be several inches long at time of planting. Never pinch hard plants at the same time they are planted in the bench as a heavy loss may result. Better wait until plants are established and then pinch.

The pinching dates given after each week response will help you grow that variety to excellency. Remember that pinching is just one cultural point and will only function when all other cultural points are carried out properly.



Well-Established Young Plant



Top Several Inches Removed



Strong Breaks Resulting from Single Pinch

DISBUDDING

Large-flowered varieties produce side shoots in the axils of the leaves which should be removed very close to the base at regular weekly intervals. Disbuds are handled the same as standards.

Taking Bud

Taking bud means allowing the flowering bud to remain and removing all others and applies to standards and disbuds. The chrysanthemum usually produces two distinct types of flowering buds — Crown and Terminal. The first bud produced is called the crown bud and is distinguished by being surrounded by other lateral leaf buds. The second is the terminal bud and is surrounded by several flower buds. If the plant is planted especially early, a second crown bud may appear. In appearance, this second crown bud is exactly the same as the first.

The procedure of "Taking Bud" depends very largely on the variety. Usually the safest rule to follow when growing for natural bloom is not to select a bud on early or midseason varieties before August 25. If bud is selected too early, a large percentage of the flowers will be crippled. Good common sense must be used to determine the proper selection of bud.

The formation of the crown bud usually does not take place when pinching plants on the date of their response group. When following "Time Pinch," select the first bud that appears. This will result in straight stems without the dogleg growth that appears when second bud is taken.

The final selection of bud should not be made when the cluster buds are too small as this will very likely cause injury to the stem near the bloom. Likewise, it is not advisable to delay selecting the bud too long. Some growers like to leave an alternate bud until they are certain that nothing will happen to the one finally selected.

Disbudded Spray

The procedure in growing disbudded sprays is to wait until the crown bud forms, then remove all but three vegetative shoots. Later, when terminal buds appear, disbud each shoot similarly to the normal disbudding of standards. When the blooms mature, there are three flowers on each spray. In singles and anemones, the size of the blooms will be a trifle smaller than when they are grown as one flower per stem. Raise 3 stems per plant, similar to straight disbud. Varieties such as Goldsmith, Valencia, etc., can be grown as disbudded sprays.

Disspray

Thinning down the number of buds on a spray of pompons is called "Disspray." During certain seasons

of growth many varieties of pompons produce too many buds per spray. If allowed to develop many of the flowers will stick and have poor quality. Thinning these buds to 4 or 5 buds will produce the highest quality sprays. Each variety will have to be studied to determine which buds to leave. Some varieties are improved when just the center bud is removed while with others the center bud plus 3 or 4 others near the top are left and the other suckers down the stem are removed.

Premature Budding

Bud initiation can occur anytime during the spring months, whenever your temperatures in the greenhouses are consistently 60 degrees Fahrenheit or above, and the days are short enough to initiate bud setting. These conditions can occur anytime up until May 1st depending upon the variety and the locality in which they are being grown. Some varieties, such as the garden varieties and early shading varieties, require very little short-day treatment, coupled with high temperatures to initiate buds. This same tendency to set bud readily is what makes these varieties desirable for early shading and garden work. In order to prevent this premature setting of buds, these same varieties should be placed where they can be given additional light during the early spring months. Use 60-watt bulbs spaced 4 feet apart and 24 inches above the plants. Three hours of light during the middle of the dark period will prevent budding completely if the minimum intensity is 8-foot candles. The same treatment on either end of the night might not be effective if you have a particularly cloudy period which gives you extremely short day.



Left: Terminal bud surrounded by flower buds.
Right: Terminal bud selected.



WATERING

The knowledge of proper watering is essential to success. Chrysanthemums produce extremely heavy foliage, and a great deal of water is required at the roots. And under ordinary conditions of bench culture, overwatering would be difficult. When grown in beds, more care should be exercised in watering. Some soils look wet on the surface but are very dry several inches below.

When planting rooted cuttings directly into their permanent locations, it is essential to water thoroughly to set the soil around the plant roots. We suggest double watering again when the soil gets on the dry side. By this time, the plants are established and regular watering should be followed. Keep humidity in the house by wetting down bench and walks.

When light is a limiting factor, the chrysanthemum plant is much more sensitive to overwatering and to soluble salt content than at any other period of the year.

Steam sterilization causes the soil to become more granular, and capillary movement of water in it is much slower than in soils not steamed. Cuttings planted in it cannot obtain water readily, and for this reason should be kept more moist than in soils not sterilized.

Keep soil moisture high after the buds of the chrysanthemum show color. Moisture is very necessary in the development of the petals of the bloom. If the soil is kept a little too dry small poorly developed blooms will result.

Surface Watering

During the past several years, many labor-saving devices have been developed. Surface watering is one that will save many hours of hand watering your chrysanthemum crop. The Greco Automatic watering system, Gates System, Gro-Hose, the Skinner Superior

nozzle and the White Showers nozzle are outstanding methods in use today.

When installing surface watering, check your water supply and the capacity needed to irrigate your area. It is advisable to have an engineer figure out your requirements.

Leaching

Many greenhouse soils are excessively rich, and chrysanthemums will not thrive in such a medium. If this is the case, the remedy is leaching with water. After the soil is sterilized, it should be leached. Use a Skinner line and allow it to run for hours if necessary.



Pipe in Middle of Each Bed Has Full Circle Nozzles for Surface Watering

TEMPERATURE AND VENTILATION

For inter-connected units or crops at different stages of development the most efficient and effective temperature recommendations we can make are cool 60° crops. The house temperature is run at a straight 60° level night and day, cloudy or sunny. This is the lowest, safest minimum. It is the night temperature that counts. Eliminating fluctuation promotes steady, gradual growth. Keeping day temperatures down encourages more ventilation with corresponding reduction in relative humidity. This promotes stronger, heavier stems. On very bright days temperatures will frequently go higher but this should be due to radiant heat from the sun rather than convective greenhouse heat.

Temperatures much above 90 degrees will act as a prohibitor. When the night temperatures are in the 90's, bud development is hindered. This is especially true when black-clothing in the hottest part of the year. To reduce high temperatures under the black cloth, it is suggested that the sides of the cloth be lifted after sundown and droppd again before the sun rises in

the morning. During high temperature periods, it is much better to apply the cloth later in the afternoon and allow it to remain later in the morning.

Temperature has been responsible for peculiar types of flowers. The Indianapolis varieties develop quilled and flat blooms when allowed to develop under low temperatures. Many varieties will develop black centers in the flower when grown under high temperatures and low light intensity.

Pink and bronze colors just do not develop when the temperatures are high in the early stages of flower development. High light intensity and low temperatures are conducive to good color development. Many of the newer varieties will develop better color during hot summer months than the older varieties. The pinking of white varieties and the bronzing of yellow varieties results as the flowers develop at low temperatures.

Closed, humid houses make for soft spindly growth. Good ventilation is a must to reduce relative humidity and pays significant dividends when correctly handled.



LATEST DEVELOPMENTS ON GREENHOUSE COOLING

The rapid manner in which millions of square feet of greenhouse have successfully been cooled in all parts of the country, clearly shows the outstanding significance of this new system in controlling greenhouse conditions.

With one year elapsed since the last GLOECKNER CHRYSANTHEMUM MANUAL first touched on greenhouse cooling, much has been learned about practical application in all areas of the United States. Up until this last summer most greenhouse cooling was done in areas of low humidity. Here compiled, as collected by your GLOECKNER REPRESENTATIVES, are various practical suggestions as told to them by growers from all parts of the country:

1. Baffles to properly direct air movement, prove of increasing importance. Polyethylene in greenhouse gables, from the gutter line to the ridge, is recommended every 30 feet when pulling lengthwise of the greenhouse. Likewise, when pulling across greenhouse, use baffles several feet up side wall running full length of greenhouse or suspended under the gutter several

eet.

2. Distribution of water and wetness of pad cannot be overemphasized. Dry areas in the pad greatly reduce the pad effectiveness. Oftentimes pads are wet only on one side and this should be corrected. Pads are sometimes too thick. One should be able to barely see through a pad when standing with the face against pad.

3. Keep pads free from dust, dirt, cottonwood seed, and accumulated salt from the water. Weekly washing down with a strong rose syringe will keep pads operat-

ing efficiently.

4. Growers in areas of high humidity have learned to withhold water from the pad at night while still circulating air. This eliminates any condensation of moisture that normally occurs.

5. Feeding programs have been greatly increased under air conditioning. Denver growers in some cases reporting they have doubled rate of feed.

6. A light shade on greenhouse roof is still recommended by most growers who were used to shading blooming stock. A light shade not only increased flower size under air conditioning, but also improved color. With cooler greenhouse temperatures, a light shade does not seem to lower production, but does improve quality.

7. Cheese cloth that has been sprayed with an insecticide can be suspended several feet from and enclosing the pad. This impregnated cloth not only will lower thrip infestation, but will filter out cottonwood seeds and other flying type seeds and will be much

easier to keep clean than the pad.

8. Wind breaks have been suggested for growers who occasionally have strong winds blowing directly into fans. By erecting a barrier 10 to 15 feet from the fan, much of the direct force of the wind can be eliminated.

9. The use of a detergent as an additive to the water has in many areas improved the job of wetting. Also copper sulfate when added to the sump will retard pad rot. Small amounts are effective. One cup per 50 gallon sump per week will be adequate.

Greenhouse cooling by fan and pad method WILL NOT:

- 1. Cause more disease problems, but will ease the situation.
- 2. Be restricted to low humidity areas, but eventually will be used in all areas.
 - 3. Detract from the keeping quality of flowers.
 - 4. Be too costly to operate.

Combination systems, using both the fans and high pressure mist have been used in several localities this summer, but it is too early to tell whether this system will be practical. Work done along these lines to date is encouraging.

Cost figures have ranged from 12 cents per square foot to 40 cents, depending on how elaborate the job.



Excellent Summer Crops in Air Cooled Greenhouses



Blindness

Blindness is associated with temperature. When plants are grown below 50 to 55 degrees during the bud initiation period, many varieties will produce blind growth. In "Year-Round Flowering" we have found that chrysanthemums should be grown in a 60-degree temperature to insure good bud development. However, there are some varieties which require a higher temperature, and there are likewise varieties that will initiate their buds at a lower temperature; but it is safe to recommend a 60-degree temperature.

Petal Burn

When blooming chrysanthemums during high temperatures and high light intensity, it is advisable to cover the beds with a cheesecloth stretched about 18 inches above the top of the developing blooms. This covering will also help keep dirt off the open blooms. Sunburn sometimes is confused with flower ray blight, which is caused by Botrytis. Botrytis is more abundant during periods of high humidity and low temperatures. Ray blight can be controlled by spraying with Parzate when the color shows and then repeating the application every 5 days.

Adequate moisture at the roots will help prevent petal burn during the hot summer days.

Cloth Houses

Much has been written about the construction and care of the cloth house. It seems that this subject is well taken care of, although there are a few new ideas that should be mentioned.

To grow quality stock, it is necessary to use some type of covering such as aster cloth, onion bag or Saran. Saran plastic shade cloth woven from flat, elliptical yarn is now available to give varying percentages of shade. Cloth can be obtained that will cast 46% to 90% of shade. The cloth that casts 46% shade is recommended for chrysanthemum culture. Saran will outlive copper screening.

Plastic Houses

Many growers are erecting plastic houses used for the production of standard and pompon chrysanthemums. The lower cost of erection is the attractive feature. Installing the wet pad and fan system eliminates the costly conventional greenhouse ventilators. The usual width is 18 to 20 feet. The cost of erecting a plastic house is around 25-50 cents per square foot when the 4 mil polyethylene plastic is used. More durable plastics will raise the cost.

Shipping Flowers

Packing of cut flowers should be carefully studied. The most common error is over-crowding in the shipping boxes. Not securely fastening the blooms in the box will cause bruising of the petals. Cleating or sewing the stems to the box is essential. Cushion the blooms by placing enough padded paper at the bottom of the corrugated box and between the layers of blooms. Wrap the pompons with a loose wrapper. Chrysanthemum "Saf-Pak" is very helpful in shipping standards to market. One dozen blooms are held securely in one "Saf-Pak" holder.

Long distance shipments carry better if the cut flowers are packed dry. Reduction of temperature is accomplished by precooling the packed cut flowers.

Supports

With high labor costs, it has become necessary to eliminate some of the labor in supporting standards and disbuds. The old way of supporting with stakes or stringing each plant has given way to the box-wire and cross-string method of support. Turn-buckles placed near the end of the bed will keep the wires much tighter. Some growers are only using one layer of wire and cross strings and are gradually raising it as the

Pompons are usually supported by the string and wire method similar to that described above. Two layers of wires are necessary to give the pompons good support. When growing out-of-doors or in cloth houses, heavier wire is necessary to give proper support, because moisture often collects in the open blooms

causing extra weight.



Fert-O-Ject Model E



Plastic house cooled with pad and fans





Insects and Their Control

Aphids, or Plant Lice

All aphids are true sucking insects that insert their beaks through the surface of the leaf or stem and extract the juices from within.

INJURY. The feeding of aphids causes the plants to become sickly and stunted. The leaves curl inward, and when the flower terminal is infested, the blooms will be deformed. Certain varieties of chrysanthemums are more susceptible to attack than others.

controlling the black aphid but will do very little to controlling the black aphid but will do very little to control the green or straw-colored aphids. Lindane or Parathion is much more effective on the very resistant green or straw-colored aphids. Vapotone is also effective when used at higher concentrations. Malathion good for control of aphid and spider mite.

Chrysanthemum Leaf Miner

The larva or maggot disfigures and weakens chrysanthemum plants by mining in the leaves. It may do considerable harm to the crop, but is easily held in check.

INJURY. The young maggots burrow in the leaf tissue, leaving the upper and lower surfaces intact. The tunnels are irregular and winding. White blotches are thus formed, which later turn brown, and the leaves may die.

CONTROL. As soon as it is noticed that any leaves are infested, they should be picked off. Parathion or

TEPP aerosol bombs or sprays containing Lindane, Chlordane or Parathion, are very effective.

Chrysanthemum Midge

The chrysanthemum midge is one of the most serious pests with which the grower has to deal. Under optimum conditions, a little over a month is required to complete the life cycle from the egg to the adult. The eggs are reddish-orange in color and are usually deposited on the tender tips of the growth. Under favorable conditions, the eggs hatch in about three days. The larva wanders about over the surface of the leaf for a day or two before finally penetrating into the leaf.

INJURY. The midge attacks all parts of the plant but prefers the tender growth. If the infestation takes place when the plants are small, they fail to grow, although if the plants are well-developed when the infestation starts, the buds blight or are deformed, and the plant is rendered unsalable.

CONTROL. Lindane is effective against young and adults.

Parathion aerosols effective, but require frequent applications.

DDT effective against adults—repeated applications necessary.



Aphids



88





Insects and Their Control

Corn Ear Worm

The corn ear worm is a green to brown, nearly smooth caterpillar often mistaken for a cutworm when found within the buds or on the open flowers.

INJURY. It is very destructive to the opening buds, for it feeds on their petals and other parts, deforming if not entirely ruining the flowers.

control. If the attacked plants are blooming, spraying is out of the question, but thorough treatment with a 3 or 5% D.D.T. dust is recommended. After they have worked their way into the buds and are found to be feeding on the open flowers, hand-picking is the only remedy. Spraying the plants with Deenate 50W will control them before the color shows. Parathion fumigation will also keep them under control.

Cutworms

The larva is dull colored and from one to more than 2 inches in length. They are most active at night, and usually spend the day coiled up just under the surface of the soil at the base of the plant. They should not be confused with the corn ear worm, which cannot be controlled by poison baits.

INJURY. Cut worms obtain their food by biting out sections of the leaf, stem or bud. Various species attack different parts of the plant. The one that is most damaging climbs to the top of the stem and eats into the flower buds.

CONTROL. Those cutworms that feed on the foliage can best be controlled with **Deenate 50W** spray using 1½ pounds to 100 gallons of water. **Parathion** has been suggested as a good control measure and is more effective as a spray.

Greenhouse Leaf Tyer

It gets its name from its habit of spinning light webs inclosing 2 or more leaves or tying together the parts of a single leaf. This caterpillar is very active, and when disturbed, will wriggle off the leaf, often backwards, lowering itself on a silk-like strand.

INJURY. When first hatched, the larvae eat out shallow holes on the under side of the leaf. As they grow, they enlarge these holes but usually do not cut through to the upper surface. The result is that the leaves become skeletonized.

CONTROL. The best poison to control the larvae is Deenate 50W, either in the form of a dust or a spray. For liquid spray use 1½ pounds of Deenate 50W to 100 gallons of water. Regular fumigations with Parathion will keep the leaf tyer under control.

Mealy Bugs

Mealy bugs are small, sluggish, whitish, soft bodied insects, measuring up to one-quarter inch long, found in clusters on the undersides of the leaves or in the leaf axils.

INJURY. This pest sucks the juices from the stems and leaves, discoloring and deforming the foliage.

CONTROL. Parathion or Dithio are the most effective. Repeated applications necessary.



Corn Ear Worm Damage



Leaf Tyer



Mealy Bugs

Insects and Their Control

Mites

Cyclamen mite and broad mite are often found on the same plants at the same time. Broad mite could pass through a complete generation in 4 to 5 days at 70 to 80 degrees, while the cyclamen mite will take 4 to 5 times longer.

INJURY. Infested leaves become deformed curl from the outside inward, and wrinkle so that pockets and pit-like depressions are formed. When the infestation is severe, the mites collect about the buds, causing them to blight. Oftentimes white varieties will show occasional red petals.

CONTROL. Endrin at 1-400 with DuPont Spreader Sticker 1-2000 gave excellent control. Kelthane also is effective. Systox used as a soil drench has been found effective in mite control. P40 used at the rate of 3 pounds per 100 sq. ft. is also effective.

Red Spiders

There are several species of red spiders that attack the chrysanthemum. They vary in color through yellow, orange and red. The body is oval in outline and bears 8 well-developed legs.

INJURY. Red spiders pierce the epidermis of the leaf and draw the liquid contents from the cells, causing the leaf to turn pale around the injured portion. They prefer to collect on the under surfaces of the leaves, which they cover with silken threads.

CONTROL. Aramite, Chlorobenzilate, Kelthane, Parathion or Malathion spray or Aramite, Chlorobenzilate, Dithio, Parathion or Malathion bomb. P40 at 3 pounds per 100 sq. ft. after plants are well established; especially desirable for cloth house operators,

will also control foliar nematodes. Plantfume 103 smoke generators and Fulex Parathion Fumigators are simple to use and very effective. Dithio is much safer than other insecticides when used on open flowers. Alternating the insecticides will very often give better control.

Symphylids

Symphylids are small white creatures about one-eighth to three-sixteenth inches long. About 40-60 days are necessary for the completion of the life cycle.

INJURY. Symphylids destroy the fine root hairs and small rootlets, thus stunting the plants and often killing them outright.

CONTROL. Complete control can be obtained with Lindane applied to the soil. Lindane can be applied to the surface of the soil either as a dust or as a wettable powder in a convenient amount of water. Application can be made when plants are in the bed, but best results are obtained if the insecticide is worked into the soil prior to planting. Use Lindane 25W at the rate of 8 ounces per 1000 ft. or 1% Lindane dust at the rate of 10 pounds per 1000 sq. ft.

Sowbugs

INJURY. Sowbugs often become so plentiful in the greenhouse that they eat the newly-planted cuttings at the base.

CONTROL. Any of the many poison baits will give partial control, but a complete spraying with **Deenate** 50W under the benches has given excellent control.



Mite Injury

Red Spider Injury

Symphylid. Above, adult — below, eggs and young

Insects and Their Control

Tarnished Plant Bugs

The tarnished plant bug or sting fly comes into the greenhouse through open doors and ventilators in late summer or early fall and does considerable harm to this crop. Chrysanthemums growing in the open are frequently affected. Varieties such as Mary L. Hall and Sea Gull are attacked to a greater extent than other varieties.

INJURY. It has sucking mouth parts and obtains its food by inserting its long, slender beak into the plant tissues and sucking up the contents of the injured cells, apparently injecting saliva, which causes the death of the tissue in the immediate vicinity. The stem is often slightly bent, and the terminal growth is malformed because of this injection.

CONTROL. Early morning spraying or dusting with any of the pyrethrum materials will kill those bugs that are present but this will have to be done each day for complete eradication. Deenate 50W and Malathion have been giving fair control, but again these insecticides are best used as a contact. Parathion fumigation will control this insect in the greenhouse.

Termites

Termites are not ants, though often called white ants. The food of termites is wood or cellulose. Soil inhabiting forms are the most common in the greenhouse.

INJURY. Termites sometimes injure chrysanthemum plants by working up the center of the plant and

hollowing out the stem. This injury will eventually kill the plant.

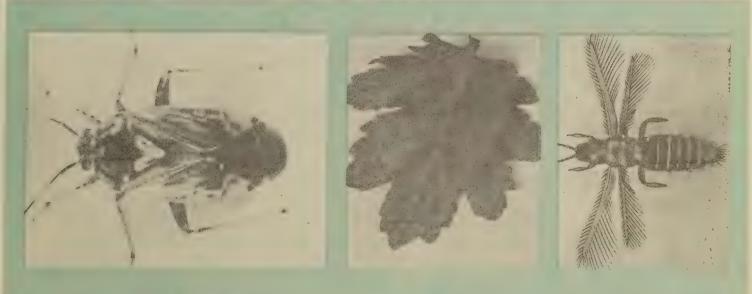
CONTROL. Clean up all wood debris in soil. Replace old wooden benches. Keep wooden bench supports from direct contact with the ground.

Thrips

The chrysanthemum is usually attacked by one or more species of thrips. These small, narrow-bodied, active insects which range in color from yellow to brown or almost black, injure both the leaves and the blossoms. Thrips are a real threat to Florida mum growers.

INJURY. Thrips have mouth parts that are fitted for piercing and scraping the leaf surface and for sucking the juices and other cell contents. The upper surface of the foliage is covered with whitish blotches, while minute black specks appear on the lower surface. Unless a constant watch is kept on the plants and control measures are properly executed, thrips are capable of causing severe injury within a short time.

control. Deenate 50W used at the rate of I pound to 100 gallons of water is a very effective control. Other insecticides containing Lindane are also recommended. Parathion will control the chrysanthemum and onion thrips. Regular dustings or spraying are necessary where infestation is heavy. Dieldrin is also very effective.



Tarnished Plant Bug

Thrip Injury

Adult Onion Thrip

Pests and Their Control

Foliar Nematode

The spread of this pest has been very rapid in recent years owing to the increased trade in chrysanthemums and the ease with which the nematode is transported in plants and cuttings. Too few growers have become familiar with this pest, and consequently no effort has been put forth to control it.

SYMPTOMS. The leaves attacked become blotched, turn at first greenish-yellow, then brownish, later gray and finally black until the entire leaf dies and hangs down on the stem. Under conditions of high hu-

midity both in the open during a wet season and under glass due to excessive watering, the spread of the pest may be extremely rapid.

CONTROL. P40 applied at the rate of 3 pounds per 100 sq. ft. has given good control. Wait 2 to 4 weeks after benching before applying. It is better to apply P40 in 2 applications, II/2 pounds each time, 7 to 10 days apart. The latest findings show that foliar nematodes can be controlled with Parathion either as an aerosol or liquid spray. Systox emulsion applied as soil drench 2-4 weeks after planting is effective.

Diseases and Their Control

Bacterial Stem Rot

SYMPTOMS. Cuttings may appear healthy although infected, grow well up to 8-12 inches high when the stem becomes soft and off-colored. Pith is jelly-like or lacking in such stems. Tops of plants then turn black, exude drops of liquid, and the stem often splits. Develops at high temperatures (75-90 degrees). Often shows up after the plants are pinched.

CONTROL. Remove and burn immediately all affected plants. Wash hands thoroughly after handling plants. Steam infested soil before replanting. Avoid dips for cuttings.

Collar Rot or Stem Rot

SYMPTOMS. The area of stem just at the soil level will show dark colorings first. The entire stem will be girdled, and eventually the plant will turn yellow and die. Usually caused by the common damping-off organisms such as Rhizoctonia, Fusarium or

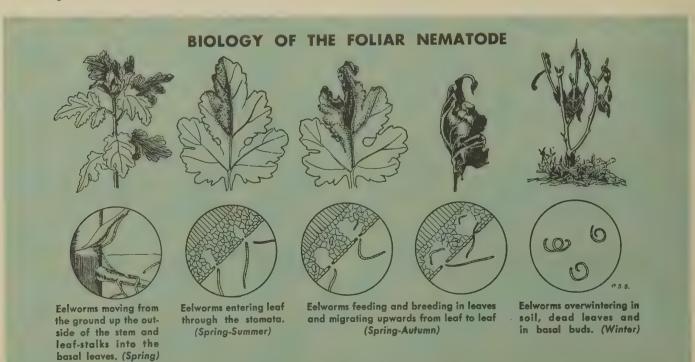
Pythium. More prevalent when temperature and humidity are high.

control. Do not plant cuttings that have been affected with damping-off. Remove all affected plants when noticed. Do not keep the soil too moist. Run a lower humidity if possible. Plant cuttings no deeper than depth they were in propagating media, as too deep planting will hasten development. Have soil well prepared, as compact soils will also encourage trouble. Terrachlor, Parzate, or Fermate drench.

Mildew

SYMPTOMS. Whitish powdery growth on upper surface of leaves.

CONTROL. Spray at regular weekly intervals with a good wettable Sulfur, 11/2 pounds per 100 gallons of water to which a good commercial spreader has been added. Spray with Mildex 4 ounces per 100 gallons of water plus spreader whenever disease appears.



