

## FOR IMMEDIATE RELEASE

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### Late Blight Found in Columbia County

The first confirmations of late blight in Columbia County have been documented in the past couple of days. Not only has late blight been confirmed in tomatoes, but it has also been confirmed in potatoes. Until this week, late blight detected throughout the state has been exclusively on tomatoes. As of August 19<sup>th</sup>, late blight in potatoes has only been found in Columbia and Portage Counties.

Late blight, a fungal-like disease caused by *Phytophthora infestans* is a very serious disease that infects potatoes, tomatoes, and occasionally egg plant, hairy nightshade, and black nightshade. Late blight was the cause of the Irish potato famine of the 1850's. 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 uncontrolled, this source of inoculum could devastate neighboring gardens and commercial vegetable fields. Farmers who grow tomatoes and potatoes are at serious risk of losing their entire income for the season.

Check tomatoes and potatoes closely for symptoms of late blight at least twice weekly. If you suspect late blight on your crop contact your local University of Wisconsin 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. Do not compost. Preventative treatments for homeowners are limited to protective fungicides containing Chlorothalonil or copper. Commercial growers should consult the Commercial Vegetable Production in Wisconsin Guide, University of Wisconsin Extension publication A3422 for an extensive list of available treatments.



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  $\frac{1}{4}$  to  $\frac{1}{2}$  inch per day) turning brown to black over time. When relative humidity is in excess of 90% leaf lesions are often surrounded by cottony white mold on the lower leaf surface. This white, cottony growth distinguishes late blight

from several other foliar diseases of potatoes and tomatoes. Infected stems and petioles turn brown to black and may also be covered with white masses of sporangia. Stem 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. A characteristic odor similar to that produced by green tissue after a severe frost can be detected.

The development of late blight is favored by moderate daytime temperatures between 60 and 70 °F with nights of 50 to 60 °F and relative humidity of 90 to 100% (not unlike recent weather conditions over much of Wisconsin). However, it can also develop during 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. This disease has the potential to completely defoliate fields within 3 weeks of the first visible infections. Spores are easily spread by wind, rain, machinery, workers, and wildlife. Because the fungus produces so many spores that can travel long distances through the air it is very important that everyone, farmers and gardeners alike, who grow tomatoes and potatoes are able to identify late blight.

There are two diseases that could be easily mistaken as late blight. Early blight appears as brown to black lesions with concentric rings on the leaves. Typically, lesions are produced on older, lower leaves and progresses upward. Significant yellowing may accompany the lesions. Moderate temperatures (75 to 85 °F), high humidity, and prolonged leaf wetness are conducive to development of early blight. Alternating periods of wet and dry weather tend to increase progression of this disease.

Botrytis (Gray Mold) appears late in the season on the foliage, and may also be mistaken for late blight. A grayish-green, wedge-shaped, spreading lesion with concentric rings appears on the leaves, often near an injury or a dried blossom. Lesions begin on the margins or tips of leaves. With severe infections, leaves are blighted and a soft gray rot attacks the stems and exhibits a fuzzy gray fungal growth. When vines are disturbed, spores billow from them like a cloud of dust. Cool temperatures and high humidity promote disease development. Gray mold is often found in fields where a lot of fertilizer is used. Typically, gray mold is not of economic importance in Wisconsin.

For additional late blight photos and links to other late blight information and identification resources visit <http://columbia.uwex.edu/>. For assistance in identifying this potentially disastrous late blight disease, contact your local University of Wisconsin Extension Office. In Columbia County you can contact UW-Extension at 608-742-9680 or visit <http://columbia.uwex.edu/>.