

# **ANTHRACNOSE OR RED LEAF SPOT OF SORGHUM**

## **ECONOMIC IMPORTANCE**

- This is wide spread and prevalent in all sorghum growing areas.
- In India anthracnose is severe in Andhra Pradesh, Madhya Pradesh, Rajasthan, Tamil Nadu and Delhi.

## **SYMPTOMS**

- The fungus causes both leaf spot (anthracnose) and stalk rot (red rot) in sorghum.
- The disease appears as small red coloured spots on both surfaces of the leaf.
- The centre of the spot is white in colour encircled by red, purple or brown margin.
- Numerous small black dots are seen on the white surface of the lesions which are the fruiting bodies (acervuli) of the fungus.
- Many lesions coalesce and kill large leaf portions.
- In midrib region, elongate elliptical, red or purple regions with black acervuli are formed.
- Stalk and inflorescence infection can be characterized externally by the development of circular cankers.
- Infected stem when split open shows discoloration, which may be continuous over a large area or more generally discontinuous giving the stem a marbled appearance.
- The stem lesion also shows acervuli.

# SYMPTOMS



ANTHRACNOSE  
SORGHUM LEAF



LEAF SPOT ON

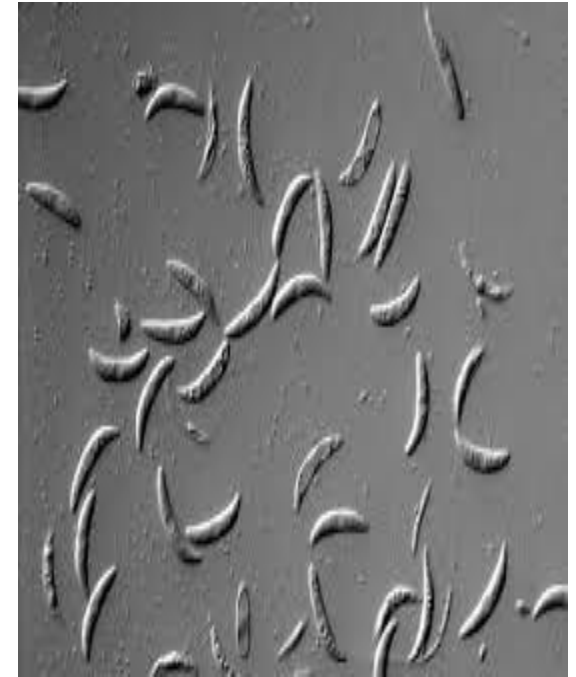


STALK ROT

# PAHOGEN



BLACK ACERVULI



FALCATE CONIDIA

## ETIOLOGY

### **CAUSAL ORGANISM:** *Colletotrichum graminicola*

- The mycelium of the fungus is localized in the spot.
- Acervuli with long dark setae arise through epidermis.
- The conidiophores are short, single celled and colourless.
- Conidia are short, hyaline, **single celled, vacuolate and falcate in shape.**

## DISEASE CYCLE

- Fungus has wide host range and survives on **Johnson grass, Sudan grass, maize, barley and wheat.**
- **Also survives in seed and infected plant debris.**
- **Primary infection is from the** conidia produced on the infected plant debris and infected seed.
- Disease spread within the season is through air borne conidia, which are produced on first infected plants.

## FAVOURABLE CONDITIONS

- Continuous rain, temperature of 28-30°C and high humidity aggravates the disease.

## MANAGEMENT

- Destruction of infected plant debris and collateral hosts.
- Crop rotation with non-host crops.
- Grow resistant varieties like SPV 162, CSV 17, Texas Milo and Tift sudan etc.
- Treat the seeds with Captan or Thiram @3 g/kg.
- Spray the crop with Mancozeb @0.25% or carbendazim@0.1%