

In vitro* germination of embryonic axes of *Araucaria angustifolia* (Bertol.) Kuntze var. *angustifolia* and var. *caiova

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Araucaria angustifolia (Bertol.) Kuntze, Brazilian pine, is a native tree species of major economical and ecological importance, particularly in the southern region of the country. It is extensively logged due to its high quality wood and harvested for its edible seeds similar to large pine nuts. The main objective of this study was the establishment of a methodology for *in vitro* germination of embryonic axis of two varieties: *angustifolia* and *caiova*. The seeds used in the experiments were harvested at Embrapa Forestry in Colombo-PR and stored in a chamber at 10°C and 95% relative humidity for a period of four months (*angustifolia*) or one month (*caiova*). Subsequently they were taken to the Plant Cryobiology Laboratory at Embrapa Genetic Resources and Biotechnology at Brasília-DF to carry out the current study. Firstly, the external seed tegument was removed and the seeds were disinfested using a commercial solution of sodium hypochlorite (2% active chlorine) for 15 minutes and rinsed three times with autoclaved distilled water.. Afterwards the embryos were excised from the seeds, the cotyledons were removed and the embryonic axes were transferred to culture tubes containing WPM culture medium supplemented with 3% activated charcoal. The axes were then cultured in a growth room at 25±2° C a 16 h photoperiod. At the second day of growth, *i* the onset of the embryonic axis elongation was observed; at the fourth day the beginning of greening and at the seventh day the axes were well grown. The germination percentage was 80% for *A. angustifolia* var. *caiova* and 70% for var. *angustifolia*. The methodology used for the *in vitro* germination of axis of these two

varieties proved to be efficient. As a follow up to this work some studies are now carried over in order to develop a cryopreservation methodology for the embryonic axis of both varieties.