

## Nature of Damage:

- Dirty white coloured 'C' shaped larva.
- Grub feeds on tender roots of sugarcane and other crops.
- Live grubs seen near root zone in soil.
- Leaves weathered and infested crop become pale yellow.
- Leaves dries up within 20 days and gradually cane dry up.
- Infested sugarcane look likes a dried stick.
- Single grub dries a clump within 3 months.
- Two or more grub dries a clump within a month.
- Infested clumps can be easily pulled out.
- Pupa is brown in colour.
- Beetles are reddish brown in colour.
- Underground portion of stem also damaged.



## Management of white grub:

### a. Cultural control:

- Ploughing:
  - i. During April-May 3-4 crosswise ploughing before Adsali sugarcane planting.
  - ii. Crosswise 3-4 ploughing during September – October before pre-season sugar cane planting.
- Clod crushing: clod crushing by using disc harrow is essential.
- Crop rotation: In heavily infests fields, crop rotation with sunflower.
- Trap crop: Use of groundnut, castor and sunhemp as a trap crop.
- Avoid the ratoon crop in the heavily infested sugar cane.
- Tillage operations by using rotavator after the harvesting of sugar cane.

### b. Mechanical control:

- Collection and destruction of adult beetle by using light trap or combo trap: During May to August after the sunset beetle (*Holotrichia Serrata*) emerges from soil on large scale and found feeding on neem and babul tress. Collection and destruction of beetles is the cheapest and effective control measure. Village wise collection of beetles for three to four years by farmers helps in good control of the pest.
- Killing of grub: Kill the exposed pest stages during tillage or interculturing operations.

Collection & destruction of beetles



Solar insect light trap

Combo trap

### **c. Biological control**

- The natural predators like common crow, *Carrus splendens*, mynah, *Acridotherestrictis*, sparrow, *Passar domesticus*, etc. feeds on various stages of white grub, when these are exposed.
- *Campsomeris collaris* is the promising larval parasite of *Holotrichia* white grub.
- Entomopathogenic fungi, *Beauveria bassiana*, *Metarrhizium anisopliae*, milky diseases bacterium, *Bacillus popilliae* and nematode *Hererorhabditis* sp. are the natural enemies of the pest.
- Drenching of Biopesticide (Entomopathogenic fungi-BVM) 5 lit/ha.

### **d. Chemical control**

- To kill the egg and grub stages in FYM and compost, mix 1 kg of Carbofuran 3 % CG /cart load and then apply the compost in the field. During the summer makes the heaps of FYM/compost in the field.
- At the time of sugar cane planting, apply Fipronil 0.3 % GR or Carbofuran 3 % CG @ 33 Kg/ha. in soil.
- In grown up canes, during June to August, drenching of 20 EC Chlorpyrifos @ 5 lit/ha. or Fipronil 40 % + Imidacloprid 40 % WG @ 500gm/ ha. in 1000 liter water.