

Problem: POWDERY MILDEW of Apple and Flowering Crabapple- *Podosphaera leucotricha*



Host Plants: Apple, flowering crabapple

Description: Powdery mildew can be a problem on susceptible apple and flowering crabapple cultivars in Kansas. The disease is especially severe on Jonathan apple and can result in shoot dieback, death of flower buds, and russetting of fruit.

The disease first appears in the spring on fruit buds and new shoot growth. Infected flower buds may be killed by low winter temperatures. Those that do develop typically break bud several days later than normal and are covered with a white, dusty growth of the fungus. The leaves on infected shoots also develop white patches and become distorted. Diseased leaves are narrow, folded longitudinally, and become stiff and brittle with age. On Jonathan apple, the fruit skin becomes rough and cracked and fruit size is reduced.

The fungus overwinters on the tree in infected buds. In the spring, the fungus colonizes developing leaves and begins to produce spores on the leaf surface. These spores are disseminated by wind and can reinfest other leaves. Spore germination and infection is favored by a high relative humidity and temperatures between 60 and 80 F. Free water on the leaf surface is not necessary for infection and, in fact, inhibits spore germination.

Recommendations: Control of powdery mildew generally is not required except on highly susceptible cultivars. Where the disease has been a problem, include a mildewcide in the spray program for scab and rust. Myclobutanil (Immunox) provides homeowners with effective control of scab, rust and powdery mildew on both fruiting apples and crabapples. Note that Immunox+ contains an insecticide and is only labeled for crabapples and non-fruiting apples. Commercial apple growers or other

large-scale growers should consult the current Midwest Tree Fruit Spray Guide at the following website:

<https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=4637>

Best control of powdery mildew is obtained when the first fungicide spray is applied when the flower buds are just beginning to turn pink. Sprays should be continued every 7-10 days until terminal growth has stopped.

References:

1. [Apple Powdery Mildew](#), Ohio State University Extension Fact Sheet HYG-3001-08

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