New York State Flower Growers

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Poinsettia Progress For '59

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The possibilities of controlling poinsettia flowering by daylength and temperature control were discussed in the New York State Flower Growers' Bulletin 151. The 1957-58 results indicated that very satisfactory plants could be grown with 70° day and night temperatures or 60° night, 80° day temperatures, and with nine hour daylengths. Plants subjected to either temperature combination flowered approximately two months after the beginning of short days. The plants grown at the same temperature combinations (70° day and night and 60° night and 80° day) flowered approximately four to six days later when a natural daylength was given instead of the nine-hour photoperiod.

In the fall of 1958 several experiments were conducted with poinsettias. These included studies on temperature, late propagation, pinching, and light intensity. The experiments will be considered in the order listed. In all of these studies the variety Barbara Ecke Supreme was grown.

Temperature

The influences of day and night temperatures on the flowering of the poinsettia were discussed in NYSFGB 151, when the results of the 1957 studies were reported. Day and night temperatures of 50, 60, 70, and 80° in various combinations were used. The possibility of using a 65° temperature in 1958 was considered, as according to a survey conducted last year the average night temperature used by New York growers was 62°, and the 3° increase did not appear to be excessive. Temperatures included in last year's experiment were 60, 65 and 70° in the various day and night combinations, resulting in a total of nine treatments. All of the plants were given short days starting October 10, and half of the plants were grown with nine-hour daylengths and the other half were subjected to natural daylengths. The results of the 1958 temperature study are shown in Table 1.

Table 1. The number of days required for flowering at the day and night temperature combinations of 60, 65, and 70°, with a nine-hour daylength. Short days were started October 10.

		Day Temperatures		
		70°	65°	60°
Night Temperature	70°	69	69	75
	65°	69	75	81
	60°	81	*	*

*Failed to flower by the time the experiment was concluded Jan. 1.

As indicated in Table 1 the 65° night temperature was quite comparable to the 70° night temperature in the number of days required for flowering. Flowering was delayed at a night temperature of 60°.

The differences due to daylength were not pronounced in 1958, particularly when a 70° day temperature was maintained.

Figure 1 illustrates the results obtained when the variety Barbara Ecke Supreme was grown with a night temperature of 65° and the day temperatures 70, 65, and 60°. A nine-hour daylength was given. Figure 2 shows the effects of a 70° night temperature and the day temperatures of 70, 65 and 60°, wth a nine-hour daylength.

Late Propagation

Serious problems have been encountered by some growers who have propagated their cuttings too early and have ended up with extremely tall plants. Also, some growers have propagated so late that the plants had to be given short days immediately after rooting in order to make Christmas. This practice generally resulted in small, abnormal bracts and plants of low quality. In 1958 an experiment was conducted to determine just how late the plants could be propagated and still make Christmas.

Cuttings of the variety Barbara Ecke Supreme were made on September 2, 9, 16, 23, 30, October 7 and 16. The propagation bench was lighted to prevent bud initiation while the plants were still under mist. Because the plants were propagated on different dates it was also necessary to begin short days on different dates. The dates of propagation, beginning of short days, and quality at Christmas are shown in Table 2.

Table 2. The propagation dates, start of short days, and quality at Christmas of the plants included in the late propagation study.

Propagation date	Start of short days	Quality at Christmas
September 2	October 10	Salable
9	10	Salable
16	14	Salable
23	21	Salable
30	26	Not Salable
October 7	November 10	Not Salable
16	15	Not Salable

As indicated in the above table approximately one month was allowed from the date of propagation to the beginning of short days.

(*Continued on page 3*)

