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Problem: Powdery Mildew on Cucurbits

Plants affected: Cucumber, muskmelon, squash, watermelon, pumpkin

Description: Powdery mildew can be caused by two fungi, Sphaerotheca fuliginea and Erysiphe cichoracearum. Symptoms start with a powdery-white film on the leaves. Leaves eventually turn brown and die as the disease progresses leaving fruit vulnerable to sunscald.

This disease thrives under conditions of high humidity, low light and warm temperatures. Succulent growth caused by over fertilization is more susceptible. The disease may overwinter in crop residue but is often transported from more southern regions during the growing season.

Recommendations: Resistance, if available, is the first line of defense. Pumpkin varieties especially, vary in the level of resistance. Plant descriptions in seed catalogs should list resistance.

Don't over fertilize, over water or crowd plants. Clean up plant residue in the fall. Rotate vine crops to a different part of the garden each year. Sulfur can be used for control on pumpkins if temperatures aren't too high (see label) but often causes unacceptable leaf burn on other crops. The fungicide myclobutanil (Immunox) or a copper fungicide (Bonide Copper Fungicide RTU, Monterey Liqui-Cop) can be used to help prevent infection, if needed.

References:

1. Powdery Mildew of Vine Crops, Ohio State University Extension Fact Sheet HYG-3111-96
2. Powdery Mildew of Cucurbits, Texas A & M University, AgriLIFE Extension Publication PLPA-Cuc009-01

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