THE SIX MOST COMMON EASTER LILY PROBLEMS

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Problem 1: Height Control

Problem: Height control on Easter lilies is an annual problem. This is especially the case on late Easters as we have had and will have! The two traditional ways in which Easter lily height is controlled is through A-Rest applications and/or by using DIF. Height control using DIF is preferable. A-Rest tends to increase lower leaf yellowing late in development, i.e. from visible bud stage until flower. The more A-Rest you use the greater the potential of this problem. However, large negative DIF environments will cause downward leaf curling which can be unsightly.

Solution: The best rule of thumb is to track your height and try to control height by growing with constant day/night temperatures and/or using the cool temperature drop during the first 3 hours of light. Do not drop temperatures more than 7°F below the night temperature to avoid leaf curling. Use 25-50 ppm spray applications of A-Rest as needed based on the graphical tracking plot.

Problem 2: Root Rot

Problem: Easter lilies have a greater potential to develop root rot than any other floriculture crop we grow! Assume that they will get it! Root rot can most easily be identified by a rotting of the root tips. Rotting is usually most evident on roots near the bottom of the pot. Above ground symptoms of root rot include:

1) reduction in plant height
2) smaller leaves and flowers
3) flower bud abortion
4) lower leaf yellowing and death

Solution: Apply fungicides on a regular monthly schedule. Fungicide application is especially critical at visible bud. Apply fungicides for both *Pythium* and *Rhizoctonia* control. Do not overwater, as the spread of *Pythium* and *Rhizoctonia* in your media increases in wet versus dry medium. Check with your state Extension plant pathologist for registered materials and application rates.

Problem 3: Crowding

Problem: Plant crowding can significantly decrease the quality of your crop. Crowding will increase plant height and cause lower leaf yellowing. It is especially important to make sure plants are spaced adequately from the visible bud stage to the shipping date.

Plants require a significant amount of carbohydrate to produce the flowers. Limiting carbohydrate through crowding will force the plant to drop lower leaves.

Solution: Grow plants pot to pot early in development only. As plants grow, space to insure that a significant amount of leaf overlapping does not occur.

Problem 4: Scheduling

Problem: People only run into scheduling problems when they do not count the number of leaves their crop has and do not monitor the leaf unfolding rate on their crop.

Solution: Count leaves at flower initiation (January 28th). Calculate the leaf unfolding rate you will require to reach visible bud on time. Easter lily development rate is a function of the average daily temperature plants are grown under. Scheduling is simple if you follow simple rules of thumb for leaf counting. Monitor your leaf unfolding rate and adjust your average daily temperature as needed to achieve your desired leaf unfolding rate.

Problem 5: Over or Under Cooling

Problem: I have seen more overcooling than undercooling. Growers often want to ensure they have enough cooling. Leaf number decreases and lower leaves tend to be shorter on plants which are overcooled compared to normally cooled or undercooled bulbs.

Solution: Monitor the time your crop is exposed to cool temperatures. Traditionally, we used to say that bulbs need to be moist and cooled at approximately 42°F for 1000 hours or 6 weeks. Realize, however, that bulbs which are held moist at 48°F are still being cooled to some degree.

Undercooling usually occurs when bulb temperature is not monitored and/or the media around the bulb is not moist during part or all of the cooling period. Media must be moist for the bulb to perceive the cooling treatment!

Problem 6: Aphids

Problem: Aphid infestation can be a problem on Easter lilies. Significant aphid populations can result in flower bud distortion and/or abortion. The infestation has to be pretty bad for this to happen.

Solution: If you see any aphids, start preventative pesticide applications to control the population. In addition, you may want to isolate those plants to limit movement between plants. Consult your state Extension entomologist for registered materials and rates.

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