Seed Symposium

Abstracts

'Diversity in Seed Technology'

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POSTER SESSION 6 – Seed storage and genetic conservation

Abstract 213

Conservation of *Euterpe oleracea* seeds

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Seeds of *Euterpe oleracea* Mart. are considered recalcitrant and need increased knowledge about the factors that interfere with its conservation. The present work was carried out with the purpose of verifying the effects of seed moisture and air temperature in the maintenance of seed quality. Seeds of cultivar BRS Pará, with 43.4%, 37.4%, 30.3%, 26.1%, 21.0%, 15.1% and 11.9% moisture content, conditioned in polyethylene bags, were stored under controlled temperature at 20°C, 15°C and 10°C for 360 days, and submitted to periodic evaluation of moisture content, germination, vigour and seed health. Dehydration to 37.4% of moisture did not produce immediate effects on the germination and vigour. However, moisture contents lower than 37.4% progressively favored deterioration, and at 15.1% moisture content physiological performance was absent. During storage, seeds with 21.0% of moisture or less lost germination in 30 days, independently of the air temperature. It was verified that the seeds with 43.4% moisture content stored at 20°C were conserved up to 270 days.

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Preservation of 'Cleopatra' tangerine seeds: water content and storage temperature

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The objective of this research was to study the effects of dehydration on the physiological performance of 'Cleopatra' tangerine (*Citrus reticulata* Blanco) seeds during storage. Hand extracted seeds from mature fruits were washed in running water and the excess water was drained in the shade. Thereafter, a representative sample of seeds was removed to constitute the portion with the highest water content (48%) to be studied. The remaining seeds were submitted to dehydration in forced air circulation equipment at 28° ±2°C in order to obtain the other levels of 39, 31, 24, 14, 10 and 7% water contents. The seeds, packaged in polyethylene bags, were stored in chambers maintained at temperatures of 10 and 20°C. At the beginning of storage and then at four-week intervals, the seeds were submitted to the following evaluations: water content, germination, seedling emergence, speed of emergence index and seedling length. It was concluded that, considering the water content interval of 39 and 7% and the temperature of 10°C, the physiological performance of 'Cleopatra' tangerine seeds during storage is favored by dehydration to water contents of, at least, 24%.

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Viability equation to determine longevity untreated and treated, wheat seed with fungicides conventional warehouse storage

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The research objective was to apply the viability equation developed by Andreoli (1998), to determine the deterioration rate of wheat seeds, both treated and untreated with fungicides, from the cultivars BRS 208 and CD 104 in conventional warehouse storage (disproved average control and humidity) in Mauá da Serra- PR and Londrina-PR districts. The simplified equation is explained by Vp=Vi -(tg ß).p, model, where Vp is the probit viability on period p, Vi is initial lot germination and tg ß is seed deterioration rate for each cultivar. The seeds lots chose buy casualty were divided in four parts, half being treated with carboxin + thiram fungicides, wrapped in polypropylene bulk weaved and stored for 300 days in