

## ABSTRACT

Cassava (*Manihot esculenta* Crantz) is a staple food crop grown by smallholder farmers in the marginal regions of western, coastal and eastern Kenya. The objective of this study was to evaluate popular cassava varieties for yield and cyanide content in the arid and semi-arid regions of Kenya. The study was carried out at five sites located in three sub-counties of Nakuru county in Kenya. Treatments included a collection of 27 sweet cassava varieties obtained from Western Kenya. Results revealed significant variations among varieties in all sites, for all parameters measured. The highest yields were obtained at Subukia, with the variety MM99/0067 yielding up to 200 t ha<sup>-1</sup>. Cyanide content varied significant among the varieties and sites; and was high in most of the cultivars, with highest levels recorded in variety Rao Onyoni (17.3 mg100 g<sup>-1</sup>) grown at the Lare site. The highest dry matter content was recorded in variety Selele rabuor (60.5%), at the Solai III site. Participating farmers ranked the materials based on yield, taste and order of general preference as follows: Subukia site (MM96/0067, NyaTanga, Adhiambo Lera, KME-1 and MH95/0183); Lare site (Nyar AICAD, Nyar Maseno, NyaTanga, and MM96/2480); and Solai site (KME-1, Nyar AICAD, Adhiambo Lera, Karembo, and Obaro dak).