

Spooky looking plants have been sighted all across Central Nebraska. Ghostly white peonies and lilac aren't possessed, they are infected. Find out what is causing this whitish cast to many favorite landscape plants.

Powdery mildew is a fungus that appears as a powdery white or grayish film on the leaf surface. This fungus is favored by high relative humidity at night and warm temperatures and is often seen in plants that are in shady areas or overcrowded with poor airflow. It is unlike most other fungi as it doesn't need water or a wet leaf surface to begin to produce spores and infect. The youngest, tenderest parts of the plant are the most susceptible. Severe infections can cause yellowing, drying, and browning of the leaves; disfigurement of the leaves and shoots; and premature defoliation and dormancy of the plants in the fall. The good news is that powdery mildew is rarely fatal to plants, it just knocks them back awhile. The fungi reduces the amount of photosynthesis taking place, increases respiration and transpiration, and causes slower growth.

Powdery mildew can infect most landscape plants, but there are a few that seem to be more susceptible than others. Some of the more commonly infected include columbine, phlox, zinnia, dogwood, lilac, beebalm, and some viburnums. The fungi are specific to the host plant, so just because you are seeing it on one plant in your landscape, that doesn't necessarily mean that the others nearby are in danger.

There are several approaches that can be used to manage powdery mildew. If you are thinking of installing new plants into an area that is prone to powdery mildew, try to select those cultivars that are resistant to this fungi. Certain cultivars of euonymus, phlox, rose, rhododendron, and zinnia have some resistance to this fungi and are worth a look.

Cultural control measures are the most commonly recommended treatments for this fungi. Try to increase air circulation in the areas that have had issues in the past. This can be done by thinning out a thick, dense stand of plants either by pruning the shrub or removing plants from that area to allow for better air flow in those areas. If plants continually have an issue with powdery mildew in one location, consider moving them to a different location with improved growing conditions. Also try to avoid using fertilizers with excessive nitrogen or utilize slow-release fertilizers. In the fall, rake and remove the infected leaves. This will reduce the number of spores present for next year. When water is present on the plant surface for an extended time, spore germination is inhibited. This is one instance where keeping the leaf surface wet will actually prevent a fungal infection.

Chemical control is another option in the battle against powdery mildew. In most cases, fungicide applications are not required since the overall health of the plant is not affected. If the appearance of the whitish leaves is not a major concern, it can be ignored. Lilacs are an example of plants often infected yearly, but don't decline in health. Other plants, however, can be severely damaged by powdery mildew and chemical control might be warranted. Chemical applications should be made when the weather is favorable for the fungus. If fungicide applications are made, they need to be done so there is thorough coverage of all plant parts. Some examples of the fungicide that can be used to treat powdery mildew can include products that contain active ingredients like chlorothalonil, myclobutanil, neem oil, sulfur, or tebuconazole. Be sure to read and follow all label instructions when making applications. Applications can be applied as soon as the first symptoms appear and reapplied as directed on the label as long as weather conditions are favorable for the growth and spread of this fungus.

Powdery mildew doesn't mean your plants are goners. With a little chemical or cultural control, they can be looking as good as new again. And a little less spooky too.

Elizabeth Killinger is the Horticulture Extension Educator with Nebraska Extension in Hall County. For more information contact Elizabeth at elizabeth.killinger@unl.edu, her blog at <http://huskerhort.com/>, or HuskerHort on Facebook and Twitter.