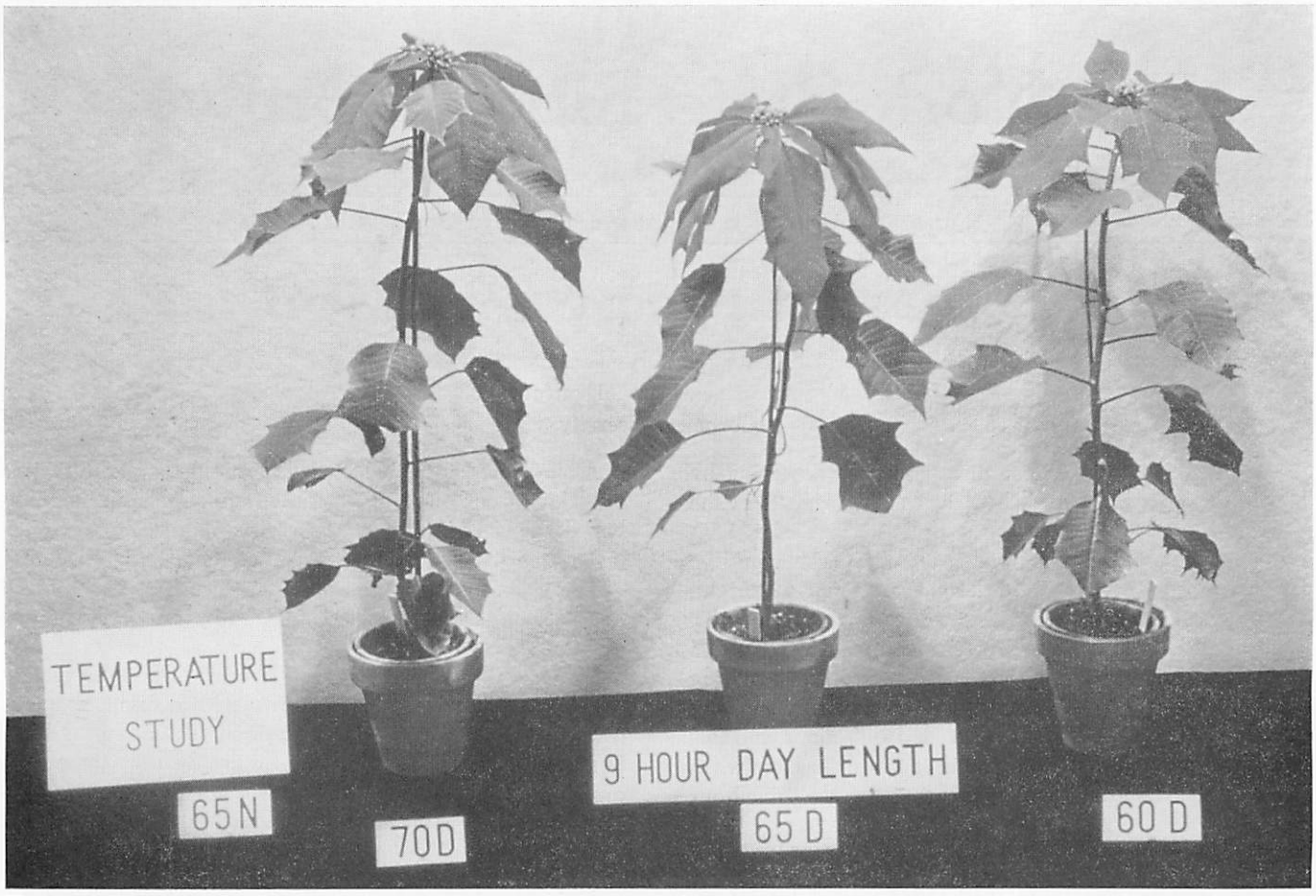


Figure 1. The influence of a 65° night temperature on the flowering of the variety Barbara Ecke Supreme with day temperatures of 70, 65, and 60° (Nine-hour daylength). The photograph was taken Dec. 22, 1958.

