

## **Abstract**

Sweetpotato is an important food, feed and cash crop in Eastern Africa. Highly stable and adaptable genotypes are important in sweetpotato productivity and evaluation across sites would form a basis for breeding varieties that are stable. Seventeen sweetpotato genotypes were evaluated for two seasons in three sites which have differentials in sweetpotato virus disease prevalence and climatic conditions in the coastal region of Kenya to determine their stability and adaptability in the region. The experimental design was randomized complete block design. Harvesting was done at four and half months after planting and tuber yield was determined. Data was analysed using the additive main effects and multiplicative interaction model (AMMI) to establish the genotype x environmental interactions (GEI). There was wide variation across the environments in the two seasons. Stability and adaptability was identified among sweetpotato genotypes. Varieties Jonathan, Exshimba, SPK 004 and Kemb 10 were highly adapted across all the environments whereas Ejumula, Jewel, Jubilee, Bungoma, and sponge were stable. The highly adapted genotypes can be used as a basis for further improvement through breeding by crossing with the stable genotypes.