

# Mojave Desert shrubs in landscapes need special care

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The feasibility of using Mojave Desert shrub species as landscape specimens requiring minimum maintenance was studied at the Solar One Visitors Center near Daggett, California. Transplant specimens of woody shrub species were produced under glasshouse conditions for periods of 9 to 30 months.



Many Mojave Desert shrubs can be successfully transplanted during spring months but may fail if moved at other times. These specimens at the Solar One Visitors Center near Daggett, California, were well established four years after they were transplanted in 1980.

Better than 90 percent survival was obtained from transplantings during March through May, but losses of up to 40 percent resulted from transplantings at earlier or later times of the year. Three to five gallons of water were applied upon transplanting, and thereafter at about monthly intervals from June through September. Comparative tests showed that growth and development of shrub specimens were better when they were irrigated at intervals than when they were drip-irrigated; salt did not accumulate around the roots with the flush-through application of water as it did with drip irrigation. (This might not have been the case had salt-free water been available.)

## Protection needed

Comparative tests also showed that supplemental water was not necessary during the second year and thereafter. The deciduous shrubs given additional water, however, grew more rapidly and retained foliage for three to five weeks longer before going dormant than did the unwatered shrubs. Unfortunately, grazing rabbits were greatly attracted to the later-season succulent vegetation, essentially nullifying any growth increase from the added water. It became necessary to protect all transplanted shrub specimens with dome-shaped chicken-wire enclosures to prevent jackrabbits from destroying the root crowns. These protective enclosures will remain permanently in place; the shrub branches can extend out through the wire mesh to produce normal growth forms.

Transplanting success and rapid development into aesthetic growth forms were achieved best with: four-winged saltbush, *Atriplex canescens* (Pursh) Nutt.; quail bush, *Atriplex lentiformis* (Torr.) S. Wats.; and cattle spinach, *Atriplex polycarpa* (Torr.) S. Wats. Intermediate success was obtained with: creosote bush, *Larrea tridentata* (Sesse' & Moc. ek D.C.) Cov.; and bursage, *Ambrosia dumosa* (A. Gray) Payne. Several other species showed promise for use to provide variation in color, size, and form, but their production and application would not be cost-effective for revegetation of large-scale disturbed areas.

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