



ICAR-CENTRAL INSTITUTE FOR COTTON RESEARCH, NAGPUR

MANAGEMENT OF SUCKING PESTS OF COTTON

Whitefly



Identification

- **Nymph:** Wingless, oval in shape, creamy white to pale yellow colour
- **Adult:** Minute flying insects with yellowish body covered with waxy bloom, pair of white wings covering the body, 1-2 mm in length

Nature of Damage

- Both nymphs and adults suck the sap from leaf tissue
- In severe cases overall plant growth and vigour is hampered and results in downward curling of leaves
- Excretion of honeydew after feeding results in development of sooty mould that reduces photosynthesis
- Indirect damage by transmitting cotton leaf curl disease (CLCuD)

Favourable Environment

- The pest occurs throughout the season, but warmer period, high relative humidity and scanty rainfall situation aggravate the severity of this pest

Management

- Economic threshold level (ETL): 6 whiteflies/leaf
- Install yellow sticky traps @ 8 traps/acre for monitoring
- Prophylactic spraying of Neem Seed Kernel Extract (50 ml) + Neem oil (5ml) + detergent powder (1g) per litre of water at 45 DAS
- At ETL foliar application of Pyriproxyfen 10 EC @ 2.0 ml or Spiromesifen 22.9 EC @ 1.2 ml/litre water in case of nymphal population is high. In order to manage high adult population, spray Dinotefuran 20 SG @ 0.3 g or Afidopyropen 50 g/L DC @ 2.0 ml or Diafenthiuron 50 WP @ 1.2 g or Flonicamid 50 WG @ 0.4 g/l water is recommended
- In case of sooty mould initiation/development, give three prophylactic sprays of Propiconazole 25 EC @ 1 ml or Copper Oxychloride 50 WP @ 2.5 g/l of water at 15 days interval



Nymphs



Adults



Severe infestation of whiteflies



Yellow Sticky Trap



Sooty mould development on leaf surface



Cotton leaf curl disease

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Authored by: Vivek Shah, T. Prabhulinga, Rishi Kumar, G.T. Behere, Y.G. Prasad
Published by : Dr. Y. G. Prasad, Director, Central Institute For Cotton Research, Nagpur