

# *N. C. Flower Growers*

## BULLETIN

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### EASTER LILIES

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Easter this year falls on April 17 which is three weeks later than last year. This means that growers who may have failed to make Easter with their crop in 1959 have no problem this year because with the higher light intensities which can be expected when Easter is late, lilies will force in 110 days whereas it takes 120 days when Easter is early. These are dates for Croft lilies grown at 60° F. night temperature, Ace and Pacifica require about 10 days longer. In other words, this year Croft should be planted by December 29 and Ace and Pacifica by December 19.

#### Receiving Bulbs

When you receive lily bulbs they should be stored at 33-35° prior to potting. Lilies stored at room temperature will lose the effects of precooling and a delay in flowering and uneven growth and development will result. This effect was noted in experiments conducted in 1954 at North Carolina State College with lilies stored at room temperature for as little as 5 days (For more details check your N. C. Flower Growers Bulletin, Vol. 1, No. 2.).

#### Soil Mixtures

Easter lilies require a well-drained, aerated soil. A good mixture is 1/3 soil, 1/3 peat and 1/3 coarse sand. Be sure to use a coarse sand, or perlite ("Krum") may be used in place of sand. Perlite has given excellent results as replacement for sand in our regular soil mixture and has proven to be a little bit superior to sand in that it is coarser and gives better drainage and better aeration. Growers in the eastern part of the state can eliminate the sand or perlite and use two parts of soil to 1 part peat since they have a natural sandy soil. Experiments have shown also that perlite mixed with peat, 1/2 by volume of each, is a good growing media.

Be sure to sterilize pots, soil and benches prior to planting to avoid lily root rot. Steam is still the best means of sterilization, but if it is not available, use MC-2 at the rate of 4 lbs. per 100 cubic feet of soil. Soils should be well aerated after using MC-2.

#### TIP BURN

Tip burn has been quite a problem in North Carolina. From experimental evidence here at State College, as well as from other institutions, it has been

found that tip burn is increased when excess phosphorus is added to the soil. Therefore, the soil should be tested and phosphorus should not be added unless it is extremely low, and then only at the rate of a 3" pot per wheelbarrow of soil. Another cause of tip burn is from too low a pH and lack of calcium. Here in North Carolina native soils average around pH 5.5 and without additions of lime we will have trouble with tip burn. Therefore, dolomitic limestone should be added to the soils at the rate of a 6" pot per wheelbarrow of soil if the pH is around 5.5. If the soils happen to be around a pH of 6.5 then gypsum (land plaster) should be used in place of dolomitic limestone.

In feeding the lilies, high analysis fertilizers such as 15-30-15 and 20-20-20 should not be used since they contain high amounts of phosphorus. A low phosphorus fertilizer such as a 15-4-10 is preferred and many growers prefer to use a combination of ammonium nitrate and muriate of potash or potassium nitrate in feeding their lilies. (For further information on tip burn see N. C. Flower Growers Bulletin, Vol. 1, No. 2.).

#### Temperature

Many of the recommendations are to grow lilies at 60° night temperature from the time of potting until flowering. This can be practiced especially since the advent of precooling of bulbs. However, many growers have found that lilies started at low temperatures of 50° until 2-3" high have more uniform flowering as well as shorter plants. When this is practiced it will take at least 5-10 days longer in forcing lilies than when growing at 60° straight.

#### Watering

Since the buds are initiated when the stems are from 1 to 1½", this is a critical time and lilies should not be allowed to dry out at that time. Allowing them to become too dry will cause abortion and reduce the bud count. Many growers prefer to water their lilies after they are potted and then wait until they are emerging before watering again. This is excellent and will help keep the plants short, but be sure to avoid over-drying when they are from 1-1½" high.

## Timing

Development of Plant	Weeks to Easter	Date
Buds can be "felt" in tip	7	Feb. 28
Buds just visible	6	Mar. 6
Buds 1" long	5	Mar. 13
Buds 2" long	4	Mar. 20
Buds 3" long	3	Mar. 27
Buds crooked over	2	Apr. 3
Some buds swollen and white	1	Apr. 10

If you are off the above schedule you should change the temperatures; if early, lower the temperature; if late, raise the temperature.

If the lily matures too early it can be moved to a 45 to 50° storage for a period of about 10 days without detrimental effects.

## RALEIGH GARDEN SHOW—1961

The board of directors for the North Carolina Association of Nurserymen and the North Carolina Commercial Flower Growers Association recently held a joint meeting along with officials from the Fair-grounds to discuss the possibilities of a Spring Garden Show in Raleigh. Following the very successful State Fair exhibit, a garden show in its own right, which was staged by these associations, enthusiasm for a large spring show has been very high. However, due to time limitations and a lack of experienced know-how in staging a large garden show it was decided to forego a 1960 show but to start immediately on plans for one in 1961.