

## **INVITATION TO A Ph.D. RESEARCH PROPOSAL SEMINAR PRESENTATION**

**DATE: 11-1-2023, TIME 10:00 AM, VENUE: Crop science laboratory 2**

### **TITLE: DEVELOPMENT OF AN ARTIFICIAL DIET FOR MASS REARING OF AFRICAN SUGARCANE STALK BORER (*Eldana saccharina* Walker) IN TANZANIA**

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#### **Abstract**

The African stalk borer is an important insect pest in sugarcane production, its larva cause bores on the cane stalks. Which in-turns damage stem tissues and cause development of fungi leading to cane's dark-red colouration. Thus, reduce sugarcanes' yield and quality. Despite the presence of many management practices, the population of *E. saccharina* have never been decreased to a tolerable economic level. With that regard, the application of Sterile Insect Technique (SIT) against *E. saccharina* become a concern. Artificial diet developed for mass rearing of *E. saccharina* is mainly for experimental purposes. However, the diet became limited to be used for SIT, because the reared *E. saccharina* were weak to outcompete wild population. Therefore, for eventual success of SIT, this study is envisaged at developing a diet at low cost using food materials available in Tanzania. Maize bran, soybean, and dried maize cobs will be obtained from Morogoro local market and nutrient analysis will be carried out using Near Infrared Spectrometer. Through the use of WinFeed computer software, food formula will be computed. The formulated diet will be tested whether it produces *E. saccharina* with high flight ability, increased key energy metabolising enzymes' activities and favours life table parameters. Availability of low-cost diet will stimulate sugarcane production industries/companies to include SIT in IPM Package for *E. saccharina*. Additionally, researches with regard to *E. saccharina* will be increased. The experiment will begin on April, 2023 and end up on September, 2025. The study requires total amount of 46,000,000TZS to be accomplished.