



Seed Coat Dormancy on Native Plant Species from Chihuahua, Mexico

Alicia Melgoza¹, Abigail Vazquez¹, Pedro Juardo², Carlos Morales², Carlos Ortega¹, Gerardo Bezanilla¹, Mario H. Royo², Carmelo Pinedo¹; (1) UACH, (2) INIFAP; Contact Author Email: amelgoza@uach.mx

The propagation of native plants is important to restore extensive degraded grassland areas. The dormancy of many native species seeds can make restoration difficult. The objective of this study was to determine if seed dormancy of several native plant species is imposed by their seed coat. Species evaluated were upright prairie coneflower (*Ratibida columnifera*), soaptree yucca (*Yucca elata*), mariola (*Parthenium incanum*), mottled tuberose (*Manfreda variegata*), Wislizenus\ senna (*Senna wislizeni*), big bend bluebonnet (*Lupinus havardii*), brushland shrubverbena (*Lantana achyranthifolia*), desert willow (*Chilopsis linearis*), spiny hackberry (*Celtis ehrenbergiana*), prairie acacia (*Acacia angustissima*), little hogweed (*Portulaca oleracea*), kiss me quick (*Portulaca pilosa*), woolly plantain (*Plantago patagonica*), pink pappusgrass (*Pappophorum bicolor*), narrowleaf globemallow (*Sphaeralcea angustifolia*), silver prairie clover (*Dalea bicolor*), yellow trumpetbush (*Tecoma stands*), Texas snakecotton (*Froelichia interrupta*), resinbush (*Viguiera stenoloba*), and vine mesquite (*Panicum obtusum*). Half of the seeds tested was mechanical scarified and the other half was used as a control. Five pots containing 20 seed each were used as replications for each treatment and control. Pots were watered daily for up to 60 days and seedling emergence was quantified. Once accounted for, seedlings were removed to facilitate future counts. After scarification, germination of mottled tuberose, Wislizenus\ senna, narrowleaf globemallow and prairie acacia increased ($P < 0.05$) from 17 to 80%. Seeds of mottled tuberose, desert willow, spiny hackberry, soaptree yucca and pink pappusgrass did not require mechanical scarification to germinate. Seeds of all other species present a type of dormancy that is not imposed by the seed coat.

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