

Requirements and characteristics of potato varieties in the Kenyan potato processing agricultural sub-sector

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Abstract. Crop utilization is an important facet of potato production. Processing potatoes adds value and diversify ways in which they are consumed. In Kenya, the increasing demand for processing potatoes has been spurred among other things by increased tourism, urbanization and changing food habits as well as increased wealth culminating into an expanding processing subsector whose integration in the food production chain is crucial for Kenya's agro-industrial development and long term food security. The objective of the study was to determine the potato quality requirements by processors, and to assess potato processing potential of several varieties and clones obtained from various sites in the country. An informal survey of the potato processing industry in Nairobi was conducted, followed by quality evaluation of potatoes grown in different sites

in the country. The potato tubers were evaluated for dry matter content, then processed into chips and crisps and subjected to sensory evaluation using an untrained sensory panel. The commonest potato products on the market were found to be chips (French fries) and crisps. Two varieties, namely, Nyayo and Roslin Tana were commercially most often used in processing into chips while Kerr's Pink and Dutch Robjin were commonly used for crisp production. Newer varieties like Tigoni and Asante were slowly gaining roots in commercial production, as the National Potato Research Centre, Tigoni, develops other varieties. Varieties with high dry matter content were found to be more acceptable when prepared into chips and crisps, than those with low dry matter content.