

CONTROL OF MUSK THISTLE AND OTHER BIENNIAL THISTLES WITH AMINOPYRALID. Robert A. Masters, Patrick L. Burch, Vanelle F. Carrithers, and Mary B. Halstvedt., Product Technology Specialists, Dow AgroSciences, LLC, Indianapolis, IN 46268

Experiments at multiple rangeland and pasture sites across the USA were conducted to determine the response of musk thistle and other biennial thistles to aminopyralid, a new herbicide active ingredient being introduced by Dow AgroSciences for use on rangeland, pastures, and non-cropland. Aminopyralid was applied to musk thistle plants at varying growth stages from fall rosette to spring rosette, bolting, and late bolt to early bloom. Efficacy of aminopyralid at 53, 70, 88, and 105 g ae/ha applied alone or with 2,4-D was evaluated. Results were compared to herbicides commonly recommended for musk thistle control including picloram, dicamba, 2, 4-D, and metsulfuron. Aminopyralid applied to musk thistle rosettes in the fall or spring at 53 g/ha or higher provided excellent control of musk thistle rosettes and was similar to the results with picloram at 140 g/ha and dicamba at 1120 g/ha. In addition, aminopyralid and picloram control of musk thistle seedling emergence in the spring and summer, at least 90 day after treatment, was superior to that observed with dicamba. Aminopyralid at 53 g/ha provide excellent control applied of musk thistle that was bolted at time of application. The level of bolted musk thistle control with aminopyralid was similar to the control with picloram at 140 g/ha + 2,4-D at 560 g/ha and better than control obtained with dicamba at 280 g/ha + 2,4-D at 804 g/ha or 2,4-D at 1120 g/ha alone. Aminopyralid at 70 g ha or aminopyralid at 53 g/ha + 2,4-D at 560 g/ha controlled musk thistle treated at the late bolt to early bloom stages of growth as well as picloram at 140 g/ha + 2,4-D at 1120 g/ha or metsulfuron at 11 g ai/ha + 2,4-D at 1120 g/ha. As with musk thistle, treatment of other biennial thistles (plumeless thistle and bull thistle) at the rosette growth stage in the spring with aminopyralid at 53 g/ha provided excellent control. In these experiments, introduced cool-season forage grasses (smooth bromegrass, timothy, orchardgrass, tall fescue, and Kentucky bluegrass) and native perennial grasses (prairie junegrass, big bluestem, little bluestem, and sideoats grama) where not injured by aminopyralid, regardless of rate applied. Aminopyralid at 53 g/ha provided excellent control of musk thistle, plumeless thistle, and bull thistle rosettes emerged at time of application and controlled emergence of thistle seedlings after application.