TEMPORAL CHANGES IN SEED DORMANCY, GERMINATION AND VIABILITY OF GRASSES FROM NEOTROPICAL SAVANNAS

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Savannas are ecosystems characterized by the presence of scattered trees distributed over an herbaceous soil coverage of variable density. The Neotropical Brazilian savanna, locally called *Cerrado*, has been degraded during the past four decades. The use of native grass species to restore degraded areas is strongly advised. However, seed germination and longevity patterns of native species are poorly understood. This study aimed to investigate the viability, dormancy and germination of fresh and dry-stored seeds of 28 native grass species from the *Cerrado*, collected both in open savannas and wet grasslands. After seed collection, germination trials and viability tests were performed every three months for up to one year of dry storage. Seeds of twelve species kept high viability for up to nine months, but for many of them, the viability decreased from nine to twelve months of dry storage. Among these species, germination of fresh seeds was high for eight species, suggesting that they can be sown promptly after harvesting or after storage for up to nine months. On the other hand, seed viability was not affected by dry storage for sixteen species, so they can be stored for up to one year. Among these, fresh seeds of five species were non-dormant and kept high germination after twelve (*Andropogon leucostachyus* Kunth, *Saccharum villosum* Steud., *Paspalum polyphyllum* Nees ex Trin.), nine (*Schizachyrium sanguineum* (Retz.) Alston), and six months (*Aristida gibbosa* (Nees) Kunth). These results suggest that some species can be stored and sown at any time, for up to one year. Eleven species were dormant and dry storage progressively alleviated the dormancy levels for seven of them: *Agenium goyazense* (Hack.) Clayton, *Aristida riparia* Trin., *A. setifolia* Kunth, *Ctenium cirrosum* (Nees) Kunth, *Echinolaena inflexa* (Poir.) Chase, *Eragrostis polytricha* Nees and *Sacciolepis myuros* (Lam.) Chase. Dry storage of about six months would be recommended for these seven species to break seed dormancy before sowing. Aknowledgements: CNPq, CAPES, Embrapa

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