

Plant tissue culture continues to be of great interest within the realms of molecular biology, plant breeding and plant health. However, different plant cultivars have different culture efficiencies to tissue culture. In this research, the response of two Kenyan sweet potato varieties, KEMB 36 and Tainurey, cultured on a low cost tissue culture medium was evaluated. The low cost medium contained plant nutrients that were obtained from locally available fertilizers. Each conventional Murashige and Skoog (MS) macronutrient was individually substituted with a locally available fertilizer. The conventional source of micronutrients was substituted with Stanes® Iodized Microfood while sucrose was obtained from table sugar. Performance of the two cultivars was monitored over a period of six weeks. KEMB 36 had a better performance than Tainurey with an average of eight nodes, seven leaves, three roots and height of four centimeters per plantlet indicating genotype-dependent response.