



Scout Tomato and Potato Plants for Late Blight in Your Gardens and Fields

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Late blight, a fungal-like disease caused by *Phytophthora infestans* is a very serious disease that infects potatoes and tomatoes and occasionally egg plant, hairy and black nightshade. Late blight was the cause of the Irish potato famine of the 1850's. This year, late blight was found on tomato plants sold out of some home improvement stores in the northeast. These transplants were produced in and shipped from the southern U.S. According to Dr. Amanda Gevens, UW-Extension Plant Pathologist, there have been no reports of late blight on transplants sold in Wisconsin or neighboring states to-date. However, the potential for late blight to show up in Wisconsin still exists. This issue is not only of concern to commercial vegetable growers but home gardeners as well. Late blight is capable of quickly wiping out your entire potato and/or tomato crop. If undetected and undamaged, this source of inoculum could devastate neighboring gardens and commercial fields.

Environmental Factors: Disease development is favored by moderate daytime temperatures between 60 and 70 °F and nights of 50 to 60 °F and relative humidity of 90 to 100%. However, it can develop in very warm daytime temperatures if conditions are extremely wet with moderate night temperatures. Individual lesions can produce 100,000 to 300,000 sporangia per day. Each sporangium is capable of causing a new infection, thus spread can be quite rapid. Spores are easily spread by wind, rain, machinery, workers, and wildlife.

Identification: Leaf symptoms appear as pale green, water-soaked spots that often begin at the leaf edges or tips where water from rain and dew accumulates. Lesions can be circular or irregular and bordered by pale yellow to green blending into healthy tissue. They enlarge rapidly (expanding ¼ to ½ inch per day) and dead tissue turns brown to black. When relative humidity is in excess of 90% leaf lesions are often surrounded by cottony white mold on the lower leaf surface. Infected stems and petioles turn brown to black and may also be covered with white masses of sporangia. Lesions frequently appear first at the junction between the stem and leaf, or at the cluster of leaves at the top of the stem. Entire vines may be killed very rapidly. Visit the Portage County UW-Extension agriculture website <http://portage.uwex.edu/ag/index.html> for late blight photos and links to other late blight information and identification resources.

Control: Monitor tomatoes and potatoes closely for symptoms. If you suspect late blight on your crop contact your extension office and have a sample sent to the plant diagnostic lab for confirmation. Destroy infected plants by burying or putting in plastic bags for disposal. Don't compost. Preventative treatments for homeowners are limited to protective fungicides containing Chlorothalonil or copper.