

Novel Herbicide Combinations for Tamarisk Control With Minimal Ecosystem Impact.

Philip Westra, Weed Scientist, Dept. of Bioagricultural Sciences and Pest Management, Colorado State University

Abstract:

Relatively few novel herbicides or herbicide combinations are evaluated specifically for the control of salt cedar. This may be partially due to the perception that such herbicide use represents a relatively small market, or there may be concerns regarding adverse desirable plant impacts in riparian ecosystems. However, herbicides that completely defoliate salt cedar within 1 month of herbicide application could simulate the defoliation provided by biocontrol agents, thereby weakening the plants over time and minimizing water use by salt cedar. In the summer and fall of 2005, two studies were initiated on the St. Vrain river to evaluate the potential utility of herbicides or herbicide combinations that included Escort (a sulfonylurea herbicide), Krenite, Glyphosate as different formulations, Vengeance Plus (which contains garlon plus two PGR herbicides), Edict, and Arsenal. Treated plants were clumps of 10-20 large shoots ranging in size from ½" to 2" in diameter arising from a common crown. Most treated plants were 15 to 20 feet tall. Mixtures containing Vengeance Plus or Arsenal generally provided the longest control of salt cedar. Several treatments provided greater than 90% control 1 year or more after application. Several treatments provided control of older stems that were leafed out at the time of application, but in some cases, profuse new 2006 growth came from the crown area of treated plants. Several treatments had minimal effect on understory plants while providing good control of salt cedar. Many of the novel treatments in this study completely eliminated salt cedar flowering and seed production in 2006.