

Ignite Application Methods.

Trial ID: 09-HRC-WU12-IgApplic Location: Horticulture Res. Ctr.

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 07-23-09

Objectives: Evaluate application methods for optimal activity with Ignite.

Crop 1: YACKR Arable land Variety: NON-CROP

Pest 1 Type: W Code: IPOSS morningglory, species
 Pest 2 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 50 FT Tillage Type: REDUCED-TILL
 Replications: 3 Study Design: Factorial

Prior Crops, Year
 1. ZEAMD 2008

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

% OM: 2.8 Texture: SILT LOAM
 pH: 6.7
 CEC: 10 Fert. Level: P1: 92 LB/A, K: 334 LB/A

Application Description

A

Application Date: 07-23-09
 Time of Day: 17:00
 Application Method: Spray
 Application Timing: 6"W
 Application Placement: BROFOL
 Applied By: DT JK
 Air Temperature, Unit: 90 F
 % Relative Humidity: 56
 Wind Velocity, Unit: 1 MPH
 Wind Direction: W
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 82 F
 Soil Moisture: NORMAL
 % Cloud Cover: 20

Crop stage at application: 07-23-09
 NA

Pest Stage At Each Application

Application Date: 07-23-09
 Weed Code: IPOSS
 Stage Majority (leaves): 5
 Stage Min, Max: 2 7
 Height Majority: 5 IN
 Height Min, Max: 3 8
 Density, Unit: 4 FT2
 Weed Code: AMATA
 Stage Majority (leaves): 5
 Stage Min, Max: 3 7
 Height Majority: 5 IN
 Height Min, Max: 4 8
 Density, Unit: 2 FT2

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: See
 Nozzle Size: comments
 Boom Length, Unit: 6.67 FT

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Crop Code				
Rating Date	08-06-09	08-20-09	08-06-09	08-20-09
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	14 DA-A	28 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	XR11003 at 10 GPA and 7 MPH									91	a-h	82	d-i
1	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			77	gh
2	XR11003 at 10 GPA and 7 MPH									90	a-i	87	a-f
2	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	a-d
2	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			82	a-g
3	XR11003 at 10 GPA and 7 MPH									89	c-j	85	b-f
3	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	abc
3	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			81	a-g
4	XR11003 at 10 GPA and 7 MPH									90	a-i	90	a-d
4	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	abc
4	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			84	a-f
4	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
5	XR11003 at 10 GPA and 7 MPH									87	e-l	80	e-i
5	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			90	a-d
5	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			85	a-e
5	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
5	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
6	XR11004 at 10 GPA and 10 MPH									96	a	91	a-d
6	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			89	a-d
7	XR11004 at 10 GPA and 10 MPH									91	a-h	88	a-e
7	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			89	a-d
7	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			77	d-h
8	XR11004 at 10 GPA and 10 MPH									95	ab	93	ab
8	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			93	ab
8	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			89	a
9	XR11004 at 10 GPA and 10 MPH									89	c-k	83	d-h
9	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	abc
9	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			87	abc
9	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
10	XR11004 at 10 GPA and 10 MPH									85	h-n	80	e-i
10	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			87	b-f
10	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			82	a-g
10	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
10	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
11	AIXR110015 at 10 GPA and 3.5 MPH									83	j-o	74	h-k
11	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			82	efg
12	AIXR110015 at 10 GPA and 3.5 MPH									87	d-l	90	a-d
12	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			90	a-d
12	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			81	a-g
13	AIXR110015 at 10 GPA and 3.5 MPH									83	k-p	78	f-i
13	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			86	c-f
13	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			80	a-g
14	AIXR110015 at 10 GPA and 3.5 MPH									87	e-l	82	d-i
14	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			88	a-e
14	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			81	a-g
14	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
15	AIXR110015 at 10 GPA and 3.5 MPH									78	op	66	kl
15	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			82	efg
15	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			72	g-j
15	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
15	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
16	AIXR11003 at 10 GPA and 7.5 MPH									92	a-f	84	b-f
16	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			86	c-f
												86	a-d

