ask ? us

About Diseases

By
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Diseases
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Q How do I identify Botrytis, and how can I prevent it?

A As winter has fully started, Botrytis blight, or gray mold, can be found in many crops. In coastal regions of the country (especially the West Coast and the Southeast), gray mold may be a year-round problem. Botrytis blight is very common on dahlia, fuchsia, geranium, cyclamen, exacum, poinsettia, pansy and lisianthus, but this nondiscriminating fungus can prey on all ornamentals. It often causes losses in production of plugs and cuttings where humidity must be maintained at a high level. On some crops, *Botrytis cinerea* infections are confined to flower spots while on others cutting rot, stem rot and leaf spot also occur. Botrytis blight often gets a start on flowers: Infected petals fall onto leaves or plants below and spread disease. The gray sporulation can be seen on any part of the plant that is infected.

Prevention of Botrytis can be accomplished without any fungicides if you are growing your crops in a sound greenhouse with good environmental controls. For years, it has been recognized that heating and venting at dusk to drive humidity out of the growing structure can be a big help in reducing Botrytis. It is also important to space plants and use HAF fans to keep the humidity low around plants. Be sure to scout crops regularly and throw out all plants with Botrytis stem rot (or cutting rot), because stopping this phase of the disease will be very hard.

Fungicides that are effective on Botrytis based on our trials over the past 11 years are Chipco 26019 (iprodione), Daconil Ultrex (chlorothalonil), Decree (fenhexamid) and Medallion (fludioxinil). We do not recommend use of Daconil or any other chlorothalonil fungicide for use on open flowers because we have seen petal burns. It is also very important to read labels and note that Medallion should not be used on geraniums. Finally, we do not recommend use of any copper for Botrytis unless the fungicide spray can dry quickly. Copper fungicides that stay wet on leaves too long can result in phytotoxicity, which only worsens the Botrytis.

Q What other diseases are common during the winter?

A One of the other diseases to watch for in the winter is downy mildew. The most common symptoms are yellow or tan, angular or blotchy spots that appear on the upper leaf surface. Leaf distortion also occurs, giving them a blistered, pale look. This symptom is especially common on pansies. On the undersides of the leaves, the white, lavender or purple spores of the pathogen form a "downy" patch between the leaf veins. Occasionally, the spores form all over the leaves. The host range of each downy mildew fungus is limited. Downy mildew weather is cool to warm, humid and rainy — not hot and dry. Wet leaves and high humidity will trigger sporulation overnight. When the sun comes up, the leaves start to dry and spores are released. Most spores spread by fans or wind and infect new leaves before noon. Six hours of constant leaf wetness is enough for spores of many downy mildew fungi to germinate and infect leaves. Even though fans might move spores, you should continue to use them, as well as venting, to reduce humidity and leaf wetness. Try to water early in the day or whenever leaves will dry quickly to ensure dry foliage at night.

Check all new plants for symptoms upon receipt. Early detection is the only way to control downy mildew. Scout all plants for symptoms at least once a week and preferably every two to three days. Remember that hungry plants are more susceptible to downy mildew; always maintain a balanced fertility program to protect your crops from this disease. Start early with a rotation of chemical prevention. Weekly spraying to prevent downy mildew on sensitive crops is common, but spraying more than twice a week is counterproductive. GPN

Do you have a question for our panel of experts? Send your disease, pest or growth-control questions to the appropriate person, and look for the answer in an upcoming issue of GPN.

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