

Symptoms of Damage:

- Dirty white coloured 'C' shaped larva.
- Eat sugarcane roots.
- Live grubs seen near root zone in soil. Drying of shoots.
- Pupa blackish brown.
- Beetles reddish black.
- Life cycle - 1year.

Management of white grub:

a. Mechanical control:

- Ploughing: After harvesting of Sunflower during April-May 3-4 crosswise ploughing. Crosswise 3-4 ploughing during September – October before 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.
- Killing of grub: Kill the exposed pest stages during tillage or interculturing operations.
- 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. During August to September after the sunset beetle (*Leucopholis lepidophora*) emerges from soil on large scale and found feeding on sugarcane leaves. 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.
- Avoid the ratoon crop in the heavily infested sugar cane.
- Tillage operations by using rotavator after the harvesting of sugar cane.
- Clean the bunds around the field.

b. Biological control

- The natural predators like common crow, *Carrus splendens*, mynah, *Acrida therestrictis*, sparrow, *Passar domesticus*, etc. feeds on various stages of white grub, when these are exposed.
- *Campsomeris collarisis* 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.

c. 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 make the heaps of FYM/compost in the field.
- At the time of sugar cane planting, apply Fipronil 0.3 % GR or Phorate 10% CG @ 25 Kg/ha. 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. in 1000 liter water.