POSTER SUMMARY

SMALL-SCALE SUGARCANE FARMERS’ KNOWLEDGE OF SUGARCANE INSECT PESTS

Cockburn JJ1,2, Witthöft J3, Coetzee HC2, Van Den Berg J2, Conlong DE1,5, Gillespie, WA1 and Lesage, S4

1South African Sugarcane Research Institute, P/Bag X02, Mount Edgecombe, 4300, South Africa
2Unit of Environmental Sciences and Management, North-West University, P/Bag X6001, Potchefstroom, 2520, South Africa
3Project Khula, c/o Noodsberg Cane Growers Association, PO Box 487, Wartburg, 3233, South Africa
4Lycée d’Enseignement Général et Technologique Agricole, Route de Mafate, 97460, Saint Paul, de La Réunion
5School of Life Sciences, Faculty of Science and Agriculture, University of KwaZulu-Natal, P/Bag X01, Scottsville, 3209, South Africa

jessicacockburn@gmail.com  mnbio@sai.co.za  12894451@nwu.ac.za
johnnie.vandenber@nwu.ac.za  des.conlong@sugar.org.za  william.gillespie@sugar.org.za
seb.lesage@yahoo.fr

Abstract

Understanding farmers’ knowledge and perceptions of pests is an important precursor to successful implementation of knowledge-intensive pest management approaches such as integrated pest management (IPM). A study was therefore conducted with small-scale sugarcane growers in the Midlands North region to explore farmers’ knowledge and perceptions of insect pests of sugarcane, pest management activities, and the isiZulu names of insects found in sugarcane. Mixed methods social research was used and included focus group discussions, quantitative survey interviews and participatory group activities. Additional questions on food crop pests and weed management were used to compare farmers’ knowledge on various aspects of crop protection. Although most major sugarcane pests were mentioned in group discussions (stem borers, white grubs, grasshoppers, termites), the farmers’ ability to name key sugarcane pests in individual interviews was poor. The average knowledge score for naming insect pests out of a maximum of 2 was 0.7, compared to 1.6 for weeds. Furthermore, food crop pests were mentioned a total of 40 times in focus group discussions, compared with only 12 times for sugarcane pests, and farmers did not perceive the latter insect pests as a major production constraint. Focus group discussions indicated that farmers did not know about beneficial insects such as predators and parasitoids, and their understanding of insect life cycles was rudimentary. Such knowledge gaps in basic insect ecology and biology need to be addressed through appropriate extension activities if IPM is to be implemented successfully.

Keywords: beneficial insects, farmers’ knowledge and perceptions, integrated pest management, IPM, isiZulu insect names, small-scale growers, sugarcane pests