

2013 EASTER LILY SCHEDULE

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Weeks Prior to Easter	Date	Forcing method	
		Case-Cooled	Pot-Cooled (CTF)
24	Oct. 14	<i>This schedule designed to produce 16" lilies that bloom 1-week before Easter. Bulbs dug in early October and shipped. Prep for lily arrival by testing your soil & checking your environmental control & crop production systems. Inspect bulbs for insects, rots or physical damage. Pot bulb & starts programming immediately.</i>	
23	Oct. 21	Start bulb programming as soon as bulbs arrive but no later than 23 weeks before Easter. <i>Cool at 40-45F for 6 weeks</i>	
20	Nov. 11	---	<i>Pot and allow roots to grow at 60-62F for 3 weeks</i>
17	Dec. 2	Pot no later than 17 weeks before Easter <i>Force in greenhouse at 60-62F in pot.</i>	
14	Dec. 23	---	Shoots emerging ~ 0.5" tall & buds beginning to set. Start fertilizing & keep moist. Begin greenhouse forcing no later than week 14. Maintain pots at 60-62F.
13	Dec. 30	1.25-1.5" tall. Keep lilies moist & use fungicide drench as needed. Run 60-62F day/ night during bud initiation. Bud initiation coincides with stem root development.	
12	Jan. 6	2.25-2.5" tall. Run 60-62F day/ night during bud initiation. Check for bud set & begin leaf counting and graphical tracking.	
11	Jan. 13	3-3.5" tall. Apply growth regulator as needed. Keep below 65F until bud set is complete.	
10	Jan. 20	4-4.5" tall. Begin leaf counting as soon as bud set is complete. 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	Jan. 27	4.75-5.5" tall. Space lilies to avoid yellow leaves & stretching. Soil test & if leaf scorch is evident, use 15-0-15 for balance of schedule otherwise maintain complete nutrition. Repeat leaf count on late batches of lilies.	
8	Feb. 3	5.5-6.5" tall. Adjust temperatures as needed.	
7	Feb. 10	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. 17	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	Feb. 24	Lilies 9-10.25" tall. Buds 1.25" long.	
4	Mar. 3	Lilies 10.5-12" tall. Buds 1.75-2" some bending down.	
3	Mar. 10	Lilies 12-13.5" tall. Buds 2.75". If aphids present, use a total release smoke or aerosol.	
2	Mar. 17	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	Mar. 24	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	Mar. 31	Easter Sunday 2013	

NOTES & COMMENTS ON THE 2012 EASTER LILY SCHEDULE

Easter 2013 outlook: Easter falls on an early date in 2013 (March 31). The 2013 schedule is tight but allows adequate time to complete the full 23 week program. If you have problems contact your Extension Educator.

Pot-cooled bulbs are normally potted & held for three weeks at 60-62F before the six weeks of bulb cooling (at 40-45F) begins (see the 2013 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 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 2, 2012. If you cool your own bulbs, start as soon as bulbs arrive but no later than Oct 21, 2012 (23 wks before Easter).

Insurance lighting: Insurance lighting may be needed this year if you are unable to complete the full 6-weeks (1000-hours) of bulb cooling before the designated greenhouse forcing date. Substitute 1-day of insurance light for each day of bulb chilling required for the full 1000 hours. See article for details.

Fertigation: Start fertilizing using a 15-0-15 or comparable formulation when lilies emerge. 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 1-week prior to sale. Provide one clear watering before shipping lilies - this will reduce salt levels in the potting medium and maximize 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 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, spray 100/100 ppm to thoroughly cover all foliage & buds. Apply when buds are 3 to 3 1/2" 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 or Insignia, 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 26GT, 26/36, Contrast (*Rhizoctonia*),, and Terraclor WP (*Rhizoctonia*). Materials registered for controlling *Pythium* include Alude, Banol, Subdue Maxx, and Truban. Check with manufacturers regarding compatibility when tank mixing fungicides. Fungicides may also need to be re-applied later in the crop, check labels for guidance. Preventative biological fungicides (RootShield, CEASE, Actinovate, Mycostop or Companion) may also be applied for disease suppression and to enhance root growth. Check with company or product labels information on time intervals between application of biological fungicides and traditional fungicides.

Aphids, fungus gnats and bulb mites are a major concern. Use only aerosols once in bud. Many chemicals are listed for aphid control, including, Safari,, Flagship, Tristar, Marathon, DuraGuard, Distance, Enstar AQ, Preclude TR, Tame, UltraPure 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 and effective management requires an integrated approach. Bulb mites are considered a secondary pest and are commonly associated with decay caused by fungus gnat damage and soil-borne fungal pathogens. To best manage this problem, sort out diseased and damaged bulbs before planting, handle bulbs gently and monitor and control fungus gnats. Duraguard is labeled as a drench for soil borne organisms that may include bulb mites.

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 or Sumagic as needed when shoots are 3-5" tall. Split applications provide the best results. You can apply any of the PGRs at 1/4 to 1/2 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 a cool morning temperature dip will keep lilies short. Monitor lily height regularly during forcing. If height exceeds the target size, run negative DIF to slow stem elongation. If height is less than the target size, run positive DIF to increase stem elongation.

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. 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 removing from the cooler, place lilies 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 DEP for current regulations. Where trade names are used for identification, no product endorsement is implied nor is discrimination intended.

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