

PRE AND POSTEMERGENCE CONTROL OF CRABGRASS

Bruce E. Branham

This summer has been an excellent year for crabgrass in Michigan. Heavy infestations of crabgrass have been reported throughout the state.

A study was begun in early May at the Hancock Research Center to test some experimental materials as well as commonly used materials for preemergent crabgrass control (Table 8). DCPA performed very well this season with most DCPA treated plots showing little, if any, crabgrass. Bensulide also showed excellent crabgrass control. Sprayable Balan, formulated as a pellet which releases the herbicide in water, also performed well. Other materials in the study were experimental compounds being tested by The Andersons Co. It is interesting to note that the granular formulations of Ando-A and Ando-B performed better than the sprayable formulations. These results are contrary to previous experience with other preemergent herbicides.

The results of the postemergence crabgrass trial (Table 9) are quite interesting. This experiment is a continuation of a study begun last year by Dr. Michael Barrett, presently at the University of Kentucky. Several experimental and recently marketed herbicides, primarily used in field crops, were tested for their postemergence activity against crabgrass. Presently, the only effective postemergence herbicide against crabgrass is methanearsonate which requires two applications and usually discolors the turf. Several of these new compounds exhibit good selectivity against crabgrass with little or no injury to the mixed fine fescue-annual bluegrass turf. The most promising chemicals are Poast, Dowco 453 and CGA 82725. Of these, Poast is presently labeled for use in soybeans and is manufactured by BASF. The other two compounds, DOWCO 453 and CGA 82725, are in the final testing stage of development, but are at least two years away from the marketplace.

Table 8. Preemergence crabgrass control 1983

Date Begun: 5-4-83

Date Evaluated: 8-9-83

Crabgrass Density: .1% to 100% (.1% = No Crabgrass)

Relative Rank	Treatment Name	Lowest Rating Indicates Least Amount of Crabgrass
1	DCPA 6F 10.5 lbs. ai/a	.1 a
2	DCPA W-75 10.5 lbs. ai/a + 7.5 lbs. ai/a	.7 ab
3	DCPA 6F 10.5 lbs. ai/a	1.7 ab
4	Bensulide 10.0 lbs. ai/a	2.4 abc
5	DCPA W-75 10.5 lbs. ai/a	4.0 abc
6	Gran. Fert. + 0.92% Ando-A (wet)	11.7 abcd
7	Gran. Fert. + Balan 1.6 lbs. ai/a	11.7 abcd
8	Gran. Fert. + 1.38% Ando-B (dry)	13.3 abcd
9	Gran. Fert. + Balan 2.0 lbs. ai/a	15.0 abcd
10	Sprayable Balan 2.0 lbs ai/a	15.0 abcd
11	Gran. Fert. + 0.69% Ando-A (wet)	16.7 abcde
12	Gran. Fert. + 0.92% Ando-B (wet)	16.7 abcde
13	Gran. Fert. + 1.38% Ando-A (dry)	18.3 abcdef
14	Gran. Fert. + 1.38% Ando-A (wet)	18.3 abcdef
15	Gran. Fert. + 0.92% Ando-A (dry)	20.0 abcdef
16	Gran. Fert. + 0.69% Ando-A (dry)	21.7 abcdef
17	Gran. Fert. + 1.38% Ando-B (wet)	21.7 abcdef
18	Gran. Fert. + 0.46% Ando-A (wet)	25.0 abcdefg
19	Gran. Fert. + Bensul 10.0 lbs. ai/a	25.0 bcdefg
20	Gran. Fert. + 0.46% Ando-A (dry)	26.7 cdefg
21	Gran. Fert. + 0.92% Ando-B (dry)	35.0 defgh
22	Sprayable Ando-A 2.0 lbs. ai/a	35.0 defgh
23	Sprayable Ando-A 3.0 lbs. ai/a	40.0 efgh
24	Check	41.7 fgh
25	Sprayable Ando-B 2.0 lbs. ai/a	41.7 fgh
26	Sprayable Ando-B 3.0 lbs. ai/a	48.3 gh
27	Sprayable Ando-A 1.5 lbs. ai/a	51.7 h
28	Sprayable Ando-A 1.0 lbs. ai/a	56.7 h

% = 1 S.E. = 7.1 F = 4.95

Treatments having the same letter are not significantly different. Means separation by Duncan's Multiple Range Test (5%). Standard error = 7.1.

Table 9. Postemergence crabgrass control

Date Begun: 8-2-83
 Date Evaluated: 8-19-83

Relative Rank	Treatment Name	Highest Average Indicates Most Severe Injury to Crabgrass
1	Poast + OC (crop oil conc.) 0.2 lb/a	9.0 a
2	Dowco 453 + OC 0.2 lb/a	8.8 a
3	Dowco 453 + OC 0.2 + 0.1 lb/a	8.7 a
4	CGA 82725 + OC 0.5 + .25 lb/a	8.7 a
5	Poast + OC 0.2 + 0.1 lb/a	8.2 ab
6	Poast + OC 0.15 lb/a	7.0 bc
7	CGA 82725 + OC .25 lb/a	6.8 bcd
8	Dowco 453 + OC 0.1 lb/a	6.7 bcd
9	CGA 82725 + OC .5 lb/a	6.7 bcd
10	AMA 2APP	6.5 cd
11	Dowco 453 + OC .05 lb/a	6.3 cde
12	CGA 82725 + OC .15 lb/a	6.3 cde
13	Hoelon 3.0 + 1.5 lb/a	5.5 cde
14	Fusilade + OC 0.2 + 0.1 lb/a	5.2 de
15	Poast 0.1 lb/a	4.8 ef
16	Fusilade + OC 0.2 lb/a	3.5 fg
17	Hoelon 2.0 lb/a	2.7 gh
18	Fusilade + OC 0.15 lb/a	2.5 gh
19	Hoelon 1.0 lb/a	2.3 gh
20	Hoelon 3.0 lb/a	2.3 gh
21	Fusilade + OC 0.1 lb/a	2.3 gh
22	AMA 1APP	2.2 gh
23	Check	1.2 h
24	Check	1.0 h

% = 1 S.E. = .5 F = 23.3

Treatments having the same letter are not significantly different. Means separation by Duncan's Multiple Range Test (5%). Standard error = .5.