Diseases and Their Control

Ray Blight or Flower Spot

SYMPTOMS. The petals first show little spots and then the entire petal begins to rot. May be caused by Botrytis or Ascochyta. Botrytis is spread primarily by splashed water.

control. It is controlled by lowering humidity or spraying plants with Parzate when they show color. Spray with Parzate one ounce to 4 gallons of water plus one-third teaspoonful of Du Pont Spreader Sticker on the flower from below and above as soon as color shows and continue at 5-day intervals. Orthocide 50W one ounce to 4 gallons of water plus spreader used as a spray similar to Parzate was found a good control. An electric fan, placed above the plants will circulate the air sufficiently to reduce disease.

Root Knot Nematode

SYMPTOMS. The nematodes or eelworms bore into the roots of the plants and cause knots or galls to develop on the root systems. As a result the plants are weak, yellowish and stunted in growth.

CONTROL. Steam sterilization of the soil is the most effective. MC 2, Vapam, VC 113, D-D and EDB are chemical soil sterilizing materials that have given good control of root knot nematodes.

Rust

SYMPTOMS. Chocolate brown powdery pustules on lower surface of the leaves.

CONTROL. Parzate, one ounce to 4 gallons of water is most effective.

Septoria Leaf Spot or Leaf Blight

SYMPTOMS. Distinct circular spot on the leaves. These are greyish-brown in color and become brittle in the center. Affected leaves may turn yellow and die. More prevalent in the open. Some varieties are more susceptible than others. Sea Gull is very susceptible.

CONTROL. When cuttings are received, dunk the tops into Fermate (2 tablespoons to a gallon). Spray the plants with Parzate one ounce to 4 gallons of water plus one-third teaspoonful of Du Pont Spreader Sticker every 10 to 14 days. Cloth house mums should be kept covered until the buds can be seen.

Verticillium Wilt or Seidewitz disease

SYMPTOMS. Margins of leaves turn yellow and eventually wilt or dry up. This begins at base of plant and works up the stem. May affect one side of a stem or plant more than the other. No distinct spots. Varieties vary in resistance to this disease.

CONTROL. Verticillium wilt can be avoided by purchasing our disease-free cuttings produced from cultured stock. It is also necessary to plant only into sterilized soil.



Dodder Growing on Mums





Pests and Their Control

Viruses

The word "virus" is being referred to by the medical profession as well as by the florists, and a short explanation of virus should prove of interest.

Viruses of the chrysanthemum are considered to be infectious; that is they can be transmitted to a healthy plant only by contact with an infected plant. They are not carried in the soil, water or air as are other diseases caused by fungi and bacteria.

The virus particles cannot be seen by the most powerful microscopes. Most of them will pass through bacterial filters. They respond like living organisms. They are always present in the sap of diseased plants and can be transmitted to a healthy plant through wounds or by mechanical means. The chrysanthemum is known to be affected with 5 viruses, namely yellows, Aspermy, rosette, mosaic and stunt. Stunt is the only one that has caused much concern. It has been found that aphids as well as mechanical handling will cause stunt to spread.

Once a plant is infected with a virus, it usually always remains affected. To define a virus, the following is as good as any: A virus is a protein which requires the presence of living cells for multiplication and it causes changes in the structure and functions of living cells.

Combination Sprays

At times it is more economical and convenient to mix two or more sprays and apply them in one operation. Before such mixtures are prepared, the grower should be sure no reaction harmful to the plants will occur, and that the efficiency of the separate ingredients is not reduced. Consult your State Entomologist or Plant Pathologist for information on combination sprays for specific crops.

A good combination spray for chrysanthemums which will control most diseases and insect pests, can be made with Lindane, Parzate, DDT and Vapotone. Details on dilutions are as follows:

Material		Amount to Make	
Water	100 gallons	20 gallons	3 gallons
DuPont Spreader Sticker Lindane	6 oz. 1 lb.	2 tablesp. 3 ounces	l teasp.
Parzate	11/2 lbs.	5 ounces	2 tablesp.
Deenate 50W	Ž lbs.	6 ounces	3 tablesp.
*Vapotone	1/2 pt.	31/2 tablesp.	$11/_2$ teasp.

To prepare: (1) Measure out spreader and dilute in small amount of water. (2) Fill tank with required water and add the diluted spreader and stir. (3) Take out a small amount in jar, add the proper amount of the Parzate and shake vigorously until all the powder is thoroughly wetted. (4) Pour this mixture back into the tank, preferably through a fine screen or cheese-cloth and stir. (5) Measure out Vapotone and dilute in small amount of water and add to the tank. Keep stirring or keep agitator running while adding the materials.

MATERIAL AND AMOUNT

(per 100 gallons of water for spraying)

2 pounds 15% Aramite wettable powder pound Captan wettable powder pound 25% Chlorobenzilate wettable powder 2 pounds 50% DDT wettable powder pint 25% Dimite emulsifiable solution quart Endrin emulsifiable solution 11/2 pounds Fermate wettable powder pound 25% Lindane wettable powder 11/2 pints 50% Malathion emulsifiable solution 2 pounds 25% Malathion wettable powder 11/2 pounds 15% Parathion wettable powder 11/2 pounds Parzate wettable powder 1/4 pint 40% TEPP emulsifiable solution 1/2 pint 20% TEPP emulsifiable solution 1 to 11/2 pounds 25% Kelthane wettable powder 1 pint 25% Kelthane emulsifiable solution

^{*}Parathion, Aramite, Endrin may be used in place of Vapotone in this combination spray.





CHRYSANTHEMUM VARIETY DESCRIPTIONS

In the following list (pages 95 to 132) New Varieties for 1958 are enclosed in a box. These new varieties will not be available before May 12, 1958.

WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		7-WEEK GARD	EN VAI	RIETIES (Pinc	th July 7)		
OSTOSA		Sept. 25	S-3	HORIZON		Oct. 5	S-4
Early and v	ery free flowering. A	mpon on a semi-dwarf good addition to the	plant. spring	Intermediate	white pompon. Out	door cut flower.	
garden pots	.			BENORA		Oct. 8	S-3
CHRIS COL Intermediate Top white g	cream decorative.	Oct. 1 Short, compact and pring pot blooming. Als	S-6 prolific.	Intermediate ment over C	pompon. White with hris Columbus for du	ivory centers. A real in rability.	mprove-
for 3" pot k			·	MAESTRO		Oct. 10	S-2
its place as	a high quality pot gain in October, Th	Oct. 1 Compact short habit of variety suitable for Modes is tops among the 2	y and	CLASSIC	oot plants.	Oct. 10 Outdoor cut flower.	S-3
AVALANCH	IE.	Oct. 5	S-2	SILVERPLATI			
		on early crown buds.	3-2		_	Oct. 12	S-3
		, , , , , , , , , , , , , , , , , , , ,		***************************************		lower and spring po	t plant.
		8-WEEK V	ARIETIES	(Pinch Jul	y 14)		
PILGRIM		Oct. 15	S-2	GARDENIA		Oct. 15	S-5
Chris Columi	pompon. Clear whit bus. Improving that v ogram. Durable com	e. Temperature tolera variety in all respects. pact garden variety. Oct. 15	nce of Spring S-4	proves Ostos	 a. Pot plant prograt 	t and responsive. Views March to early Co. Benefited from disb	gor im-
	ams May to Oct. Clo	Clear white. Tolerates th house July and Aug	5 54°.	NORONA Small ivory	white solid pompon.	Oct. 15	S-3
ntermediate		Oct. 15 For the very early . (Kimoto's White).	S-3 cloth	PRISTINE Intermediate	nure white noman	Oct. 20 . Cloth house July to	S-6
CUO				Greenhouse A	April to Oct.	. Cloth house July 10	o sept.

SHIBUYA WHITE

house May through Oct.

SILVERTONE

Intermediate white daisy. West coast variety.

Intermediate white daisy. Similar in habit to Reward and Buckskin. Vigorous and productive. Fine high temperature per-

formance. Tolerates 54°. Cloth house July to Sept. and green-

Paper-white formal pompon of intermediate size. Recom-

mended in the greenhouse spray program from May thru

October. Satisfactory as an outdoor cut flower for natural

Sold under agreement only

Oct. 15

flowering.

Small pompon.

IRENE





WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal
Variety Description Flowering Date Price Variety Description Flowering Date Price

9-WEEK VARIETIES (Pinch July 21)

POPCORN Oct. 25 S-5

Intermediate white pompon. Light pink at low temperatures. Outstanding production. Very good June through Sept. under glass, or in the cloth house from July through Sept.

White sport of Popcorn. No trace of pink in flower at low

temperatures therefore may be flowered earlier and later in spring and fall.

MONTY Oct. 25 S-5
Large white decorative, very good as pot plant, recommended year round through the South. March through Dec. in the

North.

SILVER BOW Oct. 25 S-3

Large white formal disbud pompon. Responsive and productive in the fast disbud programs. Displays a high degree of tolerance to summer greenhouse temperatures.

KEEPSAKE Oct. 25 S-7

White pompon, tall with good spray formation, recommended March through Oct., will be suffused with light pink during early Spring and late Fall.

WHITE KEEPSAKE Oct. 25 S-5

Intermediate ivory pompon. It is devoid of pink tinges at low temperatures. Will tolerate 56° . At high temperature finish, more ivory than Keepsake.

PINOCCHIO Oct. 25 S-6

Small pure white pompon. Formal and distinctive for May through Oct. in the greenhouse, Aug. and Sept. in the cloth house.

SONGSTER Oct. 25 S-5

Intermediate white pompon. Withstands heat well. Greenhouse June through Sept. Requires high light intensity.

CREST Oct. 25 P

Medium sized formal pompon disbud. Its dwarf habit makes it a first class pot variety for mid-March thru mid-November. A relatively fool-proof pot variety during high light intensity periods of the year. Far more efficient than Granite State and will easily average 5 breaks per plant. Intolerant of winter low light environments.

CRYSTALLITE

Intermediate formal pompon. Paper-white. Responds earlier than Keepsake under high temperature summer conditions. Does not tolerate low temperatures for initiation. Response is uniform and rapid at 60° or over. A high caliber and efficient

Oct. 25

uniform and rapid at 60° or over. A high caliber and efficient variety from May thru mid November as a natural spray in the greenhouse.

Sold under agreement only

VESTA Oct. 25 S-4

A white button pompon for summer and early fall flowering. Best during the long day period of the year.

ARCADIA Oct. 28 S-3

Intermediate pompon.

MEMENTO Oct. 30 S-3

Intermediate chalk white single with green discs and durable petals that retain their original form into maturity. Reliable cloth house variety July through Oct. and in the greenhouse from May through Oct.

SILVER CLOUD

Nov. 1

S-3

Intermediate white single, flower April through Oct. under

glass.

HALO Nov. 1 \$-5

White Daisy for high temperature periods in the greenhouse.

SEA GULL Nov. 1 S-5

Intermediate ivory pompon,

ALASKA Nov. 1 S-6

Intermediate white anemone with white cushion. Temperature tolerance of Shasta. Productive, responsive and versatile. Spray programs from late April to early Nov. A greater degree of cushion development than Shasta in summer temperatures.

WHITE DOTY Nov. 1 S-4

Large Pompon, disspray and disbud.



Crest



Crystallite





WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal Variety Description Flowering Date Price

Variety Description

Normal Flowering Date Price

10-WEEK VARIETIES (Pinch July 28)

SNOWCLAD Medium, paper-white disbud. Semi-short, stocky habit will provide a grower with a "never-fail" white pot mum the year round. Medium treatment. Flowers a week earlier than either Chalk Cliff or Oregon and develops superb quality during the winter months when Wilson's White is questionably soft. Heavily petalled flowers contribute to a relatively long period

of freshness. Bud initiation will take place in temperatures as low as 52°. Has class, substance, and is tolerant to high temperatures. Of Portrait size, it rates with the best. A pure white Criterion.

Sold under agreement only

THISTLEDOWN

Medium to small novel white decorative pompon. An improved Snowdrift flower. Provides a more fully double form of feathery serrated petals in addition to being a more clear white color. Natural spray programs from May thru October.

CAMILLE BAUMANN Nov. 3

Medium to large single disbud. White spindle on tubular ray petals. Novel form that will enrich variation in fast disbud programs from April thru mid-December. Never fails to grow vigorously, responds uniformly, and flowers on rigid stems. Especially valuable to retail growers who are seeking new and unusual beauty.

SNOW CRYSTAL Nov.

Medium to large ivory white spider disbud. Fully double form. Feathery spooned petals. Captures much of the delicate Snowdrift form from which it was bred. Strong habit, and wiry stems make it an exclusively novel pot variety useable the year round. Best with tall treatment. Easily averages five uniform breaks from a soft pinch. A variety that will create interest.

Sold under agreement only

Nov. 5 Intermediate pure white single. Fine green eye. Best flowering

season in the cloth house is Sept. and Oct. and under glass Oct. and Nov.

WHITETOP

Intermediate chalk white decorative. Productive and dependable. Top notch white. Greenhouse April to Nov. and in cloth house July through Oct.

TIPTOP Nov. S-5

A distinctive form mutation from Whitetop. The petals are completely tubular. Possesses fine substance and does not shatter. When cut on the green side, Tiptop is unusually attractive and has no counterpart in present pompons. Valuable in the same periods as Whitetop.

FEATHERTOP

An unusually beautiful sport from Whitetop. Petals are deeply serrated or feathered in a manner similar to Snowdrift. Non reflexing petal habit coupled with partially tubular petals contribute to larger size flowers having more substance than parent. Improved vigor and response. Chalk white with smart green eye. Feathertop is not a novelty, It will increase the demand for white in all periods and areas where Whitetop is grown. In many arrangements it can serve the purpose of carnations.

ICEBERG Nov. 5

Large chalk white pompon. Tall vigorous growth. Color clarity of Whitetop and Belray. Best year around disbud. When not disbudded, suggest adding one additional long day week for best spray formation. Recommended to grow as sprays from April to Dec. and in the cloth house Aug. through Oct. Temperature tolerance of Whitetop. Tolerates summer temperatures well. Best 10-week white disbud.

MADONNA

Intermediate white pompon. Takes high temperature well. Flower from June to Oct.

ENCORE Nov. 5

Intermediate pompon. Pinks at low temperatures. Requires 60° minimum for bud initiation. Flower under glass from June to natural season and in the cloth house from mid Aug. to early Oct. Superb form and rigid growth.

WHITE ANEMONE

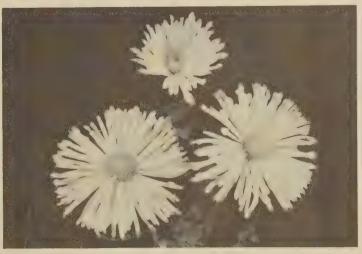
Large anemone, disspray and disbud.

WHITEHOUSE Nov.

Intermediate white anemone. Breaks vigorously and thrives best with high temperatures. Very uniform and responsive. Recommended for pots from May to Nov. A summer Little America for pots.



Thistledown



Camille Baumann





WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

						Manual	
Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price

10-Week VARIETIES (Cont'd)

WHITE MENSA			Nov.	5	S-2	
Large ivory single. MOONGLOW Intermediate white initiation.	pompon.	Requires	Nov. 60°	8 minimum	S-3 for	

CHALK CLIFF Nov. 10 Large chalk white decorative pompon. The answer to a white Portrait for pots the year round, using MEDIUM TREATMENT. Foliage, habit, and flower form provide a striking resemblance. Somewhat larger than Portrait, its heavily petalled flower contributes to a very fresh appearance with extended keeping qualities. Also has a more vigorous breaking habit. A versatile and beautiful white that will pay its way in any pot plant program.

Sold under agreement only

Nov. 10 **ENSIGN** Intermediate decorative disbud. An ivory-white Bonnaffon seedling of excellent substance with a slight cream center and dimpled petals. Well adapted to either the fast disbud or pot plant programs from April thru December. TALL TREATMENT for pots. Earlier and taller habit than Bonnaffon, but has retained the same beautiful foliage and breaking habit. Useable the year round in high light areas.

Sold under agreement only

Nov. 10 PACESETTER Intermediate pure white single. Best as sprays from April through June and from Sept. to natural bloom. Also grown some as a pot plant from Sept. to June.

Intermediate decorative with 3-4" diameters. White to cream depending upon temperature. Very reliable. Extraordinarily vigorous having a wide range of temperature tolerance for bud initiation. A valuable addition to the fast disbud program from May to Jan. As large a disbud as Iceberg.

Nov. 10 ILLINI IGLOO

Intermediate ivory white pompon, Good for outdoor shading from July through Oct. Formal and durable, tolerates 54°. Recommended from April through Dec.

Nov. 10 SHASTA Large Anemone. Tolerates 54°. Very dependable when grown

in sterilized soil. Recommended as sprays and disbuds from April through Dec.

Nov. 10 5.3 DYNAMO White Pompon. Excellent in natural season.

Nov. 10 VESPER

Intermediate pompon.

Nov. 10 **NAGONA**

(Calif. White Mensa). Intermediate cream single.

Nov. 10 LITTLE AMERICA

Intermediate pure white anemone. Under glass Oct. and Nov. as sprays and as potted plants from Sept. to mid-May.

Nov. 12 ILLINI SNOWDRIFT

Novelty, intermediate, feathered decorative. Valuable in artistic arrangements. Grow as sprays from April through Dec.

Nov. 12 **STARDUST**

Formal white pompon of intermediate size. Establishes a larger and more shapely Keepsake form. Its smart formal form has strong consumer appeal. Productive and dependable from April thru November in both regular and fast spray programs in either greenhouse or cloth house. A clean vigorous habit that rarely overcrops or delays. Tolerates 56° minimum.

Sold under agreement only

11-WEEK VARIETIES (Pinch August 4)

Nov. 15 WHITE TAFFETA

Pure white sport of Taffeta. Most valuable of the Taffeta group. Recommended for March to May and in Sept. and Oct. programs.

SCULPTURE

Nov. 15

Large ivory white daisy. Recommended from mid-March through May and again in Sept. to natural flowering date.



Stardust

Ensign





WHITE POMPONS, DECORATIVES, SINGLE & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price				
	11-Week VADIETIES (Cont'd)										

11-Week VARIETIES (Cont'd)

WHITE NORMA Large Anemone. Best grown as a Apirl. White rays and yellow cush	S-3 H early Iv
SNOWELLIDBY	

SNOWFLURRY Nov. 15 S-3
A white button pompon. Larger than Pinocchio.

ILLINI STARFLOWER Nov. 18 S-3
Large semi-anemone spoon. A novelty in white for the retail
grower. Disspray or disbud.

SEAFOAM Nov. 20 S-3
Intermediate ivory white pompon for natural season.

LONG ISLAND BEAUTY Nov. 20 S-5 Large anemone, yellow cushion. Best grown as fast disbud from Nov. to early April.

GRECO'S CARNATION

Intermediate white pompon. Petals are finely serrated and form somewhat resembles a carnation. Clear white 11-week pompons are scarce. Performs best under high light and cool finishing temperatures. Suited to the late cloth house and October through November greenhouse programs. Valuable for its natural Thanksgiving season. Not suited to early spring programs.

ERMINE Nov. 20 P

Intermediate ivory-white disbud. Cream-eyed centers. A winter Iceberg for the fast disbud program from November thru April. Extremely tall on the regular schedule. Should be profitably efficient in any cool sixty environment.

Sold under agreement only

JOHN BAUMANN Nov. 20 P
Large paper-white spider. Duplex form. Partially spooned petals. A novel and efficient retailers item best grown in a fast disbud program from October thru May. An exceptionally fine winter performer in the North. Considered faster and much more reliable than Illini Starflower during the spring months.

HIGHBROW Nov. 20 5-5 Ivory white decorative. Very productive. Superb quality in late cloth house and in the greenhouse from Sept. to Jan.

NEVADA Nov. 20 S-4
Intermediate anemone. Chartreuse cushion.

PRISCILLA Nov. 20 S-5
Intermediate clear white pompon.

SURFSIDE

Large single. A clear white. Extra wide petals and green discs.

Petallage has substantially more substance than found in either Illini Alba or Sculpture. The added vigor incorporated in this 11-week seedling makes it a splendid co-partner to such varieties as Jubilation, Crackerjack and the Galaxies to be flowered in spray programs from November thru March. Tolerates 56°

Sold under agreement only

minimum. Best grown disspray.

ILLINI BOUNTIFUL	Nov.	23	S-2
Small ivory pompon.			
Intermediate pompon.	Nov.	23	S-2

PARAMOUNT Nov. 23 S-6

Intermediate ivory white pompon. Recommended from Sept. through May.

BELRAY

Nov. 24

\$-7

Large white pompon. Tall grower. One of the best large whites for spring flowering in the greenhouse in March and April and from Oct. through Dec. Also as fast disbuds during the same period. But development slowed by high temperatures.

CARRARA

Nov. 24

S-4

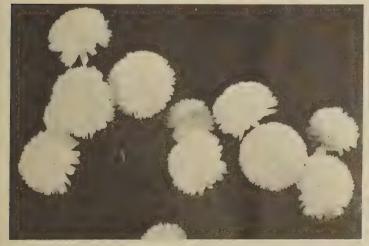
Intermediate pure white decorative. A short variety that tolerates low temperatures. Bud development is retarded by high temperatures. Finish cool for Oct. through Dec. program.

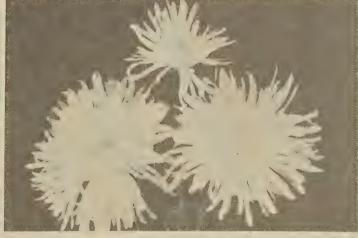
12-WEEK VARIETIES (Pinch August 11)

WHITE PRINCESS Nov. 25 S-5 SILVERCREST Nov. 25 S-7

Pure white button. Sport from Princess. Hard and very durable. Requires high temperature for maximum initiation of buds. Tolerates a wide range of temperature for development. Best in high light areas. Well suited to the late cloth house and October through November greenhouse.

Small white formal pompon. Markedly improves the appearance and quality of Snowcrest. For flowering from mid-Oct. to April.





John Baumann





WHITE POMPONS, DECORATIVES, SINGLE & ANEMONES

						Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

12-WEEK VARIETIES (Cont'd)

WHITE LADY Nov. 25 S-3 CORDOVA Nov. 30 SWhite sport of Beautiful Lady, Disbud.

Intermediate pompon.

ILLINI PEACE Nov. 25 S-3
A productive white anemone for Thanksgiving.

Dec. 1

CHAMP

Nov. 28

S-1

Formal white pompon. An outstanding quality flower for Nov. and Dec.

ILLINI GLACIER

Large white disbud anemone. Growth is clean and vigorous. Larger than Illini Glacier, approaching the size of White Supreme. Response is uniform and production high in October through April 60° fast disbud programs. Cushion is large, develops well, acquires a chartreuse green overtone. Provides outstanding winter disbuds in a needed anemone form.

WHITE VALENCIA

Nov. 28

S-4

form and keeping quality. Requires 60° initiation. Cool finish.

Large single. Requires high temperatures for bud initiation.

Very high quality when grown as disspray or disbud in Nov.

and Dec.

MONARCH

Large ivory white decorative.

13-WEEK VARIETIES (Pinch August 18)

SNOWSTORM Dec. 5 P Inte

A white decorative pompon of medium size. Represents continued advancement to improve quality, productiveness and low temperature tolerance for northern winter pompon programs. Specifically recommended in greenhouse spray programs from December thru mid-March. Flower size benefited materially when partially dissprayed. Snowstorm's improved traits and ease of flowering will commence to decrease the popularity of Silversmith. Fully tolerant to cool 60° environment.

Sold under agreement only

WHITE ENCHANTRESS Dec. 5 S-4

Large disbud and disspray anemone. Color requires high light intensity and 60° temperatures for maximum clarity. Under cooler finishes it is a smooth shell pink of great beauty. Habit and performance is the same as the original Enchantress. Cushion development is stable and uniform. Recommended for regular and fast programs, December through mid-March.

ILLINI ALBA Dec. 5 S-1

Large anemone. Clear white with white cushion. Durable,

productive and uniform response. Disspray Oct. through Dec.

and March and April. Improves Long Island Beauty in color,

S-6

S-2

Dec.

Dec.

Intermediate chalk white daisy. Devoid of any tendency to pink either from low temperature or aging. Easily grown and of clean habit. Best described as a white Debutante. Alba will tolerate 56° for initiation and development. Responses are dependable and uniform when lighted through mid March. Best spray formation and height control is obtained with Illini Alba when it is treated as a 14-week variety.

CAMEO Dec. 5 \$-4

Intermediate ivory decorative.

ACCLAIM

Dec. 5 5-8

Large formal type pompon. An ivory white Corsair for Dec. to March 15.

SPANGLES Dec. 5 S-4

Small white pompon. A late white Sunnyside.

Intermediate semi-formal pompon. Requires 60° for bud initiation.

SEE PRICE LIST ON PAGE 132



Champ



Illini Alba





WHITE POMPONS, DECORATIVES, SINGLE & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price
						-	

13-WEEK VARIETIES (Cont'd)

NORTHWIND Dec.

Medium to large pure white single. Represents a decided improvement in vigor and productive capacity among the presently available white singles for winter production in the North. Durable flowers enable it to be shipped without difficulty. Extremely reliable in cool 60° program. Useful in the regular greenhouse spray program from December thru February.

Sold under agreement only

ORWAY	Dec.	8	S-2
Large white single.			
SNOWDROP	Dec.	8	S-2
White button pompon. Pink tinges at	low temp	eratures	•
WHITE SNOWDROP	Dec.	8	S-4
Pure white sport of Snowdrop. Does Dec. to March 15.	not pink	, flowe	r from
ILLINI STARLET	Dec.	10	S-4
Intermediate anemone. Improves Garz clarity of color, best for Dec. bloom.	a in form	, growi	th and
IMP. WHITE SUPREME	Dec.	10	5-3
Large anemone, Tall disbud, Finish co	ol.		

