

Prowl H₂O for Weed Control in Established Perennial Grasses near Mitchell, Nebraska during the 2009 Growing Season.

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A field study was initiated near Mitchell, Nebraska to evaluate the efficacy of Prowl H₂O for selective weed control in perennial grasses. The experimental design was a randomized complete block with four replications. Plots were 11 feet wide by 25 feet long. The soil at the site was a sandy loam with a pH of 7.8 and organic matter content of 1.5%. Herbicides were applied on May 4, 2009 with a backpack sprayer calibrated to deliver 20 gallons per acre at 36-psi pressure with Spraying Systems 11002 VS nozzles. At the time of herbicide application kochia and Russian thistle were emerging to 1 inch tall. Air temperature was 59 F, relative humidity was 36%, and wind was out of the west at 11 mph.

Prowl H₂O at 2.0 and 4.0 lb/acre provided good early season kochia and Russian thistle control with excellent selectivity to smooth bromegrass and alfalfa (Table 1). Plateau in combination with Prowl H₂O or Buctril caused early season smooth bromegrass injury. Adding Buctril to Prowl H₂O improved early season postemergence kochia control. By the end of the summer kochia had emerged in all plots and control ranged from 20 to 63% control in herbicide treated areas.

Table 1. Prowl H₂O for Weed Control in Established Perennial Grasses near Mitchell, Nebraska during the 2009 Growing Season.

Treatment	Rate	<u>Smooth brome grass injury</u>		<u>Alfalfa injury</u>	<u>Kochia control</u>		<u>Russian thistle control</u>	
		6/2	9/25	6/2	6/2	9/25	6/2	9/25
		----- (%) -----						
Nontreated	--	0	0	0	0	0	0	0
Prowl H ₂ O	2.0	4	0	0	90	63	98	99
Prowl H ₂ O	4.0	0	0	0	87	35	98	99
Prowl H ₂ O + Buctril	2.0 + 0.38	0	0	0	96	20	99	99
Prowl H ₂ O + Buctril	4.0 + 0.38	0	0	0	99	43	99	99
Plateau + Buctril	0.062 + 0.38	30	0	0	70	25	98	99
Plateau + Prowl H ₂ O	0.062 + 2.0	30	0	6	81	60	98	99
Buctril	0.38	0	0	0	82	48	98	99
LSD at 0.05	--	4	NS	NS	16	51	1	1