

Cassava root rot: An emerging problem in Kerala



Yellowing and leaf drying

Symptoms

There are three stages

- Decaying of setts along with collar region before rooting immediately after planting.
- After 2-3 months, yellowing and drooping of old leaves and rotting of stem and tuber which affects tuber development.
- After 6 months, decaying of stems in the collar region near soil and rotting of all or part of tubers.



Rotting of tubers

Causal organism

- Association of two or more pathogens and other pests.
- Initial finding suspects *Fusarium* sp as one of the causative organisms, however its confirmation is under progress .

Spread

Through planting material, soil, water and other farm tools.

For further information

The Director, ICAR- Central Tuber Crops Research Institute, Sreekariyam, Thiruvananthapuram - 695 017
e- mail: director.ctcri @icar.gov.in

Cassava plants in certain areas of Kerala show yellowing and drying of leaves; rotting of tubers and collar region of the stems. The cassava tuber rot hitherto reported showed symptom only on tubers, not in foliage. Farmers revealed 40-80% of this disease incidence where cassava is grown in low land paddy fields of Kollam district and less than 10% in Thiruvananthapuram district. This disease is now reported only from low land cultivation.

Action taken

- Initiated research on etiology and management at ICAR-CTCRI, Thiruvananthapuram.

Adhoc Recommendations

- Strict sanitation of the field: Removal and burning of highly infected plants.
- Crop rotation with suitable crops in two years.
- Avoid water stagnation: Ensure good drainage in the field.
- Application of Lime @ 150 to 250 g per plant 10-15 days before planting, where pH of the soil is 4-5 (Ensure soil moisture during application).
- Use only healthy setts and avoid setts from infected fields.
- Application of Neem cake @ 20 g per plant.
- Application of *Trichoderma asperellum* enriched FYM @ one kg per plant (Multiplied by mixing 2.5 kg *Trichoderma* with 100 kg of Farmyard manure (FYM) and then mixed with 12 tonnes of FYM for one hectare) (or) 50 g of *Trichoderma* enriched manure (1 kg *Trichoderma* mixed with 100 kg of FYM or vermicompost).
- Sett treatment with Carbendazim (0.1 %) (or) combination of Carbendazim and Mancozeb (0.2%) for 10 minutes.
- Drenching with the same fungicides starting from planting three times at 15 days interval.

Prepared by:

Dr. M.L. Jeeva
Dr. S.S. Veena
Dr.T. Makesh Kumar

Principal Scientists, Division of Crop Protection
ICAR-CTCRI