14-WEEK VARIETIES (Pinch August 25)

Intermediate pompon. flowering.	Good form	and	substance for	
SILVERSMITH Intermediate pure white	e decorative.	Fine	Dec. 15 sprays and pr	

for Dec. to March 1. Tolerates 56°. Dec. 15 Large formal pompon. When grown at a 60° minimum night temperature, this is one of the outstanding flowers available

to the Dec. to March 1 program. WHITE RIVIERA Dec. 15 Intermediate ivory decorative. Does not show pink tinges with low temperature finish. Must have 60° initiation and cool finish.

ICECAP Dec. 10

Intermediate chalk white pompon. Icecap combines the responsiveness of Acclaim, the vigor and production of Corsair with the formal beauty of Snowcap. It has Silversmith color clarity without a trace of pink. Will initiate and develop at 56° although, equally as valuable in 60° programs. Because of its extra vigor, best treated as a 14-week variety. An achievement in white for December through mid-March programs. Long sought for and highly desirable in northern, winter programs.

YUKON	Dec.	10	S-4

Intermediate chalk white single. Tolerates 56°.

SATELLITE Dec. 13

Intermediate cream white pompon, Spray crop from Dec. to March. 15

DOLOMITE Dec. 13

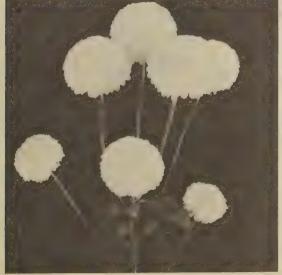
Intermediate clear white pompon. Smaller, later version of Carrara. Taller, more vigorous. Adds quality and color clarity to the Dec. season. Tolerates 56°.

SNOWCREST Dec. 13

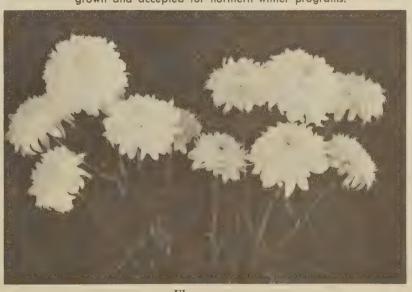
Small pompon, Distinctive green eye. Sprays from Dec. to March 15.

GARZA Intermediate anemone.	Dec. 15	S-5
HEIRLOOM Intermediate decorative.	Dec. 20	S-3
WEDDING BELLS A small to medium white formal ductive.		S-3 oro-

ELEGANCE Dec. 20 Intermediate white decorative. Produces larger flowers than Silversmith in addition to being more sharply responsive in 60° programs. Flowers naturally for Christmas. Clean growth with high production and good spray. Growth is stiff, whippy and without a trace of vegetativeness. Has been commercially grown and accepted for northern winter programs.



Icecap



Elegance





WHITE POMPONS, DECORATIVES, SINGLE & ANEMONES

						Normal	
Variety	Description	Normal Flowering Date	Price	Variety	Description	Flowering Date	Price
•							

15-WEEK VARIETIES (Pinch September 1)

S-6 REVELATION Intermediate decorative. Excellent for late natural flowering

with 50° finish.

Dec. 25 5-6 SNOW

Intermediate pompon. Requires 60° for initiation.

TALMEDA

Intermediate white pompon. Good form and substance.

Jan. ILLINI CASCADE

Large clear white decorative. Tall, responsive. Finishes well at high 60° or low 50° temperature. A valuable addition to the northern winter program. Suggested as winter disbud.

Jan. ILLINI SNOWBOUND

Large informal white decorative with cream center. Requires

Oct.

60° initiation and 50° development

YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

7-WEEK GARDEN VARIETIES (Pinch July 7)

CHIQUITA YEL. CHRIS COLUMBUS

Intermediate lemon yellow decorative. Short, compact, and prolific. Top yellow garden variety for spring pot blooming. Also tops for 3" pot plant.

S-2 Oct. - 1 MOONLIGHT

Intermediate sulfur yellow pompon. Short compact growth habit. For border and spring pot plants.

Oct. S-2 **POLARIS**

Golden buff daisy. Background garden variety and Oct. cut flower.

Oct. **ASTORIA**

Intermediate bright lemon yellow pompon. Free flowering and responsive. More prolific than either Yel. Chris Columbus or Moonlight when grown as a spring plant. An early foreground garden variety.

Oct.

Large deep yellow pompon. Showy, prolific garden variety.

Small deep lemon yellow button pompon. Good spring pot plant. An intermediate garden variety.

5.3 YELLOW SPOON

Intermediate light yellow spoon single. For garden and pot culture. Showy and artistic.

S-2 Oct. 10 LEE POWELL

Large golden yellow decorative. Vigorous background and cut flower variety.

Oct. 10 COLDRUSH

Dark yellow daisy. Cut flower variety.

Oct. 10 TREASURE Small deep yellow pompon. Vigorous, upright habit. Fine cut

flower growth. Outdoor cut flower and natural greenhouse programs.

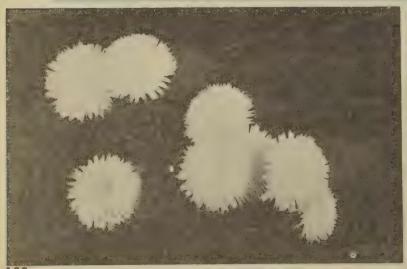
Oct. 10 BRIGHT FORECAST

Very formal yellow pompon. Outstanding flower quality. Background for gardens and outdoor cut flower.

8-WEEK VARIETIES (Pinch July 14)

regular and fast spray programs from May thru October. Durability adapts it well to cloth house use. Tolerates 52° Oct. 20 Medium to small bright yellow anemone. Flowers are borne in bud initiation temperatures and high summer temperatures for abundant masses on both terminal and compond sprays, each floret displaying well-defined cushions without reflexing ray development. A needed supplement in the present shortage of 8-week yellow pompons for cut flower use. petals. Very productive growth performs advantageously in

Sold under agreement only





Tiptop (see page 97)





YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal			Normal				
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

9-WEEK VARIETIES (Pinch July 21)

GOLDFINCH Oct. 25 S-2
Small garden yellow button pompon with excellent flower
quality. Greenhouse May 1-June 1; Sept. 1-Nov. 1, cloth
house Aug. 1-Sept. 15

quality. Greenhouse May 1-June 1; Sept. 1-Nov. 1, cloth house Aug. 1-Sept. 15.

STARLIGHT

Oct. 25

S-2

Large yellow daisy. Intolerant of extreme heat. Greenhouse April 15-Nov. 1.

GOLDEN HERALD
Oct. 25
S-6
Large decorative. Disspray or disbud April 15-Nov. 1; cloth house July 15-Sept. 15.

GOLD COAST
Oct. 25

S-8

Intermediate formal pompon. Deep lemon. Greenhouse April
1-July 1; cloth house July 15-Oct. 1.

EARLY YELLOW DAISY
Oct. 25
S-2
Intermediate yellow single. Selection from Calif. Yellow Daisy that will mature 7 to 10 days earlier. A west coast cloth house variety.

YELLOW DOT Oct. 25 S-3
Small pompon. Two-tone with golden bronze eye.

HAPPINESS Oct. 28 S-3

Large golden yellow single having broad, flat ray petals. Normally outproduces Sauterne and is noticeably more reliable in high temperature summer greenhouses than either Aztec or the Halos. In the greenhouses May 1-Nov. 1; cloth house July 15-Nov. 1. This variety is a combination of beauty, productivity and versatility.

SUNUP Oct. 28 S-4

Small deep yellow pompon. Withstands high temperatures and heavy cropping. Greenhouse May 1-Nov. 1; cloth house Aug. 1-Oct. 1.

YELLOW ARCADIA Oct. 28 S-3

Intermediate lemon pompon.

SAUTERNE Oct. 30 S-5

Intermediate intense yellow single. Greenhouse May 1-Nov. 1; cloth house Aug. 1-Oct. 1.

GONDOLA Oct. 30 S-3
Intermediate yellow daisy. Large flower similar to Starbright.
Greenhouse May 1-Nov. 1.

YELLOW HALO

Sport of Halo. Intermediate single, deep lemon yellow. Greenhouse May 1-Nov. 1.

SCHN. YELLOW DAISY
Intermediate single.

DANDY Nov. 1 S-3

Intermediate yellow pompon. The most temperature tolerant among the 9-week yellow pompons in the manual. Will initiate and develop at 56°. Develops better than Sunup at high temperatures. Production of Gold Coast. Greenhouse May 1-Nov. 1; cloth house July 1-Nov. 1. Adaptive to a wide range of environments.

STATESMAN Nov. 1 S-3

Small intense yellow pompon produced in abundance on well-formed sprays. Valuable summer greenhouse variety because of its unusual tolerance to high temperatures. Greenhouse May 1-Nov. 1; cloth house July 15-Nov. 1. A marked improvement over Sunup. Relatively more productive. A more formal flower that will not stick.

BRILLIANCY Nov. 1 P

An Aztec yellow intermediate single contrasted with accenting green discs. Recognized for rigid stems, a well balanced spray formation, superb flower placement and uniform response throughout its season of use. Grow as a natural spray in greenhouse from May thru mid November. A daisy of substance with distinctive class and productive capacity.

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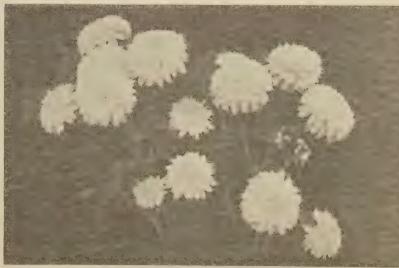
YELLOW DOTY Nov. 1 S-2

Large deep bronzy pompon. Disbud.

STARBRIGHT Nov. 1 S-4

Large deep lemon single. Dissprays greenhouse April 15-July 1 and Oct. 1-Nov. 15.





Souvenir (see page 105)





Large yellow daisy. Good form and an unusually clear yellow color. Greenhouse May 1-Nov. 15; cloth house July 15- Oct. 1.

Clear lemon yellow sport from Iceberg. Closely identical to parent variety. Especially valuable for high temperature periods. Spray programs May through mid November are always benefited by early center bud removal. Fast disbuds

Intermediate yellow disbud. Decorative form. A Bonnaffon seedling that performs at its best in pots during the warm periods of the year from mid June thru October. MEDIUM TREATMENT. Extremely vegatative and non-responsive during winter and early spring in the North. Same spreading habit as parent. When Bonnaffon DeLuxe stalls in the summer,

Sold under agreement only

Medium to large single. Dark yellow, Wide horizontally flat petals are well extended and become partially tubed at their base. Retains its complementary green-eyed disc for long periods which thus contributes to its zestful appearance. Flowers are borne on clean, well-balanced terminal sprays

Description

Small anemone. Productive and responsive.

Normal Flowering Date

Nov.

Nov.

Nov.

Nov.

Price

5.5

S-5

YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

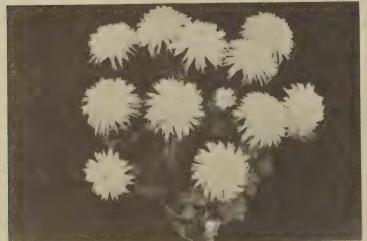
Variety	Description	Normal Flowering Date	Price	Variety Descrip
		9-WEE	K VARII	ETIES (Cont'd)
YELLOW D		Nov. 1	S-3	SUNRAY Small anemone. Produ
YELLOW S	e lemon yellow single. EA GULL e deep lemon pompon.	Nov. 1	\$-2	HONEYMOON Large yellow daisy. Go color. Greenhouse May
		10-WEEK	ARIETIE	S (Pinch July 28)
BARCARO Intermediat	LE e lemon pompon.	Nov. 5	S-4	YELLOW ICEBERG Clear lemon yellow sp parent variety. Espec
	on yellow sport of White maximum value in cloth			periods. Spray progra always benefited by e the year around.
BRIGADO	eenhouse April 1-Nov. 15 DN talled golden yellow dai	Nov. 5	S-2	LUMINARY Intermediate yellow d seedling that performs periods of the year f
AZTEC Intermediat and Sept.	e deep yellow daisy. 15-Nov. 1.	Nov. 5 Greenhouse May 1	S-5 -July 1	TREATMENT. Extremely winter and early sprin as parent. When Bor switch to Luminary. Sold u
MARY HA		. Nov. 5	S-6	3010 0
	re deep lemon pompon. I nhouse May 1-Nov. 15;			SUNFIRE Medium to large single
ture period	O w pompon. Outstanding ds. Tall. Greenhouse Ju . 1. Tinges bronze at low	ne 1-Oct. 1; cloth	house	petals are well extended base. Retains its comperiods which thus comperiods which thus coupled with rigid stem.
CONSTELL.	ATION re decorative. Brilliant ye	Nov. 5	S-4	fast or regular spray p The combination of Sur pete favorably with th
NUGGETS Small pomp	oon. Productive button.	Nov. 5	S-2	terne, and Aztec. Sold u

coupled with rigid stemmed growth. A top performer in either fast or regular spray programs from May thru mid November. The combination of Sunfire's improved traits enables it to compete favorably with the present varieties of Happiness, Sauterne, and Aztec. Sold under agreement only LUXURY Nov.

Large decorative. Clear yellow when restricted to high temperature flowering. Superb fast disbud May 1-Nov. 1. Disbudded spray program May 1-Nov. 1; cloth house Aug. 1-Oct. 1.

SEE PRICE LIST ON PAGE 132

Nov. 5



Intermediate pompon. Clear golden yellow at all temperatures.

Temperature tolerance of parent variety. Greenhouse May 1-

YELLOW BEAUREGARD

104

Nov. 15; cloth house July 15-Nov. 1.

Luminary



Sunfire





YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal

Variety Description Flowering Date Price Variety Description Flowering Date Price

10-WEEK VARIETIES (Cont'd)

S-8

YELLOW SHASTA Nov. 10

Large light lemon yellow anemone. Greenhouse April 1-Jan. 1; cloth house Aug. 1-Oct. 1.

CREAM SHASTA Nov. 10 S-4

Beautiful color addition to the shasta group.

JEALOUSY Nov. 10 S-6

Small pompon. Intense yellow, bright green eye. Hard, ball type. Durable, prolific and dependable. Greenhouse March 15-Nov. 15; cloth house Aug 1-Oct. 1.

YELLOW IGLOO Nov. 10 \$-6

Intermediate deep lemon yellow pompon. Selection from Illini Igloo with same habit and temperature tolerance. Greenhouse April 1-Nov. 15; cloth house July 15-Nov. 1.

HEYDAY Nov. 10 S-:

Intermediate bright yellow pompon. Will initiate and develop its buds well at 56°. Improves the flower size and productiveness of Yellow Beauregard. Characterized by open terminal sprays at any time of the year when it can be grown, Greenhouse April 1-Nov. 15; cloth house August 1-Nov. 1. YELLOW PACESETTER Nov. 10 S-3
Lemon yellow sport of Pacesetter. Greenhouse April 15-July 1

and Sept. 15-Nov. 15; cloth house Aug. 1-Nov. 1. Also recommended as pot plant from Sept. 1-June 1.

YEL. ILL. SNOWDRIFT

Small novelty decorative. Intense yellow sport of Illini Snowdrift. Similar to original. Petals are narrower, and more finely feathered. Slightly less vigorous during marginal light periods, but equally as good during its recommended period. Natural greenhouse spray program from mid April thru mid November. Natural spray, pinched pots for the same period using TALL TREATMENT.

FANFARE

Golden-yellow intermediate anemone for natural spray pompons. A late 10-week responding variety that performs amazingly well during the same period that Crescendo is flowered. Spray programs from May thru mid November. Well adapted to cloth house conditions also. Because of extreme inherent vigor, one long day week can be dropped from the 10-week regular schedule. Finishing temperatures less than 60° induces bronze tinges. A fine asset to the list of suitable summer and

high temperature flowering pompons.

Sold under agreement only

11-WEEK VARIETIES (Pinch August 4)

SOUVENIR Nov. 15 S-

Intermediate dark yellow daisy with an early 11-week response. Excellent supplement to Yellow Sculpture. Vigorous and productive. In regular programs it achieves best spray formation when treated as a 12-week variety. Greenhouse programs mid September through mid December and mid March through mid May.

ESQUIRE Nov. 15 S-1

Intermediate deep yellow decorative. Larger than Yellow Highbrow. Strong, trim, growth habit with sprays resembling Forty Niner. Tolerates 56° for bud initiation and development. Its point of contribution to the 11-week yellow pompons lies in its dependability within a wide range of temperatures. Esquire performs well in the late cloth house and greenhouse programs mid September through mid December; again in mid March through mid May.

YELLOW TAFFETA

Nov. 15

P

Intermediate lemon-yellow sport from Taffeta. Depth of color varies slightly with light intensity. Maximum color is expressed in late fall and early spring flowering. A variety worthy of consideration as an addition to the rest of the Taffeta group when flowering in greenhouse spray programs from March thru May and from mid September thru November.

YELLOW SCULPTURE

Nov. 15

S-4

Lemon yellow single. Greenhouse March 1-June 1 and Sept. 15-Dec. 1.

PRINCETON Nov. 15 S-3

Intermediate golden decorative.



Fanfare



Yellow Ill. Snowdrift





YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

						Marmal	
Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
variety	Description	Trowcing baid	11100				

11-WEEK VARIETIES (Cont'd)

GOLDEN CHORD Nov. 15 S-6

Intermediate pompon. Intense golden yellow. Greenhouse Sept. 15-Dec. 15. Requires 60° for initiation.

FORTY-NINER Nov. 15 S-8

Intermediate brilliant golden yellow pompon. Requires 60° for initiation and high light intensity for maximum production. Greenhouse Sept. 15-Dec. 15.

GOLD BALL Nov. 15 S-5

Intermediate golden yellow pompon. Temperature tolerance improves Golden Chord and Forty Niner. Hard, durable. Size of Corsair. Greenhouse March 1-June 1 and Sept. 15-Dec. 15. Valuable supplement to Forty Niner.

ILLINI GOLDILOCKS Nov. 15 \$-5

Intermediate golden yellow decorative. Tall and vigorous, Requires high light intensity for maximum production. Greenhouse Sept. 15-Nov. 15. Requires 60° or less to develop its huds

SUSANNE MILLER Nov. 15 S-

Large anemone. Deep yellow cushion. Disbud Nov. 1-April 1.

ILLINI BONBON Nov. 18 P

Very small dark yellow anemone. Short growth habit. Dainty individual flowers develop perfect well-rounded cushions and are borne in massive clusters on short natural sprays. Exclusively for pots from March thru June and October thru December. MEDIUM or TALL TREATMENT. High temperatures stall flower development. Will merit attention for its massive display of dainty and individually perfect anemone flowers.

YELLOW L. I. BEAUTY Nov. 20 S-4

Large lemon anemone. Best grown as a fast disbud Nov. 1-April 1.

YELLOW HIGHBROW Nov. 20 S-5

Sport of Highbrow. Intermediate golden yellow pompon identical in habit with Highbrow. Requires 60° for initiation. Greenhouse Sept. 15-Jan. 1.

LOLLIPOP Nov. 20 S-7

Lemon yellow pompon. Very formal, round and hard. Has a long season of usefulness. Fast response, and good production. Greenhouse March 15-May 1 and Sept. 15-Jan. 1.

PIPPIN Nov. 20 \$-5
Intermediate yellow pompon, Produces heavily on compound

sprays. Greenhouse March 1-May 1 and Sept. 15-Dec. 15.

KLONDIKE Nov. 20 S-5

An orange yellow pompon. Greenhouse Sept. 15-Dec. 1. Give one additional long day week to add height.

BOJANGLES Nov. 20 S-2

Yellow daisy. Intense, heavy petallage.

YELLOW NEVADA Nov. 20 \$-3

Intermediate light lemon anemone.

ILLINI SUNSPOT Nov. 20 5-4

Large yellow pompon. Responds well to disbudding. Greenhouse Sept. 15-Dec. 1.

ETUDE Nov. 20 P

Large semi-formal pompon. A rich yellow. Represents continued improvement in productive vigor and late winter and early spring response dependability. Performs well on either the regular or fast spray schedules from March thru May and mid September thru December. Spray is benefited when center bud is removed. Rightfully described as the "Corsair" of the 11-week yellows. Durable for cloth house use.

Sold under agreement only

SULTAN Nov. 22 S-3

Large formal decorative. Golden yellow to amber at low temperatures. Vigorous and productive. Temperature tolerance of Forty Niner. Greenhouse March 1-June 1 and Sept. 15-Dec. 1.

YELLOW PARAMOUNT Nov. 23 \$-5

Deep yellow sport of Paramount. Greenhouse March and April also Sept. 15-Dec. 15.







Etude





YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		12-WEEK V	ARIETIES	(Pinch Au	ugust 11)		
GOLDENRO	OD	Nov. 25	S-4	YELLOW V	ALENCIA	Nov. 28	S-4
Full round	and solid light yellow	pompon.				en Jane. Best vigor and	
ILLINI GO	LD	Nov. 25	S-2	of Valencia	a family. Disbud and	disspray. Nov. 15-Jan	. 1.
Small gold	en yellow pompon.			YELLOW C	ORDOVA	Nov. 30	S-2
GOLDSMIT	н	Nov. 25	S-5	Intermediat	e deep lemon pompor	١.	
	den yellow decorative o for initiation.	. Disspray Oct. 15-D	Dec. 1.	YELLOW F	ORTUNE	Dec. 1	S-4
HIGHLAND	ER	Nov. 25	S-5	Deep yello	w sport of Fortune.	Sprays Nov. and Dec.	
Intermediat	re intense yellow decor	ative. Sprays Oct. 15-	Jan. 1.	OMEGA		Dec. 1	S-6
SUNNYSID	E	Nov. 25	S-6	Intermediate	e deep lemon pomp	on. Very productive. (Green-
Intermediat	e deep lemon pompo	n. Fine Thanksgiving v	variety.	house Oct.			
ILLINI WA	MPUM	Nov. 25	S-3	V=11011/			
A good ad	oright yellow anemone dition to the late winter ay 1, and Sept. 15-Ja	er and early spring pr				Dec. 1 llow. Fine for fall, winte ay 1.	S-5 er and

13-WEEK VARIETIES (Pinch August 18)

JACKPOT	Dec. 5	5-3	CORONATION	Dec.	5	\$-1
Large golden yellow decorative. Di	ssprays. Must have	60°	Intermediate to large decorative. Intense	golden	yellow. Lo	arger,
initiation temperatures.			more beautifully formed than Corsair, a			
YELLOW ACCLAIM	Dec. 5	S-5	uniformly and rapidly. The sprays are a Coronation will initiate and develop at 3			
Yellow sport from Acclaim. Sprays N	ov. 15-March 15.		4" disbuds in winter fast programs. Best			
COLDEN ACCIAIN	D	6.6	when Coronation is treated as a 14-wee	k varie	ty. Coron	ation

GOLDEN ACCLAIM

Intermediate golden yellow pompon. Selection from Acclaim. Intensification of Yellow Acclaim. Spray Nov. 15-March 15.

YELLOW CAMEO Intermediate lemon decorative. Vigorous and productive in natural season.

YELLOW ENCHANTRESS Dec.

Large disbud and disspray anemone. Full expression of yellow requires high light and high temperature environments. Cooler finishes yield a pleasing bright golden buff coloration. Growth habit is very similar to original parent. Grown in regular and fast disbud programs December through mid March.

materially strengthens winter programs when flowered December through mid March.

CINDERELLA Dec. 5 Intermediate deep golden yellow single. Spray crops. Nov. 15-March 15.

DARK YELLOW SATELLITE Dec. 10 **S-5** Dark yellow sport from Yellow Satellite. A crisp, formal pom-

pon of fine response in 60° December through February programs. Color is a decided improvement over the original. **S-3**

IMP. YELLOW SUPREME Dec. 10 Large anemone. Disbud. Tall.



Coronation





Dec. 20

Jan.

5-3

YELLOW POMPONS, DECORATIVES, SINGLE & ANEMONES

Normal Normal Flowering Date Price Description Flowering Date Price Variety Description Variety

13-WEEK VARIETIES (Cont'd)

Dec. 13 YELLOW SNOWCREST CORSAIR Dec. 12 **S-8** Large yellow pompon. A "best" for winter spray programs, A clear yellow sport. Bright green eye. Sprays Dec. 1-Nov. 15-March 15. Requires 60° minimum for initiation. March 15.

14-WEEK VARIETIES (Pinch August 25)

GOLDEN ELEGANCE YELLOW RIVIERA Dec. 15 52 Intermediate decorative. Initiate at 60°. Finish cool. Sprays Intermediate lemon yellow decorative. A sport from Elegance and identical to it in all respects except color. Very responsive Dec. 1-March 1.

and tolerant to 60° initiation and development. Can be recommended in December through February programs. Of medium height and vigor. The Elegance series greatly strengthens YELLOW GARZA Dec. 15 northern winter programs. They mature naturally for Christmas. Intermediate anemone. Lemon.

SUN VALLEY Intermediate to large pompon. Intense golden yellow, en-SHAMROCK Dec. 15 hanced by a striking green eye. Strong grower with heavy

Large yellow decorative. Disspray programs, Dec. 1-March 1. production. Requires 60° for initiation and tolerates winter 60° programs well. A week later than Corsair, shorter, heavier and much more beautiful. Benefited by center bud removal. **S-3 DECEMBER GOLD** Dec. 15 Constitutes a very significant advance in 14-week pompons. It should rapidly become an important 60° yellow pompon in

Large deep golden yellow pompon. the North for December through February programs.

Dec. 20 S-5 VIBRANT ILLINI BRIGHTEYES Dec. 15 Intermediate deep lemon decorative. Disspray Dec.

