BEHAVIOUR OF TREE SEED SPECIES UNDER -20°C STORAGE CONDITIONS

A.N.SALOMÃO (antoniet@cenargen.embrapa.br); R.C.MUNDIM; R.B. dos REIS; B.M.T.WALTER

Embrapa Recursos Genéticos e Biotecnologia

Twenty six samples of seventeen autoctone tree-seeded species, collected from Serra da Mesa dam area, state of Goiás – Brazil, were stored at -20°C. After a storage of two year, seed viability was evaluated. Seeds preserved the initial germinability in samples *Anadenanthera* sp. BW 3822, *Apuleia leiocarpa* BW 3803 and BW 3838, *Cybistax antisyphilitica* BW 3782 and BW 3861, *Dimorphandra mollis* BW 3780, *Guazuma ulmifolia* BW 3821, *Hymenaea courbaril* BW 3781 and BW 3831, *Jacaranda cuspidifolia* BW 3802, *Magonia pubescens* BW 3797, SPCS 683 and SPCS 701, *Myracrodruon urundeuva* BW 3895, *Ormosia arborea* BW 2700, *Peltogyne confertiflora* BW 3832 and BW 3908 and *Pterodon emarginatus* BW 3783. Seed germination varied significantly ($P < 0,05$) in samples *Enterolobium contortisliiquum* BW 3839 (from 90% to 100%) and *Hymenaea courbaril* BW 3804 (from 50% to 91%). Significant loss of germinability ($P < 0,05$) was recorded for seed samples *Aspidosperma macrocarpum* BW 3795 (from 100% to 73%) and BW 3834 (from 81% to 11%), *Copaifera langsdorffii* BW 3805 (from 75% to 5%), *Dipteryx alata* BW 3807 (from 10% to 0%), *Guazuma ulmifolia* BW 3840 (from 5% to 1%) and *Pseudobombax cf. longiflorum* BW 3865 (from 40% to 13%). High fungi incidence and low initial physiological quality of seeds characterised samples of plants partially submerged in water, and these were the main factors that compromised the viability of the six samples. The conclusion was that, for the seventeen species studied, the maintenance of viability during storage depended on health and physiological seed initial integrity.

Key words: Viability, Storage, Germinability