

# **Mesotrione 4SC plus Barricade (Prodiamine) Premix for Crabgrass Control in Northern Turf-2006-HMS800C**

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## **Objectives:**

The objectives of this preemergence study were to evaluate which rates provide the best crabgrass control, which timing provides the best crabgrass control, and evaluation of phytotoxicity to turf by treatment combinations.

## **Materials and Methods:**

This study was conducted at the Iowa State University Turfgrass Research Facility on a "Nassau" Kentucky bluegrass. The plot area was seeded with crabgrass 18 April, 2006. The initial treatments were applied 21 April. Plots to be retreated with a second application were treated 1 June (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:**

There was no sign of phytotoxicity to any plots treated. Plots treated with mesotrione as a preemerge at 0.187 and 0.25 lb ai/A provided initial control, but the crabgrass percentage increased by mid July (Table 1). Early postemergence applications of mesotrione at these two rates provided better season-long control of crabgrass. The addition of Barricade with the mesotrione provided the best crabgrass control. Dimension 40WP at 0.5 lbs ai/A provided good crabgrass control both as a preemergence and early postemergence treatment. Data were not taken until 3 June because crabgrass had not emerged to the point where data could be collected.

**Table 1.** Treatment list and percentage crabgrass control for the 2006 mesotrione 4SC plus proflaminate premix for northern turf study, HMS800C.

Treatments				Percentage Weed Control			
Trt	Product/Treatment name	Application Timing	Rate ai/acre	3-Jun	17-Jun	15-Jul	14-Aug
1	Control	****	****	0.0	0.0	0.0	0.0
2	Mesotrione	Preemergence	0.187 lb	82.5	86.3	35.0	42.5
3	Mesotrione	Preemergence	0.25 lb	88.0	76.3	36.3	32.5
4	Dimension 40 WP	Preemergence	0.5 lb	100.0	99.8	95.0	90.5
5	Mesotrione Barricade 4FL	Preemergence Preemergence	0.25 lb 0.75 lb	100.0	100.0	99.8	98.5
6	Mesotrione/Barricade Mix	Preemergence	0.725 lb	100.0	100.0	98.8	96.5
7	Mesotrione/Barricade Mix	Preemergence	0.9 lb	100.0	100.0	99.8	98.5
8	Mesotrione Barricade 4FL	Early Post Early Post	0.25 lb 0.75 lb	97.5	99.5	99.5	99.3
9	Mesotrione	Early Post	0.187 lb	74.3	97.0	92.0	80.0
10	Barricade 4FL	Early Post	0.75 lb	88.8	92.3	92.0	87.5
11	Dimension 40 WP	Early Post	0.5 lb	79.3	92.5	98.8	97.0
12	Mesotrione/Barricade Mix Mesotrione/Barricade Mix	Preemergence Early Post	0.3875 lb 0.3875 lb	96.5	99.3	99.5	98.3
13	Mesotrione/Barricade Mix Mesotrione/Barricade Mix	Preemergence Early Post	0.45 lb 0.45 lb	100.0	100.0	99.5	99.0
14	Mesotrione	Early Post	0.25 lb	82.8	100.0	99.5	94.0
	<b>LSD 0.05</b>			<b>16.8</b>	<b>9.8</b>	<b>18.2</b>	<b>11.8</b>