Intermediate anemone. Lemon yellow ray; dark yellow cushion. Dec. 20 **SUNRISE** Open sprays, normally terminal. Petioles are stiff, stems wiry and strong. Requires 60° for uniform initiation. Tolerates 60° A yellow pompon best described as a late Gold Coast. Sunrise or less for development. Brighteyes has never shown a trace is not sensitive to low night temperatures.

of vegetativeness and constitutes a winter Illini Wampum. **GOLDEN ANNIVERSARY** Dec. 24 Production is average. Quality high. Recommended December

Small intense yellow pompon.

15-WEEK VARIETIES (Pinch September 1)

GOLDEN SNOWBOUND Jan. **S-3** SIREN Dec. 25 A deep yellow decorative. Smaller than Vibrant but very Intermediate golden yellow decorative. Color intensification of Illini Yellow Snowbound. Natural flowering. 60° initiation. similar to it and flowers later.

50° development. Dec. 25 YULEFLAME Large decorative. Deep lemon.

ILLINI YEL. SNOWBOUND YELLOW SNOW Dec. 25 Yellow sport of Snowbound. Requires 60° for initiation and

50° for development. Intermediate pompon.



through February.

Illini Brighteyes

Sun Valley





BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		7-WEEK GARD	EN VAR	RIETIES (Pin	ch July 7)		
W. P. SNYI	DER	Oct. 1	S-3	DOLLI-ETTE		Oct. 10	S-2
Intermediate plant culture	decorative. Apricot l . Requires 60° minim	oronze. Good garden o mum temperatures.	ınd pot	novelty. A :	shapely, spring pot p	on. An interesting and column. Prolific and durc	colorful ible as
REMEMBRAI Intermediate	decorative. Apricot	Oct. 5 bronze. For garden a	S-5 nd pot	a foregrour stimulate int	nd garden variety. terest and appeal for	New forms such as the the early garden varie	nis will ties.
plant culture	. Best with 60° min	imum temperatures.	·	TORONTO		Oct. 10	S-2
AGLOW Orange-bron	za nomnon Small f	Oct. 5	S-2	the garden.	Sturdy stems, prolifi	orative. Excitingly beau ic bloomer, and a spr	eadina
Spring pot p	lants. Showy fall gar	den variety for a fore	ground	standards in garden.	e growth. Attractive the 7-week group. A	spring pots. Establishe "must-have" for every	home
LIPSTICK		Oct. 5	S-1	CARNIVAL		Oct. 10	S-3
coupled with	free breaking action t plant as well as in	npon. Dwarf spreading n add up to a reliabl October. SHORT TREAT colorful if finished at	e May IMENT	Large pomp garden varie	oon. Glowing orang ety.	e red. Strong. Backç	
less. A fine	prolific garden variet	y.	00 01	MOROCCO		Oct. 12	S-2
MONA Very hard, i	ntermediate rust bro	Oct. 5 onze pompon. A varie	S-3 ety for	a rigid, spr Superb fall	eading growth habit	corative. Free breaker . Excellent spring pot tributes needed durabi	plant.
HUNTSMAN		Oct. 5	\$-2	CORALHUE		Oct. 12	6.0
	decorative. Outdoor ound garden variety.	cut flower. Showy, de	epend-	Small aprice	ot coral pompon. La er. Spring pot plant	ow, spreading growth Effective as a foreg	S-2 habit.
RED VELVET Intermediate	crimson red decorat	Oct. 10	S-2	garden vari bringer.	ety. More double o	and more prolific than	Joy-
CARMINE Q	UEEN	Oct. 10	S-2	MRS. DuPO	NT ·	Oct. 12	S-2
Carmine red	pompon. Outdoor c	ut flower.		Large buff o	apricot decorative. S		
		8-WEEK VA	ARIETIES	(Pinch Jul	y 14)		
RADIANCE		Oct. 15	S-3	RAJAH		Oct. 15	S-2
Non-fading c	red decorative. Break olor. Color brighter, ble garden variety.	ss freely. Responds unif habit more prolific tha Spring pot plant.	ormly. In Red	Large scarle greenhouse.	t red daisy. Natura Background garden	al cut flower outdoors variety.	and .
CALUMET		Oct. 15	S-3				
flower purpos house, the e	ses. Very fine for the	perior flower quality f e spring crop in the g crop. Excellent grow plantings for gardens.	green- rth as	Apricot gold shadings. Jul and outdoor	pompon. Responds y cloth house. Natur	Oct. 15 with Norona in the al cut flower for green	S-3 early house



Dorothy Hyde (See page 110)



TALISMAN



Oct. 20

BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal Description Flowering Date Price Flowering Date Variety Description Variety

8-WEEK VARIETIES (Cont'd)

S-2

Talisman bronze; intermediate daisy. Recommended in the greenhouse, April 15-Aug. 1. Cloth house, July 15-Oct. 15.

Natural cut flower. **PARADISE**

Intermediate coral red single. Recommended for greenhouse April 15-Aug. 1. Cloth house July 15-Oct. 15.

BAYONNE

Intermediate incurved disbud. Warm orange-bronze color with coral overtones. Recommended exclusively for pots, SHORT TREATMENT, from early April thru October. Short and spreading habit with prolific breaking action. Attractive foliage. Quality, appeal, and dependable performance results in one of the best early bronzes for pots bred to date.

9-WEEK VARIETIES

RED ETHRELDA Oct. 25 Intermediate coral red anemone. Dwarf, compact and respon-

sive. Spreads well. Best color retention with low temperature finish. Pot plants, Oct. 1-June 1.

Oct. 25 GAIETY

Large coral bronze single. Sprays, April 15-June 15; Sept. 15-Oct. 15.

Oct. 25 5-3 **FIREBIRD**

Intermediate red bronze decorative.

Oct. 25 S-5 **BRONZE DOT**

Small pompon. (Red Dot) Good two-tone. Cloth house July 15-Oct. 25.

Oct. 25 SALLY

Small pompon. An intensified bronze and increased size selection from Bronze Dot. Cloth house, July 15-Oct. 25.

Oct. 25 S-5 BUCKSKIN

A tawny bronze daisy. Very productive. Greenhouse, April 15-Nov. 1; Cloth house, July 15-Oct. 25.

played on completely tubular petals. A bizarre novelty for spring. Equally as attractive as an intermediate fall garden

Small silver bronze double spider. Only reverse color dis-

LEE-ETTE

RESOLUTE

A large reddish-bronze semi-incurved pompon. Strong, rigid growth habit. Versatile for pots MEDIUM TREATMENT, fast disbuds, and regular spray programs from April thru October. Resolute along with Bayonne, qualify for top billing for Mother's Day and early spring flowering pots. Should make a durable outdoor natural cut flower variety in the southern states.

(Pinch July 21)

ANDANTE

Intermediate decorative disbud. Apricot-bronze. Habit well adapted to pots from mid April thru October. MEDIUM TREAT-MENT. A valuable improvement over Mrs. DuPont as a spring pot. Its superb color remains serenly smooth under both cool and warm finishing temperatures.

DOROTHY HYDE

Oct.

Oct. 23

Oct. 24

Oct.

Intermediate semi-incurved disbud. Bright orange-bronze. Greater tolerance to low light and temperature conditions allows it to be flowered several months earlier than Fred Yule in the spring. Buds will initiate and develop at 56° or above. Its dependable and vigorous habit makes for a fine fast disbud from March thru October. Most attractive form and color is retained if cut slightly green. High summer temperatures tend to reduce size.

STUART OGG

Oct. 25

Intermediate decorative disbud. A luminous apricot pastel rarely found in the chrysanthemum color range. Becomes radiantly alive under the spectrum of incandescent lights. An English development that grows and develops into superb fast disbuds from April thru June and again from September thru mid November. High summer finishing temperatures affect color loss and form distortion due to some reflexing of petals. Also, rapid rate of flower development necessitates cutting early while centers are still tight.





Resolute





BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		9-WEEK	(VARIE	TIES (Cont'	d)		
	te golden apricot dai:			BRONZE D	*	Nov. 1	S-3
	age and substance. \ grams May 1-Oct. 30.		color.	IMP. BR. D Intermediate	AISY copper red bronze s	Nov. 1	S-2
	HIP te decorative. Lively o able cloth house varie			BUCCANEE Rich orange variety. Sep	R bronze daisy. Excell t. 15-Nov. 15.	Nov. 1 ent habit. Depende	S-5 able fall
mended fo 15. Has r	or the greenhouse, May retained the color re	/ 1-July 1, and Sept.	1-Nov.	RED SENEC	A rust red decorative.	Nov. I	S-3
unique with	n Bluechip.			BR. BUCKIN	NGHAM rust orange single.	Nov. 1	S-2
SENECA Intermediat	te copper orange deco	Nov. 1 prative.	S-2		FULLER il red anemone. Dwarf t. 1-Dec. 1. Improves (
	te reddish bronze ane e and develop its bud			NAVAHO	brick red pompon.	Nov. 1	S-3
metrical po	ot plant, Oct. 1-June 1. e extended flowering p	A livelier color than (Gypsy.	RED DAISY Intermediate	single.	Nov. 1	S-4
FIREFLY An orange	red pompon that hold	Nov. 1 s its color exceptionally	\$-3 / well.	IMP. RED D Intermediate Daisy.	OAISY single. Petallage col	Nov. 1 or and spray surp	S-3 ass Red
		10-WEEK V	ARIETIES	(Pinch Ju	ly 28)		

JETFIRE Nov. 5

Intermediate flaming red decorative. A color that holds even in high temperatures. Outstanding in the cloth house, Aug. 1-Nov. 1. Greenhouse, April 15-Nov. 15. Best on sterilized soils. Susceptible to verticillium wilt.

NECTARINE Nov. 5

Intermediate apricot orange pastel decorative. Has no color competition during its season. Vigor of Copperhead. More beautiful form. Ideal either as a spray or fast disbud, April 1-June 15, and Sept. 15-Nov. 15, when able to finish at 60° or less. Cloth house, Sept. 15-Nov. 1. When grown as a spray, benefits from removal of center bud.

ORANGE BEAUREGARD Nov. 5 S-6

Lively, light orange or golden bronze sport from Beauregard. Yellow during summer high temperatures.

BEAUREGARD Nov. 5 A reddish orange pompon. A very versatile variety that produces good flowers every month of the year. Cloth house, July 15-Nov. 1. Greenhouse, April 1-Nov. 15.

DARK BEAUREGARD Nov. 5 Intermediate pompon. A luminous mahogany bronze sport of Beauregard. Same growth habit. Slightly smaller flower. Better high color retention. Greenhouse, April 1-Nov. 15. Cloth house, July 15-Nov. 1.

BUTTERSCOTCH Nov. 5 5-3 Intermediate formal pompon, Golden orange, Good high temperature responses.

RED RUST Nov. **S-3** Intermediate decorative. Rust Bronze.

RUBICON Nov. 5 S-6

Intermediate red bronze decorative. Greenhouse, May 1-July 1, and Sept. 15-Nov. 15. Cloth house, Sept. 15-Nov. 1.



Andante (See page 110)





BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Do	ate Price	Variety	Description	Normal Flowering Date	Price
		10-\	WEEK VARI	ETIES (Cont	t'd)		
MAGICIAN		Nov. 5	\$-3	CHEVRON		Nov. 10	5-3
Large reddi	sh bronze pompon. I	xcellent form.		An intense	bronze pompon. Hol	ds color better than Red	Rust
BITTERSWE	ET	Nov. 5	S-4	or Seneca.	Greenhouse, Sept.	15-Nov. 10. Tolerates 5	4°.
Intermediate	e red bronze single.						
GYPSY		Nov. 8	S-3	THE TITAN	l .	Nov. 10	S-3
Small rust b	pronze anemone. Pot	disbud, Sept. 15-J	Jan. 1.	Large inten	se red anemone. Fas	t disbuds.	

Intense, reddish-bronze pompon. A Samovar color addition to the ever-widening Portrait series. Similar growth habits and same degree of vigor as parent. Less tolerant to high finishing temperatures for color retention. Useful in greenhouse spray program from March thru mid June and again from late September thru mid November. Pots: late September thru February using MEDIUM TREATMENT and March thru May TALL TREATMENT.

SAMOVAR Nov. 10 S-5
Intermediate intense rust red pompon. Cloth house, Sept. 15-Nov. 1. Greenhouse, Sept. 15-Nov. 15.

INCA

Intermediate anemone, amber-bronze turning to bright yellow at high temperatures. Breaks freely; spreads and produces well. Versatile pot plant variety throughout the year. Sprays, April 15-Nov. 15. Superior to Sunray for either pot plant or cut flower purposes.

DAYBREAK

A bright and lustrous orange anemone disbud. Attains 4-5" diameters with a large and well-rounded cushion. A uniquely different and tasteful color for fast disbud programs from late March thru mid November. Color remains smooth under high temperature finishes although intensity may be reduced.

Sold under agreement only

GILTGLOW

Intermediate bi-colored single. An expressive reddish-bronze contrasted with a smart green disc. Gold reverse. Slow disc development and fine color retention add up to excellent keeping qualities either on the bench or when cut. Medium to short growth habit. Recommended for the regular spray program from mid April thru June and mid September thru November. Some foliar mottling can be induced if flowered when very high summer greenhouse temperatures prevail. This will introduce a striking new color version not presently in the commercial pompon trade.

Sold under agreement only

BRONZE PANDORA Nov. 10

Bright coral bronze sport of Pandora. Outstanding vigor and color for fall. Fast disbuds. Greenhouse, Sept. 15-Nov. 10. Cloth house, Sept. 15-Nov. 1.

CLIMAX

Nov. 10

S-6

Intermediate intense orange pompon. Excellent vigor and production. Vivid color stimulates demand for bronze. Greenhouse crops, April 1-Nov. 15. Cloth house, July 15-Nov. 1.

COPPERHEAD

Nov. 10

S-5

A large coppery bronze decorative. Very satisfactory grown as disbudded sprays or disbudded to a single flower. Fast

Sets a new color standard. Tolerates 56°.

disbuds. Sprays, May and June, Sept. 15-Nov. 10.

RED HUMDINGER

Nov. 11

S-5

An exciting burgundy red sport from Humdinger.

BRONZE MASTERPIECE Nov. 12 S-4
Intermediate pompon. Disspray.

DK. BR. MASTERPIECE Nov. 12 \$-3
Dark sport of Br. Masterpiece. Disspray. Brick red with cool finish.

PARAGON Nov. 12 S-4
A large rust red pompon. Sprays, Sept. 15-Nov. 12. Cloth house, Sept. 15-Nov. 1.

AMBERHUE

Intermediate orange bronze daisy. Improves Buccaneer in growth, form, production and color retention. Green eye. Durable. Spray programs, May 15-June 15, and Oct. 1- Nov. 14. Cloth house Sept. 15-Nov. 1. Stalled by high temperature

SEE PRICE LIST ON PAGE 132

finish.



Daybreak





BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal ription Flowering Date Price			Variety Description		Pric		
		11-WEEK V	ARIETIES	(Pinch Au	gust 4)				
BEAUREGA	ARD SUPREME	Nov. 15	S-5	RED PRINC	ETON	Nov. 15	S-2		
		ard. Color remains the		Intermediate	e rust red decorative.				
	The state of the s	Response shifts to the 1 dicels are longer and		ILLINI WAI	RRIOR	Nov. 20	S-:		
		s high temperature w		Intermediate	rust bronze pompoi	n.			
tends the E	Beauregard season in	nto the fall and early		LEGAL TEN	IDER	Nov. 20	S-4		
Very good	late cloth house var	riety.			e decorative.	1101. 20	3		
RANGER		Nov. 15	S-1	RUSTICON		Nov. 20	6		
Intermediat	e true orange pomp	oon. A smooth, brillia	nt new		a week word manners C		S-:		
color. Alwa	ivs productive and re	liable Benefited by tre	atment	illermediate	e rust rea pompon, G	Greenhouse, Oct. 1-De	C. I.		

ILLINI WAR PAINT

disbudded spray, Oct. 1-Jan. 1.

color. Always productive and reliable, Benefited by treatment as a 10-week variety. Tolerant of high temperature for bud development. An outstanding cloth house variety being terminal in its spray formation. Recommended in the greenhouse mid September through November and mid March through June. Cloth house September through October.

BR. JUBILATION Nov. 15

Large pompon. A rosewood-bronze sport of Jubilation, Equal in all respects, other than color, to its parent variety. A finishing temperature of 60° or less is required for maximum color retention. A real performer for October thru mid May greenhouse programs as well as late September and October cloth houses. The Jubilations efficiently contribute needed vigor for northern winter pompon programs. They will tolerate lower bud initiation temperatures of 56-60° with uniform response.

MRS. DEWEY Nov. 15 5-3

A heavy petalled deep orange bronze single.

FOREVER AMBER

Luxury.

THELMA Nov. 15

Very brilliant orange scarlet pompon. Sprays March 1-May 1; Sept. 15-Dec. 1.

velvety smooth amber bronze color. A splendid choice for

the fast disbud program from mid November thru April. A real standout in January and February for the northern environment. Comparatively described as an improved winter

Sold under agreement only

Disbudded sprays and fast disbud programs, March 1-May 1, and Sept. 15-Jan. 1. **FESTIVAL** Nov. 23 **S-3**

Large smooth maroon red decorative. Heavy, vigorous growth.

Restrict to low temperature finish. Versatile as fast disbud and

Large apricot buff anemone. Valencia size disbud. Superb

color and form. Sharp response. Tall, vigorous, and productive.

Intermediate single. Short growth habit, Excellent for Thanksaivina.

BRONZE MINUET Nov. 23 S-3 Intermediate pompon.

RUBAIYAT Nov. 23 Velvety red intermediate formal pompon. Unequaled for October through Christmas flowering. Slowed by high temperatures during bud development. Greenhouse, Sept. 15-Jan. 1.

RED ROLINDA Intermediate brick red anemone. Disspray and disbud.

12-WEEK VARIETIES (Pinch August 11)

ILLINI REDWOOD Intermediate wide petalled decorative disbud. Retains a

Intermediate red pompon. Hard, durable and well formed flower. Fine red pompon for Thanksgiving and Dec.

BRONZE GOLDSMITH Nov. 25 S-5

Large amber bronze decorative. Disspray. Fast disbuds, Nov. and Dec.



Ranger





BRONZE & RED POMPONS, DECORATIVES, SINGLE & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		12-WE	EK VAR	IETIES Cont	'd)		
FALCON		Nov. 25	S-2	ORANGE	GALAXY	Dec. 1	5-2
Intermediate	e reddish bronze pon	ipon.		A color spo Oct. 1-May		den orange. Spray pro	grams,
YOLANDA		Nov. 25	S-2	HOLIDAY		Dec. 1	S-4
Intermediate	tawny bronze anen	none.		Intermediate	e red single. Sprays,	Nov. 15-April 15.	
INDIAN HE	AD	Nov. 28	S-3	RED EMPR	ESS PARTY AND	Dec. 1	P
Intense red	bronze single.			~		ve-red sport of Empre	
APRICOT V	ALENCIA	Nov. 28	S-4	thru April.			
Large apric	ot bronze single. Di	sbud and disspray.		CRACKERJ	ACK	Dec. 1	S-1
CRIMSON 1	VALENCIA	Nov. 28	S-3	Intermediate	e daisy. The color is	described as being a b	rilliant
Large maro	on red single. Disbu	d and disspray.		Vigorous ar	nd productive, perform	the answer to a red only ming well in fast and t	egular
GALAXY		Dec. 1	S-6			anksgiving, lighted for erjack provides an it	
	bright orange singlorays, Oct. 1-May 1.	e. Excellent form, col	or and	irresistable	• •	Recommended period	
		13-WEEK V	ARIETIES	(Pinch Au	gust 18)		

S-4

Dec. 5

Large disbud and disspray anemone. Cleavigor and response are the same as E fast disbud for Christmas. All Enchantre proved by 60° initiation and less that Recommended for regular and fast disbud through mid March.	nchant ess va in 60°	ress. A rieties deve	Attractive are im-
BRONZE ENCHANTRESS Apricot bronze sport. Disbud and disspr	Dec.	5	S-2
DEBONAIR Large red pompon. Fine form.	Dec.	5	\$-4
IMP. BRONZE SUPREME Large buff bronze anemone. Disbud. Si	Dec.	10	S-2
HARLEQUIN Crimson red intermediate decorative.	Dec.	10	S-3

RED ENCHANTRESS

Red Enchantress

CHRISTMAS STAR Dec. 12 Intermediate red single. Productive and responsive. Sprays, Nov. 15-March 15.

BRONZE MINSTREL Intermediate coral red pompon. Fine for Christmas.

DK. BR. MINSTREL Dec. 13 S-4 Reddish bronze sport. Deeper color. Smaller, harder flower.

RED MINSTREL **S-4**

A sport from Br. Minstrel with a lively red glow added.

FLAME MINSTREL Dec. 13 Intermediate pompon. Reddish-bronze Minstrel selection that most closely resembles Red Minstrel in appearance. This represents richer color, superior response, and vigor over all the bronze Minstrel sports. Spray programs from mid November thru December.



Crackerjack





BRONZE & RED POMPONS, DECORATIVES, SINGLE & ANEMONES

		Normal	Normal			Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price
		14-WEEK \	ARIETIES	(Pinch Au	gust 25)		
BRONZE R	RIVIERA e orange bronze deco	Dec. 15	S-3		S GREETING decorative. Fine for C	Dec. 15 hristmas.	S-6
CLARET A brilliant	red daisy.	Dec. 15	\$-2	MERRYMAI Intermediate	K ER e red single. Sprays I	Dec. 20 Dec. 1-March 1.	S-5
TOPAZ Warm orai	nge bronze single. Sp	Dec. 15 prays, Dec. 1-March	\$-2	POINSETTIA Large scarle	A et red daisy. Tall spra	Dec. 20 lys for Dec.	S-5

PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

7-WEEK GARDEN VARIETIES (Pinch July 7)

SPELLBOUND Oct. Intermediate lavender decorative, Ideal spring pot.

Oct. 10

Small single. Dark purple with contrasting yellow discs produced in profuse abundance on a globose plant. A colorful novelty that lends itself for spring. Also an attractive foreground garden variety.

JOYBRINGER Oct. 10

Salmon rose pompon. For borders and pot culture. Spreads well. Short and compact.

ALERT

Intermediate intense purple decorative. An impressive color for spring pot plants. This is the Humdinger of the garden varieties.

Oct. 14

S-5

FUCHSIA FAIRY

Oct. 14 **S-2** Small light pink decorative. Compact, globose growth habit similar to the Cushion varieties. Spring plants, A marked color improvement over Major Cushion as a foreground garden variety.

8-WEEK VARIETIES (Pinch July 14)

CANDYTUFT Oct. 15

Lavender-pink button pompon. Short, well-branched growth habit. Produces a greater mass of small durable blooms than Masquerade, either as an early spring pot plant from May thru June, and October with MEDIUM TREATMENTS or as a natural flowering garden specimen.

Sold under agreement only

Oct. 15 **CUPID** Small pink decorative. Unique dahlia form. Prolific. Dwarf, masses and spreads as a garden variety. Disbud for spring

pot plants. Oct. 15 S-2 MAYFAIR

Intermediate smooth pink single. For cut in the greenhouse. Outstanding production.

CITATION

Oct. 15 **S-2** Intermediate mauve pink pompon. A pot plant disbud. One of

the best late garden varieties.

Oct. 15 **S-2 ENTERPRISE**

Intermediate deep pink pompon. Excellent substance. Outdoor cut flower.

ELIZABETH HOOD Oct. 15

Large light orchid pink pompon. Garden backgrounds, and for cut in greenhouse.

Oct. 15 **JEWELL S-3**

Small formal pompon. Lavender pink, short and productive.







PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety.	Description	Normal Flowering Date	Price
		8-WEEK	VARI	ETIES Cont'	d)		
	te pink single. Especially		S-4 . 15.	MARY McA Small deep	ARTHUR coral pink pompon.	Oct. 23	S-2
CAROLYN Intermediat	YOSICK te lavender pink pompo	Oct. 20	S-4	PRELUDE Intermediate	coral pink single. Re	Oct. 24 equires cool finish.	S-2
		O WEEK WAL	DIETIEC	. (8)			

9-WEEK VARIETIES (Pinch July 21)

REVEILLE Oct. 25 THOMAS JOHNSON Oct. 28 Small pink pompon. Initiates and develops at 54°. Popcorn Large decorative. Deep orchid pink, Ideally suited to the fast production. Requires low temperature finish. Spray programs. disbud programs, May and June, also Oct. 15-Dec. 1. De-Oct. 25 Small pink pompon. Greenhouse May 1-Oct. 25. Cloth house. proved by bright days and cool nights.

Intermediate orchid pink anemone. Dwarf, breaks freely, responds well. High temperature color retention. Disbud pot plant the year round.

Oct. 25 Large pink single. Beautiful form and substance. Sprays May 1-July 1, and Sept. 1-Oct. 25. Cloth house.

Oct. 25 A very productive deep pink single that holds color well. Tolerates 54°. Greenhouse, May 1-Oct. 25, Cloth house.

Oct. 25 Small pompon. Fine two-tone. Cloth house, July 15-Oct. 25.

Small pink pompon. Selection from Pink Dot that displays an additional overall color intensity. A cloth house variety, July 15-Oct. 25.

BETTY ROSE Oct. 25 Large light lavender pink anemone.

WAGONWHEELS Oct. 25 Intermediate anemone. Silvery-coral reverse color as displayed by all completely tubular petals. A novel form representing a spoked wheel in appearance. Vigorous growth habit develops tall plants abundantly supplied with spray masses of perfect florets. Provides a uniquely different cut flower pom in both fast and regular spray programs from April thru October. Color is best expressed in cool finishing temperatures. Suitable outdoor cut flower in the fall for either shaded or natural flowering.