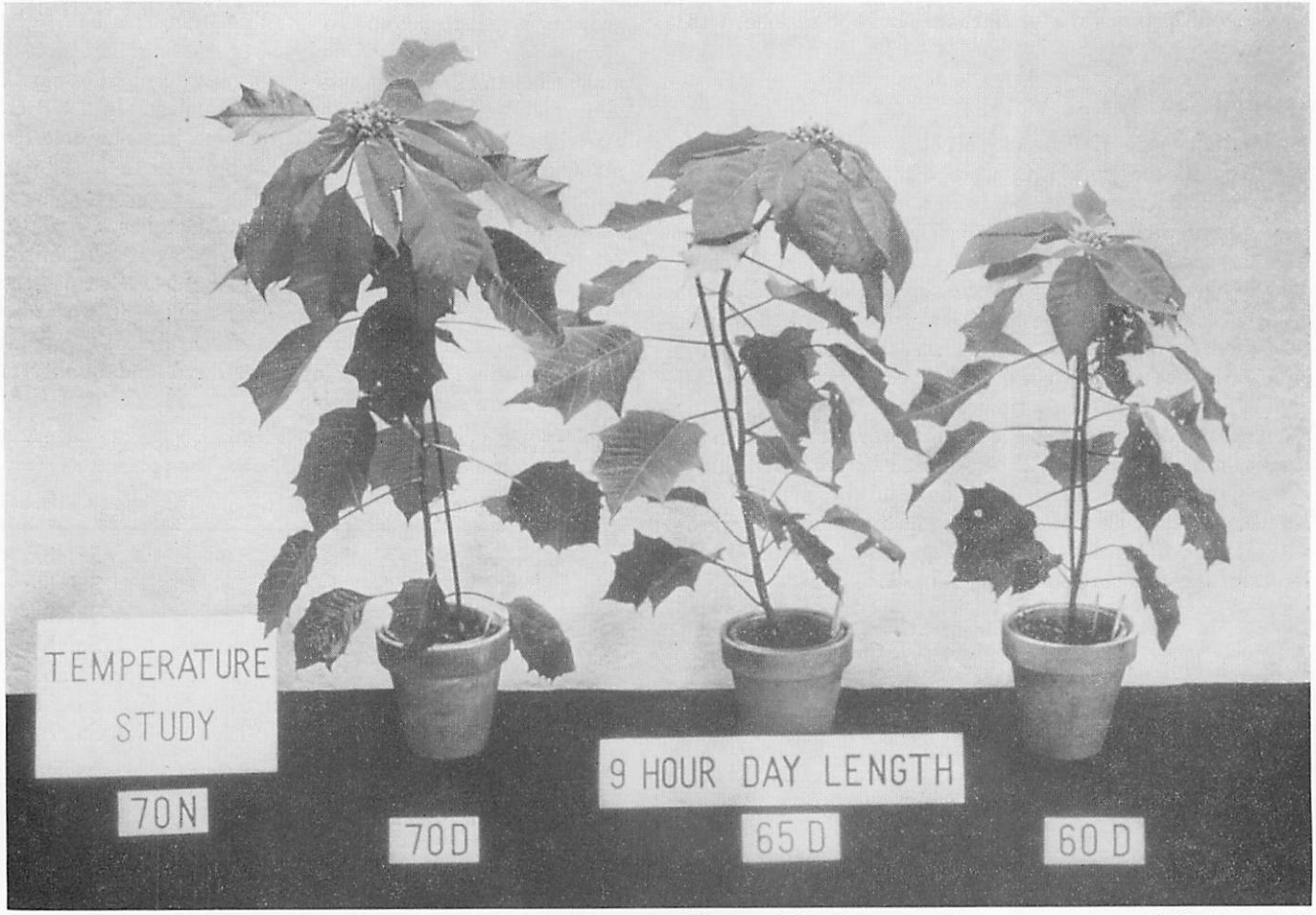


Figure 2. The influence of a 70° night temperature on the flowering of Barbara Ecke Supreme with day temperatures of 70, 65, and 60° (Nine-hour daylength). The photograph was taken Dec. 22, 1958.

Poinsettias

(*Continued from page 1*)

Figures 3 and 4 illustrate the maturity of the plants propagated at the various dates.

On the basis of the results in 1958 one would hesitate to recommend any propagation date later than September 23. However, one grower in upstate New York propagated some of his plants on October 4 and had good quality, salable plants for Christmas.

One phase of poinsettia culture which should be stressed is the need for lights for a period of approximately seven to 10 days after the cuttings have been potted. Some attempts have been made to initiate buds when the cuttings were under mist, or shortly thereafter, and poor quality plants have generally resulted.

Pinching

The majority of the experimental work conducted on poinsettias at Cornell has involved the production of single-stem plants. In 1958, however, the influence of the date of pinching on the quality and maturity of the plants for Christmas was studied. The variety Barbara Ecke Supreme was again used, with temperatures of 60° nights, 70° days, and 70° constant. Nine-hour and natural daylengths were employed. The plants grown at 60-70° were propagated August 1 while those grown at 70° constant were propagated September 1. The pinching dates for the plants grown at 60-70° were August 25, 30, September 4, 9, 14, 19, 24, 29 and October 4, while those grown at 70° were pinched September 25, 30, October 5, 10 and 15. Approximately two weeks of long days were given after the pinch to extend the laterals to a desired height.

Figure 5 shows the effects of pinching plants September 14, 19, 24, 29, and October 4 when the plants were grown at 60° night, 70° days, nine-hour daylength. Figure 6 illustrates the effects of the pinch on the various dates when the plants were grown at a constant temperature of 70°.

The plants which were pinched by September 19 were salable for Christmas in 1958 when the temperature was 60° night and 70° day, with a nine-hour daylength. When 70° was used the plants pinched by September 30 were salable. The differences in the number of breaks and plant height were not outstanding when the various pinching dates were compared.

Light Intensity

The influence of light intensity on poinsettia flower bud initiation and development has often been considered but has seldom been studied. In 1958 a relatively simple experiment was conducted to obtain some information on the factor, light intensity. Three light intensity treatments were obtained by growing plants under three layers of cheesecloth, one layer of cheesecloth, and without cheesecloth. These treatments were run at temperatures of 70° constant, 65° constant, and 60° night, 70° day.

Light intensity appeared to be influential, in this study, in flower bud initiation and the early phases of development. The plants which were grown without any reduction of the natural light intensity had visible flower buds approximately one week before those grown under one layer of cheesecloth, and two weeks before those grown under three layers of cheesecloth. This was noted in all three temperature treatments. However, by Christmas the differences in flower development were only slight.

The retarded appearance of the flower buds reduced light intensity is certainly of interest and substantiates the ideas postulated by many growers and research men that the differences from year to year in the number of days required for flowering may be caused by increased or reduced light intensity. However, further work is necessary on this influence of light intensity on flower bud initiation and development.

Summary

The influence of a 65° temperature was compared to the influences of 60 and 70° temperatures, and plants of very good quality were obtained at 65°. A night temperature of 65° is not much higher than the one many growers are using (62°) and the results from the 3° increase are satisfactory.

A propagation study was conducted to determine just how late one can propagate and still make Christmas, and the cut-off date in 1958 was September 23. A grower in upstate New York propagated plants as late as October 4 which were salable for Christmas. It has been emphasized that seven to 10 long days should be given from the time of rooting to the start of short days to get plants of good quality.

