

CHEMICAL CONTROL OF SERICEA LESPEDEZA IN NEBRASKA. Robert A. Masters, Rangeland Scientist, Dow AgroSciences, LLC., Lincoln, NE 68506.

*Sericea lespedeza* is perennial invasive and noxious weed in central Great Plains of the United States. In this region the species commonly infests rangeland, pastures, roadsides, and rights-of-way. On rangeland and pastures, infestations often reach densities that reduce livestock carrying capacity and wildlife habitat quality. These reductions result, in part, from direct interference of this plant with desirable forages and browse. In addition, *sericea lespedeza* is not palatable to beef cattle or native ungulates because leaves and stems contain a high level of tannin. Research was initiated at a pasture site in southeast Nebraska to determine the response of *sericea lespedeza* to several herbicides including triclopyr + fluroxypyr, picloram + fluroxypyr, triclopyr, metsulfuron and dicamba + diflufenzopyr. Herbicides were broadcast post-emergence applied on June 29, 2002 to plots that were 3 by 10 m in size. *Sericea lespedeza* plants were at the vegetative growth stage when herbicides were applied. The most effective treatments within 90 days after application contained triclopyr and/or fluroxypyr. By 14 months after treatment, fluroxypyr + triclopyr at 315 + 105 g ae/ha or 420 + 140 g ae/ha, triclopyr at 840 g ae/ha, and picloram + fluroxypyr at 188 + 188 g ae/ha provided greater than 90% control. In contrast, *sericea lespedeza* control provided by metsulfuron at 21 g ae/ha or dicamba + diflufenzopyr at 210 + 84 g ae/ha was less than 50%. Triclopyr- and fluroxypyr-containing herbicides provided the best *sericea lespedeza* control over the period of two growing seasons during which this experiment was conducted.