

Powdery Mildew on Poinsettias

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There have been a few isolated reports of powdery mildew on poinsettias this season. Growers need to closely monitor their poinsettia crops for any signs of powdery mildew to prevent damage to the tender bracts. Powdery mildew can remain undetected in the greenhouse at very low levels and then suddenly develop into an epidemic. Favorable conditions for disease development include warm temperature (68°F to 78°F) and high humidity levels (85% and greater).

Monitoring

Randomly inspect plants throughout the greenhouse. Be sure to inspect plants at both the hanging basket and bench level. All poinsettia cultivars are susceptible to this disease.

Inspect both the upper and lower leaf surfaces of the lowest leaves. Look for white talcum-like patches up to 1/2 inch in diameter. With a hand lens or magnifying glass, white fungal threads that radiate out from the center of the lesion may be seen. Residue from spray droplets will be more variable in shape depending upon how the spray contacts the leaf. If the powdery mildew colony becomes well established on the leaf, a yellow spot may be seen on the upper leaf surface.

Management

As soon as the disease is first detected, remove infected leaves and begin a fungicide program. Powdery mildew spores are very easily airborne, so care is needed to minimize their spread. When removing infected leaves, gently remove the individual leaves by slicing into the petioles instead of just tugging the leaves off. Immediately place the infected leaves or plants into a plastic bag that is kept closed as you leave the greenhouse. According to the 1997-1998 New England Recommendations for Pest Control, fungicides labeled for powdery mildew on poinsettia include: Phyton 27, Strike, Cleary's 3336 F, Cleary's 3336 WP, Domain Fl, and Zyban. Terraguard 50W is also labeled for powdery mildew on poinsettia. Based upon research trials Strike and Terraguard left only a slight residue on the cultivars Freedom and V14 Glory. Both Domain and Cleary's tended to leave more of a residue. Daughtrey and

Hausback (1994) suggest that growers consider using either Strike (4 ounces per 100 gallons) or Terraguard (4 to 8 oz per 100 gallons). The addition of a spreader sticker is not needed. Treatment is needed every two weeks as long as greenhouse temperatures remain below 86 F. Researchers are also currently investigating the effectiveness of different fungicide programs on stock plants.

References

Daughtrey and Hausback. 1994. Fungicides for powdery mildew on poinsettias. *GrowerTalks*. 58(7):40-46.

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