

### Nature of Damage:

- Dirty white coloured 'C' shaped larva.
- Eat sugarcane roots.
- Live grubs seen near root zone in soil. Drying of shoots.
- Pupa faint yellow, when freshly formed, gradually turns red.
- Beetles dark gray to cashew colour
- Life cycle - 1 year.



### Management of white grub:

#### a. Cultural control:

- 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.
- 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 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.

#### c. Biological control

- The natural predators like common crow, *Carrus splendens*, mynah, *Acrida thestristis*, 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, drenching of 20 EC Chlorpyrifos @ 5 lit/ ha. or Fipronil 40 % + Imidacloprid 40 % WG@ 500gm/ ha. in 1000 liter water.