

Steadfast and Option Comparison.

02-11B-W40

OBJECTIVE: Compare efficacy and crop safety of Steadfast and Option.

SUMMARY: The purpose of this study was to compare weed control from the postemergence corn herbicides Steadfast and Option when applied alone and with other corn herbicides. Steadfast and Option alone provided similar giant foxtail control (90-92%) at 14 days after treatment (DAT). Tankmixing Aatrex with either herbicide increased giant foxtail control to at least 96%. Common cocklebur, velvetleaf, and morningglory species control 14 DAT was similar from Steadfast and Option alone. However, common ragweed control was greater with Option compared to Steadfast. Waterhemp control was poor with both herbicides but slightly greater with Steadfast compared to Option. Tank mixing Aatrex with Steadfast and Option increased control of common cocklebur, waterhemp and velvetleaf. Common ragweed control with Steadfast was increased by at least 22% with the addition of Aatrex. In general, weed control was fairly similar between Option and Steadfast with the exception of common ragweed.

HERBICIDES

AATREX 90 WG
BALANCE PRO 4 SC
CALLISTO 4 SC
LEADOFF 5 L
OPTION 35 WG
STEADFAST 75 WG

WEEDS

cocklebur, common
foxtail, giant
morningglory, ivyleaf
morningglory, pitted
morningglory, species
ragweed, common
velvetleaf
waterhemp, common

CROP

corn, field

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PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Weed 4 Code:	AMBEL
Stage(leaves):	0-6
Height(inches):	2-6
Density:	Low
Weed 5 Code:	ABUTH
Stage(leaves):	2-5
Height(inches):	0-3
Density:	Medium
Weed 6 Code:	IPOSS
Stage(leaves):	2-4
Height(inches):	0-3
Density:	Low

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8003	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA

NOTES:

This study was not harvested.

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Project Code: 02-11B-W40 Location: Belleville Research Center

Weed Code								SETFA		XANST		AMATA		AMBEL		ABUTH		IPOSS		IPOSS				
Crop Code								ZEAMX		ZEAMX		ZEAMX												
Rating Data Type								Injury		Injury		Injury		Control		Control		Control		Control				
Rating Unit								Percent		Percent		Percent		Percent		Percent		Percent		Percent				
Rating Date								6-21-02		6-28-02		7-12-02		6-28-02		7-12-02		6-28-02		7-12-02				
Trt-Eval Interval								7 DA-B		14 DA-B		28 DA-B		14 DA-B		28 DA-B		14 DA-B		28 DA-B				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code															
1	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	1-3"W	B	0	0	0	92	83	65	57	37	53	77	57	77	43	84	63
1	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
1	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
2	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	1-3"W	B	0	0	0	96	86	88	82	89	68	99	88	90	58	83	65
2	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	1-3"W	B															
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
2	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
3	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	1-3"W	B	2	0	0	93	87	91	77	96	80	99	96	88	57	94	93
3	CALLISTO	4	SC	0.0469	LB A/A	1.5	OZ/A	1-3"W	B															
3	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	1-3"W	B															
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
3	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
4	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"W	B	0	0	0	90	91	72	65	17	0	99	93	78	57	75	66
4	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
4	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
5	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"W	B	0	0	0	97	95	92	85	90	78	96	95	98	86	92	94
5	AATREX	90	WG	1.0	LB A/A	17.8	OZ/A	1-3"W	B															
5	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
5	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
6	LEADOFF	5	L	0.94	LB A/A	24	OZ/A	PRE	A	0	0	0	98	96	98	92	99	98	99	99	99	98	96	85
6	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	1-3"W	B															
6	CALLISTO	4	SC	0.0469	LB A/A	1.5	OZ/A	1-3"W	B															
6	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	1-3"W	B															
6	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
6	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
7	BALANCE PRO	4	SC	0.0469	LB A/A	1.5	OZ/A	PRE	A	1	0	0	95	95	94	87	99	96	99	99	98	99	92	86
7	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"W	B															
7	AATREX	90	WG	1.0	LB A/A	17.8	OZ/A	1-3"W	B															
7	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	1-3"W	B															
7	AMS	100	DRY	2.0	LB/A	2	LB/A	1-3"W	B															
8	NONTREATED									0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LSD (P=.05)										1.9	0.0	0.0	4.0	6.5	14.4	10.7	18.1	14.5	4.5	7.1	9.2	14.8	7.9	17.3

Weed Code	ZEAMX			SETFA	SETFA	XANST	XANST	AMATA	AMATA	AMBEL	AMBEL	ABUTH	ABUTH	IPOSS	IPOSS
Crop Code	Injury	Injury	Injury	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-21-02	6-28-02	7-12-02	6-28-02	7-12-02	6-28-02	7-12-02	6-28-02	7-12-02	6-28-02	7-12-02	6-28-02	7-12-02	6-28-02	7-12-02
Rating Date	7 DA-B	14 DA-B	28 DA-B	14 DA-B	28 DA-B	14 DA-B	28 DA-B	14 DA-B	28 DA-B	14 DA-B	28 DA-B	14 DA-B	28 DA-B	14 DA-B	28 DA-B
Trt-Eval Interval															

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Rate	Prod Unit	Grow Stg	Appl Code												
Replicate F				2.154	0.000	0.000			4.084	2.002	2.222	0.197	1.153	4.049	2.325	0.157	0.330	1.535	0.539	6.888
Replicate Prob(F)				0.1529	1.0000	1.0000			0.0401	0.1719	0.1452	0.8236	0.3439	0.0410	0.1343	0.8563	0.7246	0.2497	0.5967	0.0083
Treatment F				1.000	0.000	0.000			650.153	225.101	46.812	71.952	47.485	67.278	554.833	220.886	117.868	45.018	156.599	28.939
Treatment Prob(F)				0.4706	1.0000	1.0000			0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Location: Belleville Research Center

Trial Comments

1. Protocol: DuPont.
2. DA-B = days after 1-3"W application.
3. 14 and 28 DA-B was also 27 and 41 days after PRE application, respectively.
4. IPOSS = morningglory species including pitted and ivyleaf morningglory.