

Opiyo, S.A., Ateka, E.M., Owuor, P.O., Manguro, L.O.A. and **Karuri, H.W.** 2010. Survey of sweet potato viruses in Western Kenya and detection of cucumber mosaic virus. *Journal of Plant Pathology* 92:795-799.

### **ABSTRACT**

Sweet potato is an important food crop worldwide, but several pests and diseases limit its production. In eastern Africa, virus-induced diseases rank second to weevils in causing yield reduction. Symptomatic sweet potato cuttings (327) were collected from Nyanza and Western Provinces in western Kenya in 2009. The samples were tested for *Sweet potato feathery mottle virus* (SPFMV), *Sweet potato chlorotic stunt virus* (SPCSV), *Sweet potato mild mottle virus* (SPMMV), *Sweet potato chlorotic fleck virus* (SPCFV), *Sweet potato latent virus* (SPLV), *Sweet potato caulimo-like virus* (SPCa-LV), *Cucumber mosaic virus* (CMV), C-6, *Sweet potato virus G* (SPVG) and *Sweet potato mild speckling virus* (SPMSV) using nitrocellulose membrane enzyme-linked immunosorbent assay (NCM-ELISA). SPFMV, SPCSV, SPCFV, SPMMV and CMV were detected and 89% of the samples as a whole were found to be infected. SPFMV was detected in all infected samples followed by SPCSV (55%). Multiple infections were detected in the majority of the samples (80%) and the most common dual infection was with SPFMV and SPCSV (52%). The occurrence of CMV was low (5%) but was confirmed by RT-PCR with amplification of a 670 bp coat protein gene fragment from total RNA. This is the first record of CMV in sweet potato in Kenya.

**Key words:** Sweet potato, CMV, NCM-ELISA, RTPCR, diagnosis, survey.