Lilies For Easter

James Boodley
Department of Floriculture
Cornell University

The lateness of Easter, April 17, 1960 this year means that not as much time should be needed for forcing the crop into bloom. Warm outdoor temperatures and high light intensities in the final stages of growth will have the greatest effect on when and how the crop finishes. The timing schedule offered is merely a guide to help you determine how closely your crop is on schedule.

Disease Prevention

A preplanting bulb dip can be used if desired. At present Cornell neither recommends nor discourages the inclusion of a bulb dip in the cultural program. Good results have been obtained by research workers in California with the following treatment: Dip the bulbs for 30 minutes in a solution of 2 cups captan, parzate or fermate, plus ¼ cup Terraclor, plus ¼ cup Agrimycin 100 dissolved in 5 gallons of water.

A well-drained soil that is impossible to overwater coupled with at least one-inch of coarse sand or gravel in the bottom of the pot is the most important requisite in prevention of root-rot diseases.

Culture

Precooled Croft lily bulbs can be potted up in late December and placed on the bench in a 60°F. night temperature greenhouse. Ace lilies usually require 10 to 14 days longer than Croft to develop so they should be potted earlier. Place the top of the bulb 1½ to 2 inches below the level of the soil surface to stimulate stem root action.

Soil

A basic mixture of ⅓ soil, ⅓ peat and ⅓ coarse sand will drain well. If your soil is heavy better drainage may be obtained by using a mixture of 9 parts soil, 6 peat, 4 sand and 2 parts horticultural perlite. This is essentially a 1-1-1 mix. Sandy soils will not need as much sand as indicated.

The nutrient content of the soil should be low to medium so that developing roots will not be damaged. A pH of 6.5 to 7.0 is recommended. Use ground limestone to raise the pH if needed.

Coarse sand, pea gravel or broken crockery should be placed in the bottom of the pot to a depth of ¾ inches.

All pots, gravel, crockery and the benches pots go on should be steam sterilized to eliminate disease. Generally steam sterilizing of the soil has proved of value, but the results have not been consistently in favor of steaming.

In no instance should lilies follow poinsettias without first steaming the bench to kill disease organisms.

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Temperature and Fertilizers

Place the potted bulbs in the greenhouse at 60°F. night temperatures and 70-75°F. day temperatures. Water the pots well, but don't overwater during this important root development stage.

Start fertilizing when the new shoots are 2-3 inches tall. This is the stage of growth when the buds are forming and good nutrient levels are important. Use nitrate of soda or calcium nitrate at the rate of 1 pound per 50 gallons of water every 14 to 18 days. If the soil pH gets over 7.2 use ammonium sulphate at the same rate for an application or two to bring it down.

A mixture of 3 ounces of ammonium sulphate and 12 ounces of nitrate of soda per 50 gallons of water will give you a fertilizer that is about neutral in reaction.

Timing

February 4-6: Sort the plants. Place slow ones in a warm location to speed up growth. Space the plants well and give them as much light as possible. Crowding the plants and low light intensity or shading from dirty glass, gutters or dirty roof bars cause undue stretching.

March 1-3: You should be able to feel the buds.

March 8-10: Buds should be about ½ inch long.

March 30: Buds fully developed, being held.

April 6: Buds whitish, fully developed, being held.

April 13: Plants should be ready for sale.

Plants that develop too early for Easter can be stored two weeks at 38-40°F. without lights. Water the soil well and put the first plants into storage when the earliest bud is just ready to crack open. Mist-spray the plants with zineb (½ pound per 100 gallons of water) prior to storage as a protection against botrytis. Remove the plants one day before full bloom is desired.

Insect Control

Aphids are the lily growers most troublesome insect. Control is simple and effective with the use of demeton (Systox). A solution consisting of one pint of 23% Systox emulsifiable solution in 100 gallons of water should be applied at the time the lilies are six inches tall. Make the application the same as a watering. One treatment is

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sufficient to last until the crop is sold provided you've left at least ¾ inches between the top of the pot and the soil surface to act as a water reservoir.

Aphids can also be controlled with sulfotepp (dithio) smokes, lindane sprays or aerosols and malathion sprays or aerosols. When spraying be sure to get the material down into the growing tip as this is where the aphids are located.

Remember, insecticides can kill you too so be sure to follow the directions on the label and wear protective clothing.

Miscellaneous

Proper temperature control will do more to determine the finishing heights of lilies than any other factor. The use of lights will speed maturity of the crop but does cause undue stretching of the stems.

Should the bulbs arrive before you are ready to plant do not store them at warm temperatures. Place the crate in a 35-40° refrigerator until ready to pot. Storage at warmer temperatures nullifies the precooling effect.

For more on the miscellaneous factors affecting lilies consult your New York State Flower Growers Bulletin Number 155, November 1958.