



SRA-LGAREC UPDATES

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CONTROL OF WHITE GRUBS IN SUGARCANE

White grubs known as "buk-an" are the larvae of beetles. The 1st brood of white grub adults emerges at the onset of rain from May - June and the 2nd brood in October. The adult beetle lay eggs singly. The eggs hatch 15-20 days after. The 1st and 2nd instar larva feed on organic matter while the 3rd instar larvae that is the most destructive feed on root system of sugarcane. The larvae pupate and stay dormant for a month in the soil. The complete life cycle is almost 1 year. This soil pest prefers loose sandy and acidic soil.

The three (3) most common species of white grubs attacking sugarcane plant are: *Leucopholis irrorata*, Chev., *Anomala* sp. and *Lepidiota* sp., predominated by *L. irrorata*. These species have more or less one year life cycle. Adult of *L. irrorata*, Chev. is grayish brown in color about an inch long while *Anomala* sp. is rusty brown in color about half inch long. *Lepidiota* sp. is reddish brown in color and more than an inch in length.

The grubs feed on the roots. Plants become stunted and unthrifty. Young plants exhibit irregular patches of yellowing and wilting. Damaged mature plants are easily pulled out when

infestation is severe. Due to white grubs decrease in sugar yield ranged from 5 to 50%.

EFFECTIVE INSECTICIDES AGAINST WHITE GRUBS IN SUGARCANE

Several granulated insecticides were tested against white grubs. The insecticides found effective are:

CHEMICAL	Recommended Rate (kg/ha)
?? Carbophen 6G	25
?? Diagran 5G	40
?? Apache 10G	10
?? Dimotrin 4G	50
?? Fastac 0.1 G	25

HOW AND WHEN TO APPLY

New Plant

Apply insecticides 45 days after planting mixed with fertilizer (Potash and Urea) with small grains. Application of granulated insecticides should be in full dose applied only once.

Ratoon

Apply insecticides in full dose at recommended rate mixed with fertilizer (1st dose) right after stubble shaving. Application is only once.

Application of insecticides alone could not completely control

grubs. It should be combined or integrated with other control measures.

OTHER MEASURES TO CONSIDER

?? Use lime at least 2 tons/ ha to neutralize soil acidity.

?? Area infested with white grubs should be cultivated frequently to expose grubs which can be preyed by birds and other animals.

?? Control beetles from host trees either by spraying with insecticides or by collecting the adults. To collect adult beetles, shake branch of host trees, then collect and destroy beetles falling on the ground. Beetle collection should be done for 5-7 days continuously soon after the initiation of emergence which is usually from May-June. /glr

Sources:

Insecticides Against White Grubs in Sugarcane. M.C. Alba & N.S. Meneses. (1992). *PHILSUTECH Proc. 39th Annual Conv.* pp.191-196.

The Effect of Granulated Insecticides Applied at Diff. Time Against White Grubs of Sugarcane. M.C. Alba, N.S. Meneses & R.G. Entima. (1994). *PHILSUTECH Proc. 41st Ann. Conv.* pp.275-281.