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Leafy spurge control in North Dakota - 1991

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Evaluation of spray additives with picloram, screening of new herbicides and various glyphosate plus 2,4-D combinations for leafy spurge control have been the primary emphasis of the research program in 1991.

Compounds that appeared to increase picloram absorption in greenhouse and previous field trials were tested in the field in 1990. The additives MAPEG 400 MO, X-77, L-77, UI-700, Tetric 504, and Triton CS7 increased leafy spurge control when applied with picloram all at 0.5% (v/v) compared to the herbicide applied alone regardless of application date. Leafy spurge control was not increased when the additives were applied with picloram plus 2,4-D. More additives were evaluated in the greenhouse in the winter 1990-91. The best additives will be field tested in 1991 including Scoil, Sunit II, Raider, Raider L (pH), BAS 090.

Many labeled and unlabeled herbicides were evaluated for leafy control in greenhouse and field experiments in 1990. The herbicides imazethapyr (Pursuit), imazaquin (Scepter), and BAS-514 averaged greater than 80% control with no grass injury when applied alone or with an additive at 0.5% (v/v) or in combination with 2,4-D and an additive at 0.5% (v/v). DPX-V9360 (Accent) and imazethapyr (Pursuit) provided greater than 80% control with 38% to 78% grass injury when applied with X-77 at 0.5% (v/v) or in combination with 2,4-D and X-77 at 0.5% (v/v).

Glyphosate plus 2,4-D as commercial formulation (Landmaster BW) provided greater than 64% control when applied alone and 98% control when combined with picloram. Grass injury was variable due to location and application date.

The 2,4-D formulations 2,4-D mixed amine (Hi-Dep) and 2,4-D alkanolanin were evaluated for leafy spurge control. When applied alone there was no leafy spurge control 12 months after application regardless of formulation and similar control when applied with picloram.