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Winfield Dicamba Acid + 2,4-D Acid Study

Trial ID: 13FALLBURN2 Location: Western Branch CR1E Trial Year:
 Protocol ID: 13FALLBURN2 Investigator: Dr. Mark M. Loux
 Project ID: Study Director: Anthony F. Dobbels
 Sponsor Contact: John Smith, WinField Solutions

Crop Description

Crop 1: GLXMA Glycine max
Variety: Pioneer 93L71
Description: LL

Soybean

BBCH Scale: BSOY

Planting Rate, Unit: 150000 S/A
Depth, Unit: 0.5 IN
Row Spacing, Unit: 15 IN
Soil Temperature, Unit: 54 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDTRA medium/trashy

Planting Date: May-2-2013
Planting Method: PLANTD planted
Planting Equipment: PP Plot Planter

Pest Description

Pest 1 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed

Pest 2 Type: W **Code:** STEME Stellaria media
Common Name: Common chickweed

Pest 3 Type: W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel

Pest 4 Type: W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion

Pest 5 Type: W **Code:** POAAN Poa annua
Common Name: Annual bluegrass

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 30 FT
Treated Plot Area: 200.1 FT2 **Treatments:** 10
Replications: 3
Untreated Arrangement: INCLUDED single control randomized in each block

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: NOTILL no-till
Study Design: RACOB Randomized Complete Block (RCB)

Trial Initiation Comments:

No. Previous Crop Year
 1. CORN 2012

Maintenance

No.	Date	Maintenance Product Name	Rate	Unit
1.	May-7-2013	ROUNDUP	22	OZ/A

Soil Description

Description Name: CR12
% OM: 2.1 **Texture:** SIL silt loam
pH: 6.8 **Soil Name:** CROSBY
CEC: 15.3 **Fert. Level:** F fair

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Application Description

A
Application Date: Nov-9-2012
Appl. Start Time: 10:00 A.M
Appl. Stop Time: 10:30 AM
Application Method: SPRAY
Application Timing: FALL
Application Placement: BROFOL
Applied By: Ackley
Air Temperature, Unit: 54 F
% Relative Humidity: 68
Wind Velocity, Unit: 5.5 MPH
Wind Direction: S
Dew Presence (Y/N): N no
Soil Temperature, Unit: 40 F
Soil Moisture: NORMAL
% Cloud Cover: 0
Next Moisture Occurred On: Nov-12-2012
Time to Next Moisture, Unit: 3 DAY

Crop Stage At Each Application

A
Crop 1 Code, BBCH Scale: GLXMA BSOY

Pest Stage At Each Application

A
Pest 1 Code, Type, Scale: ERICA W
Stage Majority, Percent: 19 100
Diameter, Unit: 0.5 IN
Height, Unit: 0.5 IN
Height Minimum, Maximum: 0.25 0.5
Pest 2 Code, Type, Scale: STEME W
Stage Majority, Percent: 19 100
Diameter, Unit: 2 IN
Height, Unit: 0.5 IN
Height Minimum, Maximum: 0.5 1
Pest 3 Code, Type, Scale: LAMPU W
Stage Majority, Percent: 19 100
Diameter, Unit: 0.5 IN
Height, Unit: 0.5 IN
Height Minimum, Maximum: 0.5 0.75
Pest 4 Code, Type, Scale: TAROF W
Stage Majority, Percent: 19 100
Diameter, Unit: 6 IN
Height, Unit: 1 IN
Height Minimum, Maximum: 0.5 1
Pest 5 Code, Type, Scale: POAAN W
Stage Majority, Percent: 12 100
Height, Unit: 2 IN
Height Minimum, Maximum: 1 2

Application Equipment

A
Appl. Equipment: 6 foot boom
Equipment Type: SPRBAC
Operation Pressure, Unit: 46 PSI
Nozzle Type: AI XR
Nozzle Size: 110015
Nozzle Spacing, Unit: 18 IN
Boom Length, Unit: 6 FT
Boom Height, Unit: 20 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 15 GPA
Mix Size, Unit: 1 Liters
Propellant: CO2