Sold under agreement only

velops exceptional stretch and heavy rigid stems. Individual flowers surpass the size of Portrait. Color and petallage im-GLAMOUR Nov. 1 A formal pompon disbud of intermediate size. Lavender pink

with intensified centers. Spreading and stocky growth habit render it useful primarily as a pot plant variety from March thru November. MEDIUM TREATMENT. Improves the breaking habit of Portrait and the stem strength of Blue Ribbon. The colorful tone on tone contrast lends glamour to its appeal.

Sold under agreement only

HANDSOME Intermediate decorative pom. Lavender pink. Color, size, and form bear a striking resemblance to Bluechip. Slightly larger and more closely internoded foliage lends it to pot plants the year round. TALL TREATMENT. Superb natural spray cut pom from mid April thru mid November. Is inherently as low temperature tolerant as Bluechip, 52° minimum, for bud initiation. Produces slightly smaller flowers but more of them. A highly versatile pompon.

Sold under agreement only

BLUECHIP Nov. Intermediate luminous pink decorative. Recommended in the greenhouse, May 1-Nov. 15. Cloth house, July 15-Nov. 1. Top notch pink. Tolerates 54°.

Nov. 1 Intermediate decorative. A flattering light pink selection of Bluechip, Identical growth habit, Color resists fading. Can be grown whenever Bluechip is recommended. Greatest color difference is noted when finished at 60° or less. Greenhouse May 1-Nov. 15. Cloth house July 15-Nov. 1.



Glamour



Handsome





PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal Normal Variety Description Flowering Date Price Variety Description Flowering Date Price

9-WEEK VARIETIES (Cont'd)

DARKCHIP

Nov. Intermediate dark lavender pink sport of Bluechip. Color

similar to that of Pennant but brighter. In the spring months, growth is normally 3-4" taller than Bluechip and 3-4 days later to flower. Can be flowered whenever Bluechip is grown, May thru mid November as a greenhouse spray. Like all the rest of the Bluechip sports, the color becomes enhancingly luminous under normal incandescent light.

DK. PINK BUCKINGHAM

Nov. 1

Intermediate intensified pink single. Sport of Pink California Daisy. A west coast cloth house variety.

LILLIAN DOTY

Nov.

5.3

S-2

Large light pink pompon, Disspray and disbud.

TEMPO

Nov. 3 5.4

Intermediate deep pink decorative. A 9-week Masterpiece. Recommended in the greenhouse, May 1-Nov. 15, and cloth house, Sept. 15-Nov. 1.

10-WEEK VARIETIES (Pinch July 28)

MERMAID

Nov. 5 Intermediate pompon disbud. Medium lavender pink with an intense tone on tone center contrast. A dwarf version of Portrait with decidedly better breaking action and spreading habit. Unfailing as a year round pot variety using SHORT TREATMENT. High temperature color retention equals that of Blue Ribbon. Fine foliage with smart, formal form.

Sold under agreement only

or lower is required for best color expression.

that of Reward. Sprays, Sept. 15-Nov. 15.

SOUTHDOWN PINK

Nov. Intermediate duplex disbud of Valencia size and form. Delicately shaded pink close to a true light pink carnation. Complemented with green disc centers. Wide, waxy petals. An accepted variety in Europe possessing all the needed traits for a rewarding product in the fast disbud program from October thru mid June. Tolerates 56° minimum temperatures. Develops equally as well during the summer periods but 60°

PARISIENNE

Intermediate shell pink single. The color is as close to true pink as exists in the chrysanthemum. A color far better than DELIGHT

Nov. 5 Intermediate pink daisy. Productive, durable, striking color, and fresh appearance. Spray crops May 1-July, and Sept. 15-Nov. 15. Cloth house, July 15-Nov. 1. Improved with center bud removal

PORTRAIT

Nov. 8 Large lavender pink pompon. A versatile variety. Tolerates 54° Responds well to partial disbudding. Excellent year round pots. Greenhouse, March 1-July 1, and Sept. 15-Nov. 15.

Cloth house, July 1-Nov. 1. Disbuds, Sept. 15-July 1. For sprays height is improved by addition of one long day week.

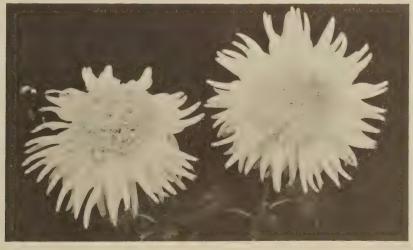
DARK PORTRAIT

Large pompon. Dark magenta sport of Portrait. Equally as versatile. Maximum color perfection achieved with a low temperature finish. Pots year round except July and Aug. Sprays, greenhouse March 1-July 1; Sept. 15-Nov. 15. Cloth house July 15-Nov. 1.

PINK PORTRAIT

Nov. 8

Large light lavender pink pompon. Portrait sport with an identical growth habit. A useful supplement for Portrait during periods of the year when a shade lighter than Portrait may be desired.



White Enchantress (See page 100)





PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal
Variety Description Flowering Date Price Variety Description Flowering Date Price

10-WEEK VARIETIES (Cont'd)

PROFILE Nov. 8 P Large pompon. Another distinctive color variation to add to the increasing number of beautiful Portrait sports. A lively pink shade between that of Portrait and Dark Portrait. Form is more decorative. Growth, vigor and breaking habits are as good if not better than Portrait. Recommended for pots and spray programs from March thru December. Summer color is best with some shade protection, but when finished cool, maximum color expression is dazzling among the Portraits.

DARK BULKELEY Nov. 8 S-2
Intermediate formal deep lavender pompon.

CRITERION

Large pink decorative with a vigorous, compact growth habit.

A new and valuable pot plant variety, Sept. 1-July 1. Also a fine cut flower variety, May 1-July 1; Sept. 15-Nov. 15, with one extra long day week and center bud removed. Tolerates 54°.

PINK DELUXE

Nov. 10

Medium to large lavender pink disbud. A significant achievement in the development of flower size within the pinks available for pots. Four to five inch decorative type flowers are produced on a Bonnaffon type chassis. Heavy stems, short internodes, with free and wide-angled breaking action. Can be efficiently flowered in pots 12 months of the year with either MEDIUM or TALL TREATMENT. Color is best preserved during the summer months when developing flowers are given some shade protection. A variety for those who seek the best.

Sold under agreement only

ILLINI ACCENT

Intermediate to large decorative. Deep mauve purple. Stocky growth habit. Will tolerate 52° for initiation and development. Full color retention requires less than 60° finishing temperatures. A versatile responsive variety that can be recommended for spray programs in the cloth house mid September through October; in the greenhouse mid September through November. Pot programs with medium treatment mid September through mid June with cool finish. Low temperature tolerance and intense color are its distinctive qualities.

PLUM

Nov. 10

P

Large silvery lavender duplex spider. Petal completely tubular and partially incurved. A close counterpart to the old Vivacious Lady. Equal to the flawless dependability and superb growth habit of Luyona in a year-round fast disbud program. This is another salient contribution to enlarge the range of variety for disbuds.

Intermediate pink pompon. Improves Pinkette form and color. Formal and hard. Pink Igloo. Spray crops, May 15-July 1; Sept. 15-Nov. 15. Cloth house, July 15-Nov. 1. Tolerates 56°. Delayed by excessive high temperature during bud development.

PENNANT Nov. 10 S-6
Intermediate deep pink pompon. Recommended in the green-house, April 1-Nov. 15. Cloth house, July 15-Nov. 1.

CADENZA

Large anemone disbud. Lavender pink, vigorous and responsive. Tolerates low temperature (56°) for bud initiation and requires 60° or less for best finishing results. Vastly improves the quality and growth of Enchantress as a fast winter disbud, Oct. 1-June 1.

PERSONALITY

A large luminous-pink incurved pompon.. Tolerant of 56° for bud initiation and development. Adds color and form improvement to Queen of Pinks as a pot plant, March 1-July 1; Sept. 1-Jan. 1, and single pinch. Uniquely favored with short internodes and large foliage which complements it when grown as a pot plant.

DK. PK. PANDORA

Intermediate dark pink decorative. Selection from Pandora.

Sprays Sept. 15-Nov. 10. Fast disbud programs. Cloth house
Sept. 15-Nov. 1. Requires 60° initiation.

SALMON PANDORA

Intermediate salmon decorative. Selection from Bronze Pandora. Unparalleled color for fall cloth house and greenhouse.

PANDORA Nov. 10 \$-5

THYRA Nov. 10 S-2 Intermediate deep lavender pompon.



Illini Accent



Jubilation (See page 119)





PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

10-WEEK VARIETIES (Cont'd)

SCINTILLATION Nov. 10 S-2 Intermediate deep pink pompon. Very vigorous and heavy. Superb cloth house variety, Sept. 15-Nov. 1. Greenhouse, Sept. 15-Nov. 15. Requires 60° bud initiation.

LINDA LOU Nov. 10 S-4 Intermediate light lavender pink anemone. Responsive. Tolerates 54° . Greenhouse, April 1-Nov. 10. Cloth house, July 15-Nov. 1.

DK. LINDA LOU Nov. 10 S-2
Intermediate deep lavender pink anemone. Very productive.

TUXEDO Nov. 10 S-2 Large anemone. Disbud.

HUMDINGERNov. 10
S-5
Large luminous violet purple, formal pompon. A valuable disbud pot plant. Cloth house, July 15-Nov. 1. Tolerates 54°. Strong consumer appeal.

MASTERPIECE Nov. 12 5-5 Intermediate lavender pink pompon. Disspray. Tolerates 54°. Greenhouse.

ROSE MASTERPIECE Nov. 12 5-4
Intermediate light lavender pink pompon. Disspray. Finish
cool. Greenhouse, April and May, also Sept. 15-Nov. 12.

MEMORIAL Nov. 12
Intermediate pink anemone.

CHEERFUL

Intermediate natural spray pompon. Lavender pink with tone on tone contrast. Best described as a "Delmar" flower on a "Delight" chassis. Recommended in the greenhouse spray program from mid April thru mid December. An easy variety to cut and handle. Sprays usually terminal. Summer finishing temperatures above 80° may dull color contrast, Ideal for air-cooled houses. Always responsively dependable. It has class and quality, radiantly cheerful.

Sold under agreement only

11-WEEK VARIETIES (Pinch August 4)

TAFFETANov. 15
S-6
A two-tone pink pompon. Greenhouse, March and April, Oct.
1-Dec. 1. Best with cool finish.

DARK TAFFETA

Nov. 15

S-5

Dark pink sport selected from Taffeta. Retains more color than

Taffeta when fading becomes a problem. Fine for the late
cloth house and early spring programs.

DARK NORMA
Nov. 15
S-3
Large dark lavender anemone. Disbud. Fast crop, Nov. 1April 1.

RHYTHM
Nov. 15
S-1
Smooth light pink intermediate daisy. Characterized by extra vigor and fast rate of growth. As a result, efficiency is increased by provided 12-week timing. A lively pink single that can be given the same timing as well as flowering closely with Galaxy. Recommended for greenhouse programs from October through mid December and March through April.

JUBILATION

Large pompon. Masterpiece pink. Growth is clean and strong with sharp responses. Jubilation is the best product to date that meets the need for a late fall, early winter and spring Bluechip. Spray and habit are closely identical. Tolerant of 56° for initiation and development. The performance and production improve the Taffeta, Almega, Delmar series. Recommended for October through mid December and March through mid May greenhouse spray programs. Superb cloth house performance whenever 11-week varieties are utilized.

ILLINI SPRINGTIME Nov. 15 \$-2 Intermediate pink single. Outstanding color and vigor.

MAGIC
Intermediate anemone. Dark orchid pink with gold tipped cushions. Rapid, vigorous growth. Very durable and useful in the cloth house mid September through October. In the greenhouse it combines flawless performance with production and striking color during October through December and March through April. Tolerant of 56° for initiation and development. Contributes needed form variety to the 11-week pompon group.



Cheerful



Magic





PINK POMPONS, DECORATIVES, SINGLE & ANEMONES

Normal Normal Variety Description Flowering Date Price Variety Description Flowering Date Price

11-WEEK VARIETIES (Cont'd)

VEDOVA Nov. 15 Extra large Valencia size, anemone disbud. Pastel shade of a lustrous lavender pink with small green-tipped cushions. Color is best expressed in a cool 60° environment. The performance, beauty, and quality of this variety establishes a new precedence from October thru May flowering periods either as a fast or regular disbud, or a pot variety using TALL TREAT-

MENT. The combination of breaking action, rigid stems, attractive foliage, and sizeable flowers far exceeds the potential that Beautiful Lady can provide.

STACCATO Nov. 20 Intermediate formal pompon. Lavender pink. Much like an 11-week Minstrel in form, but reliably responsive all through the winter from October thru April in the regular spray program. Tolerates 56° minimum. Flower durability lends itself well to clothhouse use. Color brightness best retained at night temperatures of 60° or below. A productive and profitable addition to the presently small group of popular 11-week pinks.

Sold under agreement only

GRAND SLAM Nov. 20

Brilliant silvery pink daisy.

Nov. 20 Large silvery pink pompon. Form, color and substance excel-

lent. Greenhouse. Fast disbuds, Sept. 15-May 1. Color is unexcelled in its season.

DARK ALMEGA Nov. 20 Dark lavender pink sport selected from Almega. Habit and performance are identical to the parent variety.

MARION BREEDON

Intermediate to large anemone. Smooth lavender-rose pink. Achieves a new standard for good form and color in anemones. Vigor, production and quality greatly improve the Pink Long Island Beauty series for fast disbud and disspray programs. Recommended season is mid September through October in the cloth house; mid September through December in the greenhouse regular spray and fast disbud crops.

Nov. 20 PINK L. I. BEAUTY Large light pink yellow cushion anemone. Disspray and disbud.

DK. PK. L. I. BEAUTY An intensified color selection of Pink L. I. Beauty. Disspray and

VENOYA Extra large lavender-pink anemone disbud. Strikingly similar in growth to Vedova, Venoya flower develops a substantially larger green-eyed cushion with greater depth, in addition to flowering 5 to 7 days later. It is equally as versatile and outstanding. Fast and regular disbud programs, and pot plant programs using TALL TREATMENT from October thru May. Color retention on Venoya too, requires cool 60° finishes. The year-round pot plant grower will find that both Vedova and Venoya well surpass the product standards that they are now accustomed to producing during the mid winter

MINUET Nov. 23 Small true pink pompon. Excellent form.

ILLINI FORMAL Nov. 23 Intermediate lavender pink pompon. Very novel form with tubular rays.

CELEBRITY Nov. 23 Intermediate decorative. Color is a discriminating shell pink. Objectively bred and selected for a larger sized flower and a more lucidly clear pink color than Almega provides. Substantially increased vigor renders this a real prize for greenhouse sprays from mid October thru mid April. Production competes favorably with any outstanding late variety for winter flowering in the north. Maximum color needs a cool 60° finish. Flower size may be enlarged by partial disspray.

Sold under agreement only



Staccato



Marion Breedon





PINK POMPONS, DECORATIVES, SINGLE & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		12-WEEK V	ARIETIES	(Pinch Au	gust 11)		
distinctive o	dot color contrast. Im	Nov. 25 nk. Vigorous, producti proved Almega habit.		DARK VAL Large laven	ENCIA der pink single.	Nov. 28	S-5
crops, Marc	ch and April; Sept. 1	5-Jan, 1.			T VALENCIA	Nov. 28	S-2
ILLINI ROS		Nov. 25 uires low temperature	S-3 (max.	Dubonnet sp	port of Valencia.		
	Productive. Best dissp	orayed. Greenhouse in		ORCHID V Large single	ALENCIA e. Semi-anemone cushic	Nov. 28 on.	S-2
PRINCESS Small pink	pompon. Hard and du	Nov. 25 trable.	S-3	SALMON \	VALENCIA e. Outstanding color.	Nov. 28	\$-3
BEAUTIFUL		Nov. 25	S-5				
Large anem	none. Disbud.			NUGANO		Nov. 30	S-2
crowned cu	shions. A forerunner	Nov. 25 ly colored light pink to faster, and more	efficient	portant pin	e pompon. A quality lk pompons for this s ld an extra week to	eason. Greenhouse, (ost im- Oct. 1-
natural spr disbud time	ay this performs more schedule than it do	enhouses. When grow e advantageously on t es on the regular gree day weeks on the	the fast enhouse	HERITAGE Intermediate	e formal dark pink po	Dec. 1 mpon. Tall and vigor	S-3 ous.
schedule p cropping. R	romotes early crown Recommended as a fa	ing and consequently st spray from Novemb nds a cool 60° finish.	y over-	An Enchant faster, mor	ud and disspray ane tress seedling that cor e uniform responses.	mbines increased vigo Performs well in th	or with ne fast
VALENCIA		Nov. 28	S-4	possess unu	gram December throusual appeal. Good flo	ower substance couple	ed with

Large light lavender pink single. Disbud and disspray.

13-WEEK VARIETIES (Pinch August 18)

EMINENCE Intermediate daisy. Bright lavender pink. A 60° variety well suited to northern winter conditions. Very vigorous and should therefore be treated as a 14-week variety. Easily grown, strong and productive but exacting in its 60° minimum temperature requirements. Out performs Debutante in production, size and substance.

Dec. **ENCHANTRESS** Large lavender pink anemone. Disbud and disspray. Fast disbuds, in Dec.

DK. ENCHANTRESS Large deep pink anemone. Disbud and disspray. Fast disbuds in Dec.

PINK SNOWDROP Dec. Smooth light pink sport from Snowdrop. Growth habit and response are identical to the parent variety. Mid November through mid March spray programs.

wiry stems permit easy handling.

Dec. 10 Small pink pompon. Hard flower plus very acceptable pink shade. An outstanding late pink pompon.

DEBUTANTE Dec. 10 Intermediate pink single with color similar to that of Valencia. Best at lower temperature finish. Sprays Nov. 15-March 15.

Dec. 10 Large pink anemone. Habit resembles Imp. White Supreme. Tall disbud.

SEE PRICE LIST ON PAGE 132



Empress

Rhythm (See page 119)







PINK POMPONS, DECORATIVES, SINGLE & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		13-WE	EK VAR	IETIES (Conf	t'd)		
IMP. DARK SU Large pink ane	JPREME mone. Short, Late di	Dec. 13	S-3	DK. PK. M A clear, cle	NINSTREL ean deep mulberry si	Dec. 13 hade of Minstrel.	S-4
MINSTREL Intermediate la	vender pink pompoi	Dec. 13 n.	S-5		embles that of Pink D	Dec. 13 Pot and it does not deter Minstrel has form, sub	
•		14-WEEK V	ARIETIES	(Pinch Aug	gust 25)		
RIVIERA		Dec. 15	S-4	ROSE MED	ALLION	Dec. 20	S-2
	minous pink decorat rays, Dec. 1-March	ive. Requires 60° in 1.	itiation.	Rose pink sp	oort of Medallion.		
ROSALIND		Dec. 20	S-2	LYNDA Mc	LANE	Dec. 25	S-4
Intermediate li Dec. 1-March 1	_	e. Tolerates 56°.	Sprays,	growth and	1 1	it that does not produce ghly acceptable. Late n	
DEFIANCE		Dec. 20	S-3	crops.			
Intermediate d 60° initiation c		Dec. 1-March 1. R	lequires	ALVODA		Dec. 25	S-5
MEDALLION	vender rose pompo	Dec. 20	S-4	spray progr	·	rative. One of the best for 15. Free growth. Habit	

WHITE STANDARDS

8-WEEK VARIETIES (Pinch July 14)

WHITE PINK CHIEF Intermediate pure white incurve. Responds well under high temper disbud programs May 1-Oct. 15.		WHITE CHIEF Large incurve.	Oct. 20	S-4
SILVER SHEEN Intermediate incurve. September st glass. Tolerates 54°.	Oct. 20 S-6 nadings and natural under	CHRISTINA Small incurve. Used for pots.	Oct. 23	S-3

9-WEEK VARIETIES (Pinch July 21)

SILVER QUEEN
Oct. 25
S-3
White Fuji mum. Stem improves Rayonnante. Valuable for spring and fall programs.

MARBLEHEAD
Oct. 25
Medium clear white incurve. Durable and responsive. Best early white for fast crop program May 1-Dec. 1. Standards
Sept. 15-Oct. 25.



Moontide (See page 123)





WHITE STANDARDS

		Normal			Normal		
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price
				-			

9-WEEK VARIETIES (Cont'd)

GRANITE STATE Large white disbud pompon. For pots Oct. 1-July 1.

MRS. ROBINSON Intermediate white incurved standard. Beautiful form and heavily petalled. Popular All Saints Day standard as a southern field and cloth house variety.

AMBASSADOR Oct. 25 S-5

Large ivory incurve.

MOONTIDE Oct. 28

Medium to small ivory-white standard. Develops into a tightly incurved ball form. More accurately defined in appearance as an over-sized Luna flower. Fast growing variety. Highly recommended as a fast disbud from March thru December. Withstands minimum of 56° in the spring for bud initiation.

Sold under agreement only

THEMESONG Nov.

Medium semi-incurved white standard. Possesses Good News petallage and durability. Adapted especially for summer and high light intensity periods. Sufficiently versatile to fit standard, fast disbud, and pot programs from June thru mid November. TALL TREATMENT for pots. Non-restricted development and resistance to burning during the summer months. Vigor often surpasses that of Good News in mid summer.

Sold under agreement only

10-WEEK VARIETIES (Pinch July 28)

GIANT BETSY ROSS

Large incurved sport of Betsy Ross. Requires high temperatures for initiation and development. Standard programs June 15-Nov. 5.

WHITE RAYONNANTE

Spider. Straight tube.

Nov.

Large white semi-incurve. Exclusively a pot plant variety Sept. 1-Aug. 1. Stronger habit, larger and more beautiful flower than Wilson's White. Compact, short, rigid growth and vigorous breaking action. Flowers develop more rapidly when finished at 60° or less. Will rapidly become the favorite white mum for pots. Does not blacken its centers during the winter months.

QUEEN'S LACE

Nov. I

Spider. Standard program March 15-Nov. 15. Pots Sept. 15-July 1. Fast disbuds April 1-Nov. 15.

WILSON'S WHITE

S-7 Nov. 1

Intermediate pure paper white pot plant variety for March 1-Dec. 1.

5-8 **ALBATROSS** Nov.

Large incurve. Tolerates 54°. Important west coast variety. Greenhouse Sept. 15-Nov. 15.

WHITE MARY GARDEN

Nov. 1

White sport from Mary Garden. Spider. Tinges at low temperatures. Greenhouse May 1-Nov. 1.

LUNA Nov. 1 S-5

Small light cream incurve. Tolerates 54°. Compact and uniform. Versatile pot plant variety throughout the year.

NIGHTINGALE Nov. 5 Chartreuse green spider. Very popular West Coast novelty. This stock is now considered free of aspermy virus. Valuable in natural programs.

INDIANAPOLIS WHITE S-10 Large incurve, Tolerates 54°. Standards Sept. 15-June 15. Disbuds the year round.

IMP. IND. WHITE Nov. 5 Selected for, and provides a very significant reduction of winter quilling in comparison with the original parent variety. During the winter, depth of flower is greater and incurvature improved. Proven to be devoid of pink tinges at low finishing temperatures. Slight ivory overcast until full maturity. This is the answer to growers who desire better form in their fall, winter and spring crops of Indianapolis White.



Themesong





WHITE STANDARDS

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		10-WEE	K VAR	IETIES (Cont	t'd)		
temperatu	re white reflexed stand res for best response o	nd developmnt. Supp	lement	WHITE POO Large incurv	CKETT yed exhibition.	Nov. 10	S-3 S-8
	Ross. More durable, stro ggy, interesting new fo	0 0			/ incurve, Tolerates	56°, Standards Sep	
	EIGHTON ry white spider. Standa ht intensities. Finish coo			MONUMEN Intermediate	IT e ivory incurve.	Nov. 10	S-5
with a mu	ch showier flower.			WHITE YA! Large disbu		Nov. 10 A West Coast variet	S-4 y₊
habit rese heat in su fast disbut	te ivory white tightly in embles Mefo. Hard flow ummer. Requires high liq d programs April 1-Nov ment Betsy Ross in the s	er, durable and tole ght intensities. Standa . 8. A more durable :	rant of rd and	variety. Rel 10-week tre	incurve. A very late atively short, stocky eatment to obtain de	Nov. 12 10-week or early 1 growth that should is sired stem length. Mo ter Ind. White, and	receive irkedly
JEAN ELI Large sem	ZABETH ni-incurve sport of Orchi	Nov. 10 d Queen.	~ S-4	gram. Maxi	mum perfection is obt	her a lighted or shade ained in the Novembo does not display winte	er thru
	of Orchid Queen that color and compactness	•		nor pink in under high t and fall po	any manner. Requirements	es protection and is a . Upright but good for nt. A superlative vari	slowed spring
		11-WEEK V	ARIETIES	(Pinch Au	igust 4)		
STERLING Large pur	e white incurve.	Nov. 15	5-3	WHITE FRIC Intermediate peratures.		Nov. 20 t. Tinges pink at lov	S-2 w tem-
MARKETE Intermedic	EER ate chalk white incurve.	Nov. 18	S-6	INDIANA I		Nov. 20	S-2
		12-WEEK VA	ARIETIES	(Pinch Aug	gust 11)		
Large clea	ETER JOHN ar white decorative. Sta . Intolerant of low ten			WHITE MIS		Dec. 5 sults require 50° finis	S-2 h.
	tion; 55° for bud deve		010 101	SMITH'S W	HITE semi-incurve.	Dec. 10	S-6
• .	re white incurve. Stando	•	S-5	DECEMBER Intermediate	WHITE	Dec. 15	S-4
	R GLORY ate incurve. Valuable fo	Dec. 1 or natural crops.	S-5	SNOWLINE		Doc 20	5.0
MARGAR	ET MOELLER ate incurve. Short habit.	Dec. 3	S-5	A large sh		Dec. 20 equires 60° to initiat	S-3 te and



Balcombe Perfection (See page 129)





YELLOW STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

8-WEEK VARIETIES (Pinch July 14)

HARVEST GOLDEN Oct. 15 S-5

Large deep golden yellow decorative. Very colorful, responsive. Fast disbuds April 1-Nov. 1.

