



## Major Maize Diseases of Haryana, Symptoms and Management

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Maize has gained tremendous importance due to rising demand of food, feed and fodder. It seems to be an alternative to the rice crop in Haryana in order to mitigate the effects of lowering water table. Maize can be cultivated in all the seasons. There is good scope of cultivation of speciality type corn (Baby and sweet) and quality protein Maize in Haryana as it is near to Delhi.

Maize growing district of Haryana are Panchkula, Ambala, Kurukshetra, Yamunanagar, Karnal, Kaithal, Sonapat etc. Among the factors adversely affecting productivity, incidence of diseases is a prominent one. Considering the losses caused by diseases in Haryana, five diseases viz.

- **Maydis leaf bight** (*Maydis patta angmari*) (*Bipolaris maydis*)
- **Banded leaf and sheath blight** (*Rhizoctonia solani* sk. *korakii*)
- **Common rust** (*Samanya ratua*) (*Puccinia sorghi*)
- **Bacterial stalk rot** (*Jevanu tana galan*) (*Prurywa* pv. *zeae*)
- **Pythium stalk rot** (*Pythium tana galan*) (*Pythium aphenadermatum*).

are of economic importance **MLB and BLB occur in Kharif reason white common Rust during Rabi season.** MLB appears every year and disease incidence ranges from **25 to 85%**. Banded leaf and sheath blight will occur in severe form causes total loss when **rain prevails in July and August.** **Common rust can damage up to 60%** of crop. and occurs usually during **Feb-March** i.e. in **Rabi** season

### Major diseases of maize, there symptoms and Management

#### 1. Maydis Leaf Blight MLB (*Bipolaris maydis*)

##### Symptoms

- Small yellowish round oval spots appear on the lower surface of leaves.
- These spots become enlarged elliptical and centre becomes straw coloured with reddish brown margins & Conidia and conidiophores are formed in centre.

##### Management

- Grow resistant varieties **HHM 1, HHM 2, HM 4, HM 5** etc.
- Rogue out affected plants.
- Spraying at **knee stage** with **600g Zineb / Mancozeb (Indofil M- 45)** in 200 litre water, if required repeat spray at **15-20-day interval**.

## 2. Banded leaf and Sheath blight, (*Rhizoctonia solani* sk. *korakii*)

### Symptoms

- Concentric leaf spots on leaves and husk, apart from development of lesions with **concentric bands** on leaves sheath.
- Occurrence of stalk lesions, stalk breaking, horse-shoe shaped lesions are in rarely occurring symptoms.
- **Sclerotia** formation.

### Management

- Seed treatment with **carbendazim @ 0.2%** and foliar spray.
- Seed treatment @ **4g/kg** as well as soil application *Trichoderma herzianum*.

## 3. Common rust (*Puccinia sorghi*)

### Symptoms

- On both the surface of leaves, brown pustules are seen.
- There represent the **uredosori** of the fungus.
- Spores are more on the leaves and show on the line emergence.
- later on, spores turn black.

### Management

- Grow resistant varieties like **HHM 1, HHM 2, HM 4, HM 5, HM 10, HM 11.**
- **400 to 600 g Mancozeb (diethane M 45)** in 200-250 lit water the spray 2 to 3 times.