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Crop Code				
Rating Date	08-06-09	08-20-09	08-06-09	08-20-09
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	14 DA-A	28 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
17	AIXR11003 at 10 GPA and 7.5 MPH									94	abc	85	b-f
17	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			93	ab
17	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			88	ab
18	AIXR11003 at 10 GPA and 7.5 MPH									93	a-d	83	d-h
18	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			85	def
18	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			77	e-h
19	AIXR11003 at 10 GPA and 7.5 MPH									91	a-h	85	b-f
19	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			93	abc
19	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			81	a-g
19	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
20	AIXR11003 at 10 GPA and 7.5 MPH									85	g-m	83	d-h
20	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	a-d
20	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			83	a-f
20	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
20	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
21	XR11003 at 15 GPA and 5 MPH									90	b-i	81	e-i
21	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			88	a-e
22	XR11003 at 15 GPA and 5 MPH									91	a-g	88	a-e
22	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	a-d
22	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			79	b-h
23	XR11003 at 15 GPA and 5 MPH									93	a-e	88	a-e
23	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			93	abc
23	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			81	a-g
24	XR11003 at 15 GPA and 5 MPH									94	abc	93	abc
24	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			91	a-d
24	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			85	a-e
24	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
25	XR11003 at 15 GPA and 5 MPH									88	c-l	81	e-i
25	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			85	def
25	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			75	f-i
25	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
25	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
26	XR11004 at 15 GPA and 7 MPH									90	b-i	73	ijk
26	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			89	a-d
27	XR11004 at 15 GPA and 7 MPH									91	a-h	90	a-d
27	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			95	a
27	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			88	abc
28	XR11004 at 15 GPA and 7 MPH									92	a-f	88	a-e
28	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			94	a
28	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			84	a-f
29	XR11004 at 15 GPA and 7 MPH									96	ab	95	a
29	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	a-d
29	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			82	a-g
29	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
30	XR11004 at 15 GPA and 7 MPH									80	m-p	74	h-k
30	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			91	a-d
30	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			78	c-h
30	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
30	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
31	AIXR110015 at 15 GPA and 2.4 MPH									82	l-p	75	g-j
31	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			92	a-d
32	AIXR110015 at 15 GPA and 2.4 MPH									91	a-g	83	d-h
32	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			91	a-d
32	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			83	a-f

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Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	14 DA-A	28 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
33	AIXR110015 at 15 GPA and 2.4 MPH									84	i-o	82	d-i
33	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			94	a
33	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			77	d-h
34	AIXR110015 at 15 GPA and 2.4 MPH									93	a-e	85	b-f
34	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			91	a-d
34	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			76	e-i
34	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
35	AIXR110015 at 15 GPA and 2.4 MPH									70	q	63	l
35	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			80	fg
35	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			76	e-i
35	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
35	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
36	AIXR11003 at 15 GPA and 4.95 MPH									79	nop	80	e-i
36	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			81	fg
37	AIXR11003 at 15 GPA and 4.95 MPH									94	abc	84	c-g
37	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			94	ab
37	AMS	100	SG	3	lb/a	3	lb/a	6"W	A			87	abc
38	AIXR11003 at 15 GPA and 4.95 MPH									86	f-m	80	e-i
38	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			85	def
38	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			80	a-g
39	AIXR11003 at 15 GPA and 4.95 MPH									87	d-l	80	e-i
39	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			88	a-e
39	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A			88	abc
39	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
40	AIXR11003 at 15 GPA and 4.95 MPH									77	p	67	jkl
40	IGNITE 280	2.34	EC	0.293	lb ai/a	16	fl oz/a	6"W	A			72	h
40	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	6"W	A			64	j
40	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6"W	A				
40	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6"W	A				
LSD (P=.05)										6.2		9.1	
Replicate F										2.987		2.494	
Replicate Prob(F)										0.0563		0.0892	
Treatment F										6.636		5.089	
Treatment Prob(F)										0.0001		0.0001	

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Winfield Solutions.
2. Ratings: WC at 14 and 28 DAT.
3. Application equipment and spray volume are per treatment, see treatment list.
4. Mixing instructions; see attached bulk mixing instructions, requires 2.5 gallon containers.
5. IPOSS = Morningglory species including IPOHE (ivyleaf morningglory) and IPOLA (pitted morningglory).
6. Not harvested (non-crop).