



**Alternaria leaf blight on
sunflower**

Alternaria leaf blight: Description and symptoms

- **Alternaria species affects all aerial parts of the plant** (*Malone and Muskett, 1997*)
 - leaf, petiole, stem, floral parts and
 - seeds of sunflower during emergence & throughout the growing stages of the plant
- **Symptoms on sunflower** (*Cho and Yu, 2000*)
 - Normally appear as dark brown, oval to circular spots with a pale margin and yellow halo
 - Spots become irregular by coalescing, leading to blight and defoliation and death of the plant

Alternaria leaf blight: Epidemiology and importance

- Most common and severe in areas that experience
 - Extended periods of **wet weather** in summer accompanied by
 - Mean daily temperatures between **25 and 30°C**

Alternaria leaf blight: Epidemiology and importance

- Reported to reduce seed and oil yield
 - Respectively 27 to 80% & 17 to 33%
 - Can also cause germination losses
- This disease significantly reduces head diameters and numbers of seeds produced per head
 - Reduction in seed content is of economic concern as farmers receive a price premium based on oil content

Alternaria leaf blight: Management

1) Cultural practices

- Currently most effective method disease management
 - Aims at reducing the amount of inoculum in the field
- Alternaria is a polycyclic pathogen
 - Meaning once the inoculum is established in the field, it will cause re-infections until harvest whenever the environmental conditions are suitable for disease

Alternaria leaf blight: Management

1) Cultural practices

- Recommended cultural practices to prevent inoculum build-up:
 - Crop rotation with monocot crops such as maize.
 - Use strict sanitation and destruction of crop debris.
 - Prune out highly infected leaves or remove dead leaves from the ground.
 - Use tillage practices that bury and rapidly promote residue decomposition.
 - No cultivars have been identified as being immune to the disease

Alternaria leaf blight: Management

2) Chemical control

- Presently no fungicide treatment for Alternaria leaf blight
- Preliminary seed treatment and spray programmes using strobilurin based fungicides have shown positive results in reducing infection levels

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