Sunflower

Septoria Leaf Spot

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Identification and Life Cycle

Septoria leaf spot is caused by the fungus *Septoria helianthi*. Little is known about the survival and dissemination, but the disease cycle is thought to begin when spores (conidia) are deposited onto leaves by wind and/or splashing water. The fungus directly penetrates host tissues, and develops fruiting structures (pycnidia) that produce more conidia. The disease develops most rapidly during moderate to warm weather with abundant rainfall, especially after flowering. The fungus can be seedborne, and is thought to survive between sunflower crops in and on infected crop debris.

Plant Response and Damage

Septoria leaf spot symptoms initially appear as water-soaked spots with a greasy-green appearance on the lower leaves of plants. Lesions can be circular to angular in shape, but often are gray with a dark margin. Some lesions may have a narrow yellow boarder that gradually fuses with surrounding healthy tissue. Tiny, black specks (pycnidia of the fungus) become apparent in mature lesions. Septoria leaf spot rarely causes economic losses in the High Plains because conditions favorable for disease seldom occur in the High Plains, but the disease can be damaging under heavy sprinkler irrigation.

Management Approaches

Biological Control

No biological control strategies have been developed for Septoria leaf spot

Cultural Control

Plant high quality seed free from the Septoria leaf spot pathogen. Practice a three-year or longer crop rotation, especially when sunflowers are grown with overhead irrigation.

Sanitation of crop debris and volunteers may reduce pathogen survival, but experimental data is lacking.

Chemical Control

Fungicides are rarely economical or required for Septoria leaf spot.

Product List for Septoria Leaf Spot:

Pesticide	Product per Acre	Application Frequency (days)	Remarks
Neem			
Trilogy	2 pt	7-14 days	Maximum of 2 gallons; 0 day PHI
Pyraclostrobin			
Headline	6-12 fl oz	7-14 days	Maxiumum of 24 fl oz/Acre; rotate with other fungicide chemistry; 21 day PHI

Categories: Sunflower, Disease, Septoria Leaf Spot

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