

2009 University of Connecticut Easter Lily Schedule
Richard J. McAvoy

Weeks Prior to Easter	Date	Forcing Method	
		Case-Cooled	Pot-Cooled (CTF)
25-24	Oct 19-26	Bulbs dug, shipped & in hand by mid-Oct.	
23	Nov 2	Start bulb programming as soon as bulbs arrive but no later than 23 weeks before Easter. Cool at 40-45F for 6 weeks	
20	Nov. 23	---	Pot & allow roots to grow at 60-62F for up to 3 weeks
17	Dec 14	Pot no later than 17 weeks before Easter Force in greenhouse at 60-62F in pot.	---
14	Jan 4	Roots visible by week 15 & shoots emerge by week 14. Start fertilizing & keep moist. Only use insurance lighting on bulbs that did not receive the full 6-weeks of cooling. As soon as shoots emerge provide 1-week of lighting for each week of cooling needed to reach 1000-hours.	Force in greenhouse (at 60-62F) no later than 14 weeks before Easter.
13	Jan 11	1-2" tall. Keep lilies moist & use fungicide drench as needed.	
12	Jan 18	2-3" tall. Bud initiation coincides with stem root development. Run 60-62F-day/ nights until bud set is complete.	
11	Jan 25	3-4" tall. Apply growth regulator when 3-5" tall. Bud initiation nearly complete, maintain temperature below 65F until done.	
10	Feb 1	Check for bud set. Begin leaf counting & graphical tracking. Keep greenhouse cool if ahead of schedule.	
9	Feb 8	5-6" tall. Adjust temperatures as needed. Space lilies to avoid yellow leaves & stretching. Apply Fascination (10ppm) to lower leaves 7 to 10 days before visible bud if leaf yellowing is evident.	
8	Feb 15	Check for aphids & root problems. Apply systemic pesticides sometime during weeks 10, 9, or 8. Soil test & if leaf scorch is evident, use calcium nitrate for balance of schedule.	
7	Feb 22	7-8" tall. Lilies reach half final height at 42 days before sale. Buds can be felt. If buds are visible on early plantings run 60F until finish.	
6	Mar 1	35 days to sale. Buds should be visible no later than 30 days prior to sale. Grade for uniformity as buds become visible.	
5	Mar 8	Buds 1/2-1" long. Re-apply Fascination (10 ppm) to lower leaves if necessary.	
4	Mar 15	Buds 1-1 1/2", some bending down.	
3	Mar 22	Buds 1 1/2-2" long. If aphids present, use a total release smoke or aerosol.	
2	Mar 29	Buds 2 1/2-4" long, some turning whitish. Stop fertilizing just before sale & apply clear water once. Cool lilies at 35-45F to hold. Prior to cold storage, spray Fascination (100 ppm) over the entire plant.	
1	Apr 5	Ready to sell. Shade lilies once removed from storage. If needed, use EthylBloc prior to shipping.	
0	Apr 12	Easter 2009	

COMMENTS ON THE 2009 EASTER LILY SCHEDULE

Expectations for 2009: *Easter 2009 falls on April 12. This is considered a mid-date Easter which affords plenty of time to complete the entire 23-week lily forcing schedule.*

Pot-cooled bulbs are normally potted & held for three weeks at 63F before the six weeks of bulb cooling (at 40-45F) begins (see the 2009 Easter Lily schedule for details). The bulbs then require 14 weeks of greenhouse forcing. This entire process requires 23 weeks from initial potting to Easter. This is the same process is used for both naturally cooled or CTF bulbs.

Case-cooled bulbs require six weeks of cooling followed by 17 weeks of greenhouse forcing to flower in time for Easter. Be sure that commercially case-cooled bulb arrive & are planted by Dec 14, 2008. If you cool your own bulbs, start the Nov. 2 (23 wks before Easter). Insurance lighting should not be needed this year but can be used if you can't complete the full 6-weeks of bulb cooling.

