

From the Plant Diagnostic Clinic

September/October 2022 Update

By Ann Hazelrigg

End of the summer problems usually include the two main tomato leafspot diseases, Alternaria/early blight and Septoria leafspot. These fungal diseases overwinter on dead tissue, producing spores in early summer that are splashed onto lower leaves and then work their way up the plant as the season goes on. The leafspots move higher in the plant with each infection period (rain, dew, overhead sprinkling, etc).

Alternaria leaf spot with bull's eye appearance.
Gerald Holmes, California Polytechnic State
University at San Luis Obispo, Bugwood.org

Septoria leafspot with dark gray

important in terms of winter stress and desiccation in evergreens. Be sure your evergreens and broadleaf rhododendrons go into the fall watered since they continue to transpire moisture through needles and foliage all winter. For current drought conditions go to <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?VT>

Along with drought usually comes heat. Temperatures over 85 F can wreak havoc with vegetables that need to be pollinated. Hot day and nighttime temperatures cause flowers to drop in tomatoes, peppers, zucchini and beans, so if you are seeing a reduction in fruit, it may be due to the hot temperatures. When weather is cooler, the fruit production will resume. Hot temperatures will also influence the sex of the flowers produced in cucurbit crops (pumpkins, squash, melons and cucumbers). With high temperatures (over 90° F during the day and 70° F at night) these vining crops tend to produce more male flowers than female flowers, so if you are seeing a lot of flowers but little fruit, the flowers may be all male. Under hot temperatures pollen becomes sticky and bees do not like to work over 90 F. Although pollination may occur, it may be incomplete, resulting in misshapen cucumbers, summer squash and melons.

Powdery mildews are common this time of year on a lot of different plants including cucurbits, phlox, lilacs and roses, since the pathogen causing the disease likes warm, humid weather. The fungal disease may look like it is spreading from cucumbers to lilacs, but this pathogen is very host specific, meaning a cucurbit powdery mildew will ONLY attack cucurbits. Powdery mildews all like warm, humid weather so that is why we see them all at once, usually in late summer. Management strategies include spreading plants farther apart to avoid overcrowding, use of resistant varieties and the use of fungicides to control the disease at the