Pinching of poinsettia plants was also studied, and plants which were pinched September 30 and grown at 70° were salable for Christmas but those pinched later were unsatisfactory.

It was shown in an experiment on the influence of light intensity that reduced light intensity resulted in retarded but initiation and early development, but the later stages of development were not retarded at the lower light intensities.

SUMMER MEETING

July 22 & 23

What You Will See!

New equipment and demonstrations

Bedding plant trials

Tour of local greenhouses

Grumman's Aircraft Factory

What You Will Hear!

How To Fertilize—Norman Butterfield

Marketing Pot Plants and Cut Flowers For Mass Market Sales—Jack Atkins

Also a Woman's Program on Wednesday!

We'll See You on the Island

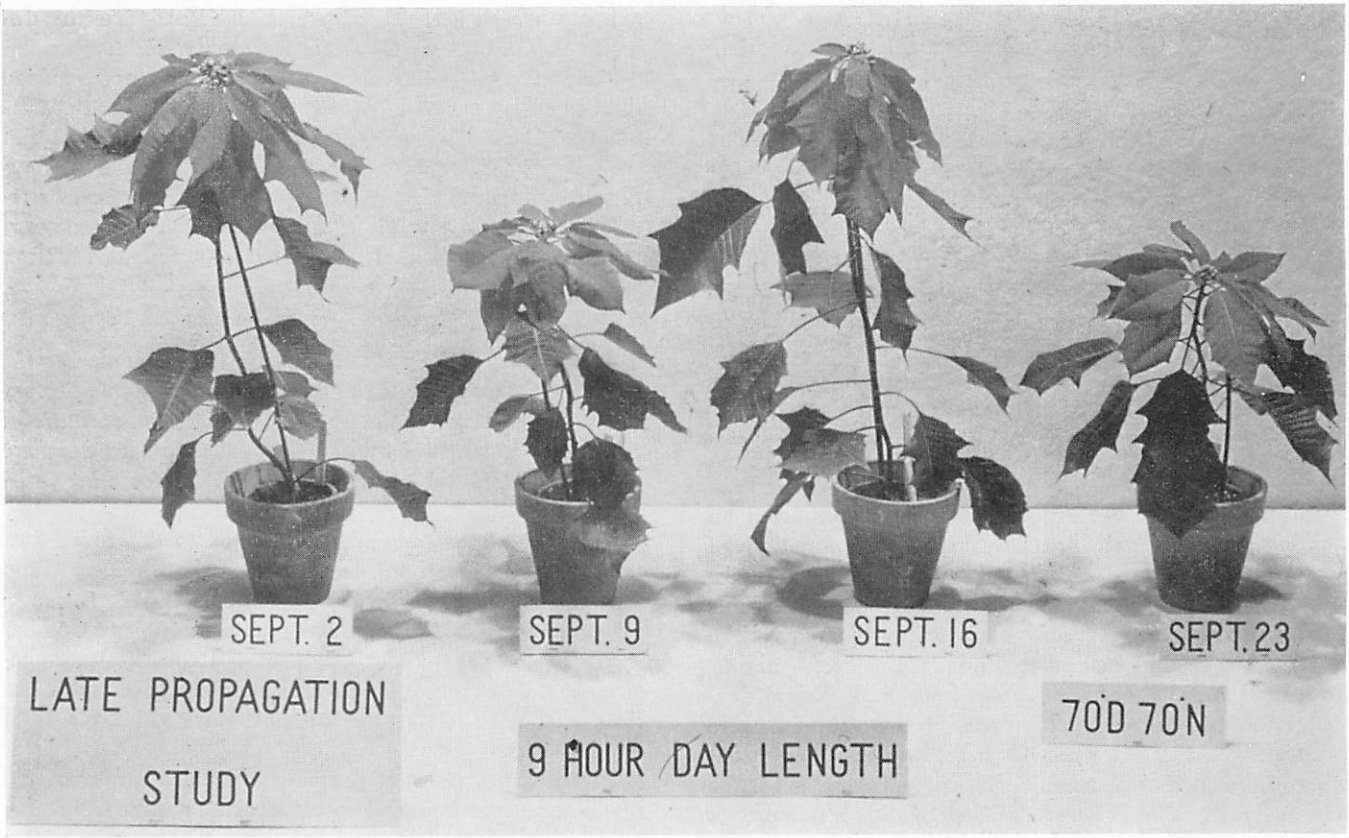


Figure 3. Propagation dates, September 2 to 23. Barbara Ecke Supreme grown at a 70° constant temperature and with a nine-hour daylength. The photograph was taken Dec. 22, 1958.