GOLD LODE Oct. 15 S-

Intermediate lemon yellow reflex. Garden and greenhouse

CELESTRA Oct. 15 S-

Small deep lemon yellow semi-incurve. Fast disbuds May 1-Nov. 1.

SUNBURST Oct. 20 S-3 Intermediate golden yellow reflexed decorative. Vigorous and prolific, Pots and fast disbuds May 1-Nov. Tolerates 54° .

MRS. KIDDER Oct. 20 S-5
Large golden yellow incurve.

BUTTERBALL Oct. 20 S-4
Intermediate deep lemon incurve.

BLAZING GOLD Oct. 23 5-7 Intermediate semi-incurve. Valuable for spring pots. Tolerates 54° with slight bronzing. Standards and fast disbuds April 1-Nov. 1.

9-WEEK VARIETIES (Pinch July 21)

BRIGHTON YELLOW Oct. 25 P

Large incurved standard mum. Intense golden yellow. Of English origin. Early and efficient for its short duration of use both as a standard and fast disbud from mid April thru June. Variety crowns prematurely when grown in high temperature environments. Shares no equal for color and size in its response group. A spring variety with speed and vigor.

YEL. MARBLEHEAD Oct. 25 P

Medium lemon-yellow incurve. Sport of Marblehead. Recommended for standard and fast disbud programs from May thru October. The Marbleheads require the high light, high temperature combination to achieve maximum stretch and flower size.

GEORGIA Oct. 25 S-5

Intermediate dark yellow incurve. Dwarf and compact, Improves Blazing Gold in the pot plant program. Intolerant to low light intensities. Tolerates 54° .

YELLOW AMBASSADOR Oct. 25 S-4
Intermediate light lemon yellow incurve.

LUYONA Oct. 25 S-4

Large yellow spider mum with quality blooms and fine stem. Standard and fast disbud program throughout the year.

SUNGLOW Oct. 25 S-4

Large golden yellow incurve.

YELLOW LACE Nov. 1 S-5

Lemon yellow sport of Queen's Lace. Standard program March 15-Nov. 15. Pots Sept. 15-July 1. Fast disbuds April 1-Nov. 15.

GOLD LACE Nov. 1 S-5

Golden yellow sport of Yellow Lace.

YEL. ALBATROSS Nov. 1 S-1

Large incurve. Lemon-yellow sport of Albatross. Primarily a West Coast variety possessing better than average shipping qualities. Suitable for mid September thru mid November standard programs.

WILSON'S YELLOW Nov. 1 S-3

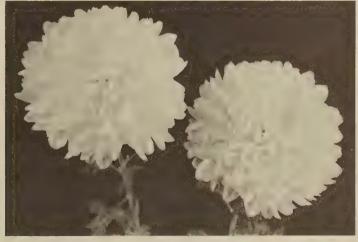
Yellow sport from Wilson's White.

GOOD NEWS Nov. 1 S-10

Large deep yellow incurve. Tolerates 54°. Outstanding summer and fall variety. Standard April 1-Nov. 1.

YELLOW IVANHOE Nov. 1 S-5

Golden yellow sport. Fast disbuds the year around.



Brighton Yellow





YELLOW STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

10-WEEK VARIETIES (Pinch July 28)

IMP. YEL. RAYONNANTE Nov. 5 S-4 A clear yellow selection of Yellow Rayonnante with increased size and improved form. Vigor and stem strength are also

size and improved form. Vigor and stem strength are also greater. West Coast variety.

CHAIRMAN

Nov. 5 5-3

Large golden yellow decorative. Standard and fast disbud programs May 1-Jan. 1. Tolerant to low temperatures for bud initiation. Vigorous. A flower form and degree of quality long needed in the year-round program.

IMP. INDIANAPOLIS YELLOW Nov. 5 S-9
Light golden yellow selection of Ind. Yellow. Displays best
form for yellow Indianapolis varieties in winter crops. Standard
Sept. 15-June 15. Disbuds the year around.

INDIANAPOLIS YELLOW Nov. 5 \$-9
Large lemon yellow incurve.

INDIANAPOLIS GOLD Nov. 5 S-5
Large incurved standard. Color intensifies the present Dark
Ind. Yellow. Same growth habit and flower size.

DARK INDIANAPOLIS YELLOW Nov. 5 S-7
Slightly shorter in growth habit than Ind. Yellow. Best response. Deep lemon yellow

YELLOW BETSY ROSS

Intermediate lemon yellow incurve. Exhibits some high temperature tolerance of parent variety. Shorter growth habit. Restrict flowering to under glass July 1-Oct, 1. Somewhat smaller in size but tightly incurved. Flowers are more solid than Betsy Ross. Durable and responsive in high temperature

YELLOW RAYONNANTE Nov. 5 S-4
Yellow sport of Rayonnante. Straight tube. Requires high light
and low temperature for strong stems.

programs.

YELLOW LEIGHTON Nov. 6 S-3
Large spider tube and hook. Lemon yellow sport of Susan
Leiahton.

YELLOW CALYPSO

Large lemon yellow incurve. Very short. Exclusively a pot plant variety April 1-July 1; Sept. 1-Dec. 1. Sport of Bronze Calypso. Single pinch. Best results are obtained with high temperature initiation and low temperature development. Flower size comparable to Indianapolis.

YELLOW DELAWARE

Nov. 8

S-3

Intermediate deep lemon yellow incurve sport from Delaware.

Pot plant programs the year around. The same valuable chassis in a brilliant new color. Less sensitive to low temperatures for bud initiation than Bonnaffon Deluxe for the late winter and early spring flowering period.

GORDON WELLS

Intermediate lemon yellow incurve. Perfection in incurved form for winter. Responsive, but shatters when subjected to high temperatures. Provides a useful supplement to Indianapolis Yellow in November through May standard and fast disbud programs.

YELLOW QUEEN Nov. 10 S-6
Large light lemon semi-incurved. Standard Sept. 15-July 1.

YELLOW POCKETT Nov. 10 \$-2
Large light lemon incurved exhibition.

YELLOW MEFO Nov. 10 \$-8 Large deep lemon incurve. Standard Oct. 1-June 15.

CREAM MEFO

Nov. 10

S-4

A cream colored sport from Mefo. Standard Sept. 15-June 15.

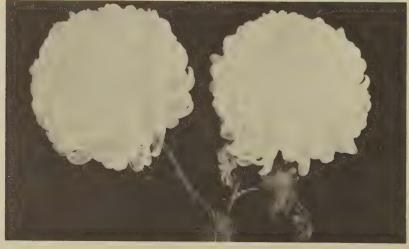
Best form of the yellow Mefo's. Tolerates 56°.

YELLOW MONUMENT Nov. 10 S-5
Intermediate light lemon incurve.

HONEYDEW Nov. 12 \$-3
Intermediate lemon yellow incurve.

GOLDEN SHOESMITH Nov. 12 P

Large incurved yellow standard. Intensified color sport of Yellow Fred Shoesmith. Useful for the same periods as parent variety. Regular standard programs and pots from mid March thru June and mid October thru December.



Gordon Wells





YELLOW STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price
	i						

10-WEEK VARIETIES (Cont'd)

YELLOW SHOESMITH	Nov. 12	P
Large yellow incurve. Richly col	ored sport of Fred	Shoesmith.
Identical in most respects to		
incurvature and less lower peto		
lending new hope to larger and		
for the mid March thru June and	d mid October thru	December
flowering periods. Fine for pots	during the same pe	eriod using
TALL TREATMENT. Cool finishing		
to the most rapid flower develop	ment for the Shoesi	miths.

Nov. 13 YELLOW WAIKIKI Large spider. Clear lemon-yellow sport from Waikiki, Similar in habit. Splendid in either the regular or fast disbud programs in the fall, October thru mid November.

	11-WEEK	ARIETIES	(Pinch August 4)		
LORRAINE Lemon spider, Hooked tube.	Nov. 15	S-2	FRIENDLY RIVAL Intermediate intense golden yellow incurv	Nov. 20 re.	S-5
YELLOW MARKETEER Yellow sport from Marketeer.	Nov. 18	S-3	HARVESTER Intermediate deep lemon yellow incurve.	Nov. 23 Valuable for	S-6 Thanks-
BONNAFFON DELUXE Intermediate deep lemon incurve. Negar-round culture, Requires 65°			giving. MARIE DePETRIS Intermediate deep yellow incurve.	Nov. 23	S-5
	12-WEEK V	ARIETIES	(Pinch August 11)		
YELLOW PETER JOHN		S-3	SUNGOLD Large lemon vellow incurve. Used in na	Nov. 25	S-4

YELLOW PETER JOHN		S-3	SUNGOLD	Nov. 25 S-
Large light lemon yellow decorative	e. Intolerant of low	tem-	Large lemon yellow incurve. Use	ed in natural pot programs.
perature. 60° minimum for bud ini velopment.	tiation; 55° for bud	d de-	YELLOW GLORY Intermediate lemon yellow in	Dec. 1 S-curve. Color mutation from
DARK YELLOW CHATTANOOGA	Nov. 25	S-5	December Glory.	
Deep lemon sport.			GOLDEN MRS. ROSS	Dec. 3 S-
YELLOW CHATTANOOGA	Nov. 25	S-4	Large deep lemon incurve.	
Large light lemon incurve.			YELLOW MOELLER	Dec. 3 S-
GOLDEN PEARSON Intermediate light lemon incurve.	Nov. 25	S -5	Sport of Margaret Moeller. States than parent.	omewhat smaller and shorte
		DIETIEC	(D) -1- A 10)	

Deep lemon sport. YELLOW CHATTANOOGA	Nov.	25	S-4	GOLDEN MRS. ROSS Large deep lemon incurve.	Dec.	3	S-5
Large light lemon incurve.	1404.		• •	YELLOW MOELLER	Dec.	_	S-2
GOLDEN PEARSON Intermediate light lemon incurve.	Nov.	25	\$-5	Sport of Margaret Moeller. Somewhat than parent.	smalle	r and	shorter
	13-WI	EEK	VARIETIES	(Pinch August 18)			
CHALICE	Dec.	5	S-2	METEORE	Dec.	13	S-5
Large lemon incurve. TOBIN'S YELLOW	Dec.	10	S-6	Intermediate deep lemon semi-incurve.			
Intermediate deep lemon semi-incurve.				DAUNTLESS	Dec.	13	S-2
SMITH'S CREAM WHITE A beautiful smooth cream colored sp	Dec. ort for S		S-3 White.	Small golden yellow semi-incurve.			



Yellow Shoesmith





BRONZE & RED STANDARDS

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price

8-WEEK VARIETIES (Pinch July 14)

MAYFORD'S TRIUMPH

Oct. 15 **S-3**

AMBER BRIGHT

Oct. 15

Large orange bronze decorative. Fast disbuds May and June.

Large golden bronze decorative. Fast disbuds April 1-Dec. 1. Fine yellow disbud at high temperatures.

9-WEEK VARIETIES (Pinch July 21)

HILDA BERGEN Small reddish bronze incurve.	Oct.	25	S-3
RED GLITTERS Red sport of Glitters.	Oct.	28	S-2
ANTIQUE Copper bronze spider with strong stem.	Nov.	1	S-2
IVANHOE Small reddish bronze incurve. Fast disbut		1 15-July	S-4
APRICOT QUEEN Large golden orange incurve.	Nov.	1	S-2
DETROIT NEWS	Nov.	1	S-8

Large reddish bronze incurve. Finish cool. Best all around bronze standard April and May; Sept. 15-Nov. 1.

ROYAL BRONZE Nov. 1 Intense orange bronze decorative. For pots Sept. 1-Dec. 1. **DUCHESS** Nov. Medium to large bronze spider mum, sometimes called a

"Spindle" mum. Duplex form. All petals are straight and tubular. Good flower substance. Maximum growth standards and responsive dependability make this variety an ideal fast disbud from April thru July and mid September thru November. High summer finishing temperatures noticeably dulls color. Duchess along with Luyona, Plum, and John Baumann are beautiful novelties that will contribute to the eventual recognition of the fast disbud as a new mum item.

FRED YULE Nov. 3

Intermediate glowing orange bronze incurved standard. Establishes a new color standard. Has vigor and stretch. Fine addition to the standard and fast disbud crops in May and June also Sept. 1-Dec. 1. Vegetative during the winter months. Promising as a cloth house standard.

10-WEEK VARIETIES (Pinch July 28)

Spider (Propos Propos protection)	Nov. 5	5-4	INDIANAPOLIS APRICOT
Spider (Bronze Rayonnante). NOMAGO Light bronze spider.	Nov. 5	S-3	Intermediate warm apricot bro color than its parent Ind. Bro stronger. Standard and fast d
MAMORU Buff copper spider.	Nov. 5	S-2	DARK INDIANAPOLIS BRON
INDIANAPOLIS BRONZE	Nov. 5	S-7	Dark reddish bronze sport. S grams Sept. 15-June 15.
Large incurve. Standard and disbud June 15.	program Sept.	15-	DELAWARE
INDIANAPOLIS GOLDEN BRONZE Quilled; incurve.	Nov. 5	S-2	A large reddish bronze semi-i for pot plants Sept. 1-June 1.

onze incurve. A more versatile nze. Size slightly smaller; habit disbud Sept. 15-June 1.

Nov. 5

5-4

IZE Nov. 5 **S-7** Standard and fast disbud pro-

Nov. 8 **S-7**

incurved standard. Outstanding



Duchess





BRONZE & RED STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

10-WEEK VARIETIES (Cont'd)

INCURVED DELAWARE

Nov. 8

Large standard. Tightly incurved form mutation from Delaware. Quite different in appearance from parent variety in that it holds its form and conceals the open center well past maturity. Since only reverse petal color is shown, over-all color is more bronze, less red than a reflexed Delaware. Form provides greater substance. Recommended for pots the year round using SHORT TREATMENT. Becomes slightly shorter and flowers 3-4 days later than parent during the marginally low light intensity periods of mid winter.

BRONZE CALYPSO

Nov. 8

Large, rich orange-bronze incurve and very short. Exclusively a pot plant variety April 1-July 1; Sept. 1-Dec. 1. Single pinch. Best results are obtained with high temperature initiation and low temperature development. Flower size and form closely resembles the Indianapolis varieties.

ANACONDA

Large red bronze incurve.

DARRYL CHEW Nov.

Large decorative standard. Deep reddish bronze. A West Coast variety.

MRS. EISENHOWER

Nov. 18

A vivid golden bronze spider mum with excellent substance and form.

BALCOMBE PERFECTION

Nov. 18

Intermediate incurve. Copper bronze. Short variety benefited by two additional weeks time pinch to shade. Recommend cool finish for maximum perfection of form. Standard programs mid October through November. Very valuable for its natural Thanksgiving season.

RED BALCOMBE PERFECTION

Nov. 18

Intermediate incurve. Bright red with copper bronze reverse. Sport of Balcombe Perfection. Short variety. Suggest two additional long day weeks pinch to shade. Durable with fine substance. Cool finishes develops a tightly incurved form. Standard programs mid October through November. Outstanding for Thanksgiving.

ANN CHEW

Nov. 10

Intermediate bronze incurve. Short, West Coast standard.

BRONZE ORCHID QUEEN

Nov. 10

S-4

Buff coral bronze sport, Standards, Sept. 15-July 1.

COPPER QUEEN

Large copper bronze incurve sport of Orchid Queen. Larger flower and more vigorous than Bronze Orchid Queen. Standard programs Sept. 15-July 1.

MRS. ROY

Nov. 13

S-6

Large red with copper reverse incurve. Standards Sept. 1-Dec. 1.

WAIKIKI

GARNET KING

Nov. 13

Nov. 13

Nov. 20

Spider. Red bronze tube. Yellow tips.

S-3

Intermediate deep crimson red reflex.

11-WEEK VARIETIES (Pinch August 4)

Intermediate golden bronze semi-incurve. Form and nonfading improve Apricot Queen. Standard and fast disbud Oct. 15-May 1. Pot plants Oct. 1-May 1. Regular and fast crops require one additional long day week.

BRONZE FRICK

CALVERT'S GOLD

Nov. 20

S-2

Intermediate salmon bronze incurve.

VALENTINE

Nov. 20

Large red disbud decorative. With one additional week pinch to shade Valentine provides fine medium size standards October through April. Significantly valued as an all winter pot plant with tall treatment especially appropriate for Christmas and Valentine's Day. In regular crops, dissprayed to 3-4 flowers, it yields the equivalent of a red Goldsmith. Will initiate and develop buds at 52°.



Valentine



Intermediate light copper bronze incurve.



Chrysanthemum MANUAL

Intermediate deep crimson incurve. Copper reverse.

Large, fully double, spooned tip spider. Medium lavender pink

color. Tall vigorous habit with rigid stems. Extreme vigor per-

mits the reduction of one long day week from the 9-week

BRONZE & RED STANDARDS

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		12-WEEK V	ARIETIES	(Pinch Augu	st 11)		
BRONZE P	ETER JOHN	Nov. 25	S-3	OAK LEAF		Nov. 25	S-5
	perature 60° minimu	yellow decorative. Int m for bud initiation; 5		Intermediate co	opper incurve.		
GLADYS P	EARSON	Nov. 25	S-5	MUTO'S CRIM	ISON	Dec. 1	S-3

PINK STANDARDS

8-WEEK VARIETIES (Pinch July 14)

PINK CHIEF Oct. 15 S-5 MAJOR BOWES Oct. 15 S-

Large lavender incurve, Tall. Excellent in natural season.

Intermediate lavender incurve. Short. Early greenhouse and outdoor disbud.

9-WEEK VARIETIES (Pinch July 21)

BLUE RIBBON

Nov. 1 S-3

Small bright lavender pink incurve standard. For 60° pot plant programs the year round. Color markedly improves

plant programs the year round. Color markedly improves Queen of Pinks especially during high temperature periods. Responds sharply and develops well at 56° with additional stretch. Superb fast disbud March 1-June 1. Best when grown at 56°.

at 56°.

MARY GARDEN

Nov. 1

S-4

A pink spider. Tube.

Nov. 1

S-4

A pink spider of plance.

Nov. 1

S-4

A pink spider of plance of plance.

Nov. 1

S-4

A pink spider of plance of plance.

Nov. 1

S-4

Often requires some shade protection during the finishing

QUEEN OF PINKS

Nov. 1

S-7

Offen requires some shade profiperiod to prevent petal tip burn.

Small incurve. Excellent for pots Sept. 1-May 1.

10-WEEK VARIETIES (Pinch July 28)

J. W. PRINCE Nov. 5 S-5 RAYONNANTE Nov. 5 S-4

Intermediate lavender pink incurve.

Spider. Tube.



Bunbu





PINK STANDARDS

		Normal				Normal	
			Price	Variety	Description	Flowering Date	Price
Variety	Description	Flowering Date	Price	V differy	Description		

10-WEEK VARIETIES (Cont'd)

INDIANAPOLIS PINK Nov. 5 S-9

Large incurve. Tolerates 54°. Standards and fast disbuds Sept. 15-June 15.

ORCHID QUEEN Nov. 10 S-5

Large light orchid pink semi-incurve. Standard Sept. 15-July 1.

LAVENDER QUEEN Nov. 10 S-5

Lavender sport of Orchid Queen. Flowers more compact and color more intense than that of Dark Orchid Queen. Standards Sept. 15-June 15.

DARK ORCHID QUEEN Nov. 10 S-6

Large deep lavender semi-incurve. Standards Sept. 15-June 15. LAUGHTER .

Intermediate light lavender pink semi-incurved disbud. Comparable to Bluechip for high temperature finishing. Tall growth habit. Performs reliably in both the standard and fast disbud programs the year round. This is the answer to a pink disbud for the summer greenhouse.

S-3

Nov. 10

MERRIMENT
Large medium lavender pink decorative disbud. Fast, vigorous growing variety that will tolerate 56° for bud initiation. A worthy supplement to standards and fast disbuds.

PEGGY HOOVER Nov. 10 5-2
Spider. Light pink tube.

PINK POCKETT Nov. 10 5-2
Large lavender pink incurved exhibition.

PINK YAMANE Nov. 10 S-4
Large lavender pink spider.

11-WEEK VARIETIES (Pinch August 4)

ARISTOCRAT Nov. 15 S-4

Intermediate lavender incurve. Fast stretch and strong stem. Natural season programs standards and disbuds.

CALVERT'S PINK Nov. 17 S-4

Intermediate orchid pink suffused with salmon incurve. Standard and pot plant programs November and December. Maximum 55° requirement for bud development. Rich color unsurpassed for Thanksgiving season.

ROSE DELIGHT
Nov. 20
S-4
Intermediate to small semi-incurve. Lavender rose. Strong vigorous habit well suited to fast disbud and standard programs
October through November. A valuable color for Thanksgiving.

HELEN FRICK Nov. 20 S-4
Intermediate light lavender incurve.

THANKSGIVING PINK Nov. 23 S-4 Intermediate orchid pink reflex.

ED. SEIDEWITZIntermediate smooth lavender incurve. Standard and fast disbud Nov. 15-Feb. 1.

12-WEEK VARIETIES (Pinch August 11)

PINK PETER JOHN Nov. 25 S-4 DARK PINK PETER JOHN Nov. 25 S-4

Large light orchid pink decorative. Best size of Peter Johns. Intolerant of low temperature, 60° minimum for bud initiation; 55° for bud development.

ation; Large deep orchid pink decorative.



Rose Delight





PINK STANDARDS

Normal

Variety Description Flowering Date Price Variety Description Flowering Date Price

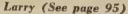
13-WEEK VARIETIES (Pinch August 18)

PINK MISTLETOE

Dec. 5 S-3

Intermediate light pink incurve. Finish cool.







Echo (See page 95)

PRICES

All prices are per 100 cuttings, except the first column on the left. Fifty cuttings are priced per 50.

Price	50	100-	300-	500-	1000	Price	50	100-	300-	500-	1000
Class	only	250	450	950	& up	Class	only		450	950	qu &
S-10 S-9 S-8 S-7 S-6 S-5	3.15 3.25 3.40 3.50 3.65 3.75	6.00 6.25 6.50 6.75 7.00 7.25	5.75 6.00 6.25 6.50 6.75 7.00	5.50 5.75 6.00 6.25 6.50 6.75	5.25 5.50 5.75 6.00 6.25 6.50	S-4 S-3 S-2 S-1 P	3.90 4.00 4.15 4.25 4.50	7.50 7.75 8.00 8.25 8.75	7.25 7.50 7.75 8.00 8.50	7.00 7.25 7.50 7.75 8.25	6.75 7.00 7.25 7.50 8.00

NEW VARIETIES (BOXED IN THE VARIETY DESCRIPTIVE LIST)
WILL NOT BE AVAILABLE BEFORE MAY 12, 1958

Prices subject to change without notice.

See opposite page for prices on Garden Variety Collections.





New Garden Varieties 1958 INTRODUCTIONS BY DEPETRIS

BIG TEN SERIES

WHITE

MINNESOTA

Oct. 10

Large white incurved pompon. Lends itself well to disbudding and is particularly suitable for spring pot plant culture. (P)

MICHIGAN STATE

Oct. 14

Large white decorative pompon ranging 4" in diameter when disbudded. Responds well and makes a beautifully shaped pot plant and garden disbud. (P)

YELLOW

OHIO STATE

Oct. 15

Large golden cactus decorative. Luxurious dark green foliage. Compact and sturdy grower lending itself well to disbudding of spring pot plant culture. (P)

IOWA Oct. 15

Bright lemon medium incurved. Makes a sturdy compact pot plant, especially useful in the spring months. Quite productive and beautiful as a garden disbud. (P)

ILLINOIS Oct. 5

A large formal golden yellow incurved with excellent substance. A credit to the new spring pot plants and large disbud garden mums. (P)

YELLOW-(Cont'd)

MICHIGAN

Oct. 12

Large clear yellow blooms fully 4" across. Not a new introduction but was added to the Big 10 Series because of its adaptability to disbudding. (P)

BRONZE

NORTHWESTERN

Oct. 10

Large full bronze incurved variety with good substance. An unusual early flowering variety of good growth. Makes an ideal football mum. (P)

INDIANA

Oct. 10

Large full cactus type, amber bronze in color. A real novelty for the home gardener. Has commercial value for its adoptability as a spring pot plant. (P)

PURDUE (H)

Oct. 12

Large full incurving, lively bronze sturdy and compact by nature lending itself beautifully to pot plant culture. Ideally suited for background plantings. (P)

WISCONSIN

Oct. 15

A large solid very formal incurved, rich deep apricot, bronze in color. A very healthy grower especially adaptable for cut flower disbuds and garden work. (P)

Garden Variety Collections

For Growers who are not familiar with Garden Varieties, but who want a well balanced assortment, we offer the following Collections which include the better varieties for each specific purpose.

COLLECTION #1

Taller Varieties for cuttings

COLLECTION #2

For bedding or borders

COLLECTION #3

50% for Cutting 50% for Bedding

COLLECTION #4

For Easter, Mother's Day or Memorial Day Pots

COLLECTION #5

Cushion Varieties only

COLLECTION PRICES PER 100

300-450 6.00

500-950 5.75

1000 & UP 5.50





SYMBOLS — (L) Large — (D) Decorative — (P) Pompon — (C) Cushion — (S) Single — (B) Button — (C-F) Carnation Flowered. *Recommended for Mother's Day pot plants.

