

PROPAGATION OF DRY TROPICAL FOREST TREES IN MEXICO

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There is a distinct lack of technical information on the propagation of native tree species from the dry tropical forest ecosystem in Mexico. This ecosystem has come under heavy human pressures to obtain several products such as specialty woods for fuel, posts for fences and construction, forage, edible fruits, stakes for horticulture crops, and medicinal products. The forest nurseries of the Government propagate only a limited number of native species to carry out forest plantations, and some of them are dangerous species. The objective of this paper is to present information to propagate 10 native trees useful to carry out the operation activities using traditional methods. The species are: Palo dulce (*Eysenhardtia polystachya*); guamuchil (*Pithecellobium dulce*); tehuistle (*Acacia bilimekii*); tepehuaje (*Lysiloma acapulcensis*); tepemezquite (*Lysiloma divaricata*); cubata (*Acacia cochliacantha*); cuahulote (*Guaazuma ulmifolia*); brasil (*Haematoxylum brasiletto*); chapulixtle (*Dodonaea viscosa*) and cuachalalate (*Amphipterygium adstringens*).

Seed Collection Period. Palo dulce and cubata: November; tepemezquite and cuachalalate: December to January; tepehuaje and cuahulote: January to February; brasil and chapulixtle: February to March; guamuchil and tehuistle: April.

Initial Percentage of Emergence. Palo dulce (22% to 70%) and cuachalalate (30% to 60%)

depending from the provenance of the seed; tehuistle: 36%; cubata: 39%; cuahulote: 60%; brasil: 64%; chapulixtle: 78%; tepehuaje: 84%; tepemezquite: 85%; and guamuchil: 90%.

Duration of Seed Viability under Storage In Natural Conditions. Guamuchil and brasil: one year; tehuistle and tepehuaje: 2 years; tepemezquite and palo dulce: 3 to 4 years; cubata, chapulixtle and cuachalalate: more than 5 years; and cuahulote: more than 8 years.

Seed Treatments. Palo dulce, guamuchil, tehuistle, tepehuaje, tepemezquite, brasil: soak in water under natural conditions for 24 hours; cuahulote: soak in water at 90 °C for 4 minutes, followed by a water soak under natural conditions for 24 hours; cubata: soak in boiling water until cool, then continue soak for 24 to 48 hours; chapulixtle: soak in water at 65 °C for 4 minutes, followed by water soak under natural conditions for 24 hours; cuachalalate: it is not necessary to extract the seeds from the samara fruits, wash the fruits with detergent and soak them in water under natural conditions for 24 hours.

Nursery Production Period. Tepehuaje and tepemezquite: 3 months; guamuchil, cubata and chapulixtle: 4 months; palo dulce, tehuistle, brasil and cuachalalate: 6 months; and cuahulote: 7 months.