

Pokkah Boeng



Causal organism: *Fusarium moniliforme* Sheldon.

Pokkah boeng comes under minor concern but due to climate change now its consider as major ones because of their rapid epidemiology and uncertainty of environment as well as crop stages are coincides with a biotic factor as well as different phases of symptoms pattern

Susceptible varieties in Maharashtra: Co419, MS 10001, CoC 671, CoVSI 9805, CoVSI 08005 and Co86032

Symptoms

The general symptoms of pokkah boeng are mainly of three types;

1. Chlorotic Phase,
2. Acute Phase or Top-Rot Phase and
3. Knife-cut Phase (associate with top rot phase).

The details of the symptoms as per the phase are as under,



midribs.

1.Cholorotic Phase: The earliest symptom of pokkah boeng is a chlorotic condition towards the base of the young leaves and occasionally on the other parts of the leaf blades. Frequently, a pronounced wrinkling, twisting and shortening of the leaves accompanied the malformation or distortion of the young leaves. The base of the affected leaves is seen often narrower than that of the normal leaves.

In affected mature leaves, the irregular reddish stripes and specks are observed within a chlorotic part. Later, irregular necrotic areas of reddish color, similar on the leaf blades are also noticed on leaf sheath and

2. Acute Phase or Top-Rot Phase

The most advanced and serious stage of pokkah boeng is a top rot phase. The young spindles are killed and the entire top dies. Leaf infection sometimes continued to downward and penetrates in the stalk by way of a growing point. In advanced stage of infection, the entire base of the spindle and even growing point showed a malformation of leaves, pronounced wrinkling, twisting and rotting of spindle leaves. Red specks and stripes also developed, and the whole base of the spindle gets rotten and dries up very fast and finally, it formed a 'Top-Rot' of the tender tissues of the apical part of the cane. Sprouting of the buds are also observed in a severe infection. In such cases, the apical part of the stalk is seriously damaged.



3. Knife-cut Phase The symptoms of knife cut stage are observed in a association with the acute phase of the disease characterized by one or two or even more transverse cuts in the rind of the stalk /stem in such a uniform manner as if, the tissues are removed with a sharp knife, This is an exaggerated stage of a typical ladder lesion of a pokkah boeng disease. On stripping off the leaves, large horizontal conspicuous cuts are develops on stalks.



Transmission

This is an air-borne disease and primarily transmitted through the air-currents and secondary transmission is through the infected setts, irrigation water, splashed rains and soil.

Favorable condition

- ❖ **Temperature:** It grows and sporulates in the temperature range of 20-30°C. Minimum, optimum and maximum temperature for growth of pathogen are 10-15°C, 30°C and 35-40°C, respectively. The severe incidence of the disease occurred in the range of temperature between 20°C-32°C and therefore, the disease is more severe in rainy season.
- ❖ **pH:** The pathogen could grow in a wider range of acidic to slightly alkaline pH from 6.5 to 7.5 of the soils.
- ❖ **Humidity:** The average relative humidity higher than 70 to 80% with a cloudy weather, drizzling rains favors the growth of pathogen. This situation noticed mostly in a rainy season.

Management

1. The best means of control for pokkah boeng is to grow resistant varieties.
2. Spraying of 0.1% carbendazim (1gm / lit. of water) or 0.2% Copper oxychloride or 0.3% Mancozeb (3 gm / lit. of water) two to three sprayings with an interval of 15 days interval.
3. Canes showing 'top rot' or 'knife cut' should be rogued out.