Chemical control of leafy spurge

R. G. LYM

Department of Crop and Weed Sciences, North Dakota State University, Fargo, ND 58105.

Herbicides commonly used to control leafy spurge include 2,4-D, dicamba, glyphosate, and picloram. Picloram is the most effective herbicide, while a combination of picloram plus 2,4-D is the most cost-effective treatment. Most herbicides are applied during the leafy spurge true-flower growth stage but glyphosate is most effective in the fall. Dichlobenil can be used to suppress leafy spurge growth under trees, while fosamine, glyphosate, and 2,4-D can be used adjacent to water. Sulfonylurea and imidazolinone herbicides control leafy spurge but may cause grass injury. Herbicide absorption in leafy spurge generally is less than 15% of applied with 5% or less translocated to the roots. Few new herbicides are available for weed control in pasture and rangeland. Thus, the effectiveness of herbicides presently available must be enhanced using techniques such as optimal application timing, use of spray additives to increase absorption, and herbicide combinations applied as a tank-mix or sequentially.