

Deep Planting of Longstem Native Riparian Shrubs

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The loss of riparian habitat along the major rivers of the Southwest due to invasive woody species, wildfire, and changing hydrologic conditions has resulted in numerous efforts to restore cottonwoods and willows to these disturbed areas. The restoration of the shrub component of these riparian ecosystems has often been neglected because of the difficulty in establishing small woody transplants in arid and semi-arid environments. Conventional planting methods rely on frequent irrigation for a prolonged period until these phreatophytic species are able to utilize water in the capillary fringe above shallow floodplain water tables. The Los Lunas Plant Materials Center has developed a technique to deep plant riparian woody species with long stems by burying the root crown 3 to 7 feet deep to allow the rootball to be in contact with the capillary fringe and still have several feet of stem aboveground. This deep planting method is typically employed in the fall or winter when the water table is usually at its lowest level and the transplants are subjected to reduced or minimal transpiration. Most riparian shrub species are well-adapted to sediment burial and rapidly develop adventitious roots along the buried stem and grow vigorously. This technique has been used at many different sites throughout New Mexico and Colorado and survival rates are generally very high (i.e., >90%) unless the water table drops drastically after planting, the site is inundated the spring after planting for a prolonged period, or browsing by domestic or wild animals destroys aboveground shoots.