

Vegetable Grower & Home Garden Alert

Late Blight - Deadly Tomato/Potato Disease Found in Area

A historically important plant disease has been found in both Oconto and Marinette Counties and is potentially present throughout the entire area. Late blight, the disease that caused the Irish potato famine, has been found in at least two commercial fresh market fields and one home garden since Monday, August 25.

Late blight is a devastating disease of potato and tomato and may also infect pepper and eggplant. In cool, wet conditions the disease can cause plant collapse and death in as little as 7 days. The strain of late blight present is known for its virulence to tomatoes, and its very high spore production. In one of the cases diagnosed already this year, late blight was responsible for the need to destroy one farm's entire crop of tomatoes. The wet weather of this weekend likely means that it could be spread throughout the area quite readily.

All home gardeners and commercial vegetable producers need to monitor their plants for this disease. Key symptoms to look for that will help you identify late blight are the speed of disease progression, stem lesions, and the fruit or tuber lesions. The leaf symptoms can be somewhat similar to two very common diseases that we have every year - early blight and Septoria leaf spot. However, the leaf lesions quickly enlarge to black, water-soaked areas that are almost oily-looking.

Stem lesions are not at all common with the other tomato/potato diseases, but will definitely occur with late blight. The stem lesions will be dark gray to black and can form on both younger and older stems. Tomato fruits that are infected will also have tell-tale symptoms. The fruits will develop large, usually sunken but still firm lesions that are golden to chocolate brown, having relatively distinct rings.

Potato tubers that are initially infected will have a reddish-brown discoloration under the skin and will usually have sunken tissue in the infected areas. Tubers will decay and if put into storage can infect the entire stored lot of tubers and turn them into stinking, mushy masses. In addition, especially on wet mornings, you may be able to find white, fuzzy growth on any infected tissue. This is the spore-forming bodies of the disease pathogen.

The one positive of our situation is the lateness of the disease getting here, because the treatment of infected plants is disposal of the entire plants. The recommendation for gardeners is to harvest any non-infected fruit or tubers, as they can be safely eaten, and then pull the entire plants and place them in plastic bags. Place the bags in full sun for a few days to literally cook everything in them, and then send them to the landfill. Do not compost diseased plant material, nor leave it in your garden. Any material that you leave in the garden has the potential to allow the disease organism to survive over the winter, especially potato tubers.

Commercial operations can contact UW-Extension or other resources for assistance in managing the disease on their operations. A significant risk for commercial operations, especially those that do any pick-your-own, is that fruit quality can go downhill fast and lead to safety issues if you continue to sell fruit after disease presence has been verified. It is recommended to get official diagnosis of this disease by contacting Scott, or bringing samples into your closest UW-Extension office.

Fruit or tubers that have lesions on them should not be eaten or preserved. The reason for this is that the presence of the disease causes the pH of the plant material to rise, increasing the opportunity for other pathogens to become present. The pH rise is also why tomatoes with lesions should not be canned, as it can create unsafe canning conditions. Non-infected fruits can be eaten, but should be used quickly, as they may still develop lesions.

If in doubt, get additional information by contacting Scott Reuss, Agriculture/Horticulture UW-Extension Agent, at 715-732-7510, e-mail to scott.reuss@ces.uwex.edu or find Late Blight publications on the web. The Marinette County UW-Extension web site at <http://marinette.uwex.edu> has a Late Blight tab that you can use to connect to UW-Extension late blight resources.