# EFFECT OF FIELD INFESTATION WITH WHITE GRUB ON PHYSICAL AND CHEMICAL PROPERTIES OF SUGARCANE

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***Abstract***

This study was conducted during two successful growing seasons 2008 and 2009 at different sugarcane plantations in Qina and Sohag governorate, to clarify the physical and chemical changes of sugarcane plants under natural field infestation with white grub. White grub infestation reduces weight and stalk height of plant while the number of internodes/ stalk was increased. Chemical analysis of sugarcane juice showed that, the infestation reduced the brix (weight and volume), purity, sucrose/can, fiber, pol, and sugar recovery by 5.85, 6.30, 7.65, 8.35, 19.35, 9.64 and 12.57%, respectively compared to the uninfested plants. The effect of infestation on protein and isozyme banding pattern was also detected. Several protein bands were disappeared with the infestations and changed in peroxidase and estrase banding profiles was found.

**Key words:** Sugarcane, physical and chemical properties of sugarcane, Protein, Isozyme banding pattern