



Fall Activities to Manage Plant Diseases

2020 was a relatively strong plant disease year, again. High, consistent humidity levels in July and fairly consistent rainfall events in June, July, and early August led to many fungal diseases having banner years. As the end of the garden season approaches, we can actually do some things in fall to make a big difference in the severity or likelihood of diseases affecting our plants next year.

In general, cleaning up of plant debris and checking over your plants for problems should be done in the fall for a whole host of reasons, including aesthetics, insect management, plant disease management, and to comply with local regulations, in a few cases. On the flip side, going overboard and getting rid of all plant debris can hurt beneficial and native insect populations, and can reduce winter hardiness of perennials. Balancing competing interests is something that each gardener needs to do for themselves.

Conserving overwintering habitat for native insects is a focus of an article in the September, 2020 issue of the Northwoods Journal, available free at the Marinette County Land Information Department website. The rest of this article will focus on garden plant disease management, but if you want to discuss your management practices and how they may impact either beneficial or deleterious insects, fungi, or other issues, contact Scott Reuss, Marinette County Agriculture/Horticulture Agent. He can be reached via e-mail at scott.reuss@wisc.edu or through the Marinette office of UW-Madison, Division of Extension, in the courthouse, at 715-732-7510.

In general, it is a very good idea to clean up plant debris from plants that were infected with plant diseases. Roots are seldom affected, so you can cut plants off just above the soil line and let the roots decay naturally, adding organic matter and positive fungi to the soil. We can focus on removing leaves, stem, fruit, or other visible tissues that were infected. The following are the most common disease issues on which to concentrate on different plant types.

In the vegetable garden, the two most notable diseases to try to fight now are tomato & potato septoria leaf spot and early blight, and white mold, most commonly found on beans, but can infect many other vegetables. Septoria and early blight were particularly severe this year in most locales. These fungal leaf spots affect leaves, stems, and occasionally fruit of tomato and potato, but also eggplant and pepper. Very thorough removal of aboveground material can help slow the diseases down next year, but you will also want to rotate garden location of these plants; use mulch to minimize soil to leaf contact; go vertical with trellises; and watch for disease presence and consider strategies if found.

Septoria/early blight can overwinter on any infected material left in the garden. White mold is a little bit more particular, as this disease forms sclerotia inside of affected plant stems/branches. These sclerotia look a lot like large mouse droppings and act similar to seeds. When conditions are right next year, they grow tissue that produces spores which start the disease cycle in susceptible plants. If you found white, fuzzy growth on any beans, peppers, potatoes, or other plants, you will want to make sure to get rid of that material prior to next year.

Tree fruit diseases to consider fighting now are scab of apple/pear/crabapple; brown rot of stone fruits; and leaf spot of cherries. Scab is particularly tricky to clean up, in that it is a disease that affects both fruit and leaves. Thus, you need to make sure to remove all leaves from the tree production area, as well as make sure there are no 'mummy fruits' left on the tree.

In small fruits, all of them can be impacted by leaf spotting diseases, so these are worth some work. Raspberries need some extra attention, though, as they are heavily impacted by a trio of diseases that affect the canes. Again, 2020 has been a bad year for those diseases. Make sure to remove all dead canes, as they are often a source of disease inoculum. Also examine young canes and remove any that have dead areas already, or that have flaking material or numbers of purple spots.

Perennial flower plants also were impacted by a number of diseases in 2020. Plants which had foliar or stem issues should be cut off at ground level, or higher if you have examined the stems closely and are sure that there is no disease presence on material you are leaving. Species to particularly examine closely this fall include lilies, iris, peonies, salvia, and coneflowers. One extra for the coneflower family is to look for eriophyid mite affected flowers and cut them off. Eriophyid mites cause misshapen flowers with unusual spiking, incomplete petal formation, and other symptoms. On shade trees, there are less severe concerns, but tar spot on maples; anthracnose on ash, oak, and maple; and possible other leaf spots may be worth paying some attention to your leaf removal practices.

Whatever plant material you have removed, diseased material truly needs to have long-distance or complete removal. Consider taking it to the municipal compost instead of your own compost, or manage separate compost piles that you use on very different types of plants and at greater distances. Burning of some debris may make sense, or burying of smaller amounts.

If in doubt, now is a good time to make sure what type of disease, or insect, affected your plants. Contact Reuss via one of the above methods to have him help with diagnosis of the issue and to help come up with a management plan for next year.