Abstract: In a conservation of genetic resources programme, plumular tissues dissected from coconut (Cocos nucifera L.) zygotic embryos were used for cryo-preservation by encapsulation/dehydration technique. Plumules after encapsulation were precultured in liquid medium enriched with sucrose (0.75M to 1M). The beads were subsequently dehydrated using silica gel (8h to 24h), placed in cryo-tubes and directly plunged into liquid nitrogen (-196°C). The influence of sucrose and silica gel pretreatments on pre- and post-freeze plumular growth were examined. A survival and regrowth were obtained after dehydration with silica gel and freezing with 20 to 50% and 10 to 20% rates, respectively.

Keywords: coconut, cryo-preservation, encapsulation/dehydration, plumule, zygotic embryos.

This project is actually partly funded through BRG. In accordance with the work plan, which propose to try to detect LY phytoplasma in the plumules using a PCR technique, a mission was organised in Ghana for collecting coconut affected material. The aim was to collect nut coming from recently contaminated palms and to try to save the embryo through embryo culture and plumule culture. The next step will be to analyse this material for the search of phytoplasma. This mission was organised with the collaboration of René Philippe (a Cirad scientist working in Ghana). He was in charge of the palm selection and of their follow-up observation.

Mise au point d'une méthode de cryoconservation d'apex caulinaire de cocotier (*Cocos nucifera* L.) = Development of a method for cryo-preservation of coconut (*Cocos nucifera* L.) caulinary meristems

Burotrop Bulletin, (20), p. 17

Journées Scientifiques du Réseau "Biotechnologies, Amélioration des Plantes et Sécurité Alimentaire", 8, Marrakech (MAR), 2002/10/07-09

ISSN 1283-016X