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Individual Ambient Ware Potato Storage Excels in Uganda

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Abstract

Potato is a key food and cash crop in Uganda, produced by approximately 200,000 small-holder farmers, primarily in the southwestern and eastern highlands of the country. The major production periods are March-July and September-January, with some off-season production in swamps, valley bottoms and irrigated areas. National potato production has steadily grown over time to respond to an increasing demand and consumption. Ugandan potato farmers sell majority ($\pm 60\%$) of their production immediately after harvest, principally to traders at the farmgate or in nearby local markets. The main reasons are their immediate need for cash, the low volumes of potato harvested, their fear of loss during storage due to pests and diseases, and a lack of adequate storage facilities. Roughly 30% of the harvested potato is stored as food for later consumption by the household and as seed for planting in the next cropping season. Only a few farmers store small quantities of potato for later sale as ware potato, predominantly in traditional light storage facilities. Due to seasonally fluctuating market prices, most Ugandan potato farmers miss the opportunity to sell at higher price later in the season when potato supply in the market is scarce. To promote potato storage for later sale, improved ambient ware potato storage units were introduced and evaluated in Uganda. Both individual and group stores with a storage capacity of 8 and 50 tonnes, respectively, were piloted. Improved ambient stores ensure that potatoes are kept in the dark and are made from locally available materials. They can maintain marketability of stored potato for up to 3 months by taking advantage of cooler temperatures at night. Only a few of the group storage units generated profits. Furthermore, all of them appeared to present several challenges typical of collective action endeavours. The individual units, however, performed very well with an average payback period of 3–4 years that could even be reduced to less than one year if these stores are used at full capacity. Due to their characteristics, improved individual ambient ware potato stores thus seem to be particularly suitable to increase substantially the income of potato farming households.

Keywords: Cost-benefit analysis, improved individual ambient store, Uganda, ware potato storage

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