LT 8

Late-Fall Preemergence and Early Postemergence Control of Crabgrass

Bruce Branham and Ron Calhoun
Department of Crop and Soil Sciences

Weed problems vary with the growing season, reflecting the environmental influence of temperature, moisture, etc. on the competitive capacity of plants. However, crabgrass is a weed that is competitive during most years and thrives under the conditions we've had in 1995. The hot weather, in particular, speeds the growth of crabgrass and makes it even more competitive. The summer of 1995 will go down as one of the hottest summers on record in Michigan and one in which crabgrass was very prevalent.

Controlling crabgrass is one the standards for which a lawn care company is hired. The most common means of controlling crabgrass is to apply a preemergence herbicide in the spring, close to the time of crabgrass germination. However, for many lawn maintenance companies, this application window is the busiest of the year. In addition, cash flow at this time is slow and many companies may have to borrow money to purchase their preemergence herbicide, which is one of their biggest yearly expenses. For these two reasons, some lawn care companies have considered the possibility of using preemergence herbicides in the late fall when their work loads are less than in the spring and cash flow is good.

A trial was established on November 2, 1994 when several rates and formulations of Dimension and Barricade were applied. The treatments were not watered in. Results are shown in table 1 and indicate that while some crabgrass has begun to appear in these plots, most of the herbicides have provided acceptable crabgrass control through the July rating.

Table 1. Late fall applied preemergence herbicides for crabgrass control.

Herbicide	Formulation	Rate (lbs ai/A)	% crabgrass 7/11/95	% crabgrass 8/4/95
Barricade	65 DF	0.65	1 a*	4 a
Barricade	0.287G	0.55	2 a	5 a
Barricade	65 DF	0.5	2 a	8 a
Barricade	0.275G	0.65	3 a	7 a
Dimension	0.164G	0.25	3 a	12 a
Barricade	0.275G	0.51	3 a	7 a
Barricade	0.287G	0.55	3 a	14 a
Dimension	0.164G	0.25	4 a	18 a
Barricade	0.287G	0.55	6 a	14 a
Dimension	.103G	0.25	8 a	36 b
Dimension	1EC	0.25	9 a	35 b
Control			53 b	77 c

* Means followed by the same letter are not statistically different.

When crabgrass pressure is heavy as seen during 1995, postemergence treatments are often needed to control crabgrass and prevent seed production that leads to problems in future years. Currently, our best product for postemergence crabgrass control is Acclaim, but this is one product class that could benefit from new products with greater activity and turf safety. Sulfentrazone is an experimental preemergence broadleaf herbicide with some significant postemergence grass activity as well. This study was initiated in 1995 to determine the effectiveness of sulfentrazone alone and in combination with other postemergence crabgrass herbicides for the control of emerged crabgrass. This trial was initiated on July 18 and so is only 4 weeks old. Ratings shown in table 2 reflect control at 2 WAT, however, examination of the plots should show how those control numbers have changed with 2 more weeks for the herbicides to work. Sulfentrazone at higher rates shows some promise for postemergence crabgrass control and could be effective on winter annual weeds as well.

Table 2. Effectiveness of sulfentrazone alone and in combination with other herbicides for crabgrass control.

Herbicide	Formulation	Rate (lbs ai/A)	% crabgrass 8/1/95
Sulfentrazone	80WP	0.125	8 a
Sulfentrazone + Acclaim	80WP+ 1EC	0.031+0.125	10 a
Acclaim	1EC	0.125	11 ab
Sulfentrazone + Acclaim	80WP+ 1EC	0.062+0.125	11 ab
Acclaim	1EC	0.18	12 ab
Sulfentrazone + Dimension	80WP+ 1EC	0.031+0.25	15 ab
Acclaim + Acclaim*	1EC	0.18 + 0.25	16 ab
Sulfentrazone + Dimension	80WP+ 1EC	0.125+0.25	16 ab
Sulfentrazone + Acclaim	80WP+ 1EC	0.125+0.125	26 abc
Sulfentrazone + Dimension	80WP+ 1EC	0.062+0.25	27 abcd
Sulfentrazone	80WP	0.062	30 abcd
Dimension	1EC	0.125	30 abcd
Dimension	1EC	0.5	37 abcd
Sulfentrazone	80WP	0.031	41 bcd
Control			53 cd
Control			57 d