

Important tomato diseases

- Damping off
- Late blight
- Septoria leaf spot
- Bacterial Wilt
- Leaf curl
- Tomato spotted wilt

Damping off (*Pythium aphanidermatum*, *Rhizoctonia solani*)

Survival: Soil, Seed, Water

IPM practices:

- **Cultural:** Burning trash on the surface,
- Providing better drainage,
- Forming raised beds
- Thin sowing
- **Chemical:** Seed treatment with 3 g Thiram or 4 g *Trichoderma viride* formulation plus 6 g Metalaxyl per kg seed or drenching the soil with 1 per cent Bordeaux mixture or Captan 2 g/l or Metalaxyl (Ridomil MZ) 2 g/l at 8-10 days intervals, until the seedlings are ready for transplanting.



Late blight (*Phytophthora infestans*)

- **Survival:**

- Oospores in soil
- Mycelium in tubers

- **IPM Practices:**

- **Cultural practices:** Weed free potato fields, tomato should be grown in high ridges, mulching between rows
- **Application of fungicides:** Ridomil MZ 72 WP @0.25%, Blitox-50 @0.2-0.5%
- **Use of resistant cultivars:** No immune cultivars
- **Biological Control:** Seed treatment and foliar application of *Bacillus cereus*, *Pseudomonas fluorescens* reduces disease severity



Bacterial wilt (*Ralstonia solanacearum*)

Survival: Spreads through wounds, soil and implements.

- The pathogen is soil-borne

IPM practices:

- **Cultural:** Persistent for long periods in soil and very difficult to control.
- Crop rotation with Cruciferous vegetables is recommended.
- **Use of resistant varieties:** No commercial resistant varieties are available



Leaf curl (Tomato leaf curl Virus)

Survival: Infected plants

IPM practices:

- **Cultural:** The infected plants should be rouged out and destroyed.
- **Use of resistant varieties:** Use resistant varieties
- **Chemical:** Use of systemic insecticide such as Dimethoate (0.05 %) as spray or Carbofuran or Phorate granules (50 kg/ha) as soil application are useful in vector control and reducing the disease.



Tomato spotted wilt disease (*Tomato spotted wilt virus*)

Survival: Virus particles in infected plants of many collateral hosts

IPM practices:

- **Cultural:** The infected plants should be rouged out and destroyed.
- **Chemical:** Control of Thrips with insecticides may restrict the spread of the virus.
- Application of Carbofuran granules (100 g/m²) in the nursery and in the main field (15 kg / ha) 10 days after transplantation gives good protection.

