

VIRUS-FREE PLANTS OBTAINED BY THERMOTHERAPY AND MERISTEM
CULTURE OF WHITE (*Xanthosoma saggitifolium* (L.) Schott.)
AND PURPLE (*X. violaceum* Schott.) COCOYAMS

(Obtention de plants débarrassés de virus par culture de méristème et
prolifération de pousses axillaires chez le *Malanga* blanc et violet)

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SUMMARY

Apparently virus-free plants of white and purple cocoyams were obtained by a combination of thermotherapy treatment at 38 °C for 5 to 6 weeks followed by meristem culture on a modified Murashige and Skoog (MS) liquid medium supplemented with N⁶-benzyladenine (BA). After 5 weeks of culture, emerging buds were dissected out, cut in half longitudinally through their apices, and each piece was transferred to fresh semi-solid (0.7 per cent Difco Bacto agar) MS medium containing elevated concentrations of BA which promoted the development of axillary buds. Excision of individual axillary buds and transfer to hormone-free semi-solid (0.7 per cent agar) MS medium resulted in rapid and extensive root formation. Plantlet survival after transfer to methyl bromide-treated soil approached 100 per cent. Initial establishment of plants in the field was accomplished following procedures normally used for vegetative propagation of these crops.

RESUME

Des plants de *Malanga* blanc et violet (*Xanthosoma sagittifolium* (L.) Schott et *X. violaceum* Schott) apparemment indemnes de virose sont obtenus par culture de méristèmes sur un milieu liquide modifié de Murashige et Skoog (MS) supplémenté avec 0,1 mg/l de N⁶ benzyladenine (BA). Après 4 semaines de culture les pousses qui émergent sont coupées longitudinalement à travers leur apex, en 2 moitiés et chaque partie est transférée sur un milieu MS, à moitié solide, contenant 5 mg/litre de BA, qui provoque le développement des bourgeons axillaires.

L'excision et le transfert individuel des bourgeons axillaires sur le milieu MS de base conduisent à une initiation et à un développement rapide des racines.