

DISEASE OF BENGAL GRAM

Major Disease

S. No.	Name of Disease	Scientific Name
1.	Ascochyta Blight	<i>Ascochyta rabiei</i>
2.	Rust	<i>Uromyces ciceris-arietini</i>
3.	Wilt	<i>Fusarium oxysporum</i> f.sp. <i>ciceris</i>
4.	Stunt Disease - Virus	Virus
5.	Collar Rot	<i>Sclerotium rolfsii</i>

1. Ascochyta blight - *Ascochyta rabiei*



Symptoms

- On leaf, the lesions are round or elongated, bearing irregularly depressed brown spot and surrounded by a brownish red margin.
- The spots on the stem and pods have pycnidia arranged in concentric circles as minute black dots.
- When the lesions girdle the stem, the portion above the point of attack rapidly dies.
- If the main stem is girdles at the collar region, the whole plant dies.

Favorable conditions

- High rainfall during flowering.
- Temperature of 20-25°C.
- Relative humidity of 60%.

Management

- Treat the seeds with Thiram 2g or Carbendazim 2 g or Thiram + Carbendazim (1:1 ratio) at 2 g/kg.
- Spray with Carbendazim at 500 g/ha or Chlorothalonil 1kg/ha.
- Use resistant varieties namely, BG 261, BG 280 and H 75-35 (Gaurav)(Nainatal bank So 2019-18).

2. Rust - *Uromyces ciceris-arietini*



Symptoms

- The infection appears as small oval, brown, powdery lesions on both the surface, especially more on lower surface of leaf.
- The lesions, which are uredosori, cover the entire leaf surface.
- The rust pustules may appear on petioles, stems and pods.

Management

- Destroy weed host.
- Spray Carbendazim 500 g/ha or Propiconazole 1L/ha.

3. Wilt - *Fusarium oxysporum* f.sp. *ciceris*



Symptoms

- The disease occurs at two stages of crop growth, seedling stage and flowering stage stage.
- The main symptoms on seedlings are yellowing and drying of leaves, drooping of petioles and rachis, withering of plants.
- In the case of adult plants drooping of leaves is observed initially in upper part of plant, and soon observed in entire plant.
- Vascular browning is conspicuously seen on the stem and root portion.



Favorable conditions

- High soil temperature (above 25°C).
- High soil moisture.

Management

- Apply heavy doses of organic manure or green manure.
- Grow resistant cultures like ICCV 42, H82-2, Avrodhi, Alok Samrat, Pusa-212, JG- 322, GPF-2, Haryanachana-1 and Kabuli chickpea like Pusa-1073 and Pusa-2024.

4. Stunt disease – Virus Symptoms

- The leaflets are smaller with yellow, orange or brown discoloration. Stem also shows brown discoloration.
- Phloem browning in the collar region is the most characteristic symptom of the stunt, leaving xylem normal.

Management

- Rogue out the infected plants.
- Spray Monocrotophos at 500 ml/ha.

5. Collar rot - *Sclerotium rolfsii*



Symptoms

- Drying plants whose foliage turns slightly yellow before death, scattered in the field is an indication of the disease.
- The joint of stem and root turns soft slightly contracts and begins to decay.
- Infected parts turn brown white. Black dots, like mustard in shape known as sclerotia are seen appearing on the white infected plant parts.



Favorable conditions

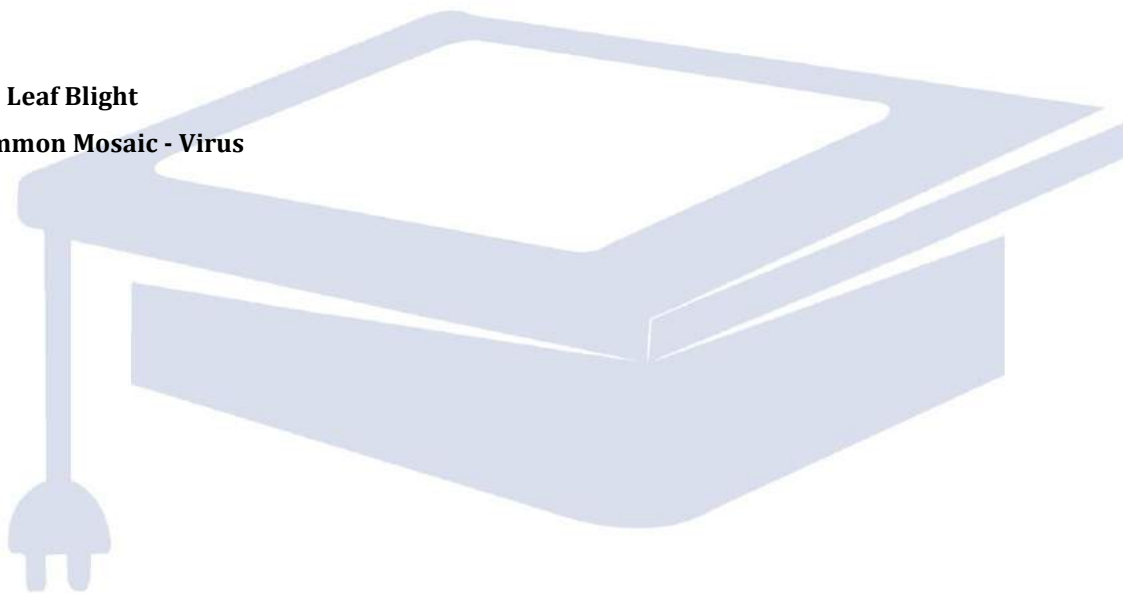
- High soil moisture, low soil pH and high temperature.
- The presence of undecomposed organic matter on the soil surface and high moisture at the time of sowing and at the seedling stage

Management

- All undecomposed matter should be removed from the field before land preparation.
- Treat the seeds with a mixture of Carbendazim + Thiram (1:1) @ 2g per kg of seed.

MINOR DISEASES

1. Foot Rot
2. Stem Rot
3. Bacterial Leaf Blight
4. Bean Common Mosaic - Virus



LEARNIZY