

USING PLANT EXTRACTS TO CONTROL SPROUTING OF YAM TUBERS DURING STORAGE

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Abstract

Crude plant extracts (CPEs) of 10 plant species abundant in yam-growing areas were collected to evaluate their inhibitory effect on sprouting of yam tubers during storage. Results showed that yam tubers soaked in CPEs of *Imperata cylindrica*, *Ageratum conyzoides*, and *Mikania cordata* sprouted less than untreated tubers and those soaked in CPEs of other plant species after storage at ambient conditions. The inhibitory effect of *M. cordata* was comparable with GA₃ treatments. Hence, pure; 1:2 (1 part CPE to 2 parts water); and 1:3 concentrations of *M. cordata* and GA₃ were tested in two yam cultivars ('VU-1' and 'LA-242'). Their response differed greatly: incidence of sprouting in 'VU-1' soaked in pure and 1:2 concentrations of *M. cordata* and 150 ppm GA₃ was lower, compared with untreated tubers; sprout length was not affected. In contrast, sprout length in 'LA-242' tubers soaked in pure and 1:2 CPE concentrations, and GA₃ was shorter, compared with that of the controls. Incidence of sprouting was not affected.

Note: This manuscript was incomplete (copies of the figures were mislaid)