

Southwestern Riparian Tree and Shrub Planting Methods That Require Minimal or No Irrigation

Steve Emery Kadas, NRCS; Gregory Fenchel, NRCS; Danny Goodson, NRCS; David Dreesen, NRCS; Keith White, NRCS

Abstract: Due to the loss of the natural hydrologic conditions on many rivers in the Southwest, it may be necessary to plant riparian vegetation on the banks and floodplains to reduce soil erosion, enhance wildlife habitat, create buffers, and improve recreational opportunities. From 2002 to 2004, over 34,000 acres in New Mexico were treated either chemically or mechanically to control salt cedar, Russian olive, Siberian elm, and other non-native phreatophytic vegetation. In the lower elevations in the Southwest where annual precipitation is less than 15 inches, traditional planting methods require frequent irrigation. This is very labor intensive and often cost prohibited. In response, the New Mexico Natural Resources Conservation Service (NRCS) has developed deep planting methods (for tree and shrubs) that connect to the shallow water table and reduce the amount of subsequent irrigation. More than 20,000 shrubs or trees have been established over a 20-year period with a 70 percent or better survival rate on most sites. Planting methods will be discussed in detail including some replicated studies that have helped to refine the methodologies. Photos of demonstration plantings of up to 50 acres in area, taken before and after treatment, will be presented.

Steve Emery Kadas, NRCS, Steve.Kadas@nm.usda.gov