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Pest Code				STEME	LAMP	ERICA	STEME	LAMP	CAPBP			
Rating Date				Nov-30-201	Nov-30-2012	Nov-30-2012	Apr-23-2013	Apr-23-2013	Apr-23-201			
Rating Type				2	2	2	2	2	3			
Rating Unit				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Days After First/Last Applic.				%	%	%	%	%	%			
Trt-Eval Interval												
Plant-Eval Interval												
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	1	2	3	4	5	6
1	Brash	1.5 pt/a		FALL	A		33 b	19 bc	32 a	60 b	53 bc	100 a
2	Brash	1.5 pt/a		FALL	A		29 b	24 bc	37 a	68 b	57 bc	100 a
2	Preference NIS	0.3 pt/a		FALL								
2	Interlock	4 oz/a		FALL								
3	AGH 11021	1.5 pt/a		FALL	A		25 b	10 c	42 a	67 b	60 bc	100 a
4	AGH 11021	1.5 pt/a		FALL	A		29 b	8 c	42 a	65 b	57 bc	100 a
4	Preference NIS	0.3 pt/a		FALL								
4	Interlock	4 oz/a		FALL								
5	Brash	2 pt/a		FALL	A		22 b	9 c	42 a	78 ab	43 c	100 a
6	AGH 11021	2 pt/a		FALL	A		32 b	19 bc	63 a	80 ab	67 abc	100 a
7	Roundup WeatherMax	11 oz/a		FALL	A		40 b	29 bc	63 a	98 a	100 a	100 a
7	Brash	1.5 pt/a		FALL								
7	N-PAK AMS	1.5 qt/a		FALL								
8	Brash	1.5 pt/a		FALL	A		101 a	88 a	68 a	100 a	100 a	100 a
8	Metribuzin	4 oz/a		FALL								
8	COC	0.6 qt/a		FALL								
9	Basis Blend						42 b	40 b	40 a	100 a	82 abc	100 a
9	resolve	0.64 oz/a		FALL	A							
9	harmony gt	0.11 oz/a		FALL								
9	Brash	1.5 pt/a		FALL								
9	NIS	4.8 oz/a		FALL								
10	Canopy EX 0.5 oz						33 b	30 bc	33 a	100 a	93 ab	100 a
10	Classic	0.45 oz/a		FALL	A							
10	Express	0.05 oz/a		FALL								
10	Brash	1.5 pt/a		FALL								
10	NIS	4.8 oz/a		FALL								
LSD (P=.05)							2.2t	1.9t	37.3	18.7	26.3	0.0
Standard Deviation							1.3t	1.1t	21.1	10.9	15.3	0.0
CV							20.78	22.1	45.59	13.34	21.55	0.0
Bartlett's X2							12.075	115.041	3.449	8.071	9.509	0.0
P(Bartlett's X2)							0.148	0.001*	0.903	0.233	0.218	.
Skewness							0.3595	0.3381	0.669	-0.82	-0.094	.
Kurtosis							0.2936	0.7468	-0.3417	-0.2888	-1.0352	.
Replicate F							8.628	3.008	0.320	4.770	1.661	0.000
Replicate Prob(F)							0.0029	0.0761	0.7320	0.0218	0.2177	1.0000
Treatment F							4.183	9.120	1.202	6.885	5.557	0.000
Treatment Prob(F)							0.0063	0.0001	0.3699	0.0003	0.0010	1.0000

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3

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Pest Code	ERICA	STEME	LAMPU	CAPBP	ERICA	ERICA					
Rating Date	Apr-23-2013	May-8-2013	May-8-2013	May-8-2013	May-8-2013	May-31-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%	%					
Days After First/Last Applic.		3		3		203					
Trt-Eval Interval						203 DA-A					
Plant-Eval Interval						29 DP-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Code	7	8	9	10	11	12
1	Brash	1.5 pt/a		FALL	A	100 a	61 b	56 b	100 a	100 a	20 bc
2	Brash	1.5 pt/a		FALL	A	100 a	78 b	53 b	100 a	100 a	17 bc
	2 Preference NIS	0.3 pt/a		FALL							
	2 Interlock	4 oz/a		FALL							
3	AGH 11021	1.5 pt/a		FALL	A	100 a	68 b	52 b	100 a	100 a	20 bc
4	AGH 11021	1.5 pt/a		FALL	A	100 a	82 b	56 b	100 a	100 a	20 bc
	4 Preference NIS	0.3 pt/a		FALL							
	4 Interlock	4 oz/a		FALL							
5	Brash	2 pt/a		FALL	A	100 a	84 b	60 b	100 a	100 a	30 bc
6	AGH 11021	2 pt/a		FALL	A	100 a	81 b	62 b	100 a	100 a	0 c
7	Roundup WeatherMax	11 oz/a		FALL	A	100 a	99 a	100 a	97 a	100 a	10 bc
	7 Brash	1.5 pt/a		FALL							
	7 N-PAK AMS	1.5 qt/a		FALL							
8	Brash	1.5 pt/a		FALL	A	100 a	100 a	100 a	100 a	100 a	17 bc
	8 Metribuzin	4 oz/a		FALL							
	8 COC	0.6 qt/a		FALL							
9	Basis Blend					100 a	100 a	93 a	100 a	100 a	50 ab
	9 resolve	0.64 oz/a		FALL	A						
	9 harmony gt	0.11 oz/a		FALL							
	9 Brash	1.5 pt/a		FALL							
	9 NIS	4.8 oz/a		FALL							
10	Canopy EX 0.5 oz					100 a	100 a	100 a	100 a	100 a	67 a
	10 Classic	0.45 oz/a		FALL	A						
	10 Express	0.05 oz/a		FALL							
	10 Brash	1.5 pt/a		FALL							
	10 NIS	4.8 oz/a		FALL							
LSD (P=.05)						0.0	13.0t	0.1t	3.1	0.0	28.1
Standard Deviation						0.0	7.6t	0.1t	1.8	0.0	16.4
CV						0.0	10.53	3.75	1.83	0.0	65.46
Bartlett's X2						0.0	3.236	4.807	0.0	0.0	2.558
P(Bartlett's X2)						.	0.779	0.44	.	.	0.959
Skewness						.	-0.2725	0.0017	-5.4772*	.	0.5879
Kurtosis						.	-1.2614	-1.6255	30.0*	.	-0.6467
Replicate F						0.000	6.826	1.121	1.000	0.000	7.432
Replicate Prob(F)						1.0000	0.0062	0.3477	0.3874	1.0000	0.0044
Treatment F						0.000	12.077	9.534	1.000	0.000	4.295
Treatment Prob(F)						1.0000	0.0001	0.0001	0.4742	1.0000	0.0041

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Pest Code

STEME, Stellaria media, = US
LAMPU, Lamium purpureum, = US
ERICA, Conyza canadensis, = US
CAPBP, Capsella bursa-pastoris, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

29 DP-1 = 1 GLXMA May-2-2013