

Ohio State University Horticulture and Crop Science

AMS ALTERNATIVES WITH IGNITE

Title No. 2:
Trial ID: 10LLSOYAMS Protocol ID: 10LLSOYAMS
Location: Western Branch F-8 Study Director: Bryan Reeb
Project ID: 10LLSOYAMS Investigator: Dr. Mark M. Loux
Sponsor Contact: JOHN SMITH

General Trial Information

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Trial Location

Latitude of LL Corner °: 39.86018 N
Longitude of LL Corner °: 83.67166 W
Altitude of LL Corner, Unit: 1082.00 FT

Personnel

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: S.C. 3330 LL **Description:** LL
BBCH Scale: BSOY **Planting Date:** May-6-2010
Planting Method: SEEDED seeded **Rate, Unit:** 196000 S/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good **Emergence Date:** May-18-2010

Pest Description

- Pest 1 Type:** W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
- Pest 2 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 3 Type:** W **Code:** POLPY *Polygonum pensylvanicum*
Common Name: Pennsylvania smartweed
- Pest 4 Type:** W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters
- Pest 5 Type:** W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf
- Pest 6 Type:** W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed
- Pest 7 Type:** W **Code:** SOLPT *Solanum ptycanthum*
Common Name: Eastern black nightshade
- Pest 8 Type:** W **Code:** AMBEL *Ambrosia artemisiifolia*
Common Name: Common ragweed

Site and Design

Plot Width, Unit: 6.67 FT
Plot Length, Unit: 30 FT
Plot Area, Unit: 200.1 FT2
Replications: 3 **Study Design:** RAOBL Randomized Complete Block (RCB)

Soil Description

Description Name: F-8 West
% OM: 3.1 **Texture:** SICL silty clay loam
pH: 6.3 **Soil Name:** Kokomo
CEC: 20 **Fert. Level:** G good
Soil Drainage: G good

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Application Description

A

Application Date: Jun-4-2010
Time of Day: 8:30 AM
Application Method: SPRAY
Application Timing: MPO
Application Placement: BROFOL
Air Temperature, Unit: 72.4 F
% Relative Humidity: 85.5
Wind Velocity, Unit: 4 MPH
Wind Direction: SW
Dew Presence (Y/N): Y yes
Soil Temperature, Unit: 68 F
Soil Moisture: WET
% Cloud Cover: 0
Next Rain Occurred On: Jun-4-2010

Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale: GLXMA BSOY
Stage Scale Used: BBCH
Stage Majority, Percent: 12 100
Height, Unit: 6 IN
Height Minimum, Maximum: 5 6

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale: SETFA W
Stage Majority, Percent: 13 100
Height, Unit: 6 IN
Height Minimum, Maximum: 4 6
Density, Unit: 46.4 M2
Pest 2 Code, Type, Scale: AMBTR W
Stage Majority, Percent: 16 100
Height, Unit: 8 IN
Height Minimum, Maximum: 7 8
Density, Unit: 10.4 M2
Pest 3 Code, Type, Scale: POLPY W
Stage Majority, Percent: 14 100
Height, Unit: 3 IN
Height Minimum, Maximum: 2 3
Density, Unit: 4 M2
Pest 4 Code, Type, Scale: CHEAL W
Stage Majority, Percent: 14 100
Height, Unit: 2 IN
Height Minimum, Maximum: 1 2
Density, Unit: 9.2 M2
Pest 5 Code, Type, Scale: ABUTH W
Stage Majority, Percent: 13 100
Height, Unit: 3 IN
Height Minimum, Maximum: 2 3
Density, Unit: 1.2 M2
Pest 6 Code, Type, Scale: AMARE W
Stage Majority, Percent: 14 100
Height, Unit: 2 IN
Height Minimum, Maximum: 1 2
Density, Unit: 8 M2
Pest 7 Code, Type, Scale: SOLPT W
Stage Majority, Percent: 12 100
Height, Unit: 0.5 IN
Height Minimum, Maximum: 0.5 1
Density, Unit: 2.4 M2
Pest 8 Code, Type, Scale: AMBEL W
Stage Majority, Percent: 14 100
Height, Unit: 3 IN
Height Minimum, Maximum: 2 3

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Application Equipment

	A
Appl. Equipment:	Backpack
Equipment Type:	SPRBAC
Operating Pressure, Unit:	52 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	18 IN
Boom Length, Unit:	6.67 FT
Boom Height, Unit:	18 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	20 gal/ac
Mix Size, Unit:	0.33 gallons
Propellant:	COMCO2

