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White spores of powdery mildew infecting the leaves of a zinnia plant. Take steps like spraying fungicide to protect vulnerable plants from this fungal disease.

# Powdery mildew season is here

Many plants are vulnerable, but measures can be taken to protect your garden

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**Q**uestion: A client came in to the Master Gardener Plant Clinic at the OSU Extension office this week with a number of plants. Each one had a white, powdery growth over the surface of the leaves. He was wondering what was on his plants, and if it was the same problem on each plant.

**A**nswer: The problem with all of his plants was they were covered with a vigorous powdery mildew infection. Powdery mildew is a fungal disease that attacks a wide variety of plants. The most common garden plants that get powdery mildew in Douglas County are from the cucurbit family, squash, pumpkins, cucumbers and melons.

Other crop and ornamental plants that are very vulnerable to powdery mildew include apple, grape, kale, peach, tomato, lilac, cosmos, dahlia, spirea and zinnia. In fact, there are over 60 plants listed as being hosts to one of several different types of powdery mildew in the Pacific Northwest Plant Disease Handbook from OSU.

With so many plants vulnerable to powdery mildew, it is important to understand how best to protect your plants. Powdery mildew infections can occur between 50 F and 90 F, with 68 F to 81 F being the optimum temperature range.



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**Powdery mildew can crack and shrivel grape berries.**



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**In the late summer, pumpkin leaves can be heavily infected by powdery mildew.**

Warm and humid weather favors the infection of plant tissues, while warm and dry weather favors the production of spore inoculum. As the growing season moves into August,

we have shorter days with more humidity. The cooler mornings often produce dew. It is during this time of year that any vulnerable plant will begin to show signs of infection.

So, what garden practices can help prevent powdery mildew infection? The first and easiest step to take is to choose fruit, vegetable and ornamental plants that have specifically been bred or chosen for resistance to this disease. Many of these plants are not immune, but they will take much longer to develop disease, extending your garden season.

Another step to take is to rotate vulnerable annual crops out of your garden for a few years if the infection gets very bad. Planning your garden to reduce the amount of shade on vulnerable plants, and giving plants more space for good air movement, also helps to minimize infection.

The other important step to take to prevent powdery mildew infection is to make a timely fungicide spray on vulnerable plants. If from previous years, you know when mildew is typically first spotted in your yard, the best practice is to make a cover spray over your plants a week or so before that time.

Crops like grapes usually require a series of sprays from May to August, while most ornamental and vegetable crops usually require just one spray in August. This year, as of mid-August, I haven't seen much mildew around, but I know it is coming, so I am planning to make a cover spray on my vulnerable plants this week.

There are a number of products that will prevent

powdery mildew infection, including sulfur, copper, Bicarbonates and Stylet oil or Neem oil. Be careful using oil or sulfur products when the temperature hits 90 F or above; it can cause leaf burn to your plants.

At the end of the growing season, remove infected annual plant material from your garden site, and compost it in a hot compost process. Perennial plants that have a

serious disease outbreak should be sprayed with a dormant spray during fall or winter, and any fallen leaves should be mowed or shredded so they decompose completely.

*Do you have a gardening question? Please e-mail, call or visit the Douglas County Master Gardener Plant Clinic at [douglasmg@oregonstate.edu](mailto:douglasmg@oregonstate.edu), 541-672-4461 or 1134 SE Douglas Ave., Roseburg.*