

Alternaria Leaf and Stem Blight

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What is Alternaria leaf and stem blight? Alternaria leaf and stem blight is the most serious foliar disease of American ginseng (*Panax quinquefolium*) in Wisconsin. Left untreated, this disease can totally defoliate a ginseng garden in a few weeks.



Alternaria leaf blight lesions on three-year-old ginseng leaves.

What does Alternaria leaf and stem blight look like? Ginseng leaflets with leaf blight have irregularly-shaped necrotic (dead) areas, often surrounded by a yellow halo. Necrotic areas expand to destroy the entire leaflet. Ginseng stems with stem blight collapse and are brownish-orange, with a layer of black soot (spores of the causal fungus) that can be rubbed away.

Where does Alternaria leaf and stem blight come from? Alternaria leaf and stem blight is caused by the fungus *Alternaria panax*. This fungus first enters ginseng gardens as wind-borne spores. Once in a garden, the fungus can survive in diseased ginseng debris, and there produce spores that cause new infections. Warm, humid Wisconsin summers favor the development of this disease.

How do I save ginseng with Alternaria leaf and stem blight? Preventative fungicide treatments are critical for control of leaf and stem blight. If available and legal to use, Dithane DF is the preferred fungicide for Alternaria leaf and stem blight control. Other, less effective fungicides such as a combination of Rovral and copper hydroxide, or Aliette may also be used. Whenever possible, use these products in combination with Dithane DF. Check with your county Extension agent about current product availability, as well as for information on appropriate rates, timings and methods of application.

How do I avoid problems with Alternaria leaf and stem blight in the future? You can reduce the severity of Alternaria leaf and stem blight by reducing the humidity in your ginseng garden. This can be accomplished by planting smaller gardens, orienting gardens in the direction of prevailing winds, planting less dense ginseng stands, using side and end curtains sparingly, and trenching to remove standing water. In larger gardens, leaving 1 ft gaps in the shade every 100 ft will help increase airflow and reduce humidity.

For more information on Alternaria leaf and stem blight: See the UW-Madison Ginseng Home Page (www.plantpath.wisc.edu/ginseng), contact the Ginseng Research Program, Department of Horticulture, University of Wisconsin-Madison, 1575 Linden Drive, Madison, WI 53706, or contact your County Extension Agent: