



Small Grains

Bacterial Stripe (barley, oat)

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Identification and Life Cycle

Bacterial stripe is caused by the bacterium *Pseudomonas syringae* pv. *striaefaciens*. Bacterial stripe is uncommon in the High Plains region and is generally associated with sprinkler irrigation in cool (60-77°F), humid, and wet weather. The pathogen can be spread by splashing rain and irrigation water, contaminated seed, and in crop debris. The pathogen survives between crops in debris, pathogenically on alternate hosts, and epiphytically on alternate hosts and weed, and in contaminated seed. The pathogen is readily moved in irrigation water.

Plant Response and Damage

Bacterial stripe symptoms appear as small (less than 0.04 inches) water-soaked lesions that expand and eventually coalesce. These lesions may coalesce into stripes or blotches, which may extend the length of the leaf blade. These stripes often have narrow, yellowish margins. Heavy infections may kill leaves. Bacterial stripe rarely causes economic damage in the High Plains.

Management Approaches

Biological Control

No biological control strategies have been developed for bacterial leaf blight.

Cultural Control

Plant high quality seed free of the pathogen. Avoid frequent or overhead irrigation, especially during cool, wet weather. Incorporate crop debris and practice crop rotation to non-hosts for at least two years. Avoid reuse of irrigation tail water.

Chemical Control

Seed treatment with copper bactericides may provide some disease control.

Product List for Bacterial Stripe:

Pesticide	Product per 100 pounds	Remarks
Copper and Copper/EBDC: not all formulations listed		
Champ Flowable	2 fl oz	Seed treatment
Kocide 4.5LF	2 fl oz	Seed treatment
ManKocide	4 oz	Seed treatment; may provide superior suppression of copper tolerant bacteria

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Categories: Small Grains, Disease, Bacterial Stripe, Barley, Oat

Date: 3/8/2005

Supported in part by:

[Western Region IPM Center](#), [EPA Region VIII](#), [National Plant Diagnostic Network](#), [Great Plains Diagnostic Network](#), [USDA CSREES](#), [Colorado State University](#), [Montana State University](#), [South Dakota State University](#), the [University of Nebraska - Lincoln](#), and the

[University of Wyoming.](#)