# CRYOPRESERVATION OF EMBRYONIC AXES OF WILD SPECIES OF *Arachis* (SECTION *Extranervosae*) THROUGH DESICCATION

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Conservation of many tropical oilseeds through seed banks is limited due to the semi-orthodox or non-orthodox behavior of their seeds. In the present work, we established a cryopreservation protocol for wild groundnut species which are difficult to conserve as seed or live plants because of their critical requirements for maintenance *ex situ*. In addition, germplasm renewal and distribution of these species can be difficult, due to the low number of seed produced. A protocol previously developed in our laboratory for *A. hypogaea* was applied to six species of Section *Extranervosae*: *A. prostrata*, *A. macedoi*, *A. retusa*, *A. villosulicarpa*, *A. pietrarellii* and *A. burchellii*. Embryonic axes were excised aseptically from surface sterilized seeds (0.2% $HgCl_2$ for 1h) and desiccated in the air current of a laminar flow cabinet, for 1h. After desiccation, explants were frozen by direct immersion in LN. Moisture percentages were calculated on a fresh weight basis. After 24h of storage in LN, the cryovials were thawed in a water bath at 38-40°C for 2 minutes and the axes were cultured on MS supplemented with 8.8 µM BAP. The cultures were evaluated after 30 days at 28°C±2°C and a 16:8h photoperiod at a photon flux of 46µmol. $m^{-2}$ $s^{-1}$. Control embryonic axes were not able to survive after immersion on LN. Desiccated explants of the six species studied showed survival rates between 75 and 90%. These results demonstrate that cryopreservation of embryonic axes through desiccation is a suitable method for long-term preservation of these wild species of *Arachis*.

**Key words**: *Arachis*, Conservation *in vitro,* Liquid Nitrogen, Germplasm

**Supported by**: *Arachis* Project / CFC-Embrapa Cenargen