

**2023 University of Connecticut
EASTER LILY SCHEDULE**

Weeks Prior to Easter	Date	Forcing method	
		Case-Cooled	Pot-Cooled (CTF)
24	Oct. 24	This schedule designed to produce 16" lilies that bloom 1-week before Easter. Notes on next page & accompanying article for details. Programming starts immediately. Prep for lily arrival. Test soil & inspect bulbs.	
23	Oct. 31	Start bulb programming as soon as bulbs arrive but no later than 23 weeks before Easter. Cool at 40-45F for 6 weeks	Pot and allow roots to grow at 60-62F for 3 weeks
20	Nov. 21	---	Cool at 40-45F for 6 weeks
17	Dec. 12	Pot no later than 17 weeks before Easter Force in greenhouse at 60-62F in pot.	---
14	Jan. 2	Shoots emerging ~ 0.5" tall & buds beginning to set. Start fertilizing & keep moist. Force in greenhouse at 60-62F in pot.	
13	Jan. 9	1.25-1.5" tall. Keep lilies moist & use fungicide drench as needed. Bud initiation coincides with stem root development.	
12	Jan. 16	2.25-2.5" tall. Run 60-62F day/ night during bud initiation. Begin leaf counting as soon as bud set is complete.	
11	Jan. 23	3-3.5" tall. Apply growth regulator when 3-5" tall. Repeat leaf count on late batches of lilies. Maintain temperature below 65F until bud initiation is done.	
10	Jan. 30	4-4.5" tall. Check for bud set & begin leaf counting and graphical tracking. Use temperature to control the rate of lily development & DIF to control height. ADT 65-70F. Check for aphids & root problems. Apply Marathon sometime during weeks 10, 9, or 8.	
9	Feb. 6	4.75-5.5" tall. Space lilies to avoid yellow leaves & stretching. Soil test & if leaf scorch is evident, use calcium nitrate for balance of schedule.	
8	Feb. 13	5.5-6.5" tall. Adjust temperatures as needed.	
7	Feb. 20	6.5-7.5" tall. 42 days to sale. Buds can be felt. If buds are visible on early planting run 60F until finish.	
6	Feb. 27	7.25-8.5" tall. Buds ~0.75". Lilies are about half final height. Buds should be visible no later than 30 days prior to sale. Grade for uniformity as buds become visible. Apply Fascination or Fresco if leaf yellowing is evident, or if cooling is anticipated.	
5	Mar. 5	Lilies 9-10.25" tall. Buds 1.25" long.	
4	Mar. 12	Lilies 10.5-12" tall. Buds 1.75-2" some bending down.	
3	Mar. 19	Lilies 12-13.5" tall. Buds 2.75". If aphids present, use a total release smoke or aerosol.	
2	Mar. 26	Lilies 13.5-15.25" tall. Buds 4-4.25" long. some turning whitish. Stop fertilizing & apply clear water once before sale. Cool lilies at 35-45F to hold. Apply Fascination or Fresco prior to cold storage.	
1	Apr. 2	Final lily height 15-17" tall. Buds 6-6.25" long & at or near bloom. Shade lilies immediately after they are removed from storage.	
0	Apr. 9	Easter Sunday 2023	

NOTES & COMMENTS ON THE 2023 EASTER LILY SCHEDULE

Easter 2023 outlook: Easter falls on a mid-date in 2023 (**April 9**). Mid-date Easter schedules are the easiest to manage. Average heights and times for forcing are presented in this schedule. Adjust schedule according to plant growth, bud development, starting time, and grower experience. If you have problems with your crop, contact your bulb supplier or Extension specialist.

Pot-cooled bulbs are normally potted & held for 3 weeks at 60-62F before the six weeks of bulb cooling (at 40-45F) begins. The bulbs then require 14 weeks of greenhouse forcing. This entire process requires 23 weeks from initial potting to Easter. This same process is used for both naturally cooled or CTF bulbs.

Case-cooled bulbs require 6 weeks of cooling followed by 17 weeks of greenhouse forcing to flower in time for Easter. Be sure that commercially case-cooled bulbs arrive & are planted by Dec. 12th.

Insurance lighting should not be necessary this year.

Fertigation: Start fertilizing with a soluble formulation when lilies emerge and continue to within 7 days of sale. Combine calcium nitrate (3 parts) with potassium nitrate (2 parts) to make a 15-0-18 soluble fertilizer or use a commercial 15-0-15 formulation. If phosphorus was not added to the medium, 20-10-20 can be used on an alternating basis with a 15-0-15. Fertilizer rates should range from 200-250 ppm. Do not allow medium EC to exceed 3-3.5 mS/cm based on a Saturated Media Extract. Stop fertilizing just before sale. Provide one clear watering before shipping to this will reduce salt levels and maximize shelf life. Do not withhold water or fertilizer to slow development but avoid over watering (i.e. water too frequently) or root rot problems may occur.

