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Integrated Pest Management

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Integrated pest management of sugarcane moth borers: An Indonesian experience

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An Integrated Pest Management program is developed to combat moth borer infestation in Java, Indonesia. An extensive survey over a period of two years (2010 ? 2011) revealed the existence of five moth borer species causing damage to sugarcane crops in Java, and these were *Chilo auricilius*, *C. sacchariphagus*, *Scirpophaga excerptalis*, *Sesamia inferens* and *Tetramoera schistaceana*, with the three former species being the most abundant. Infestation by *C. sacchariphagus* and *C. auricilius* caused dead heart and leaf damage in young cane and bored internodes in older cane, while *S. excerptalis* was responsible for the majority of dead heart symptoms at all stages of plant development. Infestation by the main three borers commenced in February and escalated to a peak in about June ? July. Our results revealed very low levels of parasitism by key natural enemies, and this was attributed to inconsistent parasitoid release, lack of prior assessment of infestation levels, release of low parasitoid densities and random use of insecticides. Certain varieties demonstrated a degree of tolerance to borer infestation, however, different susceptibility levels to different borer species was evident, hence, breeding for combined resistance to all borer species is difficult. A plan is developed based on borer abundance in the field, whereby accurate densities of natural enemies are released as borer infestation commences and well before it reaches a peak. The principal components of a detailed Integrated Management Program to combat moth borer infestations in Indonesia are discussed.

Keywords: moth borer, Indonesia, *Chilo*, *Scirpophaga*

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