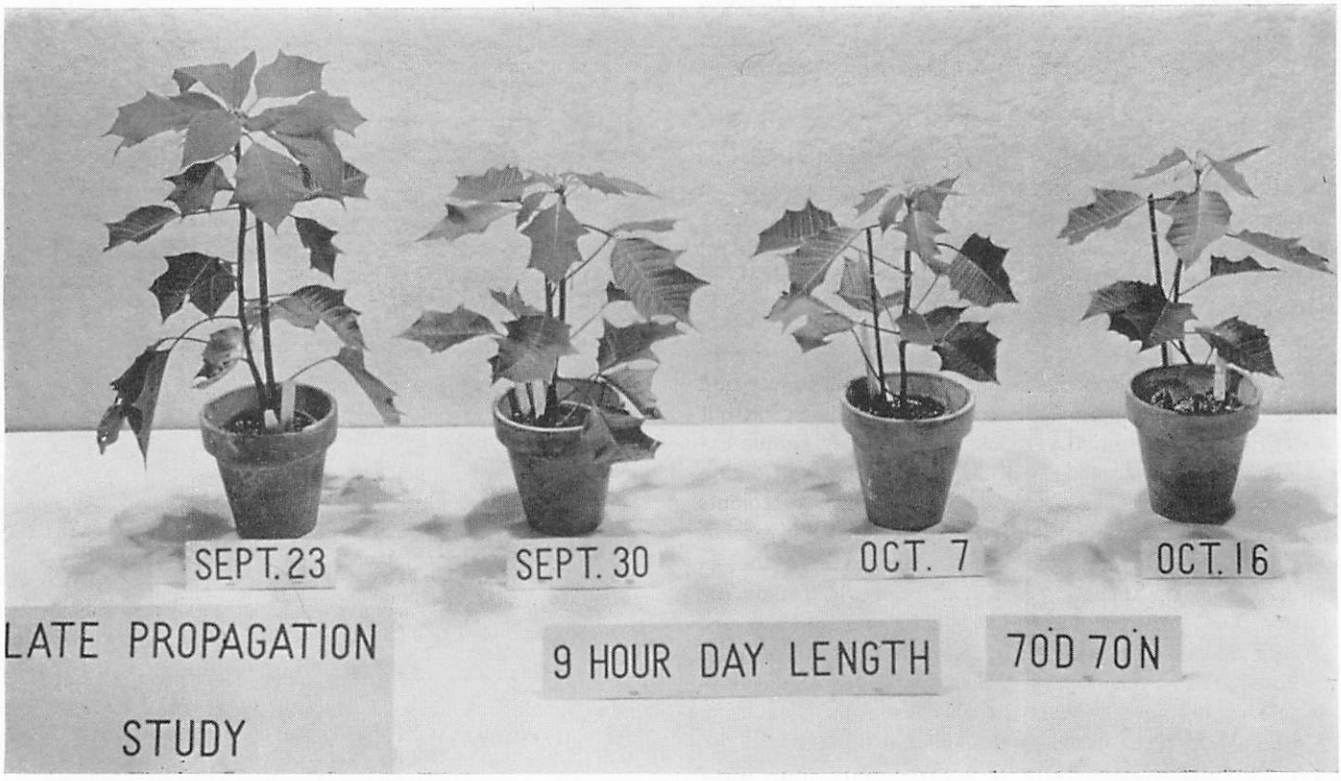


Figure 4. Propagation dates, September 23 to October 16. Barbara Ecke Supreme grown at a 70° constant temperature and with a nine-hour daylength. The photograph was taken Dec. 22, 1958.

