



DISEASE OF FIELD AND HORTICULTURAL CROPS – I

SESSION 22

POMEGRANATE DISEASES

Important Diseases

❖ Major Diseases

1. Bacterial leaf spot - *Xanthomonas axonopodis* pv *punicae*

❖ Minor Diseases

1. Anthracnose - *Colletotrichum gloesporioides*
2. Cercospora leaf spot - *Cercospora punicae*

BACTERIAL LEAF SPOT/ BACTERIAL BLIGHT

❖ *Xanthomonas axonopodis pv punicae*

❖ Symptoms

1. Small irregular water soaked spots appear on the leaves.
2. **Lesions** enlarge to **2-5 mm with indefinite margins** on leaf blade
3. Leaves distorted and malformed
4. Defoliation
5. The bacterium **attacks stem, branches and fruits** also.
6. On the **stem**, the disease starts as brown to **black spots around the nodes**.
7. **Girdling and cracking** of nodes
8. Branches break down
9. Brown to black spots on the **pericarp of fruit** with **L or Y shaped cracks**
10. Spots on fruits are raised with dark brown lesions of indefinite margins on the surface







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Etiology

- ❖ Gram negative
- ❖ Rod shaped with single polar flagellum
- ❖ Yellow coloured colonies



❖ Disease cycle

- ❖ **Primary infection** – Infected twigs and branches
- ❖ **Secondary infection** – Rain splashes

❖ Favourable Conditions

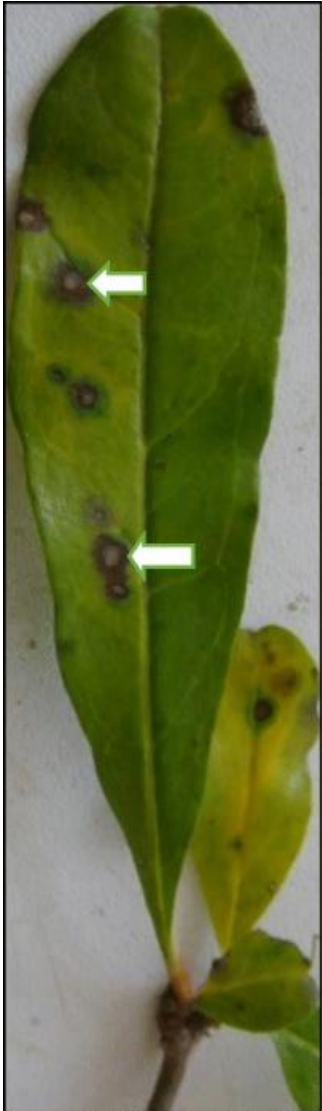
- ✓ High temperature and high humidity
- ✓ Cloudy weather with frequent rains

❖ Management

1. Use healthy disease free planting materials
2. Prune infected plant parts and burn
3. Orchard sanitation – collect and remove the fallen leaves and twigs
4. Spay Bordeaux mixture 1% after pruning
5. Use clean knives for pruning
6. Spray *Pseudomonas fluorescense* 10g/L at 15 days interval
7. Spray streptomycin 0.3 g plus COC 3g per L
8. Micronutrient spray (ZnSO_4 @ 1g + MgSO_4 @ 1g + CaSO_4 @ 1g + Borax @ 1 g + SOP @ 3g/L) at regular intervals

Anthracnose

❖ *Colletotrichum gloesporioides*



Cercospora leaf spot

❖ *Cercospora punicea*

