

**SUSTAINABLE POTATO PRODUCTION THROUGH USE OF CROP ROTATION AND CROP INTERCROPPING**

J. Mugo, B. Obura, E Schulte-Geldermann

International Potato Center, Nairobi, KENYA

Potato (*Solanum tuberosum*) production in Kenya is increasing as a result of people opting for potato crop other than other food crops. However, due to poor fertility management, continuous potato farming among other challenges potato production levels are low than expected [1]. Crop rotation has been used for long and has numerous benefits such as breaking pathogen cycles, using nutrient at different soil depths as well as some crop families fixing nitrogen in to the soil. Crop intercropping has numerous benefits especially due to the crop diversification thus enhancing food security and nutritive foods [2]. A study has been conducted at the University of Nairobi Kabete Campus farm using six crop rotation patterns and a control with potato only for three seasons. The aim of the experiment is to determine the best economically viable potato rotation pattern. Crops used for the rotation patterns included legume (garden peas lupin bean and lima bean), fodder crops (Napier grass, Lucerne and desmodium) brassica (kales and cabbages) and sweet potatoes. Analysis of variance for potato yield in the various rotation and intercropping pattern at the third season were significant at ( $P < 0.05$ ) with p values of 0.007. Crop rotation pattern with potato planted after lupin bean intercropped with sweet potatoes and cabbage had the highest yield. Closely they were followed by those with garden peas. In legume crops planted after cabbages can prove beneficial for East African farmers.

**References**

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