Lily timing: Monitor lily development each week (use leaf counting to accurately gauge crop timing). Adjust temperature to keep plants on schedule. Use average daily temperatures of 70-75F to speed development, use temperatures of 55-60F to slow development.

Bud initiation: Run 60-62F day & night during bud initiation. **The final critical date is Feb 27th.** This marks 6 weeks before Easter. To maintain a normal schedule, you should be at visible bud by this date.

Decrease Leaf Yellowing & Delay Flower Senescence: To prevent early-season leaf yellowing (7 to 10 days before visible bud) & mid-season leaf yellowing (7 to 10 days after visible bud) spray Fascination or Fresco at 10/10 ppm. Apply only to lower leaves & cover thoroughly. To prevent late-season leaf yellowing and post-harvest flower senescence, thoroughly cover all foliage & buds with spray at 100/100 ppm to thoroughly cover all foliage & buds. Apply when buds are 3 to 3 ½" long BUT NOT MORE than 14 days before shipping or cooling. Protects leaves from yellowing for up to 14 days. Note: Avoid direct contact of spray to immature leaves during early- & mid-season applications or increased stem stretch will result.

Disease and pest control: Before planting, clean bulbs of debris removing any damaged scales, especially scales that show evidence of infection. Once potted, root rots associated with Rhizoctonia, Fusarium, and Pythium are a concern. Drench immediately with Banrot, Pageant Intrinsic, broad-spectrum fungicides, or you can treat to control these diseases separately by selecting from the fungicides specifically registered for Rhizoctonia, Fusarium and Pythium control on lily. Materials registered for Rhizoctonia and/or Fusarium include 3336, OHP 6672, Chipco 26019, and many generics; Heritage, Pageant Intrinsic, Spirato, Mural and Terraclor (Rhizoctonia). Materials registered for controlling Pythium include Alude, Banol, Subdue Maxx (beware of using mefenoxam exclusively because of widespread fungicide resistance issues with this active ingredient), Segway O, and Truban. Check with manufacturers regarding compatibility when tank mixing fungicides. Re-applied fungicides later in the crop as needed, check labels for guidance. Preventative biological fungicides (RootShield, Rootshield Plus, Cease, Actinovate, Mycostop, Companion, LALSTOP, and Triathlon BA) may be applied at planting for disease suppression and to enhance root growth. Check with company or product labels information for safe time intervals between application of biological agents and chemical fungicides. Note: Registration of pesticides varies by state so consult and follow labels for registered use. To avoid any potential phytotoxicity or residue problems, spot test before widespread use. No discrimination intended for products not listed.

Aphids, fungus gnats and bulb mites are a major concern. Many chemicals are listed for aphid control, including: Safari, Flagship, Tristar, Marathon, Enstar AQ, Suffoil X, M-Pede, Kontos, Endeavor, Aria, Mainspring GNL, Rycar & Ventigra. Fungus gnats can be controlled with some of these same chemicals as well as Citation, Distance, Adept, Pylon, insect parasitic nematodes (Nemasys, NemaShield, Entonem) and Gnatriol WDG. Bulb mites, Rhizoglyphus robini, represent one of the more troublesome insect pests on lilies and effective management requires an integrated approach. Bulb mites are a secondary pest commonly associated with decay caused by fungus gnat damage and soil-borne fungal pathogens. Note: Registration of pesticides varies by state so consult and follow labels for registered use. To avoid any potential phytotoxicity or residue problems, spot test before widespread use. No discrimination intended for products not listed.

Controlling Lily Height: Monitor lily height regularly during forcing. If height exceeds the target size, run negative DIF or use a growth retardant such as A-Rest, or Sumagic (thorough coverage needed) to slow stem elongation. If height is less than the target size, run positive DIF or use a gibberellin PRG such as Fascination or Fresco to increase stem elongation. Split applications of PGRs provide the best results. You can apply any of the PGRs at ½ to ¼ the normal rate (or even less) and use multiple applications as needed. Reduce the concentrations of Sumagic used when combined with DIF. Use DIF, or cool morning DIP, to control lily height. Equal day/night temperatures, high night/low day temperatures or a cool morning temperature dip will produce a DIF effect and keep lilies short.

Lily storage: Lilies can be stored for up to 14 days in the dark at 35-45F when buds turn white but before they open. Spray for Botrytis control prior to moving lilies to cold storage. Fungicides labeled for botrytis control include Affirm, Phyton, and Cease. Always follow label directions and test fungicides on a small group of lilies for damage to or residue on lily buds before using on the entire crop. Water Easter lilies thoroughly before starting cold storage. After removing from the cooler, place lilies in a shady location to avoid excessive wilting. Note: Registration of pesticides varies by state so consult and follow labels for registered use. To avoid any potential phytotoxicity or residue problems, spot test before widespread use. No discrimination intended for products not listed.

