

# Results from Russian Knapweed Fall Herbicide Applications

## Farmington, NM 2004-2005

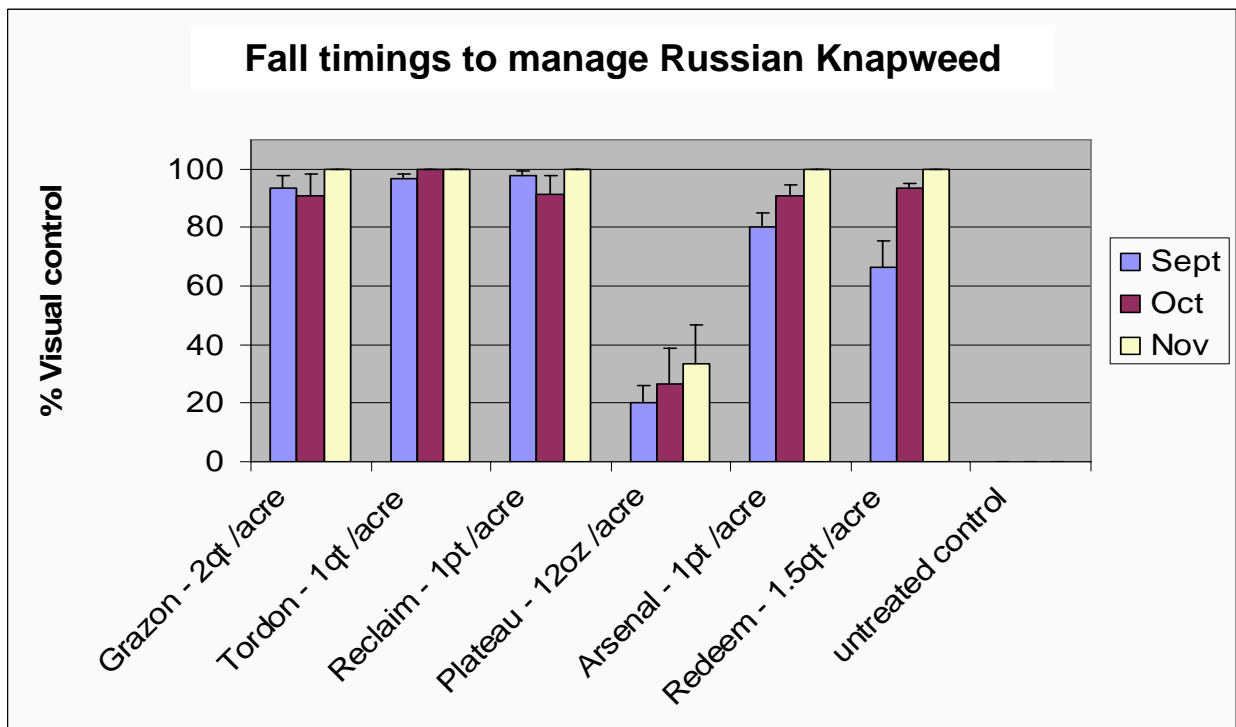
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### Introductions:

Russian knapweed is an invasive herbaceous perennial that has been invading a wide range of habitats throughout New Mexico. This project evaluated the effectiveness of fall applications of several herbicides that have been shown to be effective on Russian knapweed. Fall applications have improved effectiveness and can limit damage to desirable annual plants as they have already senesced before applications. Herbicides were applied in September, October and November to areas heavily infested with Russian knapweed. Above ground tissue of Russian knapweed begins to senesce in the fall, and while foliage was green in September and October, shoots were completely senesced by the November application. For information on rates please see table 1.

### Results:

Plots were evaluated on 6/20/2005 and percent visual control was estimated. While controls had no growth reductions observed, Russian knapweed growth was reduced with each herbicide used in this experiment. Grazon, Tordon, and Reclaim provided greater than 90 % control regardless of when applications were made. Both Arsenal and Redeem control was improved as applications were made later in the growing season, thus October or November applications can enhance control. Plateau provided 20-33 percent control and was consistently lowest compared to the other treatments.



**Table 1. Herbicides used in study**

Active Ingredient	A.I. rate (lbs/A)	Product	Product rate	\$/Acre	Comments
Picloram + 2,4-D*	0.27 1.0	Grazon P + D*	2 qt/A <sup>NI</sup>	\$23	Selective, long residual
Picloram*	0.5	Tordon*	1 qt/A <sup>NI</sup>	\$13	Selective, long residual
Clopyralid	0.375	Reclaim / Transline	1 pts/A <sup>NI</sup>	\$23	Selective, short residual
Imazapic Methlyated Seed Oil	0.1875 -	Plateau MSO	12 fl oz/A 1 qt/A	\$32	Selective, short residual
Imazapyr	0.5	Arsenal/Habitat	1.0 pts/A <sup>NI</sup>	\$35	Nonselective, long residual
Triclopyr + Clopyralid	0.84375 + 0.28125	Redeem	3 pts/A <sup>NI</sup>	???	Selective, short residual
Untreated control	-	-	-	\$0	Selective, short residual

\* Indicates this product is a restricted use pesticide in New Mexico

All applications will be made at 10-20 GPA.

<sup>NI</sup> addition of nonionic surfactant at 1%

### **Conclusions:**

Excellent control of Russian knapweed can be expected with fall applications of select herbicides in September, October, and November. While variations exist in effectiveness, herbicide selection should consider environmental restrictions with each herbicide, desirable plant species present, land use objective, and cost. Grazon, Tordon, Reclaim/Transline, Plateau, and Redeem are selective herbicides that do not harm many grass species, therefore these would be preferred in rangelands where grasses are desirable. For areas near or in water, Habitat is the only herbicide registered for this use. Each of the herbicides has specific requirements and restrictions, so please read the label before making applications.