# CULTURAL SUGGESTIONS AND SCHEDULE

FOR FORCING EASTER LILIES - 1957 Dr. Norman W. Butterfield Extension Specialist in Floriculture University of Massachusetts Waltham Field Station

#### **Chemical Treatments and Soil Sterilization**

Some growers are asking the question about whether it would be a good practice to apply the chemicals as an added precaution to sterilized soil. The answer is it is highly recommended that a drench be added. For a short term crop of 120 days, we feel that only one application of the chemical drench, as outlined in the November FLOROGRAM, is necessary.

### Watering

Watch watering carefully - especially if the crop is grown in plastic pots. A pot kept too wet may predispose diseases. If pots are kept too dry, it may cause reduction in bud count - so there is a very ticklish problem in watering - and don't send out just anyone to do it.

#### Benches

We would recommend that lilies be grown on well-

drained benches filled with coarse sand or pea stone. Our greatest trouble with diseases has developed when pots were placed on old benches filled with soil. The pots certainly should not be plunged into the soil. Preferably the soil should be covered with boards or some plastic or vinyl material.

#### Temperature

Ace requires a slightly higher temperature than Croft. So if both are grown in the same house, it would be better to place the Ace in the warmer end. Some grow Ace at  $62^{\circ}$ F. night and  $72^{\circ}$ -75°F. days. Others grow it at  $60^{\circ}$ F. night. Croft is usually found to be grown about 2-3 degrees cooler than Ace. If the bulbs were planted earlier than the schedule calls (Dec. 8), the temperature may have to be reduced. Much will depend upon the season. Bulbs respond a little different each year, perhaps because of the seasonal differences in which they were grown and the manner in which they were cured and cooled.

#### Spacing the Crop

The reason Ace lily has been so popular with our growers in Massachusetts is that more of them can be finished off in the bench area than Croft. Croft must be spaced fairly early or the leaves will turn yellow and grow much taller than desired. Ace lily need not be spaced until quite late in the production program but if a dwarf, high-quality plant is desired, the Ace too must receive some spacing. The Ace foliage tolerates the crowding conditions better than Croft. In any case, good light conditions are essential for dwarf, high-quality plants.

### **Fertilizers**

Both Ace and Croft should be fertilized every two weeks. Keeping the nutrients high will not cause stretching of the stem. If you added urea-formaldehyde forms of nitrogen to the soil before potting the bulb, you may have to add potassium and possibly more nitrate.

From recent research we learn that high phosphate levels in soil may be a factor in inducing leaf scorch on the Croft lily. Also, research shows that a high calcium level is needed for Croft. For this reason we recommend that Croft lilies be fed with a 1-0-1 ratio fertilizer. This same ratio may be used for Ace too, for we assume that superphosphate was added to the potting soil.

## **Fertilizers for Croft**

20-0-20 - 2 lbs. to 100 gals. - 1 oz. to 3 gals. 25-0-25 - 1-3/4 lbs. to 100 gals. - 1 oz. to 4 gals. Potassium nitrate 1½

# and

Sodium nitrate 1½

or

Calcium nitrate 11/2 per 100 gals. - 1 oz. to 4 gals.

Liquid fertilizers are all right too. Follow directions. A dilution of 1-300 gallons or 1-400 gallons seems to be the prevailing dilution for a 12-0-9 analysis.

## **Fertilizers for Ace**

12-12-12 - 3 lbs. to 100 gals. - 1 oz. to 2 gals. 20-20-20 - 2 lbs. to 100 gals. - 1 oz. to 3 gals. For liquid fertilizers such as -12-4-12 - follow directions. Prevailing dilution 1-300 to 1-400 gals. of water.

### Warning

Liquid fertilizers should be stored where it is fairly warm. At low temperatures there may be salts form in the bottom of the barrel or container. These salts precipitated out of solution may contain high ammonia and will cause burning if the solution comes in contact with foliage.

### Insects

Malathion is considered one of the best insecticides for controlling aphids and other insects that may be encountered in production of the lily crop. If an aphid problem should arise, alternate between lindane and malathion. After buds from lindane smoke is recommended. Smokes, in general, are safer to use when crop is in bloom.

Applications of malathion should be made every two weeks. Spray 2 tablespoons per gallons; dust 4%. Bombfollow directions keeping temperature at 70-80°F. and relative humidity 70-75%.

# Warning !! Always use a gas mask.

#### SCHEDULE FOR FORCING EASTER LILIES - 1958

ACE 62°P. - CROFT 60°F.

Date	Started	Days to Easter	Remarks and Condition of Plant
Dec.	8–15	120 (17 weeks)	Planted - sterilized soil - l part sand, l part pest, 2 or 3 parts leam. Low salt content Drainage - layer of 1/2" pes stons in the bottom of pot. Watch water- ing carefully.
Dec.	22 .	106	Placed on benches. Watch watering.
Dec.	29	99	Plants breaking soil.
Jan.	5	92	Growth 1ª tall.
Jan.	12	85	Growth 1-4° tall.
Jan.	17	78	Growth 4-6" tall. 1st. feed. Spray, dust or bomb for insects.
Jan.	24	71	Growth 6-7"
Feb.	2	64	Growth 10". 2nd feed. Check for insects.
Feb.	9	57	Growth 12-15"
Feb.	16	50	You should feed 3rd feed. Spray, dust or bomb for insects.
Feb.	23	43	Buds size of a pea - 1/2"
Mar.	2	36	Buds 1" long - 4th feed. Check for insects.
Mar.	9	29	Buds 12-2" long. Beginning to drop.
Mar.	16	22	Buds 2-3" long and still bending down. 5th feeding.
Mar.	23	14	Buds well developed. Green in color. 1-2 buds - nearly white.

Mar. 30 Easter week - ready for shipment.