

Fluroxypyr/Triclopyr as a Confront Replacement

Zac Reicher and Dan Weisenberger

Background/Objective:

Can the same levels of efficacy be obtained from Bastion, Garlon EV and Garlon GS as compared to Confront?

Site Information

Location:	William H. Daniel Research and Diagnostic Center, W. Lafayette, IN.
Soil Type:	Starks-Fincastle silt loam
Soil pH:	7.2
Soil Organic Matter (%):	NA
Turfgrass Species:	Kentucky bluegrass
Turf Condition:	Good
Turf Management: Mowing Height cm (in):	6.35 (2.5)
Fertilization:	1 lb N/M/YR
Irrigation:	To prevent moisture stress
Testing on Site Previous Year:	None
Target Pest:	Various Broadleaves
Growth Stage:	Actively growing

Application Information

Application Date:	31 May
Application Time:	7:30 AM
Air Temperature C⁰(F⁰):	24.5 (76)
Relative Humidity(%):	74
Wind Speed m s⁻¹ (mph):	3.6 (8)
Soil Temperature(7.6 cm depth) C⁰(F⁰):	20.6 (69)
Soil Moisture:	Moist
Spray Volume L ha⁻¹ (gal 1000 ft⁻²):	407 (1)
Spray Pressure:	35psi
Spray Nozzle:	8001.5
Spray Equipment:	CO ₂ backpack
Irrigation After Application:	None
Experimental Design:	Randomized complete block
Replications:	3
Plot Size m (ft):	1.5 X 3 (5 X 10)

Results

- None of the treatments caused noticeable phytotoxicity at any time during the study (Table 1).
- Confront at 2 pt/A, Bastion at 2.5 and 3.5 pts/A, and Trimec Classic provided the best control of dandelion by the end of the study. Almost all treatments reduced dandelion cover immediately after application except Garlon EV 1.33EW at 3.0 pts/A and all three Garlon EV 0.57G after treatments. However, this control was apparently only short-term burn-down because dandelions regrew in almost all of the treated plots by 9 Aug.
- All products, almost regardless of rate, provided adequate clover control except Garlon EV 0.57G and Garlon EV 1.33EW at 3.0 pts/A.
- It appears that Bastion is an adequate replacement for Confront, Garlon EV+EW have the potential to be an adequate replacement if used at higher rates.

Table 1. Phytotoxicity to Kentucky bluegrass and percent cover of dandelion and clover.

Treatment	Rate of application	Phytotoxicity ^a		% Dandelions ^b				% Clover ^c			
		June 7	June 14	June 20	July 2	July 26	Aug 9	June 20	July 2	July 26	Aug 9
	Pints/Acre										
Garlon EV 1.33EW (EF-1518)	3.0	9	9	15.0	16.7	28.3	25.0	0.7	2.0	3.7	3.3
Garlon EV 1.33EW (EF-1518)	4.5	9	9	2.7	3.3	13.3	13.3	0.7	0.3	0.3	0.0
Garlon EV 1.33EW (EF-1518)	6.0	9	9	6.7	4.3	16.7	16.7	0.3	0.0	0.0	0.0
Bastion T 3.5EW (EF-1063)	3.5	9	9	2.3	3.3	10.0	10.0	0.3	0.0	0.7	0.3
Bastion T 3.5EW (EF-1063)	3.0	9	9	2.3	3.3	13.3	15.0	0.3	0.0	0.0	0.3
Bastion T 3.5EW (EF-1063)	2.5	9	9	2.3	3.3	13.3	11.7	1.3	0.0	0.7	0.7
Garlon EV 0.57G (GF-946)	88 ^d	9	9	10.0	10.0	18.3	15.0	6.7	8.3	9.3	4.0
Garlon EV 0.57G (GF-946)	131 ^d	9	9	14.0	15.0	30.0	26.7	3.7	6.0	6.0	5.0
Garlon EV 0.57G (GF-946)	175 ^d	9	9	21.7	18.3	35.0	31.7	5.0	5.0	5.7	5.7
Confront	1	9	9	4.0	6.7	16.7	18.3	1.3	0.7	0.0	0.3
Confront	2	9	9	2.7	1.7	5.0	10.0	0.0	0.0	0.0	0.0
Lebanon Turf Herbicide 0.68G	157 ^d	9	9	9.7	13.3	21.7	25.0	1.7	0.3	1.3	0.0
Trimec Classic 3.32EC	4	9	9	7.3	2.0	11.7	11.7	0.3	0.3	1.7	0.7
Check		9	9	26.7	31.7	36.7	38.3	12.7	16.7	20.0	12.0
LSD (0.05)		NS	NS	11.1	10.3	14.2	14.0	4.7	5.2	6.8	5.0

^a Rated on a scale of 9 to 1 where 9=no phytotoxicity, 7=acceptable, and 1=dead

^b Percent cover of dandelion.

^c Percent cover of clover.

^d Application rate was pounds product per acre.