

IN-VITRO MULTIPLICATION OF YAM (DIOSCOREA ALATA L.)

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Two varieties of Dioscorea alata L. were established in-vitro on Murashige and Skoog liquid medium supplemented with 2% sucrose. Cultures were maintained in hormone free liquid medium for four months. Seven levels of BAP; 0, 0.01, 0.05, 0.1, 0.25, 0.5, and 1.0 mg/l were experimented on multiplication rate. Cultures were provided with continuous agitation of 60 rpm and light intensity of $60 \mu\text{Em}^{-1}\text{s}^{-2}$ for 14 hours/day.

The highest in vitro multiplication rate (eight/shoot/month) of Dioscorea alata was obtained from the BAP level of 0.25 mg/l. BAP levels higher than 0.25 mg/l produced calli and compact abnormal shoots while lower level produced 3-5 shoots/month and they were healthy and normal shoots. Spontaneous root production was observed at the lower levels of BAP.