

THISTLE CONTROL IN USA RANGELAND AND PASTURES WITH AMINOPYRALID. Byron B. Sleugh, Robert Wilson, Scott Nissen, Stephen Enloe, Robert A. Masters, Vanelle F. Carrithers, and Pat L. Burch. Dow AgroSciences, LLC, West Des Moines, IA 50266; University of Nebraska Panhandle Research and Extension Center, Scottsbluff, NE 69361; Colorado State University, Fort Collins, CO 80523; University of Wyoming, Laramie, WY 82071; Dow AgroSciences, LLC, Indianapolis, IN 46268; Dow AgroSciences, LLC, Mulino, OR 97042; Dow AgroSciences, LLC, Christiansburg, VA 24073, respectively.

Experiments at multiple rangeland and pasture sites across the USA were conducted to determine the response of Canada thistle to aminopyralid, a new herbicide active ingredient introduced by Dow AgroSciences in 2005 for use on rangeland, pastures, and non-cropland. Aminopyralid was applied to Canada thistle plants at varying growth stages including pre-bud and bud in the spring and summer and to autumn regrowth. Efficacy of aminopyralid at 52 to 120 g ae/ha was evaluated during the season of application, one, and two years after application. Aminopyralid treatments were compared to herbicides commonly recommended for Canada thistle control including picloram, dicamba, 2, 4-D, and clopyralid. At 1 year after treatment, aminopyralid applied to Canada thistle in the autumn or spring at 105 g/ha or higher provided excellent control similar to control with picloram at 280 to 360 g/ha and superior to control with dicamba, clopyralid, and 2,4-D. A summary of the results from trials based on Canada thistle growth stage indicated that better control is obtained when aminopyralid is applied at the pre-bud or bud stage. At 2 years after treatment, aminopyralid treatments applied in the fall to Canada thistle regrowth provided 87%, 90%, and 93% control for the 90, 105, and 120 g ae/ha, respectively. It was evident from these data that the best long term control for Canada thistle was obtained by fall applications of aminopyralid. In these experiments, introduced cool-season forage grasses (smooth brome grass, timothy, orchardgrass, tall fescue, and Kentucky bluegrass) and native perennial grasses (prairie junegrass, big bluestem, little bluestem, and sideoats grama) were not injured by aminopyralid, regardless of rate applied.