

CUT-STUMP TREATMENT OF SALT CEDAR IN SOUTHWEST KANSAS. Walter H. Fick and Wayne A. Geyer, Associate Professor, Department of Agronomy and Professor, Department of Horticulture, Forestry, and Recreation Resources, Kansas State University, Manhattan, KS 66506.

Saltcedar (*Tamarix ramosissima* Ledeb.) is an invasive shrub or tree found along stream banks and waterways throughout the United States. This salt tolerant phreatophyte can reach 6 m in height, transpires nearly 300 L of water per tree per day, and decreases species richness in the habitats where it resides. In Kansas, saltcedar is particularly a problem along the Cimarron and Arkansas watersheds. Research was initiated in April 2004 on the Cimarron National Grasslands located near Elkhart, KS. A scattered stand of multi-stemmed saltcedar was cut near ground level using a 10-cm rotary saw attached on the front end of a tractor. On April 13, 100 cut-stumps were selected for herbicide treatment. Ten treatments were applied in a randomized block design with 10 replications. Herbicides were applied using hand-held garden sprayers. Treatments were rated for percent control 3 and 6 months after treatment (MAT), and for mortality 6 MAT. Treatments included an untreated check, triclopyr at 10, 24, and 48 g L⁻¹ diesel, glyphosate at 18 g L⁻¹ water, imazapyr at 23 g L⁻¹ water, triclopyr + 2,4-D at 5 + 10 g L⁻¹ diesel, a ready to use formulation of triclopyr at 90 g L⁻¹, glyphosate + 2,4-D at 18 + 23 g L⁻¹ water, and glyphosate + imazapyr at 18 + 12 g L⁻¹ water. All untreated trees had resprouted 3 months after cutting, with resprouts up to 1.2 m tall. All herbicides provided greater than 90% control 3 MAT except those cut-stump treatments containing glyphosate. Additional resprouting occurred between 3 and 6 MAT. All treatments containing triclopyr or imazapyr provided greater than 80% control 6 MAT. The only treatment providing 100% mortality 6 MAT was the ready to use formulation of triclopyr applied at 90 g L⁻¹. These results are preliminary as evaluations will need to be made at least 1 or 2 years after treatment to fully assess herbicide effectiveness.