

MERISTEM - TIP CULTURE AND IN VITRO  
PROPAGATION OF SWEET POTATO

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Effect of several growth regulators, benzylaminopurine (BAP), naphthalene-acetic acid (NAA), and 2 - 4 dichlorophiroxy acid (2, 4 - d) supplemented with M & S medium, on regeneration of plantlets from meristem explants of four sweet potato varieties was investigated. Axillary buds obtained from the plants raised in a greenhouse were excised and transferred to culture media under aseptic conditions. Cultures were incubated at  $25 \pm 1$  °C and 3000 lux.

Initiation of shoot growth was found to be better in the presence of higher levels of BAP (0.5 - 2mg/l) combined with lower levels of NAA (0.05 - 0.1mg/l). 2, 4 - D and higher levels of NAA (0.1 - 2mg/l) always induced callus formation at the basal region of the explant. Absence of growth hormones in the medium never promoted growth initiation. Root growth occurred even in the absence of growth regulators; but root initiation was accelerated when NAA had been incorporated into the medium. When nodal cuttings obtained from in vitro plantlets were cultured, regeneration of plantlets was achieved 2-3 weeks after inoculation without hormone supplements.