Sugarcane weevil borer (*Rhabdoscelus obscurus*)

**Background**

The sugarcane weevil borer in Fiji originated from New Guinea and has been here since late 1890s. This species has also invaded sugarcane farms in Australia, Hawaii and Indonesia. It has been causing damage to sugarcane ever since and there has been little progress in managing it with resistant varieties which falls apart due to poor cultural practices. It is worth noting that the adult do not cause any damage to the cane. This borer has been found at all the four mill areas in Fiji. The main effect of the borer is on the sugar content of the cane and can reduce the %pocs up to 0.5-0.8% if all stalks are damaged.

This borer is not classified as **STEM BORER** as it does not emerge after tunneling as a moth or butterfly (*Lepidoptera*) but as a weevil (*Coleoptera*). Moth (stem) borers are far more damaging pest and at present we have been successful in keeping the stem borers out of Fiji.

**Lifecycle**

The borer feeds on inner tissue of cane through cracks, on stalks and also on the leaf sheath of young cane. The females lays eggs beneath the rind. The eggs hatch in approximately five days time producing larva which chew or weevil up and down through the soft tissue of the internode. In about sixty to seventy days the larva is totally grown and it is in this period that it does maximum damage to the cane. It develops a cocoon using cane fibre and it is in the cocoon that the adult grows. The adult emerges from the cocoon but remains inside the stalk for about ten days.

*Sugarcane appeals....... SRIF is there for your success....... SRIF technologies are to be applied.......*
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**Varieties**

Since cane varieties vary in their susceptibility to borers thus it is essential to have a mix of varieties in each farm. Varieties with high rind hardness are less susceptible than those which have growth cracks. The varieties with hard rind would also become susceptible if it is damaged due to rats or other mechanical or natural means.

SRIF staff are involved in collaborative research projects on ways and means of minimizing damage to varieties from borers. Some projects are also planned to use bio control and chemical control methods once the funds are available but these will take time.

**Cultural practices to mitigate borer damage.**

The best way to mitigate borer damage is to see that the stalks are not damaged during cultivation or by strong winds (not within our control).

It is also essential to see that no cane is left over on the field after harvest and harvesting is done at the base of the stalks. The cane left on the field after harvest and/or when cane is not harvested at the base provides a conducive place for borers to breed.

Increased borer damage is anticipated when the cane is damaged thus allowing the exposure of the inner tissue. This could be due to wind, rat, or mechanical damage and growth cracks. The weevil borers needs cane on the field to complete its life cycle. The poorly harvested plant or ratoon crop provides opportunities for borers to breed. This release of large number of borers re-infests the young and actively growing ratoons by late summer. This situation is generally exacerbated in years when rain is well spread out during the year and on farms where trash is retained as it does not allow the residue to dry out. This does not warrant that trash should be burnt but growers need to improve on the harvesting, cultural practices and ploughout uneconomical ratoons to reduce the level of borer infection.

**Opportunities for growers to minimise borer damage:**

*Improve farm hygiene*

*Plant a mix of varieties*

*Minimise damage to stalk*

*Improve harvesting practices*

*Ploughout uneconomical ratoons*