

Important pigeonpea diseases

- Wilt
- Sterility Mosaic
- Phytophthora blight
- Alternaria blight
- Root rot

Wilt (*Fusarium udum*)

Survival: Soil borne

IPM practices:

- **Cultural:**
- Follow 3-4 year crop rotation, taking a mixed crop of jowar and arhar
- Collect and bur the plant trashes left after harvesting.
- **Use of resistant varieties:** Best control is to plant disease resistant varieties
- **Biological control:** Treat the seeds with *Trichoderma viride* at 4 g/kg 10^6 cfu/g).



Sterility mosaic (*Sterility mosaic virus*)

Survival: Infected plants

IPM practices:

- **Cultural:** Destroy sources of sterility mosaic inoculum on perennial or ratooned pigeonpea.
- Uproot infected plants at an early stage of disease development and destroy them as they are potential sources of inocula.
- **Use of resistant varieties:** Plant resistant varieties
- **Chemical:** Control mites by spraying 0.1% Oxydemton methyl (Metasystox). Start spraying as soon as first affected plants are seen in the field. Three to four sprays are needed to control the mites.
- Spray acaricides such as Kelthane, Tedion @ 1 ml/L of water also to kill mites.



Phytophthora blight (*Phytophthora dreschleri* var. *cajani*)

Survival: Soil, infected plants

IPM practices:

- **Cultural:** There should be good drainage in the fields and the plants should be protected from stem injury.
- Ridge sowing of pigeonpea gives very good control
- **Use of resistant varieties:** This disease can be controlled by planting resistant varieties.
- **Chemical:** Application of Ridomil MZ provides good control

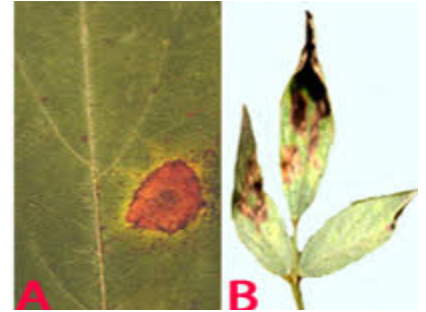


Alternaria leaf spot (*Alternaria alternata*)

Survival: Seed, soil and debris

IPM practices:

- **Cultural:** Select fields away from perennial pigeonpeas.
- Select seed from healthy crops.
- **Chemical:** Maneb 3g per liter of water is effective.
- Spray Mancozeb 1kg/ha



Root rot (*Rhizoctonia bataticola*)

Survival: Soil borne

IPM practices:

- **Cultural:** Early sowing or early maturing cultivars escape DRR
- Crop rotation with non-host reduces population of sclerotia in the soil
- Deep ploughing, removal of infected debris reduce multiplication of sclerotia
- Tillage and residue management reduce the severity of root rot
- Maintain good soil moisture throughout the crop growth
- **Chemical:** Seed treatment with carbendazim and thiophanate methyl and vitavax reduced the DRR of chickpea significantly over untreated check
- Carbendazim (0.2%), Etaconazole (0.1%) as seed treatment and soil drenching
- **Biological:** Combination of biocontrol agents of *T. viride*, *Pseudomonas fluorescens* and *Bacillus subtilis* improved the management of *R. bataticola*.

