

Pest and Disease Management in Cotton

- Alka Najan
Paithan Taluka
Aurangabad District, Maharashtra

Institute for Integrated Rural Development

Land Preparation

1. Select soils that can contain water (medium and heavy soil); black cotton soil is ideal
2. Deep Ploughing – 25 to 30 Cm.
3. Application of FYM
4. Traditional and Improved varieties

Cotton – Pest and Disease Management

Seeds

Seed Treatment with cow urine and Ash.

Azotobacteria is also useful



Inter-culture operations



- Spacing of 60X30 cms between plants
- Hoeing, application of Biodynamic compost and neem solution after 21 days
- Weeding after 25 days
- Application of vermi-compost after 45 days

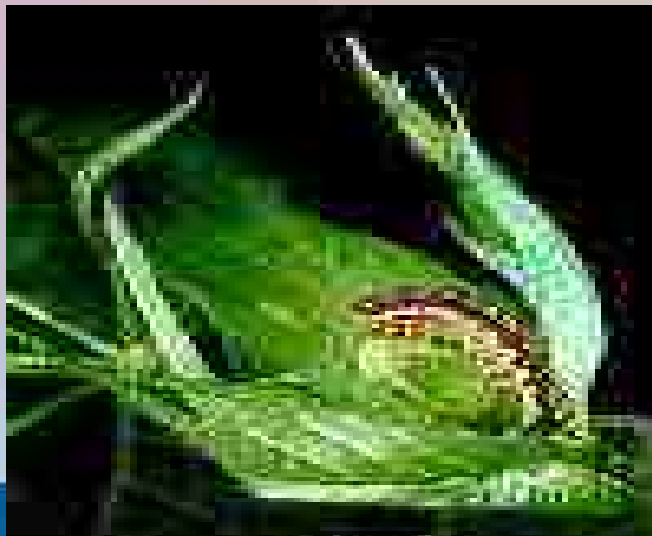
Pest Management



Boll Worm in
Early Stage



Aphids



Boll Worm

Early Stages of Boll Worm



- Makes the buds to droop and rot.

Treatment -

- Identify and destroy the infested buds.
- Mixed cropping
- Use Marigold and Tulsi as trap crops

Boll Worms



- Dropping of flowers and buds.
- Identified when holes appear in buds and when buds start to droop.

Treatment -

- Use okra, cowpea, and pigeonpea as trap crops
- Timely inter-cultural operations
- Destroy infested buds and flowers.

Aphids



- Sucking insects

Treatment

- Application of ash
- Application of jaggery
- Application of boiled rice and puffed rice.

Beneficial Insects



Lady bird
Beetle



Big-eyed
Bug

Big-eyed bug nymph feeding on bollworm egg.



Praying
Mantis

Trichogramma



Trichogramma parasitizing bollworm egg.

Ladybird beetle



- Feeds on Aphids, insects, worms, and white bugs that are considered pests.

Praying Mantis



- Camouflages with the crop.
- Feeds on larvae and small worms
- Adult praying mantis feeds on small and big worms

Big-eyed Bug

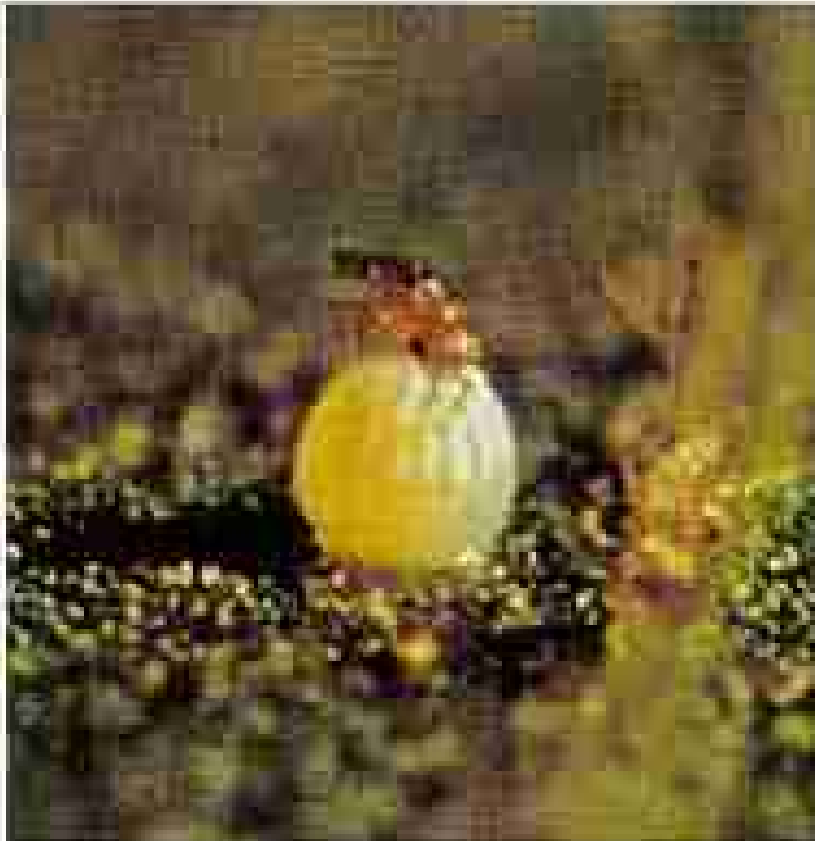
- Feeds on all worms and insects that are harmful to crops
- Feeds on eggs of boll worms



Big-eyed bug nymph feeding on bollworm egg

Trichogramma

- Lays its eggs among the eggs of flying insects.
- Parasites on eggs of enemy insects during entire life cycle.



Trichogramma parasitizing bollworm egg.

Diseases of cotton



Root rot

Bacterial Blight



Leaf Curl



Root Rot



- Root rots
- Whole plant seems to dry

Treatment

- Prevent water logging to avoid this disease
- Destroy infected plants
- Apply solution of garlic.

Bacterial Blight



- Bacterial infection causes this disease.

Treatment -

- Destroy infected leaves.
- Application of crushed datura plants.

Leaf curl



- Bacterial infection
- Leaf curls inwards

Treatment

- prevented by application of native cow milk
- prevented by application of jaggery solution

Harvesting of cotton



- Separate cotton from identified selected healthy plants for seed purpose.
- Separate mature healthy buds from infected and immature buds.

Thank You.