

EFFECTS OF SPECIES, IRRIGATION, AND ORIGIN OF PLANT MATERIAL ON ESTABLISHMENT OF TRANSPLANTED SHRUBS¹

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Abstract: Revegetation is difficult in the Mojave Desert due to limited, erratic precipitation and extreme temperatures. Establishing plant cover by transplanting native shrubs is known to be a promising technique, but many questions still remain regarding its use on a large operational scale. A study was initiated on the U.S. Department of Energy Nevada Test Site (NTS) to determine the effects of irrigation, and seed origin on establishment of transplanted shrubs. Plants of three species (*Larrea tridentata*, *Ambrosia dumosa*, and *Atriplex canescens*) were grown in a greenhouse and hardened outdoors. Plants of all three species were produced from two seed sources: 1) seed collected from the NTS (Mojave Desert), and commercially available seed collected from outside the NTS. One-year-old containerized plants (180 of each species) were transplanted to a site on the NTS and irrigated with two liters of water at one of the following frequencies: 1) at time of planting only, 2) at time of planting and monthly during the first growing season, and 3) at time of planting and twice monthly during the first growing season. Plant mortality is being monitored, and plant growth is being determined with dimensional analyses and vegetative cover measurements.

Additional Key Words: creosote bush, bursage, fourwing saltbush

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