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“Bridging the gap between increasing knowledge and decreasing resources”

Dramatic Loss of Potato Yields – The Failure of Crop and Storage Management in Ugandan Smallholder Farms

ELIZABETH METTO¹, BERNHARD FREYER², KIBET NGETICH³, ARTHUR WASUKIRA⁴, SUSAN KAMURU¹, CATHERINE MUNYUA¹

¹*Egerton University, Applied Community Development, Kenya*

²*University of Natural Resources and Life Sciences (BOKU), Division of Organic Farming, Austria*

³*Egerton University, Sociology and Anthropology, Kenya*

⁴*National Agricultural Research Organization, Uganda*

Abstract

On the slopes of Mt. Elgon in eastern Uganda, potato is one of the leading crops grown by small scale farmers for food and income. However, their yields are low (7 tons ha⁻¹) compared to that of Kalengere and Buginyanya research stations (25 tons ha⁻¹). A qualitative study was carried out to assess the influence of the farmer's crop and storage management on potato production in the region. Cluster and purposive sampling techniques were used to select 40 farmers and five key informants who included four National Agricultural Advisory (NAADS) service providers and one official of Appropriate Technology Uganda (AT) (an NGO whose mission is to empower rural households in Uganda). In addition, four focus group discussions made up of between eight and twelve small scale farmers were held. The most important finding was that the low potato production among small scale potato farmers was a result of the use of low quality, recycled seed potato made up of small tubers that remained after the selection of ware potatoes, short rotations with a high share of potatoes resulting in accumulation of disease pathogens in the soil, limited use of both organic and inorganic fertiliser, and the effects of pests and diseases, the most important being late blight and bacterial wilt which destroy much of the potato before and after harvest. Additionally, low soil pH are seen as an important cause of the low yields. Interventions by government and non-governmental organisations and other stakeholders to minimise or eradicate these factors will bring into realisation the inherent potentials of potato farming among the farmers within the region.

Keywords: Crop management, low yield, potato, smallholder, storage management