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 Sponsor Contact: JOHN SMITH

Pest Type				W Weed	W Weed	W Weed	W Weed
Pest Code				SETFA	ECHCG	AMBTR	CHEAL
Pest Scientific Name				Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Chenopodium al>
Pest Name				Giant foxtail	Common barnyar>	Giant ragweed	Common lambsqu>
Crop Code	GLXMA	GLXMA					
BBCH Scale	BSOY	BSOY					
Crop Scientific Name	Glycine max	Glycine max					
Crop Name	Soybean	Soybean					
Rating Date	Jun-10-2010	Jun-18-2010		Jun-18-2010	Jun-18-2010	Jun-18-2010	Jun-18-2010
Rating Type	PHYCHL	PHYGEN		CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%		%	%	%	%
Number of Subsamples	1	1		1	1	1	1
Days After First/Last Applic.	6 6	14 14		14 14	14 14	14 14	14 14
Trt-Eval Interval	6 DA-A	14 DA-A		14 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	35 DP-1	43 DP-1		43 DP-1	43 DP-1	43 DP-1	43 DP-1
Days After Emergence	23 DE-	31 DE-		31 DE-	31 DE-	31 DE-	31 DE-
Number of Decimals	0	0		0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	1	2	3	4	5	6
1	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	73	60	47	77
	1 N-pak ams	100 %		56.5 oz/a		A						
2	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	77	62	47	75
	2 N-pak ams	100 %		113 oz/a		A						
3	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	77	67	53	83
	3 Alliance	100 %		1 qt/a		A						
4	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	75	62	50	80
	4 AG 10003	100 %		0.8 qt/a		A						
5	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	70	50	43	82
	5 AG 10004	100 %		0.8 qt/a		A						
6	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	67	40	37	55
	6 AG 10009	100 %		0.8 qt/a		A						
7	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	68	52	37	73
	7 AG 10003	100 %		1.6 qt/a		A						
8	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	75	47	37	58
	8 AG 10004	100 %		1.6 qt/a		A						
9	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	78	50	42	63
	9 AG 10009	100 %		1.6 qt/a		A						
10	Ignite	2.34 LBA/GAL		22 oz/a		A	0	0	75	47	45	68
	10 AG 03019	100 %		0.4 qt/a		A						
11	Ignite	2.34 LBA/GAL		22 oz/a		A	1	0	82	63	57	82
12	UTC						0	0	0	0	0	0
LSD (P=.05)							0.7	0.0	10.9	17.3	18.4	30.3
Standard Deviation							0.4	0.0	6.4	10.2	10.9	17.8
CV							52.09	0.0	9.43	20.54	26.42	26.85
Bartlett's X2							0.0	0.0	8.982	9.187	6.311	7.634
P(Bartlett's X2)							.	.	0.534	0.42	0.708	0.665
Replicate F							1.185	0.000	12.853	13.159	3.839	0.795
Replicate Prob(F)							0.3246	1.0000	0.0002	0.0002	0.0371	0.4646
Treatment F							2.338	0.000	34.726	8.980	5.323	4.956
Treatment Prob(F)							0.0433	1.0000	0.0001	0.0001	0.0004	0.0008

