

Alfalfa

Phytophthora Root Rot

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Cause: *Phytophthora megasperma* f. sp. *medicaginis*

Occurrence: Phytophthora is fungus-like organism that may cause extensive mortality to young seedlings or result in a root rot of older plants. The disease is more severe in heavy soils with poor drainage.

Key Symptoms:

- Damping off of seedlings
- Stunted yellow plants that may be easily pulled from soil
- Leaves may exhibit a red tinge
- Roots may be completely rotted several inches below the soil surface or have multiple rotted areas

Pathogen: This soil-borne organism persists in the soil. Infection is favored by poor drainage and heavy soils.

Management Approaches

Biological Control

No biological control practices have been developed for bacterial leaf spot.

Cultural Control

- Use resistant varieties. See the following sources for varietal information:
 - University of Wisconsin forage pages
<http://www.uwex.edu/ces/forage/pubs/varinfo.htm>
 - University of Wyoming Alfalfa Disease Management Publication B1136
<http://ces.uwyo.edu/PUBS/B-1136.pdf>
- Avoid planting alfalfa on poorly drained soil
- Avoid late planting where soil temperatures drop below optimum for rapid germination and establishment
- Alfalfa should follow corn or small grain in a rotational sequence. Never follow alfalfa with alfalfa.
- Avoid injury to crowns and roots including cultivation and excessive traffic

Chemical Control

Seed treatments may be useful to suppress *Phytophthora* and *Pythium* seedling blights. Examples of seed treatment fungicide seed treatments for control of *Phytophthora* and *Pythium* seedling blight for alfalfa include:

Apron XL (mefenoxam)

Allegiance FL

Allegiance LS

Categories: Alfalfa, Disease, *Phytophthora* root rot

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