

Abstract

Five local and popular sweet potato (*Ipomoea batatas*(Lam.) varieties were selected from the major sweet potato growing areas, based on farmer-preferences and desirable characteristics. Both leaf and stem explants were incubated for callus induction with various concentrations of an auxin 2,4 Dichlorophenoxyacetic acid (2,4-D) at 0, 0.5, 1.0, 2.0, and 5.0 mg/L. The highest percentage of callus induction was realized at 2.0 mg/L and 5.0 mg/L 2,4-D in all varieties for both leaf and stem explants. Callus was induced at 3 weeks after incubation of leaf and stem explants in all tested varieties. Stem explants demonstrated a better response to callus induction at all 2,4-D concentrations and in all varieties as compared to leaf explants. All varieties responded differently to callus induction.