EXPLORING THE FEASIBILITY OF PUSH-PULL FOR USE IN MANAGEMENT OF ELDANA SACCHARINA WALKER (LEPIDOPTERA: PYRALIDAE) BY SMALL-SCALE SUGARCANE GROWERS

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Abstract

Determining the production constraints of small-scale growers and understanding their broader farming systems is recognised as key to the successful implementation of knowledge intensive integrated pest management (IPM) practices. An exploratory study of small-scale sugarcane farmers was thus conducted. Participatory exercises and semi-structured interviews were used to collect information from 35 small-scale sugarcane growers, who were visited at their homes. By giving farmers the opportunity to explain their agricultural activities using sketch maps and matrix ranking activities, data collection was not simply an extractive but also an instructive exercise. In most households which have no income from off-farm business activities or employment, sugarcane is perceived as the greatest contributor to income (88%). Income from sugarcane is used primarily for food and education. Farmers participating in these interviews indicated weeds and high input costs as the biggest constraints to sugarcane production, and not pest problems. Considering this, attempting to implement push-pull for control of E. saccharina may not be appropriate at this time for these farmers, as the pest is not perceived as a threat. However, Melinis minutiflora, the grass species used as a repellent in the push-pull system for managing E. saccharina, has shown potential for managing weeds, particularly creeping grasses. Introducing M. minutiflora as a weed control measure in sugarcane fields may be a good way of initiating push-pull as part of a long-term IPM programme for small-scale growers.

Keywords: integrated pest management, knowledge dissemination, habitat management, technology adoption, sugarcane production constraints, agricultural extension