

# **Mesotrione 4SC Plus Barricade (Prodiamine) Premix for Broadleaf Weed Control in Northern Turf-2006-HMS800D**

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## **Objectives:**

The objective of this study was to evaluate which rates and timings of mesotrione and mesotrione plus Barricade provided the best broadleaf weed control in "Moonlight" Kentucky bluegrass turf.

## **Materials and Methods:**

This study was conducted at the Iowa State University turfgrass research facility on a site heavily infested with dandelion and clover. Preemergence applications were made on 21 April, 2006. Subsequent postemergence applications were made 22 May (Table 1). The soil on the site is a disturbed Nicollet clay loam with a pH of 6.2, 30 ppm P, and 174 ppm K.

## **Results:**

We did not see any phytotoxicity on Kentucky bluegrass at any time during the study. First evaluations of percentage weed control were made on 6 May. At that time, all treatments significantly reduced broadleaf weed numbers (Table 1). Significant broadleaf reduction was also observed on 20 May, 3 June, and 17 June, although control was less than expected. By 15 July, there were no significant reductions from the control. Final percentages of crabgrass, white clover, and dandelion were made on 31 July, 2006. At that time, there were no significant reductions in these weeds by any of the treatments.

The summer of 2006 was dry and hot during the months of June and July and weed broadleaf weed control in this study and in other broadleaf studies at the Iowa State University turfgrass research facility were generally quite poor.

**Table 1.** Treatments, percentage weed control, and final weed percentages for the mesotrione 4SC plus Barricade (prodiamine) premix for broadleaf weed control study in northern turf, HMS800D.

Treatments				Percentage Broadleaf Weed Control					Final Weed percentages 31 Jul		
Trt	Product/Treatment name	Application Timing	Rate ai/acre	6 May	20 May	3 Jun	17 Jun	15 Jul	Crab	Clover	Dandelion
1	Control	****	****	0.0	0.0	0.0	0.0	0.0	18.3	30.0	10.0
2	Mesotrione	Preemergence	0.187 lb	62.5	80.0	68.8	68.8	52.5	35.8	25.0	3.8
3	Mesotrione	Preemergence	0.25 lb	67.5	80.0	69.8	62.0	51.3	27.5	24.3	6.3
4	2,4-D Amine 3.8 SL	Preemergence	1.05 pt	40.0	42.5	62.5	56.3	51.3	18.8	23.8	7.5
5	Mesotrione Barricade 4FL	Preemergence Preemergence	0.187 lb 0.65 lb	53.8	68.8	67.3	62.3	43.8	0.5	26.5	10.0
6	Mesotrione/Barricade Mix	Preemergence	0.775 lb	61.3	66.3	52.5	38.8	31.5	0.3	35.0	7.8
7	Mesotrione/Barricade Mix	Preemergence	0.9 lb	63.8	81.3	74.8	61.0	39.5	0.3	45.3	8.8
8	2,4-D Amine 3.8 SL	Early Post 3-4 WAIT	1.05 pt	6.5	6.5	28.8	28.8	20.5	5.0	42.5	15.0
9	Mesotrione Barricade 4FL Mesotrione Barricade 4FL	Preemergence Preemergence Early Post 3-4 WAIT Early Post 3-4 WAIT	0.094 lb 0.38 lb 0.094 lb 0.38 lb	60.0	65.0	87.5	55.0	43.8	0.0	35.0	12.5
10	Mesotrione/Barricade Mix Mesotrione/Barricade Mix	Preemergence Early Post 3-4 WAIT	0.338 lb 0.338 lb	68.8	75.0	88.8	77.5	70.0	0.3	21.8	6.5
11	Mesotrione/Barricade Mix Mesotrione/Barricade Mix	Preemergence Early Post 3-4 WAIT	0.45 lb 0.45 lb	62.5	68.8	88.8	53.8	34.5	0.0	60.0	4.0
12	Mesotrione Mesotrione	Preemergence Early Post 3-4 WAIT	0.187 lb 0.25 lb	71.3	75.0	88.8	65.0	48.8	8.0	47.5	4.0
	<b>LSD 0.05</b>			<b>20.4</b>	<b>20.6</b>	<b>26.2</b>	<b>34.6</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>