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	AMARE	SETFA	ECHCG	AMBTR	AMARE							
Pest Scientific Name	Amaranthus ret>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Amaranthus ret>							
Pest Name	Redroot pigweed	Giant foxtail	Common barnyar>	Giant ragweed	Redroot pigweed							
Crop Code		GLXMA										
BBCH Scale		BSOY										
Crop Scientific Name		Glycine max										
Crop Name		Soybean										
Rating Date	Jun-18-2010	Jul-1-2010	Jul-1-2010	Jul-1-2010	Jul-1-2010							
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL							
Rating Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Days After First/Last Applic.	14 14	27 27	27 27	27 27	27 27							
Trt-Eval Interval	14 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A							
Plant-Eval Interval	43 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1							
Days After Emergence	31 DE-	44 DE-	44 DE-	44 DE-	44 DE-							
Number of Decimals	0	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Unit Code	7	8	9	10	11	12
1	Ignite	2.34	LBA/GAL	22 oz/a		A	80	0	93	82	72	90
1	N-pak ams	100 %		56.5 oz/a		A						
2	Ignite	2.34	LBA/GAL	22 oz/a		A	92	0	93	83	70	93
2	N-pak ams	100 %		113 oz/a		A						
3	Ignite	2.34	LBA/GAL	22 oz/a		A	85	0	92	80	77	97
3	Alliance	100 %		1 qt/a		A						
4	Ignite	2.34	LBA/GAL	22 oz/a		A	80	0	90	78	73	94
4	AG 10003	100 %		0.8 qt/a		A						
5	Ignite	2.34	LBA/GAL	22 oz/a		A	78	0	92	75	70	97
5	AG 10004	100 %		0.8 qt/a		A						
6	Ignite	2.34	LBA/GAL	22 oz/a		A	63	0	92	75	72	97
6	AG 10009	100 %		0.8 qt/a		A						
7	Ignite	2.34	LBA/GAL	22 oz/a		A	77	0	93	77	70	99
7	AG 10003	100 %		1.6 qt/a		A						
8	Ignite	2.34	LBA/GAL	22 oz/a		A	75	0	88	75	68	91
8	AG 10004	100 %		1.6 qt/a		A						
9	Ignite	2.34	LBA/GAL	22 oz/a		A	82	0	93	80	70	97
9	AG 10009	100 %		1.6 qt/a		A						
10	Ignite	2.34	LBA/GAL	22 oz/a		A	65	0	95	77	72	92
10	AG 03019	100 %		0.4 qt/a		A						
11	Ignite	2.34	LBA/GAL	22 oz/a		A	73	0	94	83	78	93
12	UTC						0	0	0	0	0	0
LSD (P=.05)							23.6	0.0	5.6	8.6	11.0	7.8
Standard Deviation							14.0	0.0	3.3	5.1	6.5	4.6
CV							19.7	0.0	3.9	7.01	9.84	5.29
Bartlett's X2							7.193	0.0	3.952	5.476	9.407	12.025
P(Bartlett's X2)							0.707	.	0.861	0.706	0.401	0.283
Replicate F							0.556	0.000	2.424	0.733	1.054	0.361
Replicate Prob(F)							0.5811	1.0000	0.1119	0.4917	0.3655	0.7010
Treatment F							8.603	0.000	196.763	61.578	31.310	107.505
Treatment Prob(F)							0.0001	1.0000	0.0001	0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	CHEAL	SETFA	ECHCG	AMBTR	AMARE						
Pest Scientific Name	Chenopodium al-	Setaria faberi	Echinochloa cr-	Ambrosia trifi-	Amaranthus ret-						
Pest Name	Common lambsqu-	Giant foxtail	Common barnyar-	Giant ragweed	Redroot pigweed						
Crop Code											
BBCH Scale											
Crop Scientific Name											
Crop Name											
Rating Date	Jul-1-2010	Jul-9-2010	Jul-9-2010	Jul-9-2010	Jul-9-2010						
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL						
Rating Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
Days After First/Last Applic.	27 27	35 35	35 35	35 35	35 35						
Trt-Eval Interval	27 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A						
Plant-Eval Interval	56 DP-1	64 DP-1	64 DP-1	64 DP-1	64 DP-1						
Days After Emergence	44 DE-	52 DE-	52 DE-	52 DE-	52 DE-						
Number of Decimals	0	0	0	0	0						
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Unit Code	13	14	15	16	17
1	Ignite	2.34	LBA/GAL	22 oz/a	A	A	88	99	95	60	100
1	N-pak ams	100 %		56.5 oz/a	A	A					
2	Ignite	2.34	LBA/GAL	22 oz/a	A	A	90	99	96	62	100
2	N-pak ams	100 %		113 oz/a	A	A					
3	Ignite	2.34	LBA/GAL	22 oz/a	A	A	88	99	96	63	100
3	Alliance	100 %		1 qt/a	A	A					
4	Ignite	2.34	LBA/GAL	22 oz/a	A	A	83	99	97	65	100
4	AG 10003	100 %		0.8 qt/a	A	A					
5	Ignite	2.34	LBA/GAL	22 oz/a	A	A	92	99	92	57	100
5	AG 10004	100 %		0.8 qt/a	A	A					
6	Ignite	2.34	LBA/GAL	22 oz/a	A	A	83	98	87	53	100
6	AG 10009	100 %		0.8 qt/a	A	A					
7	Ignite	2.34	LBA/GAL	22 oz/a	A	A	88	99	92	53	100
7	AG 10003	100 %		1.6 qt/a	A	A					
8	Ignite	2.34	LBA/GAL	22 oz/a	A	A	80	99	90	50	100
8	AG 10004	100 %		1.6 qt/a	A	A					
9	Ignite	2.34	LBA/GAL	22 oz/a	A	A	90	99	90	58	100
9	AG 10009	100 %		1.6 qt/a	A	A					
10	Ignite	2.34	LBA/GAL	22 oz/a	A	A	87	99	88	63	97
10	AG 03019	100 %		0.4 qt/a	A	A					
11	Ignite	2.34	LBA/GAL	22 oz/a	A	A	88	100	93	73	95
12	UTC						0	0	0	0	0
LSD (P=.05)							12.0	2.2	7.0	16.2	5.2
Standard Deviation							7.1	1.3	4.1	9.6	3.1
CV							8.88	1.4	4.9	17.45	3.37
Bartlett's X2							8.398	2.86	11.355	7.532	0.314
P(Bartlett's X2)							0.495	0.97	0.252	0.582	0.575
Replicate F							1.256	0.362	2.423	1.190	0.517
Replicate Prob(F)							0.3044	0.7007	0.1120	0.3230	0.6035
Treatment F							38.378	1519.103	125.567	11.057	262.624
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001

