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## **Leafy spurge shoot control resulting from original and successive herbicide treatments**

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No single herbicide application has been successful in total control of leafy spurge after it has become established. In 1978, a study was established to determine how long single herbicide treatments would last and what successive treatments would be required to maintain adequate control. The experiment was established May 25, 1978 with yearly retreatments. Plots 21.5 feet by 21.5 feet were arranged in a split block with two replications. Herbicides were applied with a truck mounted sprayer in a 20 gal/A water. The soil was a sandy loam with 65.4% sand, 23.2% silt, 11.4% clay, 1.5% organic matter, and a 7.7 pH.

Weed control counts were used to determine percent control of each treatment. When no retreatments were applied to the original treatments control averaged only 15.0% across all treatments. The highest level of control was approximately 32% obtained in areas treated with dicamba at 4.0 and 8.0 lb ai/A and picloram 22k at 1.0 lb ai/A. The picloram retreatments were the most effective leafy spurge control in this study, providing averages of over 94%.

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**Percentage leafy spurge shoot control resulting from the original and successive herbicide retreatments, 1984, 1985.**

Original Treatments <sup>1</sup> lb ai/A	Percent Shoot Control <sup>2</sup>										Check	
	Retreatment lb ai/A											
	2,4-D amine 2.0		Tordon 22K 0.5		Tordon 22K 1.0		Banvel 4L 2.0		Banevel/ 2,4-D amine 1.0 + 2.0		1984	1985
picloram 2.0	94	87	97	99	99	99	92	88	87	77	18	16
picloram 1.0	84	76	94	96	98	100	78	75	71	73	64	32
picloram 2.0	73	63	92	97	97	99	72	65	55	49	4	20
picloram 2.0	90	86	92	98	100	100	92	79	81	69	6	2
picloram 1.0	81	59	96	98	99	100	79	70	53	50	53	17
picloram 0.5	69	53	95	98	100	100	48	53	58	54	411	21
picloram + 2,4-D amine 2.0 + 4.0	75	62	95	98	100	100	79	70	74	58	44	41
picloram + 2,4-D amine 1.0 + 2.0	73	56	93	99	100	100	65	66	50	36	12	0
picloram + 2,4-D amine 0.5 + 1.0	63	43	91	99	99	100	71	43	78	58	0	0
dicamba 8.0	75	76	74	95	98	95	91	83	70	67	34	32
dicamba 4.0	61	77	87	94	98	99	64	72	75	67	2	27
Check	78	56	95	97	98	100	82	75	47	46		0

<sup>1</sup>Original treatments May 25, 1978; retreatments yearly; except Tordon 22K terminated with 1981 treatment.

<sup>2</sup>Evaluations were based on quadrat counts used to determine percent control; evaluations were made May 22, 1984 and May 29, 1985.