

Foliar Phytophthora

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What is foliar Phytophthora? Foliar Phytophthora is the above ground phase of Phytophthora root rot (see University of Wisconsin Garden Facts XHT1018). Left untreated, this disease, along with Phytophthora root rot, can destroy large sections of a ginseng garden.



Typical symptoms of foliar Phytophthora on a three-year-old ginseng leaf.

What does foliar Phytophthora look like? Watch for ginseng leaves with a papery, transparent appearance, the typical symptom of foliar Phytophthora. Often papery leaf areas are separated from healthy tissue by watery, blackish-green tissue. Infected leaves and stems disintegrate rapidly and often Phytophthora root rot follows as the pathogen moves from the leaves and stems into the roots.

Where does foliar Phytophthora come from? Foliar Phytophthora is caused by *Phytophthora cactorum*, the same fungus that causes Phytophthora root rot. This fungus is common in soil and can be splashed onto ginseng leaves during rains. In Wisconsin, foliar Phytophthora is most common during May and early June.

How do I save ginseng with foliar Phytophthora? Once *Phytophthora cactorum* infects the foliage of a ginseng plant, it often moves into the root system and little can be done to save the plant. If infected plants occur in patches, attempt to localize the area by carefully removing a 1 to 2 ft. wide swath of healthy plants, about 5 ft. from the edges of the affected area.

How do I avoid problems with foliar Phytophthora? Cultural methods that are useful for controlling Phytophthora root rot can also be useful for controlling foliar Phytophthora (see University of Wisconsin Garden Facts XHT1018). Any activity that reduces soil moisture is important for control because *Phytophthora cactorum* tends to be less active in drier soils. In addition, adequate mulching of ginseng beds is very important. Mulch appears to provide a physical barrier that helps prevent splashing of the fungus from the soil onto leaves and stems. Finally, during wet periods, fungicide treatments can be critical for management of foliar Phytophthora. Alternating applications of Aliette WDG and Dithane DF (when available) provides the best control of this disease.

For more information on foliar Phytophthora: See the UW-Madison Ginseng Home Page (www.plantpath.wisc.edu/ginseng) or contact your county Extension agent.

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