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Single and repetitive picloram treatments on leafy spurge and resulting changes in shoot density, canopy cover, forage production and utilization by cattle

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Abstract:

Leafy spurge (*Euphorbia esula* L.) infestations in rangeland grazing sites present a deterrent to grazing of usable forage by cattle and significantly reduce forage production and utilization.

This research was conducted near Grassrange, Montana on a cool season native range site using a randomized complete block with split-block design and four replications. Plots measuring 16 by 70 feet were treated in May of 1985 with rates ranging from 0.25 lb ai/A to 2.0 lb ai/A. Retreatments of 0.5 lb ai/A were applied to selected plots in May of 1986 and 1987.

Comparison of % control of leafy spurge to utilization of forage by cattle in single treatment plots showed a good correlation (r=0.86). The correlation between spurge canopy cover and utilization was also good (r= -0.79). These data indicate a significant decrease in utilization of native grasses by cattle with increase in leafy canopy cover and an increase in % control.

Leafy spurge % canopy cover, % control and % utilization