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## Oh Bother, Botrytis Again?

*There are lots of complaints about Botrytis this winter. Botrytis can cause damping off, stem lesions or cankers, stem or crown rots, flower blights and bud rots. Look for necrotic areas and the fuzzy gray spores that proliferate on infected tissue.*

Botrytis (*Botrytis cinerea*) has been a common complaint this winter, and numerous samples of plants plagued by this disease have been seen at the Diagnostic Clinic at the Long Island Horticultural Research & Extension Center. Expect that all crops could be affected, but young and tender plant tissue, injured tissue, weakened plants, and aging tissue tend to be most susceptible. Botrytis can cause damping off, stem lesions or cankers, stem or crown rots, flower blights and bud rots. Look for the fuzzy gray spores that proliferate on infected tissue in high humidity.

You might not think to worry about Botrytis when you have stretches of mild and sunny days, but remember it's the cool nights that follow those mild and sunny days that provide conditions that can be ideal for Botrytis development—if you aren't careful. Keep in mind that warm air can hold more moisture than cool air, and if you aren't doing anything to manage humidity, once that warm air cools the moisture it held can condense leaving

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Symptoms of Botrytis infection on zinnia. Photo courtesy of Margery Daughtrey, Cornell University.

## e-GRO Alert

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Sporulation on a lesion on geranium. Photo courtesy of Margery Daughtrey, Cornell University.

water droplets on surfaces. If this happens, expect trouble from Botrytis or other fungal diseases that need a spell of time during which there is a film of moisture on the leaf surface for infection.

So what do you do to combat Botrytis? Try to be proactive, and prevent problems before they start. Last season Paul Thomas and Jean Woodward from The University of Georgia wrote a thorough e-Gro Alert



Signs and symptoms of Botrytis on daisya. Photo by Nora Catlin.



Notice spent bloom with sporulation (center), and lesion initiating from spent bloom (upper right). Photo courtesy of Margery Daughtrey, Cornell University.

*Botrytis*—Taking The Big Image Approach To Preventing This Common and Avoidable Disease ([http://www.e-gro.org/pdf/2015\\_432.pdf](http://www.e-gro.org/pdf/2015_432.pdf)). Check it out.

Keep your relative humidity low; aim for 80%. Heat and vent to exchange air and reduce humidity, use fans to ensure good air movement, use proper plant spacing, and watch when and how you water. You can find a great discussion on how to reduce humidity in the greenhouse written by Tina Smith from University of Massachusetts and John Bartok from University of Connecticut here: <https://ag.umass.edu/fact-sheets/reducing-humidity-in-greenhouse>.

Make sure you aren't getting lazy with your sanitation practices. Keep the greenhouse clean; if you discard diseased plants be sure to bag or cover the trash so it doesn't serve as a source of inoculum. Scout your crops and

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remove affected plants. Pay particular attention to plants with dense canopies as well as plants that are notoriously susceptible such as osteospermum, bacopa, geranium, petunia, zinnia, diascia, and nemesia.

Numerous fungicide products are labeled for Botrytis management. Some effective products include fenhexamid (Decree), chlorothalonil (e.g., Daconil), iprodione (e.g., Chipco 26019), cyprodinil+fludioxonil (Palladium), pyraclostrobin+boscalid (Pageant), polyoxin D zinc salt (e.g., Affirm), and fludioxinil (e.g., Medallion). Numerous other products are also labeled and are useful in rotations. Be sure to rotate among materials with different modes of action and to read labels for any restrictions and information on plant safety.



Botrytis canker on snapdragon. Photo courtesy of Margery Daughtrey, Cornell University.