

AMINOPYRALID: A NEW NON-RESTRICTED USE HERBICIDE FOR RANGELAND AND PASTURE VEGETATION MANAGEMENT. Robert A. Masters, Patrick L. Burch, Jamie M. Breuninger, Vanelle F. Carrithers, Mary B. Halstvedt, John J. Jachetta, William N. Kline, Donald D. Hare, Adrian A. Chemello, John L. Troth, and Rodney D. Schultz, Dow AgroSciences, LLC, Indianapolis, IN 46268.

Aminopyralid is a recently discovered herbicide being developed by Dow AgroSciences for rangeland and pasture vegetation management systems. Other anticipated use-sites for this herbicide include Conservation Reserve Program acres, non-cropland, and natural areas. Aminopyralid is a pyridine carboxylic acid that is formulated as a 240 g acid equivalent (ae)/liter product and has an auxinic mode of action. Aminopyralid has very low acute and chronic toxicity (practically nontoxic) to mammals, birds, fish, and aquatic invertebrates, with no evidence of teratogenicity, mutagenicity, carcinogenicity, or adverse endocrine or reproductive effects. Aminopyralid is only slightly toxic to algae and aquatic vascular plants and substantially below EPA's levels of concern for adverse effects on these organisms. Aminopyralid has a very favorable environmental fate because of rapid degradation in soil ($t_{1/2} = 34$ d) and photolysis in aquatic habitats ($t_{1/2} = 0.6$ d) with CO₂ and NH₃ as the only metabolites. Aminopyralid provides preemergence and postemergence control of many broadleaf noxious and invasive plants with little to no injury to most rangeland and pasture grasses. Aminopyralid is effective at rates between 52.5 and 120 g ae/ha, which is about 1/4 to 1/20 of the use rates for currently registered rangeland and pasture herbicides including, 2,4-D, picloram, clopyralid, triclopyr, and dicamba. Undesirable plants in the *Acroptilon*, *Ambrosia*, *Carduus*, *Centaurea*, *Cirsium*, *Croton*, *Solanum*, and *Vernonia* genera are among those controlled by aminopyralid. In the Great Plains, mid-West, and mid-Atlantic USA, research continues to determine the role of aminopyralid in facilitating forage legume establishment during pasture renovation programs.