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Evaluation of vigor tests for *Acosmium subelegans* seeds (Fabaceae)

Márcia Regina Oliveira Santos [(1)], Marísia Pannia Espósito[(2)] & Claudio José Barbedo[(3)]

[(1)] Seção de Silvicultura, Instituto Florestal, São Paulo - SP, marcia_oliveiras@yahoo.com.br; [(2)]Núcleo de Pesquisa em Ecologia, [(3)] Núcleo de Pesquisa em Sementes, Instituto de Botânica

Seed vigor can be evaluated by different tests which have been widely described for crop species. However, little attention has been given to the seeds of tropical tree species, mainly those from Brazilian flora. In this work we compared different tests to analyse the vigor of *Acosmium subelegans* (Mohlenbr.) Yakovlev (Fabaceae) seeds, an important species from Brazilian savanna and semi deciduous forest with economical an pharmacological aims. Seeds collected in Assis, SP, were analysed as for water content (gravimetrically, 103°C/17h) and germination (paper roll at 25°C and 30°C). Then they were subjected to water stress treatments (42°C, 100% RH) for 4, 4.5, 10.5 and 22.5 hours to simulate different levels of deterioration. After that, the seeds were analysed by different vigor tests: a) speed of germination and of seedling emergence; b) electrical conductivity (6, 24 and 48h of imbibition at 20ºC and 24 and 48h at 25ºC); c) accelerated aging (42ºC/48h) and d) total seedling emergence (soil and sand). There was no difference for germination (radical protrusion) among seeds of different levels of deterioration when the test was conducted at 25°C; however, the most deteriorated seeds produced almost twice abnormal seedlings (15%) than the other ones (8%). When germination test was conducted at 30°C, the non-deteriorated and the less deteriorated seeds germinated *ca.* 85%; the other ones germinated *ca.* 40%. Total seedling emergence showed low efficiency to distinguish seeds of different levels of deterioration. On the other hand, accelerated aging test could distinguish seeds from all levels of deterioration, as weel as the electrical conductivity tests, mainly if the imbibition was carried out at 20°C/6h. The other tests evaluated showed no significant differences among treatments.

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