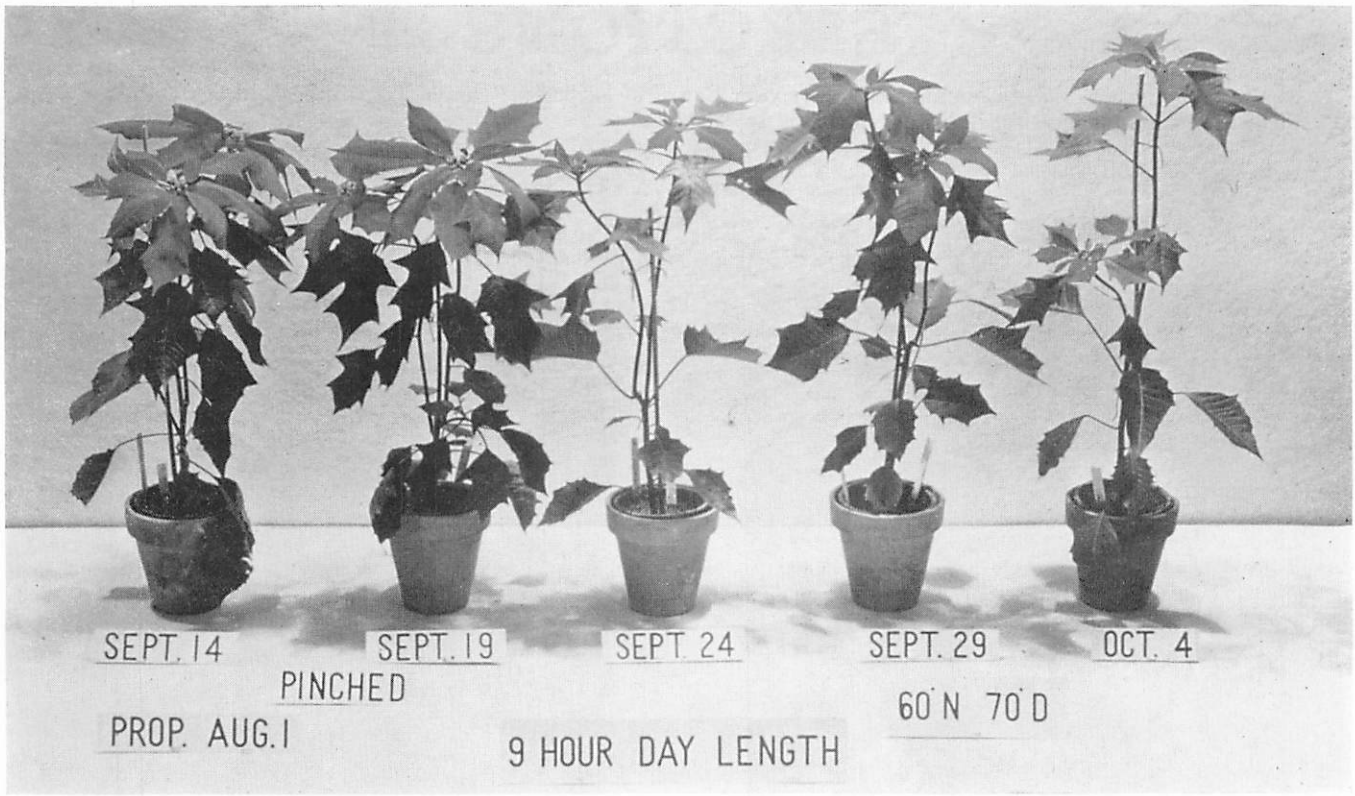


Figure 5. The effects of pinching on September 14, 19, 24, 29 and October 4. Barbara Ecke Supreme, propagated August 1, grown at 60-70°, nine-hour daylength. The photograph was taken Dec. 22, 1958.

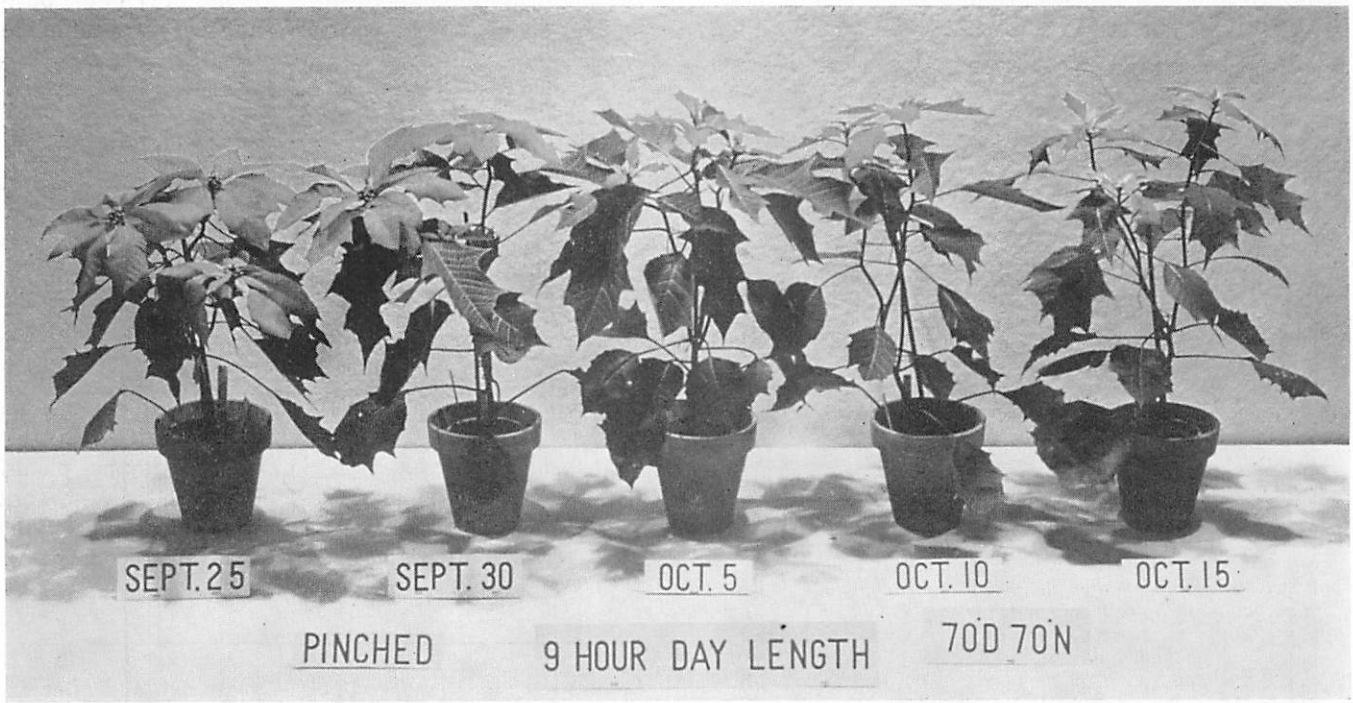
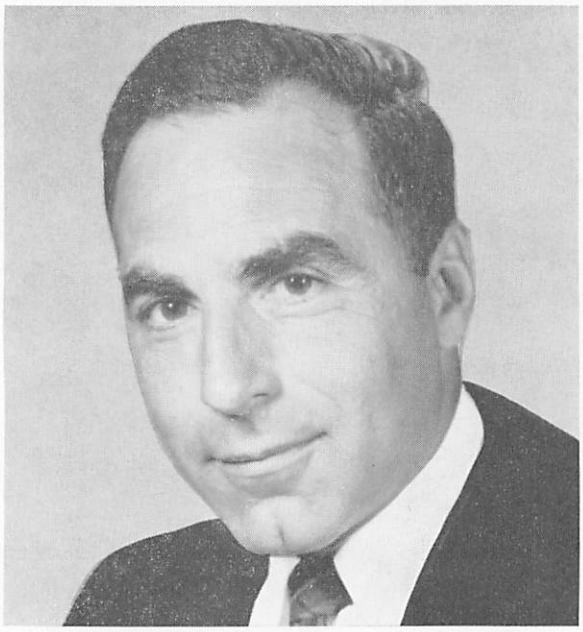


