<u>Perennial weed control with aminopyralid and aminocyclopyrachlor, Sheridan County.</u> (Greg Endres)

A field study was conducted by the NDSU Carrington Research Extension Center on the Ducks Unlimited Coteau Ranch near Denhoff, ND to examine perennial weed control with aminopyralid (Milestone, ForeFront R&P, and Chaparral) and aminocyclopyrachlor (MAT28). Experimental design was a randomized complete block with three replications. Herbicide treatments were applied with a backpack-type plot sprayer delivering 11 gal/A at 35 psi through 8001 flat fan nozzles to the center 6.7 ft of 10- by 25-ft plots. Weeds were mowed during the summer of 2008. Fall herbicide treatments were applied on October 3, 2008 to 3- to 12-inch tall absinth wormwood, 2- to 10-inch tall Canada thistle, and \leq 24-inch tall (rosette to mature) perennial sowthistle. Summer herbicide treatments were applied on July 1, 2009 to 13- to 40-inch tall absinth wormwood, 5- to 29-inch tall (bud stage) Canada thistle, and 6- to 28-inch tall perennial sowthistle.

Absinth wormwood control was excellent (99%) and perennial sowthistle control was good (83-87%) 12 months after application (MAA) with fall application of Milestone, ForeFront R&P and Chaparral (Table 1). Canada thistle control 12 MAA was 85% with fall-applied Milestone at 7 fl oz/A. All summer herbicide treatments provided excellent control of absinth wormwood and perennial sowthistle, except wormwood control with MAT28 plus Telar (Table 2). Summer-applied MAT28 or MAT28 plus Telar provided excellent control (98%) of Canada thistle 12 MAA. Also, Milestone at 7 fl oz/a provided greater Canada thistle control compared to the lower rate.

