



Longstem Transplants for Riparian Plantings in the Southwest

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Many Southwest riparian sites require revegetation following the removal of invasive woody species such as saltcedar. Many of these sites have shallow water tables and support established native riparian phreatophytic vegetation. But because of flood control structures and flow regulations, the surface water hydrology has been altered disconnecting these sites from the flood plain and resulting in no overbank flooding. This supplemental water from flooding is critical in a desert climate for the recruitment of new seedling stands of common obligate riparian species such as cottonwoods (*Populus* species), willows (*Salix* species), New Mexico olive (*Forestiera pubescens*), indigo bush (*Amorpha fruticosa*), and false willow (*Baccharis salicina*). Generally these species require more than twice the water that hot desert climates can provide. The Longstem Planting Method involves placing the lower portion of the root ball of a transplant in contact with the capillary fringe of the water table in the fall when the evapotranspiration demands for plants are reduced. Often this requires that the root crown of a transplant be buried as deep as 4 to 6 feet. By spring, new adventitious root growth has been initiated on the mainstem of the plant, just below the soil surface providing needed oxygen to the root system. More than 7,000 longstems of common riparian species have been planted during the past 5 years in riparian areas of New Mexico and Colorado. Survival has ranged from 70-93 percent and generally without irrigation.

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