Antibiosis resistance of five near commercial sugarcane varieties to the internode borer, *Chilo sacchariphagus indicus* (Kapur)

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The internode Borer *Chilo sacchariphagus indicus* is a recorded pest of sugarcane *Saccharum officinarum* L. in Sri Lanka. The feeding habit of the Internode Borer larvae by tunnelling into the stalks cause considerable damage including the weight and yield losses, reduction in juice quality and destruction of mature cane.

Antibiosis experiments on the growth of the Internode Borer larvae were conducted after developing an artificial culturing method for the pest in the laboratory. The Mean Relative Growth Rate of the third instar larvae of the Internode Borer was tested on five near commercial sugarcane varieties namely, SL88-116, SL86-13, SL89-1673, SL89-309, M 438-59 and the present commercial variety Co 775 over a period of five days using six replicates for each variety. The Mean Relative Growth Rate determined for the third instar stage of the pest on the six varieties were compared to identify the resistant varieties.

The experimental results showed that two of the varieties namely SL 86-13 (0.0485 g/g/day) and SL 89-1673 (0.0254 g/g/day) were more resistant compared to the existence commercial variety Co 775 (0.0569 g/g/day). Therefore it can be concluded that these two varieties can be incorporated in to commercial plantations in order to avoid the infestations of the Internode Borer *Chilo sacchariphagus indicus.*

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