

News Briefs

University of Maryland study

Pre-emergent herbicides work the following summer

When pre-emergent herbicides were applied in November some showed excellent crabgrass prevention 10 months later. In an effort to widen the window of effective application times, testing at the University of Maryland found that when single applications of the pre-emergent herbicides, Pendimethalin, Prodiamine, and Dithiopyr were made late in the fall at sufficiently high rates, they provided smooth crabgrass control that ranged from 77% to 100% the following summer. The data in the table below shows a summary of the Maryland tests.

Pre-emergent herbicides effects on crabgrass

Herbicide	Form	Rate*	Rank	Average % Controlled
Pendimethalin	60.00DG	1.68	12	3.5
Pendimethalin	60.00DG	2.24	11	31.5
Pendimethalin	60.00DG	3.36	9	65.5
Prodiamine	65.00DG	0.43	6	82.0
Prodiamine	65.00DG	0.56	2	93.5
Prodiamine	65.00DG	0.73	4	89.5
Dithiopyr	1.00EC	0.43	8	67.0
Dithiopyr	1.00EC	0.56	5	88.5
Dithiopyr	1.00EC	0.84	1	97.0
Dithiopyr	.25G	0.28	7	69.0
Dithiopyr	.25G	0.43	3	91.5
Oxadiazon	2.00G	4.48	10	37.5
Untreated Check	13.00			0.0

* kilogram/hectare

TGT's view: The older established spring-applied herbicide, Oxadiazon, did not provide acceptable crabgrass control when applied in the late fall, and Pendimethalin only when applied at very high rates. The newer materials, Prodiamine and Dithiopyr, provided good to excellent control at all but the lowest rates. Dithiopyr in the .25% granular formulation showed excellent control at substantially lower rates than the 1EC formulation, indicating that this herbicide is particularly effective on a granular carrier and that the liquid application may require watering in to reach its full effectiveness. —CS

California study

Oxadiazon enhances buffalo grass establishment

Buffalo grass is an increasingly important alternative species in drought prone areas. But it is slow to establish when plugged because of competition on from annual weeds. A California study of buffalo grass and pre-emergent herbicides showed Oxadiazon as the herbicide that provided the best annual weed suppression while allowing for the greatest lateral growth of the species. The table below lists some of the results of this study.

Pre-emergent herbicides and buffalo grass establishment

Herbicide	Rate	Rank	Buffalo grass cover	Weed Cover
control	—	—	16%*	44%**
Oxadiazon (50WP)	0.71*	1	89%	0%
DCPA (75WP)	3.60	2	58%	14%
Pendimethalin (60WDG)	1.10	3	44%	4%
Trifluralin (4E)	0.20	4	37%	22%
Benefin (60WDG)	0.71	5	36%	25%
Dithiopyr (1EC)	0.20	6	21%	16%
Bensulide (4EC)	3.60	7	15%	37%

* ounces per 1,000 square feet

** average % buffalo grass cover

*** - average % weed cover

TGT's views: The good-to-excellent weed prevention that DCPA, Pendimethalin, and Dithiopyr provided did not translate into good buffalo grass cover. Oxadiazon was the only material to gave both excellent weed prevention with low toxicity, the problem with all of the other herbicides checked. —CS