

### Symptoms of Damage:

- In early stages 'dead heart' noticed.
  - Eggs laid in group covered with milky layer.
  - Larva with dark brown head, dirty white body with five violet dorsal stripes.
  - Makes a hole, enter inside & feeds on soft tissues & dead heart appears.
  - Also acts as an internode borer.
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### Management of Early shoot borer:

- Trash mulching particularly in ratoon crop should be encouraged.
  - Avoid late planting after March.
  - Light earthing up at 45 to 60 days after planting.
  - Removal of the dead hearts at the ground level.
  - Release of Egg parasite *Trichogramma chilonis* in field @ 3-5 lac parasitized eggs /ha in suitable installments.
  - Use less susceptible varieties.
  - Mass trapping of male adults with use of pheromone trap @ 25 / ha. Trap should be installed at 30 cm above the crop height.
  - Seed treatment with Chlorpyrifos 20 % EC @ 400 ml in 100 lit. of water for 15 minutes.
  - Soil application of granular insecticide Cartap hydrochloride 4G @ 15 kg/ha or Fipronil 0.3 GR @ 25 kg/ha or Chlorantraniliprole 0.4 GR @ 22.5 kg/ha at planting and 60 days after planting.
  - Spraying of Chlorantraniliprole 18.5% SC @ 375 ml per ha (0.4 ml/ lit of water).
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