Figure 6. The effects of pinching on September 25, 30, October 5, 10, and 15. Barbara Ecke Supreme, grown at 70° constant, nine-hour daylength. The photograph was taken Dec. 22, 1958.

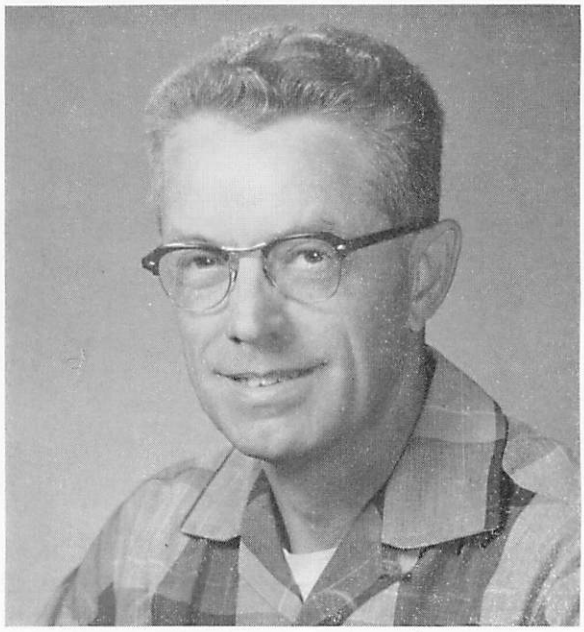
ELECTIONS

The following people have been nominated for your Board of Directors. The voting will be held on Wednesday, July 22, 1959 at the summer meeting in Farmingdale.

Your Vote Is Necessary!
For Board Of Directors



Louis Gugino has been in business in Fredonia, N. Y. with his father and two brothers for the past 22 years. Lou's father started with two small greenhouses about 54 years ago and now he and his sons have built it up to about 10 large houses. Lou specializes in geraniums but also grows pot plants and cut flowers. They also operate a retail store.



Don Rogers and his brother Harold operate the Homer Rogers and Sons Flower Shop of Lockport, N. Y. Don manages the growing and wholesaling operation, and Harold operates the retail store. He has been in the business for about 23 years except for a few years spent in the Armed Forces during World War II.

Chuck Miyazaki with wife and uncle grow year around chrysanthemums in Babylon, Long Island. Chuck bought the greenhouses about 11 years ago and after experimenting with a number of crops now specializes in standard mums and shastas. He has been very active in the Suffolk County Extension Service and is presently a member of the Florist Commodity Committee.

Camera Shy

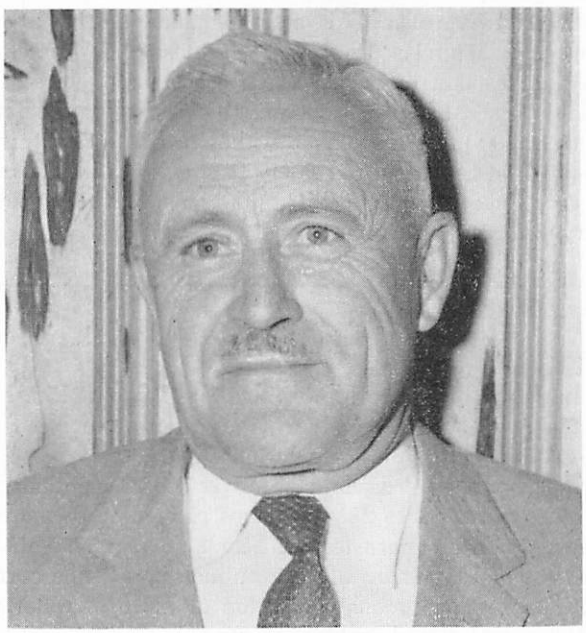
Steve Dudyshyan and his brother William operate the Kensico Floral Company in Valhalla, N. Y. In this 50,000 sq. ft. range they specialize in holiday pot plants, mums and bedding plants. Steve belongs to the New York Florist Club and is a member and past-chairman of the Florist Commodity Committee of Westchester County.