Insurance lighting: Provide insurance lighting if you know or suspect that bulbs have not received the entire six weeks of cooling. Insurance lighting refers to night break lighting used to produce a long day photoperiod. When insurance lighting is used immediately following shoot emergence it will produce the same effect as bulb cooling or vernalization. Therefore, insurance lighting can be used to substitute for inadequate bulb cooling. Provide one day of insurance lighting for each day of lost cooling. Incandescent, fluorescent, or HID lighting in excess of 10 f.c. from 10 pm to 2 am daily will provide the necessary night break.

Fertigation: Start fertilizing with 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 200-400 ppm. Do not allow medium EC to exceed 3-3.5 mmho/cm based on a Saturated Media Extract. Stop fertilizing just before sale. Provide one clear watering before lilies are shipped - this will reduce salt levels in the potting medium and maximize lily-keeping quality. Do not withhold water or fertilizer to slow development. Do not over water (i.e. water too frequently) or root rot problems may occur.

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

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, a broad-spectrum fungicide, 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 26GT, 26/36, Contrast (*Rhizoctonia*), Sextant, and Terraclor WP (*Rhizoctonia*). Materials registered for controlling *Pythium* include Alude, Banol, Subdue Maxx, Truban WP and Truban EC. Check with manufacturers regarding compatibility when tank mixing fungicides for *Pythium* with *Rhizoctonia*/*Fusarium* controlling materials. Fungicides may need to be re-applied later in the crop, check labels for guidance.

Aphids, fungus gnats and bulb mites are a major concern. Use only smokes or aerosols once in bud. Many chemicals are listed for aphid control, including, Safari, Celero, Flagship, Tristar, Marathon, DuraGuard, Distance, Enstar II, Preclude TR, Tame, Thiodan smoke, Ultrafine Oil, Insecticidal Soap, Talstar and Endeavor. Fungus gnats can be controlled with many of these same chemicals as well as Citation, Adept, insect parasitic nematodes (Nemasys, NemaShield, Scanmask) and Gnatrol. Bulb mites, *Rhizoglyphus robini*, represent one of the more troublesome insect pests on lilies. Duraguard is labeled as a drench for soil borne organisms that may include bulb mites. Bulb mites are more likely to attack physically damaged bulbs – so be sure to control fungus gnats and handle bulbs gently.

Note: Registration of pesticides varies by state so consult and follow labels for registered uses. To avoid any potential phytotoxicity or residue problems, spot test first before widespread use. No discrimination is intended for any products not listed.

Controlling Lily Height: Use A-Rest, Chlormequat E-Pro, Concise, Cycocel, Topflor or Sumagic as needed when shoots are 3-5" tall. Split applications provide the best results. You can apply any of the PGRs at ¼ to ½ normal rate, as needed, to control height. 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 cool morning temperatures will keep lilies short.

Lily storage: Lilies can be stored for up to 10 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. Materials registered for botrytis control on lilies include 26GT, 26/36, Daconil, Exotherm Termil, Sextant, and Protect DF. Follow label directions. Water Easter lilies thoroughly before starting cold storage. After lilies are removed from the cooler, place in a shady location to avoid excessive wilting.

If you have problems contact your Extension Educators.

All agrichemical/pesticides listed are registered for suggested uses in accordance with federal and Connecticut state laws and regulations as of the date of printing. If the information does not agree with current labeling, follow the label instructions. The label is the law. Contact the Connecticut Department of Environmental Protection for current regulations. Where trade names are used for identification, no product endorsement is implied nor is discrimination intended.

Kirklyn Kerr, Director. Issued in furtherance of the Acts of Congress of May 8 and June 14, 1914. The University of Connecticut, Storrs, CT 06269. The Connecticut Cooperative Extension System programs and policies are consistent with pertinent federal and state laws and regulations on nondiscrimination regarding race, color, national origin, religion, sex, age or handicap.
