

Red Rot



Causal organism: *Colletotrichum falcatum* Went, *Glomerella cingulata*

Red rot is one of the major constraints in the profitable cultivation of sugarcane in many states of India. Except Maharashtra, the disease has been recorded in all the states. This disease drastically retards the yield and considerably deteriorates the juice quantity and quality thus hitting both the cane growers and millers. Many good varieties have gone out of cultivation due to red rot.

Symptoms

Stalk Symptoms

- Drying up of the 3rd and 4th leaf of the crown at margins. Later, the entire crown dries up & drops down.
- Brown or reddish brown stripes appear externally at nodal region. On splitting, the internal tissue becomes red with white transverse bands.
- Tissues emit alcoholic sour smell.
- Tiny acervuli develop on outer surface of shrinked upper internodes. Cottony gray fungal mass develops in the pith region of the internodes and sporulates abundantly.



Leaf Symptoms

- Tiny reddish lesions on the upper surface of the lamina. These lesions are 2 to 3 mm in length and about 0.5 mm in width.
- Minute red spots on the upper surface of the midrib in both the directions. Later on becomes straw colored in the center with the development of black acervuli and dark reddish brown margins.



Transmission

Primary transmission through soil and diseased sets, while the secondary transmission through air, rain splash and soil.

Management

- ❖ Avoid planting of highly susceptible varieties.
- ❖ Follow the long furrow method or pair row method of layout for planting and irrigation.
- ❖ Planting material should be collected from the seed nursery.
- ❖ Before primary and general cane planting set treatment with 0.1% carbendazim for 15-20 minutes dipping should be followed.
- ❖ Avoid ratooning of the diseased crop.

To control the secondary spread of the disease, follow the following practices

- a) Rogue out the affected clumps and destroy it by burning. After roguing, drench the spot with the 0.1% carbendazim solution.
- b) Set treatment with the fungicide thiophanate methyl either alone or in combination with PGPR *Pseudomonas* effectively managed the disease. (SBI, Coimbtore)
- c) Foliar application of the carbendazim (0.1%) immediately after the disease incidence.
- d) After the harvest of the diseased crop, left over trash with stools should be burnt immediately.
- e) Crop rotation should be followed to break the rapid built up of the disease.