Table.1 Perennial	weeu contio	With Fall Hold							
		Weed control							
Herbicide		1-Jul-09					30-Sep-09		
Treatment ²	Rate	Absinth wormwood	Canada thistle	Perennial sowthistle	Absinth wormwood	Canada thistle	Perennial sowthistle		
	product/A		%						
Untreated check	x	0	0	0	0	0	0		
2,4-D	32 fl oz	65	33	0	62	13	0		
Ailestone	7 fl oz	99	98	89	99	85	87		
Milestone	5 fl oz	99	98 84	80	99	75	83		
ForeFront R&P	32 fl oz	99	89	86	99	73	83		
Chaparral	3 oz wt	99	90	94	99	75	88		
Спарана	3 02 WI	99	90	94	99	75	00		
C.V. (%)		11.6	23.2	15.8	10.8	18.1	16.9		
LSD (0.05)		16	28	17	15	17	17		
¹ Application on Oc	tober 3 200	-							
v/v .			,		erence (Winfie		,		
v/v . Table.2 Perennial				eatments ¹					
Table.2 Perennial			herbicide tr	eatments ¹	control		· 		
		with summer	herbicide tr 30-Sep-09	eatments ¹ Weed	control	2-Jul-10			
Table.2 Perennial Herbicide	weed control	with summer	herbicide tr 30-Sep-09 Canada	eatments ¹ Weed Perennial	control Absinth	2-Jul-10 Canada	Perennial		
Table.2 Perennial	weed control	with summer	herbicide tr 30-Sep-09 Canada thistle	eatments ¹ Weed	control	2-Jul-10			
Table.2 Perennial Herbicide	weed control	with summer	herbicide tr 30-Sep-09 Canada	eatments ¹ Weed Perennial	control Absinth	2-Jul-10 Canada	Perennial		
Table.2 Perennial Herbicide	weed control	with summer	herbicide tr 30-Sep-09 Canada thistle	eatments ¹ Weed Perennial	control Absinth	2-Jul-10 Canada	Perennial		
Table.2 Perennial Herbicide Treatment ²	weed contro Rate product/A	Absinth wormwood	herbicide tr 30-Sep-09 Canada thistle %	eatments ¹ Weed Perennial sowthistle	control Absinth wormwood	2-Jul-10 Canada thistle	Perennial sowthistle		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D	weed control Rate product/A	Absinth wormwood	herbicide tr 30-Sep-09 Canada thistle % 0	eatments ¹ Weed Perennial sowthistle	control Absinth wormwood	2-Jul-10 Canada thistle 0	Perennial sowthistle		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone	weed control Rate product/A x 32 fl oz	with summer Absinth wormwood 0 96	herbicide tr 30-Sep-09 Canada thistle % 0 72	eatments ¹ Weed Perennial sowthistle 0 93	control Absinth wormwood 0 91	2-Jul-10 Canada thistle 0 65	Perennial sowthistle 0 93		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone	weed control Rate product/A X 32 fl oz 7 fl oz	Absinth wormwood 0 96 99	therbicide tr 30-Sep-09 Canada thistle % 0 72 94	eatments ¹ Weed Perennial sowthistle 0 93 93	Control Absinth wormwood 0 91 98	2-Jul-10 Canada thistle 0 65 86	Perennial sowthistle 0 93 95		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral	Rate product/A x 32 fl oz 5 fl oz	with summer Absinth wormwood 0 96 99 99	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83	eatments ¹ Weed Perennial sowthistle 0 93 93 93	Control Absinth wormwood 0 91 98 95	2-Jul-10 Canada thistle 0 65 86 72	Perennial sowthistle 0 93 95 90		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral	weed control Rate product/A X 32 fl oz 7 fl oz 5 fl oz 3 oz wt	with summer Absinth wormwood 0 96 99 99 99 99 99 99	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87	eatments ¹ Weed Perennial sowthistle 0 93 93 93 93 98	Control Absinth wormwood 0 91 98 95 93	2-Jul-10 Canada thistle 0 65 86 72 71	Perennial sowthistle 0 93 95 90 99		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral MAT28	weed control Rate product/A 32 fl oz 7 fl oz 5 fl oz 3 oz wt 2 oz wt	with summer Absinth wormwood 0 96 99 99 99 99 99 99	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87	eatments ¹ Weed Perennial sowthistle 0 93 93 93 93 98	Control Absinth wormwood 0 91 98 95 93	2-Jul-10 Canada thistle 0 65 86 72 71	Perennial sowthistle 0 93 95 90 99		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral MAT28	weed control Rate product/A X 32 fl oz 7 fl oz 5 fl oz 3 oz wt 2 oz wt 2 + 0.167	with summer Absinth wormwood 0 96 99 99 99 99 99 99 99 99 99 94	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87 96	eatments ¹ Weed Perennial sowthistle 0 93 93 93 93 98 98	Control Absinth wormwood 0 91 98 95 93 93 93	2-Jul-10 Canada thistle 0 65 86 72 71 98	Perennial sowthistle 0 93 95 90 99 99 98		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral MAT28 MAT28 + Telar	weed control Rate product/A X 32 fl oz 7 fl oz 5 fl oz 3 oz wt 2 oz wt 2 + 0.167	with summer Absinth wormwood 0 96 99 <t< td=""><td>herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87 96 93</td><td>eatments¹ Weed Perennial sowthistle 0 93 93 93 93 98 98 98 98</td><td>control Absinth wormwood 91 98 95 93 93 93 93 78</td><td>2-Jul-10 Canada thistle 0 65 86 72 71 98 98</td><td>Perennial sowthistle</td></t<>	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87 96 93	eatments ¹ Weed Perennial sowthistle 0 93 93 93 93 98 98 98 98	control Absinth wormwood 91 98 95 93 93 93 93 78	2-Jul-10 Canada thistle 0 65 86 72 71 98 98	Perennial sowthistle		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral MAT28 MAT28 + Telar C.V. (%)	weed control Rate product/A 32 fl oz 7 fl oz 5 fl oz 3 oz wt 2 oz wt 2 + 0.167 oz wt	with summer Absinth wormwood 0 96 99 94 89 7.9	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87 96 93 6.8	eatments ¹ Weed Perennial sowthistle 0 93 93 93 93 98 98 98 98 98	control Absinth wormwood 0 91 98 95 93 93 78 5.1	2-Jul-10 Canada thistle 0 65 86 72 71 98 98 98	Perennial sowthistle 0 93 95 90 99 99 98 98 98 3.2		
Table.2 Perennial Herbicide Treatment ² Untreated check 2,4-D Milestone Milestone Chaparral MAT28 MAT28 + Telar C.V. (%) LSD (0.05)	weed control Rate product/A x 32 fl oz 7 fl oz 5 fl oz 3 oz wt 2 oz wt 2 + 0.167 oz wt ly 1, 2009.	with summer Absinth wormwood 0 96 99 99 99 99 99 99 99 99 91 92 93 94 89 7.9 12	herbicide tr 30-Sep-09 Canada thistle % 0 72 94 83 87 96 93 6.8 9	eatments ¹ Weed Perennial sowthistle 0 93 93 93 93 98 98 98 98 98 98	control Absinth wormwood 0 91 98 95 93 93 78 5.1 7	2-Jul-10 Canada thistle 0 65 86 72 71 98 98 98 98 98	Perennial sowthistle		