

Cinch and Cinch ATZ Postemergence Timings.

Project Code: 03-50E-MN130 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 9-3-03

Objective:

Evaluate the impact of application timing on efficacy and crop safety of Cinch / Cinch ATZ tank-mixes with Steadfast.

Weed Code	Common Name	Scientific Name
1. AMBTR	ragweed, giant	Ambrosia trifida L.
2. AMATA	waterhemp, common	Amaranthus rudis Sauer
3. SETFA	foxtail, giant	Setaria faberi Herrm.

Crop 1:	ZEAMX corn, field	Variety:	Pioneer 33P69LL
Planting Method:	Seeded	Planting Date:	6-19-03
Rate:	28000 S/A	Depth:	1.5 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	27 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	GLXMA, 2002				

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 200 LB/A

Soil Name:	Weir	% OM:	1.4	pH:	6.9	CEC:	12
Texture:	Silt loam	Fert. Level:	P1: 83 LB/A, K: 181 LB/A				

APPLICATION DESCRIPTION

	A	B
Application Date:	6-25-03	7-3-03
Time of Day:	9:00	9:00
Application Method:	Spray	Spray
Application Timing:	3-5"CN	10-12"CN
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	76 F	80 F
% Relative Humidity:	72	74
Wind Velocity, Unit:	3 MPH	3 MPH
Soil Moisture:	NORMAL	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX VE-V3	ZEAMX V3-V5
Height, Unit:	1-6 IN	5-10 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code:	AMBTR	AMBTR
Stage(leaves):	2-8	4-12
Height(inches):	3-6	4-12
Density:	High	High
Weed 2 Code:	AMATA	AMATA
Stage(leaves):	1-4	4-12
Height(inches):	1-2	4-8
Density:	High	High

APPLICATION EQUIPMENT

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

NOTES:
Not harvested.

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Weed Code									SETFA	SETFA	SETFA	AMBTR	AMBTR	AMBTR	AMATA	AMATA	AMATA	
Crop Code									ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Rating Data Type									Injury	Injury	Injury	Injury	Control	Control	Control	Control	Control	
Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Rating Date																		
Trt-Eval Interval									7 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	7 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT			
1	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	0	0	0	0	98	99	99	48	23	17	47	37	27
1	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
1	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
2	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	0	0	0	0	98	98	98	53	37	30	43	27	17
2	CINCH	7.64	EC	0.64	LB A/A	0.67	PT/A	3-5"CN	A													
2	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
2	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
3	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	2	0	0	0	96	99	99	73	57	48	70	43	33
3	CINCH	7.64	EC	1.05	LB A/A	1.1	PT/A	3-5"CN	A													
3	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
3	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
4	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	2	0	0	0	97	98	98	92	94	91	83	77	73
4	CINCH ATZ	5.5	L	1.03	LB A/A	1.5	PT/A	3-5"CN	A													
4	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
5	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	3	2	0	0	99	99	98	99	99	99	98	98	96
5	CINCH ATZ	5.5	L	1.92	LB A/A	2.8	PT/A	3-5"CN	A													
5	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
6	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	0	0	0	0	99	99	99	98	98	98	98	99	99
6	CINCH	7.64	EC	0.64	LB A/A	0.67	PT/A	3-5"CN	A													
6	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	3-5"CN	A													
6	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
6	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
7	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	0	0	0	0	99	99	98	97	97	96	99	98	98
7	CINCH	7.64	EC	1.05	LB A/A	1.1	PT/A	3-5"CN	A													
7	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	3-5"CN	A													
7	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
7	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													
8	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	1	0	0	0	97	98	97	99	99	99	99	99	99
8	CINCH	7.64	EC	1.05	LB A/A	1.1	PT/A	3-5"CN	A													
8	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	3-5"CN	A													
8	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-5"CN	A													
8	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A													
8	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A													