D Varieties recommended as better when disbudded.

VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRI
		WHITE			
Osage	(CD)	White			
Candlelight	(D)		Med.	Sept. 5	S
D. Ahrens	(D)	lvory White	Med.	Sept. 5	S
Paper White	(D)	White	Tall	Sept. 10	S
*Crystal Maid	(D)	Cream	Med.	Sept. 10	S
*Chris Columbus	(LD)	Cream	Short Tall	Sept. 12	5
White Cushion	(CD)	White	Short	Sept. 15	5
Gloria	(DP)	White	Med.	Sept. 15	
*Calcife	(D)	Cream	Med.	Sept. 15	3
Powderpuff (Cushion)	(CD)	White		Sept. 15	
Polar Ice	(LD)	White	Short Med.	Sept. 15	S
White Bounty	(B)	White		Sept. 15	
White Tower	(LP)	Cream	Tali	Sept. 15	5
Benora		White	Tall	Sept. 15	
White Sail	(LD)	White	Short Med.	Sept. 20	
Jessamine Williams	(Spoon)	White		Sept. 23	F
White Wonder	(LP)		Med.	Sept. 25	
Shalimar (H)	. (LP)	lvory	Med.	Sept. 25	
Theresa Stone	(P)	Cream	Med.	Sept. 25	
White Rice	(LP)	lvory	Med.	Sept. 25	5
Ostosa	·· (LP)	White	Short	Sept. 25	
White Cloud	(CP)	White	Short	Sept. 25	
North Star	(D)	White	Tall	Sept. 25	
Pepita	(S)	White	Med.	Sept. 28	5
Control wife	(B)	White	Med.	Sept. 28	5
Spindrift	(D)	White	Med.	Oct. 1	\$
Gardenia Marshmallow	. (LD)	White	Med.	Oct. 1	\$
Marshmallow	(M-Sgl)	White	Med.	Oct. 5	\$
Limelight	., (P)	White	Med.	Oct. 5	5
Lyric	(CS)	White	Short	Oct. 5	5
Avalanche	(LD)	Cream	Tall	Oct. 5	S
Horizon	(P)	White	Med.	Oct. 5	S
Ivory Glow	(D)	White	Med.	Oct. 5	S
Classic	(B)	White	Talí	Oct. 10	S
Minnesota (New)	(LP)	White	Med.	Oct. 10	P
Maestro	(CP)	White	Short	Oct. 10	S
Albion (New)	(LD)	White	Med.	Oct. 10	S
White Masquerade	(В)	White	Med.	Oct. 10	P
White Spoon	(Spoon)	White	Med.	Oct. 10	S
Silverplate	., (D)	White	Med.	Oct. 12	S
Michigan State (New).	(LD)	White	Med.	Oct. 14	Р
Silver Ball	(P)	White	Tall	Oct. 15	S
Irene	. (B)	White	Med.	Oct. 15	S
Pilgrim	(P)	White	Med.	Oct. 15	S
Blizzard	(P)	White	Med.	Oct. 15	S
		YELLOW			
Pathfinder	. (C-F)	Lemon			
Reverence	(LD)	Chamois Yel.	Med.	Aug. 28	S
Early Gold	(P)	Golden	Short	Sept. 1	S
Golden Hours	. (P)	Chrome Yel.	Short	Sept. 5	S
Delight (H)	. (P)	Golden	Med.	Sept. 8	S
Genista	. (C)		Med.	Sept. 8	S
Sunapee	. (P)	Canary Laman Val	Med.	Sept. 12	S
Pomponette	. (P) ., (P)	Lemon Yel.	Tall	Sept. 15	\$
Yellow Cushion	. (CD)	Golden	Short	Sept. 15	S
Golden Cushion	. (CD)	Light Yel.	Short	Sept. 15	S
Defiance (H)	(C)	Golden Yel.	Short	Sept. 15	S
Yellow Chris Columbus	. (D)	Golden Yel.	Tali	Sept. 15	S
Muriel Rice	. (LD)	Brt. Lemon	Med.	Sept. 15	S
Early Yellow	., (LD) ., (B)	Lemon Yel.	Med.	Sept. 15	S
		Dp. Lemon	Short		







VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRIC
	YELLO	W (Cont	'd)		
Golden Carpet	(CP)	Golden	Short	Sept. 15	S-
Golden Gopher	(P) (D)	Orange Yel.	Med.	Sept. 18	5-
*Sept. Sunshine	(S)	Orange Yel. Brt. Lemon	Med. Med.	Sept. 20 Sept. 20	S- S-
*Aglow	(P)	Orange	Med.	Sept. 20	S-
Real Gold	(LD)	Golden Yel.	Med.	Sept. 20	S-
Wychwood	(LP)	Canary	Med.	Sept. 20	S-
Canary Wonder	(P)	Canary	Med.	Sept. 25	S-
Golden Wonder	(P)	Golden	Med.	Sept. 25	S-
Chas. Nye	(LP) (C)	Dp. Lemon	Tall	Sept. 25	S-
Golden Sunset	(LD)	Lemon Yel.	Short Med.	Sept. 25	S- S-
*Honeycomb	(P)	Copper Gold Golden	Med.	Sept. 25 Sept. 25	5- S-
*Moonlight	(D)	Brt. Yellow	Med.	Sept. 25	3- 5-
Lee Powell	(LD)	Chinese Yel.	Tail	Sept. 25	S-
Sulphur Spoon	(Spoon)	Lemon Yel.	Med.	Sept. 25	S-
Tangerine	(LD)	Dp. Orange	Med.	Sept. 25	S.
Astoria	(P)	Deep Lemon	Med.	Sept. 28	S-
Yellow Supreme (H)	(C)	Brt. Lemon	Short	Sept. 28	S-
Ruby Breithaupt (New)	(LD)	Primrose Yellow	Med.	Oct. 1	P
*Kings Ransom (New)	(D)	Gold. Yellow	Med.	Oct. 1	Р
Freya	(LD)	Golden Yel.	Med.	Oct. 1	S.
Tranquility	(D) (B)	Lt. Lemon	Med.	Oct. 1 Oct. 1	S.
*Chiquita Ethel Waters	(LD)	Dp. Lemon Lemon	Med. Med.	Oct. 1 Oct. 5	S. S.
James Eadie	(LP)	Dp. Chrome	Med.	Oct. 5	S.
Newton	(LD)	Golden Yel.	Med.	Oct. 5	S
*Rouleffe	(LD)	Bright Yel.	Short	Oct. 5	S.
Yellow Avalanche	(LD)	Lt. Lemon	Tall	Oct. 5	S.
*Illinois (New)	(LD)	Br. Golden	Med.	Oct. 5	P
Polaris	(S)	Golden Buff	Med.	Oct. 5	S
Mrs. Rotan	(LD)	Dp. Chrome	Med.	Oct. 5	Ş-
Sunstone	(Spoon)	Lt. Yellow	Tali	Oct. 8	S-
*Spode	(L-Inc.)	Lemon	Short	Oct. 8	S
*Yellow Spoon	(Spoon)	Lt. Yellow	Med.	Oct. 10	S
Treasure	(P)	Golden	Tall	Oct. 10 Oct. 10	S
Golden Spoon	(Spoon)	Golden Brt. Lemon	Med. Med.	Oct. 10	' S
*Yellow Blanket Bright Forecast	(B) (P)	Brt. Lemon	Med.	Oct. 10	s S
*Goldrush	(S)	Lemon	Med.	Oct. 10	S
Yellow Calumet	(P)	Lemon Yellow	Med.	Oct. 10	P
Arlora	(LD)	Lemon	Med.	Oct. 10	S
Sweepstake	(P)	Lemon	Med.	Oct. 12	S
Goldfield	(P)	Yellow	Med.	Oct. 12	S
Moonbright	(LD)	Lt. Yellow	Med.	Oct. 12	S
Michigan	(LD)	Yellow	Med.	Oct. 12	P
Sunburst	(LD)	Golden Yel.	Med.	Oct. 12	S
*Gold Lode	(L-Inc.)	Golden	Med.	Oct. 15	S
Judith Anderson	(B)	Golden Yel.	Med.	Oct. 15 Oct. 15	S
Rodell Imp	(B)	Lt. Lemon Lt. Lemon	Med. Med.	Oct. 15	S- S-
Yellow Irene Buffercup (H)	(B) (L-Inc.)	Golden	Short	Oct. 15	S
*Valiant	(L-Inc.)	Lt. Golden	Med.	Oct. 15	S
*Honeysweet	(L-Inc.)	Golden Yel.	Med.	Oct. 15	S
Sarasota	(P)	Brt. Lemon	Med.	Oct. 15	S
*Ohio State (H) (New)	(Cactus)	Golden Yellow	Med.	Oct. 15	P
*Iowa (New)	(LP)	Lemon Yellow	Med.	Oct. 15	P
	BRON	ZE and F	RED		
Glow Worm	(D)	Or. Scarlet	Short	Sept. 8	S
Early Harvest	(CD)	Mah. Orange	Short	Sept. 8	S
Harbinger	(D)	Golden Br.	Short	Sept. 8	S
*W. P. Snyder	(LP)	Apr. Orange	Med.	Sept. 10	S-

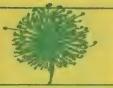






VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRIC
BRC	ONZE	and RED	(Cont'd	1)	
Autumn Song	(D)	Wine Rose	Med.	Sept. 10	S-
Geo. Luxton Bronze Pomponette	(LD)	Light Br.	Med.	Sept. 12	S-
Early Crimson	(P)	Golden Br.	Short	Sept. 15	S-
Apache	(D) (LD)	Bright Crim.	Med.	Sept. 15	· S-
Early Bronze	(B)	Red & Gold	Med.	Sept. 15	S-
Red Gold	(B)	Orange Br. Red & Gold	Short	Sept. 15	S-
New Mariorie Mills	(IP)	Ruby Red	Med.	Sept. 15	S-
Dark Red Gold	(B)	Dark Red	Short Med.	Sept. 15 Sept. 15	S-
Companion	(D)	Golden Bronze	Med.	Sept. 15	S- S-
Chippa Red	(LD)	Maroon Red	Med.	Sept. 15	S-
Flamboyant	(D)	Orange Br.	Med.	Sept. 15	S-
Early Kathleen	(D)	Coppery Br.	Med.	Sept. 15	S-
Autumn Beauty September Bronze	(D)	Chestnut Red	Med.	Sept. 15	S-
Toronto	(B)	Golden Br.	Med.	Sept. 20	S-:
Bronze Queen (H)	(C)	Bronze	Short	Sept. 20	S-:
Red Glow	(P)	Copper Br.	Short	Sept. 20	S-:
Orsona	(C)	Dark Red	Med.	Sept. 20	5-4
Scarlet Crimson	(D)	Red & Bronze	Med.	Sept. 20	S-
Mme. Cadillac	(P)	Brt. Red	Med.	Sept. 20	S-4
Rouge Cushion	(C)	Rasp. Wine Brt. Red	Short	Sept. 20	S-4
Br. Wonder	(P)	Rosewood	Short	Sept. 25	S-4
Plainsman	(D)	Orange Bronze	Med. Med.	Sept. 25 Sept. 25	S-4
Crown Jewell	(D)	Bright Red	Mea. Short	Sept. 25	S-:
Champion Cushion	(CD)	Dp. Bronze	Short	Sept. 25	S-: S-:
Commander Cushion	(CD)	Red	Short	Sept. 25	
Alpena	(D)	Red	Med.	Sept. 25	S-7 S-3
Mahogany Cushion	(CD)	Jasper Rd.	Short	Sept. 25	3-3 S-7
Elite Cushion	(C)	Salmon Br.	Short	Sept. 25	S-7
Holiday (H)	(P)	Golden Br.	Med.	Sept. 25	S-3
Football Bronze	(D)	Bronze Buff	Tall	Sept. 25	S-2
Coppersmith Mojave Gold	(D)	Copper Bronze	Med.	Sept. 25	S-2
Crowning Glory	(LD) (D)	Golden Br.	Med.	Sept. 25	P
Admiration	(LD)	Coral Bronze	Med.	Sept. 25	S-3
Remembrance	(LD)	Salmon Fawn	Med.	Sept. 28	S-5
Lipstick	(C)	Dp. Carmine	Med.	Sept. 28	S-:
Kaih. Lehman	(LD)	Ruby Orange Orange Br.	Short	Sept. 28	S-1
Morocco	(D)	Reddish Br.	Med.	Sept. 28	S-3
Caprice	(D)	Apricot Br.	Short Med.	Oct, 1 Oct. 1	S-2
Iron Mountain	(P)	Deep Red	Med.	Oct. 1 Oct. 1	S-2
Jubilee (H)	(P)	Crimson	Med.		\$-4
Fiesta	(P)	Orange Rust	Tail	Oct. 1 Oct. 1	S-3
Red Cloud (Cushion)	(CD)	Scarlet	Med.	Oct. 1	S-4 S-6
Red Riding Hood	(D)	Brt. Red	Med.	Oct. 1	S-4
Sam Williston (Cushion). (CS)	Deep Red	Short	Oct. 1	S-7
Leshara	(D)	Mulberry Red	Med.	Oct. 1	S-5
Bonfire	(D)	Brt. Red	Med.	Oct. 1	S-2
Fire Engine	(S)	Flaming Red	Med.	Oct. 1	S-5
Card. Spoon Firecracker	(Spoon) (D)	Red Bronze	Med.	Oct. 1	S-2
ydonia	(LD)	Mahogany	Tall	Oct. 5	S-2
eptember Cheer	(S)	Mahogany	Tall	Oct. 5	S-5
Burgundy	(LD)	Cherry Red	Med.	Oct. 5	S-6
Ruby Pompon	(P)	Wine Red	Tall	Oct. 5	S-5
Red Velvet	(LD)	Ruby Crimson Dk. Crimson	Med.	Oct. 5	S-5
Iona	(P)	Rust Bronze	Med.	Oct, 5	S-2
Courageous	(LD)	Dark Ruby	Med.	Oct. 5	S-3
virs. Du Pont	(LD)	Coral Buff	Med. Tali	Oct, 5	S-5
ndian Red	(D)	indian Rust	Med.	Oct. 5	S-2
Andanie	(D)	Peach Apricot	mea. Tail	Oct. 5	S-2
lviator	(P)	Copper	Med.	Oct. 8 Oct. 8	P
uccess	(LP)	Dp. Crimson	Med.	Oct. 8	S-3
Gladiafor	. (D)	Orange Red	Tall	Oct. 10	S-3
Calumet (H)	(D)	Apricot	Med.	Oct. 10	5-2





VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRICE
BRO	NZE a	nd RED	(Cont'd)		
D Dark Calumet (H)	(LD)	Golden Br.	Med.	Oct. 10	P
Northwestern (New)	(LD)	Reddish Br.	Med.	Oct. 10	P
Indiana (New)	(Cactus)	Bronze	Med.	Oct. 10	P
Huntsman	(LP)	Scarlet Or.	Tali	Oct. 10	S-2
Carnival	(LP)	Burnt Orange	Med.	Oct. 10	5-3
Orangeade	(5)	Orange Bronze	Med.	Oct. 10	S-2
Dolle-Effe	(S)	Golden Bronze	Short	Oct. 10	S-2
Carmine Queen	(LP)	Carmine	Tall	Oct. 10	S-2
AdmiralPurdue (New)	(D)	Dark Red	Med.	Oct. 12	S-3
Crusader	(LD) (D)	Med. Bronze	Med.	Oct. 12	Р
*James Stewart	(P)	Crimson Red Apr. Gold	Med. Tall	Oct. 12 Oct. 15	S-2
Rajah	(S)	Scarlet	Tall	Oct. 15	S-3 S-2
Chopin	(L-Inc.)	Lt. Bronze	Med.	Oct. 15	S-2 S-2
*Radiance	(D)	Red	Med.	Oct. 15	S-3
Helma	(D)	Red	Med.	Oct. 15	p
*Majestic (New)	(LP)	Rosewood Br.	Med.	Oct. 15	P
Red Enterprise	(P)	Rose Red	Tall	Oct. 15	P
Wisconsin (New)	(CF)	Apricot Br.	Med.	Oct. 15	P
Resolute	(LD)	Bright Red	Short	Oct. 18	Р
Lee-eiie	(Spid.)	Silver Bronze	Short	Oct. 23	P
Р	INK a	nd LAVE	NDER		
Gladness	(D)	Chinese Rose	Short	Aug. 28	S-3
Cecil Beed	(D)	Deep Lav.	Med.	Sept. 1	S-5
Sal. Precose	(LD)	Salmon Pk.	Short	Sept. 1	5-4
Amelia	(C)	Lav. Pink	Short	Sept. 5	S-7
Rosa	(C)	Rose Pink	Med.	Sept. 5	S-5
Dean Kay	(C)	Shell Pink	Short	Sept. 5	S-7
Purple Star	(P)	Purple	Med.	Sept. 5	S-5
*Joan Helen Nye's Favorite	(D)	Dk. Purple Lavender	Med. Med.	Sept. 10	S-3
Barbara Small	(P)	Lavender	Tall	Sept. 10 Sept. 10	S-: S-:
*Orchid Helen	(D)	Orch, Lavender	Med.	Sept. 10	S-:
Successor	(D)	Sil. Lav.	Med.	Sept. 10	S-3
Lorenzo	(Spoon)	Dark Purple	Med.	Sept. 15	S-3
Royal Robe	(D)	Purple	Med.	Sept. 15	S-:
Chippewa	(LD)	Brt. Purple	Med.	Sept. 15	5-4
Violet	(D)	Bright Purple	Med.	Sept. 15	S-é
*Purple Queen	(P)	Dk. Purple	Short	Sept. 20	S-3
Purple Spoon	(Spoon)	Soft Purple	Med.	Sept. 20	S-3
Purple Waters	(D)	Deep Purple	Med.	Sept. 20	S-3
Tapestry	(LD)	Brt. Pink	Med.	Sept. 20	S-4
Heather Bloom	(D)	Heather Pk.	Med.	Sept. 20	S-5
*Alert*Blanche Litwiller	(LD)	Dk. Purpie	Med.	Sept. 20	S-5 P
Pink Quill	(LP) (LD)	Lav. Pink Shell Pink	Med. Med.	Sept. 23	P
Olive Longland	(LD)	Apr. Salmon	Med.	Sept. 25 Sept. 25	S-6
Evangeline	(LD)	Flesh Pink	Med.	Sept. 25	S-3
Jeweltone	(P)	Rose Pink	Short	Sept. 25	S-3
Lady's Choice	(LD)	Ivory Pink	Med.	Sept. 25	S-:
Reflection	(D)	Rosy Lavender	Med.	Sept. 25	S-2
*Petrisian Rose	(P)	Lav. Rose	Med.	Sept. 25	S-4
*Cecelia	(C)	Purple	Short	Sept. 25	S-2
Imp. E. Wonder	(P)	Lavender	Med.	Sept. 25	S-4
*Spellbound	(D)	Lavender	Med.	Sept. 25	S-6
Capt. J. Smith	(C)	Lav. Pink	Short	Sept. 25	S-1
*Major Cushion	(C)	Lavender	Short	Sept. 25	S-
Coquette	(C)	Rosy Pink	Short	Sept. 25	S-
Evelyn Devaney	(D)	Shell Pink	Med.	Sept. 25	S-:
Purple Cushion	(C)	Deep Purple	Short	Sept. 25	S-:
Edna Rowley	(B)	Łav. Pink	Med.	Sept. 26	
Stylist	(Cactus)	Old Rose	Med.	Sept. 28	P







VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRICE
PINK	a n d	LAVENDER	(Con	t'd)	
Rosita	(B)	Lav. Rose	Med.	Sept. 28	S-5
Joyous	(C)	Rosy Pink	Short	Sept. 28	S-3
Malinda Brown	(P)	Lav. Rose	Med.	Sept. 28	S-3
Beffy	(LD)	Pk. Rose Ctr.	Tall	Sept. 28	S-5
Twinkle	(C)	Rose Purpie	Med.	Sept. 28	S-5
Pat. Lehman	(D)	Peach Pink	Tail	Sept. 28	S-3
Aristocrat (H)	(LD)	Deep Wine	Med.	Sept. 29	S-2
Artist's Delight	(D)	Coral Pink	Med.	Sept. 29	Р
Fascination	(LD)	Lav. Pink	Med.	Oct. 1	5-3
Troubadour	(D)	Crimson	Med.	Oct. 1	S-4
Tiffany Rose	(S)	Deep Rose	Med.	Oct. 1	S-6
Uid Lavendar	(LD)	Lavender	Med.	Oct. 1	S-2
Sonny	(P)	Deep Lav.	Med.	Oct. 1	S-5
Mayflower	(P)	Soft Pink	Med.	Oct. 1	5-3
Helen Bogue	(LD)	Rose Purple	Tall	Oct. 1	Р
*Mischief	(CS)	Purple	Short	Oct. 1	5-4
Charm Spoon	(Spoon)	Rose	Med.	Oct. 1	S-3
Alex Cummings	(LD)	Deep Rose	Tall	Oct. 3	S-2
Northern Queen	(D)	Lavender	Med.	Oct. 5	S-2
*Petrisian Pink	(D)	Lt. Pink	Med.	Oct. 5	S-4
*Lavender Lady	(D)	Lav. Pk.	Tali	Oct. 5	S-3
Dream Girl	(P)	Lt. Lav.	Med.	Oct. 10	S-2
*Courtier	(D)	Lav. Pk.	Med.	Oct. 10	S-4
*Time	(LP)	Lav.	Med.	Oct. 10	5-4
*Orchid Spoon	(Spoon)	Orch. Lav.	Med.	Oct. 10	S-5
Rose Spoon	(Spoon)	Lav. Rose	Med.	Oct. 10	5-4
Lassie	(LD)	Dk. Pink	Med.	Oct. 10	S-3
*Masquerade	(C)	Lav. Rose	Med.	Oct. 10	S-4
*Joybringer	(D)	Salmon Rose	Short	Oct. 10	S-4
Ronnie	(B)	Dk. Lav.	Med.	Oct. 12	S-3
Allegro	(C)	Shrimp Pk.	Med.	Oct. 12	5-3
Adagio	(P)	Raspberry Rose	Tall	Oct. 12	5-3
Coralhue	(P)	Apricot Coral	Short	Oct. 12	5-2
Titania	(LD)	Raspberry Rose	Tall	Oct. 12	S-1
Fuchsia Fairy	(D)	Light Pink	Short	Oct. 14	S-2
*Cupid	(D)	Pink	Med.	Oct. 15	5-2
*Jewell	(P)	Lav. Pk.	Med.	Oct. 15	S-3
Enterprise	(P)	Amaranth	Tall	Oct. 15	S-2
Lt. Pink Enterprise	(P)	Light Pk.	Tall	Oct. 15	Р
Elizabeth Hood	(LP)	Lav. Pk.	Med.	Oct. 15	5-3
Citation	(LP)	Deep Pink	Med.	Oct. 15	S-2

SEE PRICE LIST ON PAGE 132

PINCHING SCHEDULE FOR GARDEN CHRYSANTHEMUMS

Natural Flowering Date	Pinching Date for Cut Flowers	Pinching Date for Border Plants
Sept. 1	June 9	July 7
Sept. 15	June 16	July 14
Sept. 30	June 23	July 21
Oct. 10	June 30	July 28
Oct. 15	July 7	Aug. 4





