



Establishment of Fourwing Saltbush Ecotypes In Northern Mexico's Oak-Bunchgrass Rangelands

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In Mexico, fourwing saltbush grows in shrubland ecosystems where the highest elevation is approximately 1,500 m, while in the United States (USA) it is found in 2,400 m. The objective was to evaluate the growth and survival of the Sandoval, Grants and Trinidad ecotypes in Mexico's shrubland. The ecotypes were collected at elevations of about 1,800 m in the USA. Based on the habitat-specific-seed data, two ranches in Chihuahua, Mexico were selected for evaluation of the ecotypes; the Santa Monica ranch (RSM) and El Saucito ranch (RES). Fourwing saltbush plants were grown in a nursery and then transplanted in August 2005 when the plants reached about 20 cm in height. An Analysis of Variance was performed considering a random block design and mean separation was done using a Duncan test. Two years after transplanting, in the Santa Monica ranch plants reached 103, 91 and 75 cm height, while survival was 73, 66, and 73% for Sandoval, Grants, and Trinidad ecotypes, respectively. Soil texture and weed competition were the main variables affecting fourwing saltbush. At the El Saucito ranch, plants reached 29, 25 and 28 cm in height with survival of 24, 55 and 55% for the same ecotypes. Soil depth and intense grazing probably affected fourwing saltbush performance. The three ecotypes may be used in some specific environmental ecosystems; nevertheless, soil characteristics and management should be considered to reduce uncertainty and increase success.

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