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Pest Type W Weed
 Pest Code CHEAL
 Pest Scientific Name Chenopodium al->
 Pest Name Common lambsqu->
 Crop Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date Jul-9-2010
 Rating Type CONTROL
 Rating Unit %
 Number of Subsamples 1
 Days After First/Last Applic. 35 35
 Trt-Eval Interval 35 DA-A
 Plant-Eval Interval 64 DP-1
 Days After Emergence 52 DE-
 Number of Decimals 0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit Code	
							18
1	Ignite	2.34	LBA/GAL	22	oz/a	A	100
1	N-pak ams	100	%	56.5	oz/a	A	
2	Ignite	2.34	LBA/GAL	22	oz/a	A	100
2	N-pak ams	100	%	113	oz/a	A	
3	Ignite	2.34	LBA/GAL	22	oz/a	A	100
3	Alliance	100	%	1	qt/a	A	
4	Ignite	2.34	LBA/GAL	22	oz/a	A	100
4	AG 10003	100	%	0.8	qt/a	A	
5	Ignite	2.34	LBA/GAL	22	oz/a	A	100
5	AG 10004	100	%	0.8	qt/a	A	
6	Ignite	2.34	LBA/GAL	22	oz/a	A	100
6	AG 10009	100	%	0.8	qt/a	A	
7	Ignite	2.34	LBA/GAL	22	oz/a	A	100
7	AG 10003	100	%	1.6	qt/a	A	
8	Ignite	2.34	LBA/GAL	22	oz/a	A	100
8	AG 10004	100	%	1.6	qt/a	A	
9	Ignite	2.34	LBA/GAL	22	oz/a	A	100
9	AG 10009	100	%	1.6	qt/a	A	
10	Ignite	2.34	LBA/GAL	22	oz/a	A	100
10	AG 03019	100	%	0.4	qt/a	A	
11	Ignite	2.34	LBA/GAL	22	oz/a	A	100
12	UTC						0
	LSD (P=.05)						0.0
	Standard Deviation						0.0
	CV						0.0
	Bartlett's X2						0.0
	P(Bartlett's X2)						.
	Replicate F						0.000
	Replicate Prob(F)						1.0000
	Treatment F						0.000
	Treatment Prob(F)						1.0000

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AMS ALTERNATIVES WITH IGNITE

Title No. 2:

Trial ID: 10LLSOYAMS Protocol ID: 10LLSOYAMS
Location: Western Branch F-8 Study Director: Bryan Reeb
Project ID: 10LLSOYAMS Investigator: Dr. Mark M. Loux
Sponsor Contact: JOHN SMITH

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, = US
ECHCG, Echinochloa crus-galli, = US
AMBTR, Ambrosia trifida, = US
CHEAL, Chenopodium album, = US
AMARE, Amaranthus retroflexus, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

PHYCHL = phytotoxicity - chlorosis
PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Plant-Eval Interval

35 DP-1 = 1 May-6-2010
43 DP-1 = 1 May-6-2010
56 DP-1 = 1 May-6-2010
64 DP-1 = 1 May-6-2010