Gardeners may face issues with powdery mildew

With all the rain we’ve been getting across the state, a gardener’s biggest worry right now might be root rot. However, powdery mildew also has been known to cause a few problems for gardeners.

Powdery mildew is a common fungal disease that can infect a wide variety of plants, which results in the reduction of the quality and quantity of flowers and fruit. There are different species of powdery mildew, and each species has a detrimental effect on different plants. In the garden, plants commonly affected include the cucurbit family (squash, pumpkin, cucumber and melon), nightshades (tomato, eggplant and peppers), roses and legumes.

As the fungus begins to take hold in the garden, gardeners will notice a layer of mildew made up of many spores forming on the top of leaves. Plants may look as if they’ve been dusted with flour. Unfortunately, the spores are carried to other plants by the wind, and can infect even more plants. Something to keep in mind is powdery mildew can overwinter in plant debris, and later, the wind can carry dormant spores to your thriving plants. This is a good incentive to get those old, infected plants disposed of properly.

Unlike other fungi, powdery mildew fungi can infect when very little moisture is present on the leaf surface and even under low humidity levels; however, humid conditions with widely fluctuating temperatures increase the occurrence of powdery mildew.

So, just how bad is powdery mildew for the landscape? The severity of the disease depends on the variety of the host plant, age and condition of the plant, time of infection and weather conditions during the growing season. If diagnosed early, powdery mildew can be effectively controlled to prevent severe damage to plants.

Powdery mildew fungi can attack stems, buds and flower petals of various ornamental plants. In addition, it may cause the curling and twisting of broadleaf plants and a reduction in size of infected leaves. Infected buds may fail to open, and infections can spread to mature flowers, causing a flower blight. Also, nuts of the pecan can be infected, causing a reduction in quality.

Powdery mildew impacts all kinds of plants, but each fungal infection is host-specific, meaning the breed of fungi infecting that plant won’t spread to other varieties in the garden.

The disease is common in crowded plantings where air circulation is poor, as well as in damp, shaded areas. This is another reason spacing and well-drained soil are important when planting.
There is a bright spot to powdery mildew – while it’s not attractive, it’s rarely fatal to most plants. However, it can stress plants, which will make them more susceptible to other disease and insect damage.

Several practices will help reduce or prevent development of powdery mildew. The first place to start is to select resistant cultivars. Most susceptible species have resistant cultivars available, which will greatly reduce the potential for the disease to develop. When the disease does show up, remove or cut back the portions of the plants with visible powdery mildew. Be sure to wash your pruners and your hands when finished. Discard the infected leaves in the trash.

Another option is to prune crowded plant material to increase air flow around the plants and give them room to breathe. Late summer application of nitrogen fertilizer should be avoided to limit production of succulent tissue, which may be susceptible to powdery mildew infection in the fall. Water only in the mornings so the foliage will be dry by evening.

You may reach the point when fungicide spraying may be necessary. The best course of action is to combine cultural methods while following a good spray schedule.

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