Abstract

An Agrobacterium-mediated transformation and somatic regeneration protocol was adapted for a Kenyan sweet potato variety, KSP36. A model cultivar, CTP560 was used as a control. For selection of transformed explants paramomycin was found to be effective at 25mg/L while kanamycin was effective at 20mg/L. The lower concentrations of 2,4-dichlorophenoxyacetic acid (2,4-D) concentrations proved better for regeneration as opposed to the higher 2,4-D concentrations. Zeatin/ IAA (indole acetic acid) was more effective at embryo production as opposed to kinetin/ 2,4-D medium in both cultivars. Out of the 18 KSP36 plants tested by PCR, 11 tested positive for the coat protein gene while 9 out of the 19 CPT560 plants tested positive. This protocol can be recommended for other sweet potato varieties.