KPOV – *The Point*

Gardening: Get Good at It

“Powdery Mildew”

July 30, 2019

Chances are if you’ve gardened more than a few seasons, you’ve encountered powdery mildew, one of the most widespread and easily recognizable plant diseases. Unlike *beneficial* fungal species which are essential to soil and consequently plant health, *destructive* fungal pathogens like those that cause powdery mildew are a major culprit of plant disease.

Powdery mildew affects all kinds of plants in our landscapes, vegetable gardens, farm fields and forests. Unfortunately for Central Oregon gardeners, these detrimental fungal species are particularly severe in warm, dry climates. The upside is there are several steps we can take to control them.

The fungi feed through rooted spores embedded in the epidermal or top cells of flowers, leaves and fruit. Fungal structures overwinter on infected plants and spew their spores in the spring to healthy plant tissues via wind, water splash or insects. Once there, they begin to grow on the upper layer of the plant parts. In relatively short order, the tell-tale opaque, grayish-white, powdery splotches appear, frequently distorting leaf and flower shape. Infected leaves may turn yellow with small patches of green and fall prematurely and infected buds may fail to open. Young, succulent growth is usually more vulnerable than older plant tissues.

The severity of the disease depends on several factors: the variety of the host plant, its age and health, and weather conditions during the growing season. It can be severe in our dry climate summers because while this particular fungus family doesn’t need water on the leaf surface for infection to occur, it does require high air humidity for spore germination.

High air humidity in Central Oregon? You bet! We inadvertently create it when we don’t provide enough air circulation between sensitive plants, especially those in shady garden spots or those watered improperly by overhead irrigation systems. Inspect your garden frequently for good air circulation.

Plant selection is also key in disease management. Once again “*the right plant in the right place* “gardening mantra applies. Make sure each plant gets the light, soil and irrigation it needs to thrive. When you can, opt for disease-resistant varieties now available for many susceptible plants such as asters, delphiniums, lilac, monarda, phlox, rudbeckia and zinnia.

Remember, too, that proper garden clean up is also essential. Remove and destroy all infected plant parts throughout the season and especially in the fall so fungal spores can’t overwinter. Discard the debris in your trash bin. Do not add it to your personal or community compost pile as neither generates enough heat to kill the fungus. After you complete your clean up, disinfect your tools and gloves so you don’t inadvertently transfer the disease to healthy plants.

While powdery mildew seldom warrants chemical control in home landscapes, monthly low environmental-impact treatments with horticultural oils, neem oil and antitranspirants can prevent or minimize infection.

This spring I reluctantly removed several clumps of asters that had spread in my shady back garden. While I always looked forward to their cheerful purple flowers in the fall, managing the plants’ inevitable mildew infections got tiresome. I replaced them with various plants that don’t get the disease, taking a tip from Stephen Stills, that if you can’t be with the one you love, love the one you’re with – or, better yet, fall in love with a disease-resistant variety in the first place!

For more information on this or any other gardening topic, call the Master Gardeners at 541-548-6088 or go to our website [www.gocomga.com](http://www.gocomga.com) and click on the KPOV tab on the orange bar. This has been Gardening: Get Good at It on KPOV, The Point.

**References**

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