

THE EASTER LILY CROP, 1973

Roy A. Larson

Poinsettias are still in the greenhouses in large numbers, yet pot plant growers have Easter Lilies much on their minds. The problem confronting the lily grower in 1973 is rather simple - how does he grow an optimum-sized plant with abundant blooms timed nicely for an Easter Sunday that occurs on April 22nd? The alternative problem confronting the lily grower could be - how does he sell a 3-foot, 2-bloom lily in late March?

I asked several lily growers how they plan to handle their crops in 1973. The response from these growers was poor, and the lack of replies could have been due to several reasons:

1. The grower hadn't yet decided on a procedure.
2. The grower was ignoring the problem, hoping time would solve it.
3. The grower was too busy with poinsettias, and Easter lily production was not a timely topic.
4. The grower was waiting for Joe Love to tell him so the grower could tell me.
5. The grower was switching to potted mums.
6. Any other reasons you care to add.

Such a late Easter does present a real challenge to the lily grower. The number of days for forcing is excessive. The grower who cuts down the length of time in the greenhouse by precooling the bulbs longer reduces the bud count, hastens flowering, and increases plant height. Witt Scholtz, pot plant grower in Charlotte, stated it accurately when he wrote "you really have one foot on a slick place and the other on a banana peel".

This article is too late to tell you how to use the CTF method (Controlled Temperature Forcing) and that knowledge is quite wide-spread anyway. Perhaps the best advice I heard so far is the suggestion that lily growers look now for refrigeration facilities to slow down flowering in the spring.

Excessive height could be a major problem with an April 22nd Easter. The bright days we can expect in late March and most of April should provide "excellent" growing conditions. High light intensity results in shorter, stockier plants than low light intensity, but the day temperatures in the bright greenhouse could contribute to the height problem. We don't mean to tease the growers with reports of the effects of a new growth regulator, particularly when it seems doubtful that the manufacturer will have label clearance in time to help the lily grower in 1973. Most growers already have heard of ancymidol or A-Rest, however, so our results are not completely inappropriate. We have conducted research on this chemical for over two years.

Bulbs (8/9) were obtained from the Fred C. Gloeckner company and the United Bulb Company. These bulbs had been pre-cooled commercially, and were potted at N. C. State University the first week in December, 1971. The plants were grown at a minimum night temperature of 60°F in a bright greenhouse. Some of our findings are shown in Table 1.

Table 1. Growth and flowering of 'Ace' Easter Lilies treated with ancymidol (A-Rest) in 1972

Treatment	% Height Control	No. of Flowers	Date of First Open Flower
125 mg spray ^Z			
11 weeks before Easter	54%	7.0	March 25
9 " "	37	7.5	" 26
7 " "	24	6.5	" 20
5 " "	22	5.5	" 25
0.5 mg soil drench			
11 weeks before Easter	61	6.5	March 25
9 " "	49	7.5	" 23
7 " "	27	7.0	" 19
5 " "	7	7.5	" 21
Check	-	7.5	March 21

^ZAncymidol supplied by Eli Lilly and company.

In these experiments the foliar spray volume was 2.5 gallons of dilute solution/1000 sq. ft. The soil drench volume was 6 ounces of dilute solution/6" pot.

Time of the single applications affected plant height and quality. Soil drench treatments applied approximately 2 months before Easter were superior to treatments applied either 1 or 3 months before Easter. Single spray applications were best if applied 2 or 3 months before Easter.

Height control also was achieved when the growth retardant was applied in split applications, at reduced concentrations (Fig. 1). The best quality plants in the experiments were obtained when a weak concentration was applied 4 times, rather than stronger concentrations applied 1, 2, or 3 times. The same general response was noted for both spray and drench treatments.

Similar results were obtained with bulbs from both sources.

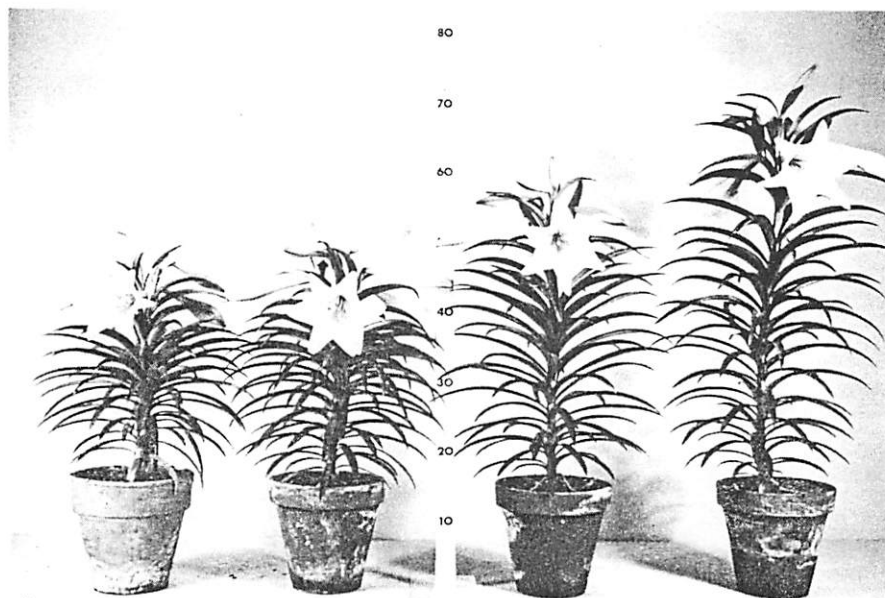


Figure 1. 'Ace' Easter lilies treated with soil drench applications of ancymidol. Left to right: 0.25 mg/pot 11 and 9 weeks before Easter; 0.12 mg/pot 11, 9 and 7 weeks before Easter; 0.06 mg/pot 11, 9, 7 and 5 weeks before Easter; control.

SUMMARY

1. Easter lily height is controlled effectively with ancymidol.
2. Plants of high quality and desirable height were obtained when weak concentrations were applied at 2-week intervals.

3. The best soil drench treatment (one application at 0.5 mg/pot) was applied 2 months before Easter.
4. The best foliar spray treatments (one application at 125 ppm, volume of 2.5 gallons/1000 sq. ft.) were applied 2 or 3 months prior to Easter.
5. Ancymidol was not commercially available at the time of publication of this article, but the manufacturer is hopeful that the product will soon be on the market. It has also been used with success on pot mums, poinsettias and some bedding plants. Our results with it on hydrangeas were negative.