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# Center for Smart Agriculture

## Hi Tech Fruit Culture



**Module 5: Pest And Disease Management**  
**Session 4: Papaya Pests and Diseases**



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## **Pests of Papaya:**

- White fly (*Bemisia tabasi*),
- Green Peach Aphid (*Myzus persic*

## **Diseases of Papaya:**

- (1) Powdery Mildew: *Oidium caricae*
- (2) Leaf- Blight: *Corynespora cassiicola*
- (3) Damping-Off : *Rhizoctonia solani*
- (4) Papaya Ring Spot Virus (PRSV)
- (5) Mosaic



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## Diseases of Papaya:

### **Powdery Mildew: *Oidium caricae***

- The disease appears as on the foliage and pods. Infection is first apparent on the leaves as small slightly darkened areas, which later become white powdery spots.
- In more severe cases dieback symptoms develop.



### **Management**

- Dusting Sulphur (30 g/10 liters of water) is found effective.
- The first spray of Triademefon (0.1%) during September and repeated at 15 days interval.
- Spraying Calixin 75 EC (5 ml/10 liters of water) at 15 days interval helps to control the disease





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## 2) Leaf- Blight: (*Corynespora cassicola*)

- The disease causes severe damage to leaves.
- The disease first appears as small, discolored lesions, which are irregularly scattered on the leaves. These spots become irregular in shape, then increase in size, and appear brown to grey in colour.
- A light yellow zone surrounds the spots.

### Management:

- Disease can be controlled by pruning of affected plant parts followed by spraying with Dithane M-45 (0.2%) starting from the appearance of the disease symptoms







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### (3) Damping-Off : *Rhizoctonia solani*

- This is a disease of young seedlings. On collar region discoloration takes place initially.
- Lesions are seen on the stem at or just above soil level.
- The stem becomes watery and shrinks, followed by death of the plant.

#### **Management:**

- Before sowing the seeds should be treated with fungal culture of *Trichoderma viride* (5 g/kg of seed) or Captan (3 g/kg of seed) to protect the newly emerging seedlings.





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## Pests of Papaya:

### 1) White fly (*Bemisia tabasi*)

- Both the adults and nymphs suck the plant sap and reduce the vigor of the plant. In severe infestations, the leaves turn yellow and drop off.
- When the populations are high they secrete large quantities of honeydew, which favors the growth of sooty mould on leaf surfaces and reduces the photosynthetic efficiency of the plants.

#### Control:

- Water sprays may also be useful in dislodging adults.
- Fumigating with a small petrol soaked cotton ball.





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#### 4) Green Peach Aphid: (*Myzus persicae*)

- Infesting tender shoots and under surface of the leaves.
- Curling and crinkling of leaves
- Stunted growth
- Development of black sooty mould due to the excretion of honeydew

#### Control:

- Release 1st instar larvae of green lacewing bug (*Chrysoperla carnea*) @ 4,000 larvae/acre.
- Spraying with tobacco decoction (1 Kg tobacco boiled in 10 l of water for 30 minutes and making up to 30 l + 100 g soap).
- Organic control includes insecticidal soaps (1%)

