ECONOMICS OF INTEGRATING PUSH-PULL TECHNOLOGY IN MAIZE-DAIRY FARMING SYSTEMS IN EASTERN UGANDA

BY

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DECLARATION

I declare that this is my original work and has not been presented in this or any other University for any other award.

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APPROVAL

This work has been submitted with our approval as University supervisors.

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ABSTRACT

Cereals including maize are the most important food and cash crops for millions of rural farm families in Sub-Saharan Africa. However, small-scale maize producers are facing various production challenges including stem borers, *Striga* and degraded soil leading to poor crop yields. Farmers have previously attempted to minimize these adverse effects through cultural, mechanical, biological and chemical control strategies but research findings have shown that methods employed are insufficient, expensive, unaffordable and unfriendly to the environment. In response to these challenges, the International Centre of Insect Physiology and Ecology (ICIPE) in collaboration with other research organizations developed a habitat management strategy; the Push-pull technology (PPT) for simultaneous control of the three key constraints of cereal production in Africa. Despite high adoption of PPT in East Africa, its economic impact on smallholder household welfare has not been fully understood in the region. The objectives of this study will characterize the small-holder maize-dairy farming systems, evaluate economic performance of the technology, and estimate the impact of the technology on poverty, incomes and productivity. Cross-sectional data from farm household's survey will be collected using structured interview schedule and focus group discussions. Data will be managed and analyzed using Statistical Package for Social Sciences (SPSS), Dynamic Research for EvAluation Management (DREAM), STATA and excel softwares. The findings of this study will contribute to the framework for ICIPE and other research and academic institutions in examining the economics and impact of the technology on smallholder farmers’ welfare and therefore provide a recommendation domain to research institutes and other stakeholders on the course of action to be taken with regards to adoption of agricultural technologies.