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Varietal Choice and Varietal Change: Do Varietal Attributes Matter? The Case of Potato Varieties in Uganda

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Abstract

The study examined the drivers of potato varietal choice and varietal change using data collected from 147 households randomly selected from South-Western Highlands of Uganda, a leading potato producing region. Specifically, the study was designed to identify highly cultivated or preferred potato varieties by farmers and to determine varietal attributes that influence farmer's choice of potato varieties and their decision to change varieties planted from season to season. Multinomial probit (MNP) model was estimated to determine drivers of varietal choice while the probit model was estimated to determine the drivers of potato varietal change. The results revealed that potato varietal attributes such as resistance to bacterial wilt, tuber skin texture and taste significantly affect varietal choice and varietal change. The results reveal that the most cultivated or preferred varieties in 2015 and 2016 are Kinigi and Rwangume because there are high yielding. The results also reveal that varietal attributes such as resistance to bacterial wilt, thick tuber skin texture, dry matter content and plot yields significantly influenced farmers' choice of improved potato varieties. In addition, socioeconomic factors such as age of the household head, marital status, dwelling of the household (household type), household size, and seed source influence farmers' choice of variety. On the varietal change front, the results reveal that thick tuber skin texture is the only attribute that influence varietal change positively by 18 percentage points. However, socio-economic attributes such as distance to the seed source and cultivating the variety for long, negatively influences potato varietal change while marital status and age of household head positively influences potato varietal change. However, there was no significant difference in the productivity of the different popular varieties in the farmer field plots. From this study, we conclude that varietal attributes do matter to farmers and influence varietal choice. However, for farmers to change from one variety to another, the distance to seed source should be reduced. Therefore, practices like participatory breeding and farmer based or community based seed multiplication should be promoted because they increase access to seeds.

Keywords: Varietal attributes, varietal choice