

## Safflower

### **Botrytis Head Rot**

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#### **Identification and Life Cycle**

Botrytis head rot is caused by the fungus *Botrytis cinerea*. The disease cycle is initiated by soil-borne dormant resting structures of the fungus (sclerotia), which germinate and release spores that germinate in the presence of free moisture and directly penetrate host tissues. Lesions produce copious amounts of spores (conidia) that serve as secondary inoculum. The disease is most severe during cool, wet weather during or after flowering. Wind, splashing water, and movement of infested soil and plant material disseminate the pathogen. The pathogen survives in the absence of safflower as dormant sclerotia in the soil, in infested crop debris, or as a pathogen on many other plants.

#### **Plant Response and Damage**

Botrytis head rot symptoms on seed appear as a green to brown discoloration. During cool, wet weather diseased floral parts are covered with a gray, fuzzy mold. As disease progresses, the fungus grows throughout the head and into the stem. Infected heads are easily broken off of stems. The disease can reduce seed yield and weight if infection occurs during early bloom.

#### **Management Approaches**

##### **Biological Control**

No biological control strategies have been developed for Botrytis head rot.

##### **Cultural Control**

Few specific cultural control strategies have been developed for Botrytis head rot. Avoid planting in poorly drained fields. Crop rotations of three-years or longer to non-hosts (small grains or corn), moderate nitrogen fertilization, thorough incorporation of crop debris, and avoidance of overhead and excessive irrigation will likely reduce the incidence and severity of Botrytis head rot.

## Chemical Control

The effect of fungicides on Botrytis head rot is not known.

### *Product List for Botrytis Head Rot:*

<b>Pesticide</b>	<b>Product per Acre</b>	<b>Application Frequency (days)</b>	<b>Remarks</b>
<b>Neem</b>			
Trilogy	2 pt	7-14 days	Maximum of 2 gallons; 0 day PHI

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Categories: Safflower, Disease, Botrytis Head Rot

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