

# **BOTRYTIS GRAY MOLD**

## **CAUSAL AGENT**

*Botrytis cinerea*

## **IDENTIFICATION**

Gray-brown, powdery mass of fungal material present on blossoms, leaves, stems, and pods. The fungus produces large amounts of spores which are readily dislodged by wind. The fungus colonizes blossoms and dead plant material, and from this base quickly invades healthy pods, leaves, and stems.

## **DISEASE CYCLE AND EPIDEMIOLOGY**

The spores are called conidia and are disseminated in the air and dispersed by splashing water.

Flowers are very susceptible, and constitute the main source of inoculum that infects leaves and pods. Early infections can be seen moving from infected blossoms to the pods, stems, and leaves.

The fungus has a wide host range among crop plants and weeds. Crops that produce blossoms in dense canopies are particularly susceptible. Greenhouse flower crops are also very susceptible.

Moisture is essential for infection and development of gray mold.

Infection is faster in the presence of aphid honeydew, pollen, and other nutrient sources. Succulent tissue is very susceptible.

Crops are at risk when there is decaying tissue or senescent leaves on the ground (ie, resulting from drought stress, hail, frost, or herbicide injury), when wet weather is persistent or irrigations have been frequent, and when the canopy is dense and air movement is restricted. The critical infection period for beans is during flowering.

The fungus produces black seedlike structures called sclerotia, which enable the fungus to overwinter in soil.

## **MANAGEMENT**

Avoid narrow row spacings which result in dense canopies and restricted air flow.

Avoid over fertilization and frequent irrigation.

Control the weeds in the field because weeds provide additional sites for sporulation and a favorable microclimate for infection.

Grow varieties with an upright growth habit and a short flowering period. Split sets and varieties with extended flowering periods are particularly vulnerable.

Fungicides should be applied at flowering; coverage of the blossoms is essential.

Rotation must be practiced; grains and corn are recommended.