Kenneth Felthousen was born in 1927 in Schenectady, N. Y. and is the oldest of seven children of a third generation of florists. After serving a hitch in the U.S. Navy, Ken graduated from Cornell where he majored in floriculture. Ken has been past-president of Kiwanis, a Director and now member of the Chamber of Commerce, and a Board member of the Johnstown Medical Hospital. He is a member of the Albany Florist Club, past vice-president of the Florist Telegraph Delivery Association

William Schrade and his son John operate about a 40,000 sq. ft. greenhouse range in Saratoga Springs. He specializes in growing snapdragons and geraniums. In addition to the greenhouses, he also runs a retail shop in Saratoga Springs. He is active in many civic and trade organizations.

For Associate Board Of Director

Al Saffer. Al has been running the Saffer Florist Supply Company for the past 13 years and has been associated with the industry for about 25 years. Al is very active in a number of florist organizations and is presently a Trustee of the New York Florist's Club. He has two children.



Mort Conklin. Before World War II Mort worked for the Peter Henderson Company. He spent the war years with the U.S. Navy and after the war joined the Vaughan Seed Company. He presently handles the Long Island area. Mort has been very active in the Extension program in Suffolk County and is now serving on their Florist Commodity Committee.

Short Takes

J. W. Boodley

Azaleas that will be used for Christmas forcing should be grown in pots even though they are placed out of doors. When the plants are not grown in pots, root injury at the time of normal fall potting causes severe leaf drop to occur in storage. Such a condition results in all flowers and no leaves when the plants are forced for Christmas sales.

Maintain the feeding program on the hydrangeas and also do some pH control now for better blues and pinks next Easter. A pH of 5.5 or lower is considered best for forcing blue flowers and for pinks, pH 6.3 or above. Avoid the use of phosphorus fertilizers on those plants that are to be forced as blues. Phosphorus ties up the free aluminum in the soil which is responsible for the blue color.

Pinching hydrangeas too late does not allow the growing points to develop to the proper stage for budding and the shoots may be blind. The last pinch should be made 6 to 8 weeks before the weather gets cool enough to initiate flower buds. Bud initiation and formation occurs when night temperatures drop below 60 degrees. This is usually around September 1, so that last pinch should be made not later than July 15. In some upstate areas hydrangeas must be grown in the greenhouse to avoid premature bud set.

Weeds in orchids? Control them with Monuron herbicide. Monuron formerly sold as CMU has given safe and effective weed control on potted Cattleya and Cattleya Hybrids according to research done at Rutgers University. Karmex W is a trade name for the 80 percent WP monuron. Dissolve 15 grams or ½ ounce (2 level tablespoons) Karmex W in 3 gallons of water. Applied with a knapsack sprayer this is enough material to treat 2000 to 3000 plants. Although this concentration of material has a ten fold safety factor, it is still advisable to keep the spray nozzle close to the pots to avoid unnecessary wetting of the foliage.

Correction

In New York State Flower Growers Bulletin 158, February 1959, page 2, in the article titled "No Need for Weeds in Cymbidiums" by Arthur Bing.

It is stated in the summary "A rate of 2.5 pounds per acre is equivalent to 2½ teaspoons per gallon or more of water per 100 square feet of bench area or enough for 2800 five-inch pots or 1400 seven-inch pots." The correction is 2½ tablespoons per gallon or more of water per 400 square feet of bench space, etc.

The orchid grower may find it more practical and also safer to the foliage to increase the amount of water used so as to get a more even application of a chemical on the soil. The important consideration is to get 2½ pounds on one acre or 2½ tablespoons of Karmex DW on 400 square feet of soil surface. A.B.

Tukey Joins Staff

Dr. Harold B. Tukey, Jr. has been appointed Assistant Professor of Ornamental Horticulture, and will join the staff of the Department of Floriculture and Ornamental Horticulture at Cornell University next September 1.

Dr. Tukey at present is on a National Science Foundation Postdoctoral Fellowship and is conducting research in the Department of Biology at the California Institute of Technology at Pasadena, Calif. He is working with Dr. James Bonner in studies of the effects of various temperature and light cycles on the growth of plants.

While at Michigan State University on a Postdoctoral Fellowship of the Atomic Energy Commission, Dr. Tukey investigated the leaching of nutrients from plant foliage.

After graduation from the Department of Horticulture of the Michigan State University in 1955, he was awarded the Master of Science degree in March 1956, and the doctorate (Ph.D.) degree in March 1958.

In This Issue

YOUR EDITOR,

Bob Langhans