

Study Name: Yellow toadflax control in non-cropland (0748)

Objectives: Yellow toadflax control in non-cropland with various herbicides and application timings

Results:

Yellow toadflax has taken over areas that were previously infested by leafy spurge west of Burlington, ND. Several herbicides were evaluated for yellow toadflax control. These herbicides were applied at the vegetative stage (mid-summer), flowering stage (late summer), and post-flowering stage (fall). The results shown below represent yellow toadflax control following herbicide applications in both 2005 and 2006 to the same experimental plots each year. Each experimental plot was 10 by 30 feet and replicated three times. For example, in Treatment 1, Tordon + 2,4-D amine was applied at the vegetative stage in 2005 and again in 2006. Thus, the yellow toadflax control ratings on July 7, 2007 represent control as a result of the two herbicide applications in 2005 and 2006.

Tordon was the only herbicide that provided some level of yellow toadflax control at all application timings. Yellow toadflax control was higher with later application timings. Higher Tordon rates provided better yellow toadflax control. Plateau at 8 oz/A caused 23% grass injury when applied in Fall 2006, but little injury applied at the vegetative or flowering stages. However, in 2007, Plateau at 8 oz/A caused 30-65% grass injury across application timings. Plateau applied at 4 oz with Tordon caused 0-3% grass injury in 2006, but caused 8-27% grass injury in 2007. Tordon alone at any rate caused little grass injury.

Treatment	Rate	Timing	Grass		Yellow toadflax	
			-----% injury-----		-----% control-----	
			Jun 27 2006	Jul 7 2007	Jun 27 2006	Jul 7 2007
Tordon + 2,4-D amine	2 pt + 1 qt	VEG	0	0	15	48
Plateau + MSO + 28% N	8 oz + 1 qt + 1 qt	VEG	0	30	0	5
Tordon + Plateau + 2,4-D amine + MSO	2 pt + 4 oz + 1 qt + 1 qt	VEG	0	8	17	42
Ally + Weedmaster + COC	0.5 oz + 2 pt + 1%	VEG	0	3	0	0
Tordon + 2,4-D amine	2 pt + 1 qt	FLWR	0	0	49	57
Plateau + MSO + 28% N	8 oz + 1 qt + 1 qt	FLWR	4	50	0	30
Tordon + Plateau + 2,4-D amine + MSO	2 pt + 4 oz + 1 qt + 1 qt	FLWR	0	20	45	50
Ally + Weedmaster + COC	0.5 oz + 2 pt + 1%	FLWR	0	0	0	0
Tordon + 2,4-D amine	2 pt + 1 qt	FALL	0	3	62	75
Plateau + MSO + 28% N	8 oz + 1 qt + 1 qt	FALL	23	65	0	28
Tordon + Plateau + 2,4-D amine + MSO	2 pt + 4 oz + 1 qt + 1 qt	FALL	3	27	71	68
Ally + Weedmaster + COC	0.5 oz + 2 pt + 1%	FALL	0	5	0	0
Tordon	4 pt	FLWR	3	3	84	98
Untreated Check			0	0	0	0
LSD (0.05)			14	3.4	21	11
CV			36	86	34	43