Index of Varieties

A	Bright Forecast 102, 135	Chas. Nye102, 135	Dark Norma 119	Enterprise115, 138
Acclaim 100	Brighton Yellow 125	Chattanooga 124	Dark Orchid Queen 131	Ermine 99
Adagio 138	Brilliancy 103	Cheerful 119	Dark L. I. Beauty 120	Esquire 105
	Bronze Buckingham 111	Chevron 112	Dark Pink	Etheldra 116
Admiral	Bronze Calypso 129	Chippa Red 136	Buckingham 117	Ethel Waters 135
Admiration 136	Bronze Chip 111	Chippewa 137	Dark Pink Minstrel 122	Etude 106
Aglow109, 135	Bronze Daisy 111	Chiquita102, 135	Dark Pink Peter	Evangeline 137
Alaska 96	Bronze Dot 110	Chopin 137	John 131	Evelyn Deveney 137
Albatross 123	Bronze Enchantress. 114	Christina 122	Dark Pink Pandora 118	2,01/11 2010110/ 107
Albion 134	Bronze Frick 129	Christmas Greeting 115	Dark Portrait 117	
Alert115, 137	Bronze Goldsmith 113	The second secon	Dark Red Gold 136	F
Alex Cummings 138		Christmas Star 114	Dark Taffeta 130	
Allegro 138	Bronze Jubilation 113	Chris. Columbus 95, 134		Falcon 114
Almega 120	Bronze Masterpiece 112	Cinderella 107	Dark Valencia 121	Fanfare 105
Alpena 136	Bronze Minstrel 114	Citation	Dark Yellow	Fascination 138
Alvoda 122	Bronze Minuet 113	Claret 115	Chattanooga 127	Feathertop
Ambassador 123	Br. Orchid	Classic 95, 134	Dark Yellow	Festival 113
Amber Bright 128	Queen129-136	Climax 112	Satellite 107	Fiesta 136
Amberhue 112	Bronze Pandora 112	Commander Cushion 136	Darryl Chew 129	Firebird 110
Amelia	Bronze Peter John 130	Companion 136	Dauntless 127	Firecracker
Anaconda 129	Bronze Portrait 112	Constellation 104	Daybreak 112	Fire Engine
Andante110, 136	Bronze Pomponette 136	Copperhead 112	Dean Kay 137	Firefly 111
	Bronze Queen 136	Copper Smith 136	Debonair 114	Flamboyant
Ann Chew 129	Bronze Riviera 115	Copper Queen 129	Debutante 121	
Antique 128	Bronze Wonder 136	Coquette	December Glory 124	Flame Minstrel 114
Apache 136	Buccaneer 111	Coralhue 109, 138	December Gold 108	Football Bronze 136
Apricot Queen 128	Buckskin 110	Cordova 100	December White 124	Forever Amber 113
Apricot Valencia 114	Bunbu 130	Coronation 107	Dee-Dee Ahrens 134	Fortune 100
Arcadia 96	Burgundy 136	Corsair 108	Defiance (H) 134	Forty-Niner 106
Argyle 121	Butterball 125	Cotillion 100	Defiance 122	Fred Shoesmith 124
Aristocrat 131	Buttercup (H) 135	Courageous	Delaware 128	Fred Yule 128
Aristocrat (H) 138	Butterscotch 111		Delight 117	Freedom 97
Arlora 135	butterscotch 111	Cover girl 138		Freya 135
Artist's Delight 138		Crackerjack 114	Delight (H)	Friendly Rival 127
		Cream Mefo 126	Delmar 771	
Astoria102, 135				Fuchsia Fairy115, 138
Astoria	С	Cream Shasta 105	Desire 121	Fuchsia Fairy115, 138
Autumn Beauty 136		Cream Shasta 105 Crescendo 104	Desire 121 Detroit News 128	Fuchsia Fairy115, 138
Autumn Beauty 136 Autumn Song 136	Cadenza 118	Cream Shasta 105 Crescendo 104 Crest 96	Desire 121 Detroit News 128 Dolli-ette 109, 137	Fuchsia Fairy115, 138
Autumn Beauty 136 Autumn Song 136 Avalanche95, 135		Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101	G
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136	Cadenza 118	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110	G Gaiety 110
Autumn Beauty 136 Autumn Song 136 Avalanche95, 135	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138	G Gaiety 110 Gail 116
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121	G Gaiety 110 Gail 116 Galaxy 114
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136 Aztec 104	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121	G Gaiety
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136 Aztec 104	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136 Aztec 104 B Balcomb's Perfection 129	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128
Autumn Beauty 136 Autumn Song 136 Avalanche 95, 135 Aviator 136 Aztec 104 B Balcomb's Perfection 129 Barbara Fuller 111	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136 Early Gold 134	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136 Early Gold 134 Early Harvest 135	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136 Early Gold 134 Early Harvest 135 Early Kathleen 136	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carnival 109, 137	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136 Early Gold 134 Early Harvest 135 Early Kathleen 136 Early Yellow 134	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carnival 109, 137 Carolyn Yosick 116	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D D Dandy 103 Dark Almega 120	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136 Early Gold 134 Early Harvest 135 Early Kathleen 136 Early Yellow 134 Early Yellow 134 Early Yello 136	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carnival 109, 137 Carolyn Yosick 116 Carrara 99	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111	Desire 121 Detroit News 128 Dolli-ette 109, 137 Dolomite 101 Dorothy Hyde 110 Dream Girl 138 Dubonnet Valencia 121 Dutchess 128 Dynamo 98 E Early Bronze 136 Early Crimson 136 Early Gold 134 Early Harvest 135 Early Kathleen 136 Early Yellow 134 Early Yellow 134 Early Yel. Daisy 103 Edna Rowley 137	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carnival 109, 137 Carolyn Yosick 116 Carrara 99 Cecelia 137	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br.	Desire	G Gaiety
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112	Desire	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Fink 131 Cameo 100 Camille Baumann 97 Canary Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carnival 109, 137 Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120 Celestra 125	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114	Desire	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Candille Baumann 97 Candlelight 134 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, Carnival 109, Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120 Celestra 125 Cecil Beed 137	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118	Desire	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Candille Baumann 97 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, Carnival 109, Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120 Celestra 125 Cecil Beed 137 Chairman 126	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118 Dark Calumet 137	Desire	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135 Gold Lace 125
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Fink 131 Cameo 100 Camille Baumann 97 Candry Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, Carnival 109, Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120 Celestra 125 Cecil Beed 137 Chalice 127	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118 Dark Calumet 137 Dark Chip 117	Desire	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135 Gold Lace 125 Gold Lode 125, 135
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Fink 131 Cameo 100 Camille Baumann 97 Candry Wonder 135 Candlelight 134 Candytuft 115 Caprice 136 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, Carnival 109, Carnival 109, Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120 Celestra 125 Cecil Beed 137 Chalice 127 Chalk Cliff 98	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118 Dark Calumet 137 Dark Enchantress 121	Desire	G Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135 Gold Lace 125 Gold Lode 125, 135 Goldfinch 103
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Candres 135 Candlelight 134 Candytuft 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, 137 Carnival 109, 137 Carolyn Yosick 116 Carrara 99 Cecelia 137 Celebrity 120 Celestra 125 Cecil Beed 137 Chalice 127 Chalk Cliff 98 Champ 100	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118 Dark Calumet 137 Dark Enchantress 121 Dark Ind. Bronze 128	Desire	Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135 Gold Lace 125 Gold Lode 125, 135 Goldfinch 103 Goldrush 102, 135
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Candille Baumann 97 Candlelight 134 Candlelight 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, Carnival 109, 137 Carolyn Yosick 116 116 Carrara 99 120 Cecelia 137 120 Celebrity 120 120 Celebrity 120 125 Cecil Beed 137 137 Chairman 126 127 Chalk Cliff 98 <	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118 Dark Calumet 137 Dark Enchantress 121 Dark Ind. Bronze 128 Dark Ind. Yellow 126	Desire	Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135 Gold Lace 125 Gold Lode 125, 135 Goldfinch 103 Goldrush 102, 135 Golden Acclaim 107
Autumn Beauty	Cadenza 118 Calcite 134 Calif. Wh. Daisy 95 Calumet (H) 136 Calumet 109 Calverts Gold 129 Calverts Pink 131 Cameo 100 Camille Baumann 97 Candille Baumann 97 Candlelight 134 Candlelight 115 Caprice 136 Capt. John Smith 137 Cardinal Spoon 136 Capt. John Smith 137 Cardinal Spoon 136 Carmine Queen 109, Carnival 109, 137 Carolyn Yosick 116 116 Carrara 99 120 Cecelia 137 120 Celebrity 120 120 Celebrity 120 125 Cecil Beed 137 137 Chairman 126 127 Chalk Cliff 98 <	Cream Shasta 105 Crescendo 104 Crest 96 Crimson Valencia 114 Criterion 118 Crown Jewell 136 Crowning glory 136 Crusader 137 Crystal Beauty 99 Crystal Maid 134 Crystal Queen 124 Crystallite 96 Cupid 115, 138 Cydonia 136 D D Dandy 103 Dark Almega 120 Dark Beauregard 111 Dark Br. Masterpiece 112 Dark Br. Minstrel 114 Dark Buckley 118 Dark Calumet 137 Dark Enchantress 121 Dark Ind. Bronze 128	Desire	Gaiety 110 Gail 116 Galaxy 114 Gardenia 95, 134 Garnet King 129 Garza 101 Gena Harwood 128 Genista 134 Geo. Luxton 136 Georgia 125 Giltglow 112 Ginger 111 Gt. Betsy Ross 123 Gladiator 136 Gladness 137 Gladys Pearson 130 Glamour 116 Gloria 134 Glow Worm 135 Goldball 106 Gold Coast 103 Goldfield 135 Gold Lace 125 Gold Lode 125, 135 Goldfinch 103 Goldrush 102, 135





Index of Varieties

		,		
Golden Carpet 135		Jewelltone 137		Nuggets 104
Golden Chord 106	Illini Formal 120		Marshmallow 134	Nye's Favorite 137
Golden Cushion 134	Illini Gold 107	John Baumann 99	Mary Garden 130	
Golden Elegance 108	Illini Glacier 100	Joybringer115-138	Mary L. Hall 104	
Golden Gopher 135	Illini Goldilocks 106	Joyous 138	Mary McArthur 116	0
Golden Hours 134	Illini Igloo 98	Jubilation 119	Masquerade 138	
Golden Mrs. Ross 127	Illini Peace 100	Jubilee (H) 136	Masterpiece 119	Oak Leaf 130
Golden Pearson 127	Illini Redwood 113	Judith Anderson 135	Mayfair 115	Ohio State133-135
Goldenrod 107	Illini Roseglow 121	J. W. Prince 130	Mayfords Triumph 128	Old Lavender 138
Golden Shoesmith 126	Illini Snowbound 102		Mayflower 138	Olive Longland 137
Golden Snowbound 108	Illini Snowdrift 98		Medallion 122	Olnura 113
Golden Spoon 135	Illini Springtime 119	K	Mefo 124	Omega 107
Golden Sunset 135	Illini Starflower 99	16 11 11 106	Memento 96	Orangeade 137
Golden Wonder 135	Illini Starlet 101	Kathleen Lehman 136	Memorial	Orange Beauregard 111
Goldsmith 107	Illini Sunspot 106	Keepsake	Mermaid 117	Orange Galaxy 114
Gondola 103	Illini Wampum 107	King's Ransom 135	Merriment 131	Orchid Helen 137
Good News 125	Illini Warpaint 113	Klondike 106	Merrymaker 115	Orchid Queen 131
Gordon Wells 126	Illini Warrior 113		Meteore 127	Orchid Spoon 138
Grand Slam 120	Illini Yellow		Michigan133-135	Orchid Valencia 121
Granite State 123	Snowbound 108	L	Michigan State 133-134	Oregon 123
Grecos Carnation 99	Illinois133-135	Lady's Choice 137	Ming 135	Orsona 136
	Imp. Br. Daisy 111	Larry 95	Minnesota133-134	Orway 101
	Imp. Br. Supreme 114	Lassie 138	Minstrel 122	Osage 134
Н	Imp. Dk. Supreme 122	Laughter 131	Minuet 120	Ostosa95-134
H-I-	Imp. Early Wonder 137	Lavender Lady 138	Mirth 116	
Halo 96	Imp. Ind. White 123	Lavender Queen 131	Mme, Cadillac 136	
Handsome 116	Imp. Ind. Yellow 126		Mischief115-138	P
Happiness 103	Imp. Pink Minstrel 122	Lee-ette110-137	Mojave Gold 136	
Harbinger 135	Imp. Red Daisy 111	Lee Powel 102-135	Mong109-136	Pacesetter 98
Harlequin 114	Imp. Yel. Rayonante 126	Legal Tender 113	Monarch 100	Pandora 118
Harvester 127	Imp. Yellow	Leshara 136	Monty 96	Paper White 134
	Supreme 107	Light Pink	Monument 124	Paradise 110
Harvest Golden 125	Imp. White	Enterprise 138	Moonbright	Paragon 112
Heather Bloom 137	Supreme 101	Lilian Doty 117	Moonglow	Paramount 99
Heirloom 101	Inca 112	Limelight 134	Moonlight 102-135	Parisienne 117
Helen Bogue 138	Indiana Mkt. 124	Linda Lou 119	Moontide	
Helen Frick 131	Ind. Apricot 128	Lipstick109-136	Morocco109-136	Pathfinder 134
Helma 137	Ind. Bronze 128	Little America 98	Mrs. Dewey 113	Patricia Lehman 138
Heritage121	Ind. Gold 126	L. I. Beauty 99	Mrs. DuPont 109-136	Peggy Ann Hoover 131
Heyday 105	Ind. Gold Bronze 128	Lollipop 106	Mrs. Eisenhower 129	Pennant 118
Highbrow 99	Ind. Pink 131	Lorenzo	Mrs. H. E. Kidder 125	Pepita 134
	Ind. White 123	Lorraine 127	Mrs. Robinson 123	Personality 118
Highlander 107	Ind. Yellow 126	Luminary 104	Mrs. Roy 129	Petrisian Pink 138
Hilda Bergen 128	Indian Head 114	Luna 123	Mrs. Rotan 135	Petrisian Rose 137
Holiday 114	Indian Red 136	Luyona 125		
Holiday (H) 136	Indiana	Luxury 104	Muriel Rice 134	Pilgrim95-134
Honey Dew 126	Incurved Delaware. 129	Lynda McLane 122	Muto's Crimson 130	Pink Chief 130
Honeymoon104, 135	lowa133-135	Lyric 134		Pink Chip 116
Honeysweet 135	Irene95-134			Pink Delux 118
Horizon95, 134	Iron Mountain 136		N	Pink Dot 116
		M		Pink L. I. Beauty 120
Humdinger 119	Ivanhoe	Mandanan 07	Name	Pink Mistletoe 132
Huntsman109, 137	Ivory Glow 134	Madonna 97	Nagona 98	
		Maestro95-134	Navaho 111	Pink Peter John 131
		Magic 119	Nectarine 111	Pink Pockett 131
1		Magician 112	New Majorie Mills. 136	Pink Portrait 117
	,	Mahogany Cushion 136	Nevada 99	Pink Quill 137
Iceberg 97	Inches to 207	Majestic 137	Newton 135	Pink Snowdrop 121
Icecap 101	Jackpot 107	Major Bowes 130	Nightingale 123	Pink Supreme 121
Ice Cream 98	James Eadie 135	Major Cushion 137	Nomago 128	Pink Yamane 131
Illini Accent 118	James Stewart109-137	Malinda Brown 138	Norona	Pinkette 116
Illini Alba 100	Jealousy 105	Mamoru 128	No. Queen 138	
Illini Bonbon 106	Jean Elizabeth 124	Marblehead 122	No. Star 134	Pinocchio
	Jessamine Williams 134	Margaret Moeller 124	Northwestern133-137	Pippin 106
Illini Bountiful 99	Jet Fire 111	Marie De Petris 127	Northwind 101	Plainsman 136
Illini Brighteyes 108	Jewell115-138	Marion Breedon 120	Nugano 121	Plum 118





Index of Varieties

Poinsettia 115	Rose Medalion	122	Sonny	138	Tuxedo 11	9 Yel. Ambassador 12
Polar Ice 134		138	Southdown Pink	117	Twinkle 13	8 Yel. Arcadia 103
Polaris 135	Rosita		Souviner	105		Yel. Avalanche 135
Pomponette 134	Rouge Cushion		Spangles	100	V	Yel. Beauregard 104
Popcorn 96	Roulette		Spellbound115	-137	*	Yel. Betsy Ross 126
Portrait 117	Royal Bronze		Spindrift		Valencia	1 Yel. Blanket 135
Powderpuff 134		137	Spode		Valentine 12	9 Yel, Calumet 135
Prelude 116		113	Staccatto		Valiant 13	5 Yel, Calypso 120
Princess 121		111	Starbright	103	Vedova 12	
Princeton 105	Ruby Breithaupt		Stardust :	98	Venoya 12	0 Yel. Chattanooga127
Priscilla 99	Ruby Pompon		Starlight		Vesper 9	
Pristine95	Rusticon	113	Statesman		Vesta 9	
Profile 118			Sterling		Vibrant 10	- 1011 001 007 0 1111111111 107
Purdue (H)133-137			Stuart Ogg		Violet 13	
Purple Cushion 137	S		Stylist		Vogue 11	6 Yel. Daisy 104
Purple Queen 137			Success			Yel. Delaware 126
Purple Spoon 137		110	Successor		W	Yel. Dot 103
Purple Star 137	Salmon Pandora		Sultan			Yel. Doty 103
Purple Waters 137		137	Sulphur Spoon		Wagonwheels 11	
	Salmon Valencia		•	134	Waikiki 12	
Q	Samovar		Sunburst125		Wedding Bells 10	
Q	Sam Williston		Sunfire		Whirlwind 124	
Queen of Pinks 130	Sarasota		Sungold		White Anemone 93	
Queen's Lace 123	Satellite		Sunglow		White Bounty 134	
Q000113 20C0 120	Sauterne		Sunstone		White Chief 122	9
	Scarlet Crimson		Sunnyside		White Cloud 134	
R	Sch. Yel. Daisy		Sunrise		White Cushion 134	1 el. 19100 103
n !: 100.107		119	Sunup		White Doty 90	Ter. Irene
Radiance109-137	Sculpture	98 99	Sun Valley		White Enchantress 100	Tel. III. Snowdrift 103
Ranger 113	Seafoam		Surfside		White Frick 124	Vel lyanhoe 125
Rajah109-137	Seagull	96	Susan Leighton		White Keepsake 90	Vol. Lago 125
Rayonnante		111	Susanne Miller		White Lady 100	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Real Gold	Sentinal		·	135	White Mary Garden 123	
Red Balcomb's Perf. 129	Sept. Bronze	136	Sybil	111	White Masquerade. 134	
Red Cloud 136		35			White Mensa 98	
Red Daisy 111		35	Т		White Mistletoe 124	1011 1710111101001
Red Enchantress114-137 Red Empress 114		134			White Norma 99 White Peter John 124	, Tel. Melo 120
Red Etheldra 110		108	Taffeta	110	White Peter John 124 White Pink Chief 122	Tel. Moeller 127
Red Glitters 128	Shasta	98	Talisman		White Pockett 124	Yel, Monument 120
Red Glow	Shibuya White	95	Talmeda		White Popcorn 96	Vol Novada 106
Red Gold		34	Tangerine		White Princess 99	Val Daranattan 105
Red Humdinger 112		96			White Rayonnante 123	V I D . 307
Red Minstrel 114		96			White Rice 134	
Red Princeton 113	Silvercrest	99		131	White Riviera 101	
Red Riding Hood 136	Silverplate95-1		Thelma		White Sail 134	
Red Rolinda 113	Silver Queen 1		Themesong		White Snowdrop 101	1011 0000011
Red Rust 111	Silver Sheen		Theresa Stone		The state of the s	Tel. Kayolillallie 120
Red Seneca 111	Silversmith	1	The Titan			Tel. Riviera 100
Red Velvet 109-136			Thistledown		White Tower 134	Yel. Sculpture 105
Reflection 137	2.	95	Thomas Johnson		Whitehouse 97	Yel. Sea Gull 104
Remembrance 109-136		08	Thyra	118	Whitetop 97	Yel. Shasta 105
Resolute110-137	Sm. Cream White 1	27	Time	138	White Valencia 100	Yel. Shoesmith 127
Revelation 102	Smith's White 1	24	Tiffany Rose	138	White Wonder 134	Yel. Snow 108
Reverence 134	Snow 1	02	Tip Top	97	White Yamane 124	Yel. Snowcrest 108
Reveille 116	Snowcap	01	Titania	138	Wilson's White 123	Yel. Spoon102-135
Reward 116	Snowclad	97	Tobin's Yellow	127	Wilson's Yellow 125	
Rhythm 119		01	Topaz			Yel. Taffeta 105
Riviera 122		97	Topflight			Yellowtop 104
Rodell Imp 135	Snowdrop	01	Toronto109-		W. P. Snyder 109-135	
Ronnie 138	•	00	Tranquility			Yel. Valencia 107
Rosa		99	Treasure102-		٧	Yel. Waikiki 127
Rosalind 122	Snowline 1		Trenton			Yolanda 114
Rose Delight 131	Snowstorm 1		Troubadour			Yukon 101
Rose Masterpiece 119	Songster	96	Tuneful	137	Yel. Albatross 125	Yuleflame 108





TABLE OF CONTENTS

FLOWERING SCHEDULES:

FLOWERING SCHEDULE 5	-40
POT PLANT SCHEDULE44	-70
FAST DISBUD SCHEDULE72	-77

VARIETY DESCRIPTIONS:

NEW GARDEN VARIETIES	133
STANDARD VARIETIES12	23-132
POMPONS, DECORATIVES,	
SINGLE & ANEMONE	
VARIETIES	25-122
GARDEN VARIETIES13	34-138

For complete alphabetical list of all varieties in Manual see pages 139-141.

AERATION	78
APHIDS	88
BLINDNESS	87
CALENDAR	oack cover
CHEMICAL STERILIZATION	79
CLOTH HOUSES	
COLLAR ROT	92
COMBINATION SPRAYS	94
CORN EAR WORM	89
CUTTINGS	78
CUTWORMS	89
DAYLENGTH CONTROL	1
DISBUDDING	84
DISEASES AND THEIR CONTROL	
DISSPRAY	84
FAST DISBUD CULTURE	
FERTILIZERS	41, 80, 81
FOLIAR NEMATODE	92
GREENHOUSE COOLING	
INSECTICIDES	144
INSECTS AND THEIR CONTROL	88-92
INTERRUPTED LIGHTING	3
LATITUDE MAP	4
LEACHING	85

EAF MINER	88
EAF TYER	89
IGHT INTENSITY	82
IGHTING SCHEDULE	-1
IQUID FERTILIZING	81
MEALY BUGS	89
MIDGE	88
MILDEW	92
MITES	90
PETAL BURN	87
PINCHING	83
PLANTING42,	82
PLASTIC HOUSES	87
POT PLANT CULTURE41	-43
PREMATURE BUDDING	84
PRICE TABLE132-	33
PRUNING	83
RAY BLIGHT	93
RED SPIDER	90
RESPONSE GROUP	1
ROOT KNOT NEMATODE	93
RUST	93
SEPTORIA LEAF SPOT	93
SHADING INFORMATION2,	41
SHADING SCHEDULE	2
SHIPPING FLOWERS	87
SOIL MANAGEMENT41,	79
SOLUBLE SALTS	80
SOWBUGS	90
STEAM STERILIZATION	79
STEM ROT	92
SUPPORTS	87
SYMPHYLIDS	90
TARNISHED PLANT BUG	91
TAKING BUD	84
TEMPERATURE	85
TERMITES	91
THRIPS	91
VENTILATION	85
VERTICILLIUM WILT	93
VIRUSES	94
WATERING 41	0.





BLACK SHADING CLOTH

Black Sheen cloth guaranteed to reduce the light intensity to 2 foot candles or less when shading your early chrysanthemums.

Style No. 575—Quality cloth sewn in multiple of 18-inch widths to your specifications.

Style No. 258—Extra heavy cloth for longer service sewn in multiples of 18-inch widths to your specifications.

Cloth is approximately 36 inches wide unsewn in rolls or sewn to your dimensions in multiples of 18 inches. There is a loss of about 2 inches per yard in width because of shrinkage in preparation and overlapping in sewing. So allow for this in estimating the width of the cloth you need. Here is a chart to help you estimate the width and length of the cloth required to cover different sized benches or beds with wire placed 4 feet above the bench:

For a bench of this width	Use cloth of this width	And add to length for end hangover	
3 feet	12 feet	9 feet	
31/2	12	81/2	
4	131/2	91/2	
41/2	131/2	9	
5	15	10	



WHEN ORDERING . . . SPECIFY THE STYLE YOU WANT!

Prices available upon request.

INSECTICIDES, FUNGICIDES AND FUMIGANTS

Aramite 15W		2000년(1200년 1200년 1
Chlorobenzilate 25W		
Deenate 50-W (DDT)		
Dieldrin (50%)	4 lb. bag 6.6	0 (12 - 4 lb. bags)
Endrin 1.6		
Fermate		
	Cartor	
Fulex Parathion Fumigators	1,000 cu. ft. 11.5	
For Red Spiders, Aphids, and Thrips	2,000 cu. ft. 11.5	0 10,000 cu. ft. 17.00
		20,000 cu. ft. 26.00
Fulex Aphid-Smoke Fumigators	1,000 cu. ft. 11.0	
For Aphids and Adult White Flies	2,000 cu. ft. 11.0	
		20,000 cu. ft. 25.00
Fulex Spider-Mite Fumigators		
For Red Spiders, including some Parathion-	1,000 cu. ft. 11.5	0 5,000 cu. ft. 14.50
resistant strains on carnations, chrysanthe-	2,000 cu. ft. 11.5	0 10,000 cu. ft. 19.00
mums and snapdragons	2,000 CO. II. 11.3	20,000 cu. ft. 31.00
Isotox 1 (supplied in 50 lb, bags only)	50 lbs. 8.5	20,000 Eu. 11, 31.00
Kelthane Emulsion 18.5 ga Kelthane Wettable 18.5 3-lb. ba	1. 13.73 Case (4	4 1-gai.) per gai. 15.00
		6 3-lb. bag) per lb. 1.50
Lindane (25%)		
Malathion (25%)		
Mildex		3 lb. bag 5.80
Nicofume Liquid		gallon (8 lbs.) 13.80
Nicofume Pressure Fumigators	1/2 lb. cans (12 cans	5.65
	1 lb. cans (12 cans	10.50
Optox (10% DDT)		gal. 12.00
Orthocide 50 W	5 lbs. 5.7	0 50-lb. drum 54.00
Plantfume 103	5,000 cu. ft. carto	
Trainfolie 100	20,000 cu. ft. carto	
Parathion Spray 15% Wettable		
Parzate (Powder)	3 lb. bags 3.3	
P-40	25 lbs. 20.0	
		100 lbs. 70.00
Snailicide	5 lbs. 4.0	0 20 lbs. 13.00
Snarol	6 lbs. 2.0	
Sodium Selenate	4 oz. 4.0	
Terrachlor 75 WP		. 5 lb. 5.00
		Case (105-lb. bags) 45.00
Vapotone XX		
7orlete	2 16	
Zerlate	3 lbs. 2.4	5 Case (36 lbs.) 25.80

Prices subject to change without notice.

For your other needs refer to your

Gloeckner Carnation Manual and Seed Catalog

or see your Cl. 1 or see your Gloeckner Representative

FLOWER HOLIDAY CALENDAR

YEAR	VALENTINE'S DAY	EASTER	MOTHER'S DAY	MEMORIAL DAY	THANKSGIVING	CHRISTMAS
1958	FEB. 14	APRIL 6	MAY 11	MAY 30	NOV. 27	DEC. 25
1959	FEB. 14	MARCH 29	MAY 10	MAY 30	NOV. 26	DEC. 25

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