

# Watch for Powdery Mildew on Poinsettia

*Leanne Pundt and Margery Daughtrey  
Extension Educator, and Commercial Greenhouse IPM  
Coordinator and Senior Extension Associate  
Cornell University*

**G**rowers are familiar with the characteristic powdery white patches of powdery mildew on roses, begonias, grape ivy and other greenhouse crops. but many growers do not expect to see powdery mildew on poinsettias, because poinsettia is a relatively new host for this disease. Infestations may remain unnoticed until the bracts have begun to form and treatment options are most limited.

In the United States, the first cases of powdery mildew on poinsettia were reported in 1990. In Pennsylvania, several red varieties and a yellow variety were infected with powdery mildew. Powdery mildew was also reported in the Pacific Northwest in 1990. In 1992, there were occasional reports of new cases in northwestern, midwestern, southern and eastern states. Last year in Connecticut, powdery mildew was seen on several red varieties including Lilo and Red Sails. However, most cultivars may be susceptible to powdery mildew.

In spite of a similar appearance on roses, zinnias, begonias and other greenhouse crops, a powdery mildew fungus is very host specific. For example, a powdery mildew on begonias will not infect poinsettias.

High humidity will generally favor the development of powdery mildews. Researchers have learned much about the influence of humidity and other factors on disease development based upon powdery mildew on roses. The powdery mildew affecting poinsettias has not yet been identified or well studied. It is difficult to know whether this new mildew will "behave" in the same way as the more familiar powdery mildews.

Adequate plant spacing is important both to reduce humidity and to make it easier for growers to monitor for and then treat powdery mildew early in its development.

Frequent visual inspection of plants is needed to detect the disease before the bracts have begun to color. Detecting powdery mildew when the plants are small and well spaced will also help ensure good coverage of spray material.

Growers may see powdery mildew first in drafty places where there may be more temperature fluctuations within the greenhouse. Inspect leaves for either white or yellow spots. White patches, up to one-half inch in diameter, may be seen on either the upper or lower leaf surface. When powdery mildew colonies are on the lower leaf surface, a yellow spot is sometimes visible on the upper leaf surface. Physically removing infected leaves or diseased plants will help reduce disease inoculum. Place the infected leaves or plants into a plastic bag carried to the bench where the infestation is detected, in order to help limit the spread of fungal spores.

Begin a fungicide program as soon as the disease is detected. Materials labeled for powdery mildew control and for poinsettias include thiophanate-methyl containing materials such as Cleary's 3336F, Cleary's 3336WP, Domain F and FungoFlo. These materials have some systemic ability as well as good protectant ability when applied on a 10- to 14-day schedule. Thiophanate-methyl materials in combination with mancozeb (Zyban) are also available.

Watch for and detect powdery mildew early, before it injures the poinsettia crop.

## References

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