Weed Code										SETFA	SETFA	SETFA	AMBTR	AMBTR	AMBTR	AMATA	AMATA	AMATA	
Crop Code										ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Rating Data Type										Injury	Injury	Injury	Injury	Control	Control	Control	Control	Control	
Rating Unit										Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Rating Date																			
Trt-Eval Interval										7 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	7 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	
9	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	2	0	0	0	99	99	99	99	99	99	99
9	CINCH ATZ	5.5	L	1.03	LB A/A	1.5	PT/A	3-5"CN	A											
9	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	3-5"CN	A											
9	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A											
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A											
10	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	3	2	0	0	98	98	97	99	99	99	99
10	CINCH ATZ	5.5	L	1.92	LB A/A	2.8	PT/A	3-5"CN	A											
10	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	3-5"CN	A											
10	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A											
10	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	3-5"CN	A											
11	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	3-5"CN	A	0	0	0	0	99	98	97	99	99	98	99
11	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	3-5"CN	A											
11	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-5"CN	A											
11	AMS	100	DRY	2.0	LB/A	2	LB/A	3-5"CN	A											
11	PRIME OIL COC	100	LIQ	1	PT/A	1	PT/A	3-5"CN	A											
12	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	0	0	0	0	72	90	86	37	33	27	45
12	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B											
12	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B											
13	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	1	1	0	0	77	88	82	40	33	23	50
13	CINCH	7.64	EC	0.64	LB A/A	0.67	PT/A	10-12"CN	B											
13	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B											
13	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B											
14	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	2	2	0	0	83	96	93	37	37	27	47
14	CINCH	7.64	EC	1.05	LB A/A	1.1	PT/A	10-12"CN	B											
14	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B											
14	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B											
15	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	2	3	0	0	85	95	90	77	73	67	82
15	CINCH ATZ	5.5	L	1.03	LB A/A	1.5	PT/A	10-12"CN	B											
15	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B											
15	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B											
16	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	9	6	0	0	90	95	93	94	95	91	88
16	CINCH ATZ	5.5	L	1.92	LB A/A	2.8	PT/A	10-12"CN	B											
16	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B											
16	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B											
17	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	3	3	0	0	86	98	96	94	96	93	82
17	CINCH	7.64	EC	0.64	LB A/A	0.67	PT/A	10-12"CN	B											
17	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	10-12"CN	B											
17	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B											
17	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B											

Weed Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	SETFA	SETFA	SETFA	AMBTR	AMBTR	AMBTR	AMATA	AMATA	AMATA
Crop Code	Injury	Injury	Injury	Injury	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
Rating Unit	7 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT
Rating Date													
Trt-Eval Interval													

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	7 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT			
18	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	3	3	0	0	88	96	95	96	98	98	91	88	85
18	CINCH	7.64	EC	1.05	LB A/A	1.1	PT/A	10-12"CN	B													
18	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	10-12"CN	B													
18	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B													
18	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B													
19	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	3	5	0	0	89	96	93	99	99	99	99	99	99
19	CINCH	7.64	EC	1.05	LB A/A	1.1	PT/A	10-12"CN	B													
19	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	10-12"CN	B													
19	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	10-12"CN	B													
19	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B													
19	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B													
20	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	4	5	0	0	88	97	93	99	99	99	99	99	99
20	CINCH ATZ	5.5	L	1.03	LB A/A	1.5	PT/A	10-12"CN	B													
20	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	10-12"CN	B													
20	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B													
20	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B													
21	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	6	4	0	0	83	92	89	99	99	99	99	99	99
21	CINCH ATZ	5.5	L	1.92	LB A/A	2.8	PT/A	10-12"CN	B													
21	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	10-12"CN	B													
21	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B													
21	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	10-12"CN	B													
22	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	10-12"CN	B	1	2	0	0	82	93	90	99	99	99	99	98	98
22	CALLISTO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	10-12"CN	B													
22	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	10-12"CN	B													
22	AMS	100	DRY	2.0	LB/A	2	LB/A	10-12"CN	B													
22	PRIME OIL COC	100	LIQ	1	PT/A	1	PT/A	10-12"CN	B													
23	NONTREATED									0	0	0	0	0	0	0	0	0	0	0	0	0
24	TREATMENT # 701							3-5"CN	A	0	0	0	0	90	96	94	90	88	83	99	99	99
25	TREATMENT # 702							10-12"CN	B	3	3	0	0	78	96	94	99	99	99	89	89	85
	LSD (P=.05)									4.3	2.9	0.0	0.0	5.3	4.4	6.5	9.8	9.9	10.3	11.1	13.6	16.2
	Replicate F									8.952	5.994	0.000	0.000	5.336	5.954	7.222	0.436	0.592	0.066	2.504	2.799	2.206
	Replicate Prob(F)									0.0005	0.0047	1.0000	1.0000	0.0081	0.0049	0.0018	0.6491	0.5570	0.9361	0.0924	0.0708	0.1212
	Treatment F									2.068	3.584	0.000	0.000	112.590	157.823	71.701	65.694	81.874	87.722	46.044	37.799	32.302
	Treatment Prob(F)									0.0161	0.0001	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Trial Comments

1. Protocol: DuPont.
2. Ratings: CI 7, 14 and 28 DAT; WC 14, 28 and 56 DAT.
3. DAT = days after treatment.
 - 7 days after 3-5"CN and 10-12"CN was on 7-2-03 and 7-10-03, respectively.
 - 14 days after 3-5"CN and 10-12"CN was on 7-9-03 and 7-17-03, respectively.
 - 28 days after 3-5"CN and 10-12"CN was on 7-23-03 and 7-31-03, respectively.
 - 56 days after 3-5"CN and 10-12"CN was on 8-20-03 and 8-29-03, respectively.