Yield performance of potato seed tubers after long storage in a diffuse light store (DLS)

Jane Muthoni, \textsuperscript{1} J.N. Kabira, \textsuperscript{1} D. Kipkoech, \textsuperscript{1} G.O. Abong \textsuperscript{2} and J.H Nderitu \textsuperscript{3}

\textsuperscript{1}KARI-National Potato Research Centre-Tigoni. P. O. Box 338 00217 Limuru. Email:kari.tigoni@yahoo.com
\textsuperscript{2}Department of Food Science, Nutrition and Technology, University of Nairobi. Email:georkoyo@yahoo.com
\textsuperscript{3}Mount Kenya University.
*Corresponding author. Email: jayney480@yahoo.com.

Abstract

An on-farm trial was carried out at KARI (Tigoni) and in Nyandarua County in central Kenyan highlands to determine the yield potential of some common potato cultivars following storage in a diffuse light store (DLS) for eight months. The trial was carried out for two consecutive seasons i.e. March-July 2012 (first season) and October 2012 to February 2013 (second season). Eight potato cultivars commonly grown in Kenya and of different maturity periods were used. In Nyandarua, the experiment was carried out in three farmers’ fields while the KARI Tigoni station was meant for comparison. In each site, the experiment was a split-plot with potato cultivars as main-plot factor and storage as sub-plot factor. There were three replications in each site. Planting of tubers after storage in DLS gave significantly (P≤0.05) more yields than planting freshly harvested tubers. This difference was observed both on the farmers’ fields and at KARI Tigoni research station.

Keywords: Diffuse light store; potato cultivars; on-farm storage