

Fierce Horseweed Programs for RR2X Soybeans

Trial ID: 15FIERCEBGHW Location: Western Branch F-10 E Trial Year: 2015
 Protocol ID: 15FIERCEBGHW Investigator: Dr. Mark M. Loux
 Project ID: Fierce MD 64.06 Study Director: Anthony Dobbels
 Sponsor Contact: Eric Ott, Valent

General Trial Information

Study Director: Anthony Dobbels
Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston **Country:** USA United States
State/Prov.: Ohio
Postal Code: 45368 **Climate Zone:** USWARM US Warm Continental

Latitude of LL Corner °: 39.85865 N
Longitude of LL Corner °: 83.67104 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Anthony Dobbels

Investigator: Dr. Mark M. Loux

Pest Description

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

Pest 2 Type: W **Code:** LAMPU *Lamium purpureum*
Common Name: Purple deadnettel

Pest 3 Type: W **Code:** CARPE *Cardamine pensylvanica*
Common Name: Pennsylvania bittercress

Pest 4 Type: W **Code:** VERAR *Veronica arvensis*
Common Name: Corn speedwell

Pest 5 Type: W **Code:** ERYRE *Erysimum repandum*
Common Name: Bushy wallflower

Pest 6 Type: W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed

Pest 7 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail

Pest 8 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters

Site and Design

Treated Plot Width: 6.67 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Site Type:** FIELD field
Treated Plot Area: 200.1 FT2 **Experimental Unit:** 1 PLOT plot
Replications: 3 **Tillage Type:** NOTILL no-till
Treatments: 10 **Study Design:** RACOB L Randomized Complete Block (RCB)

No. Previous Crop Year
 1. Soybean 2014

Soil Description

Description Name: F-10 East
% OM: 3 **Texture:** SICL silty clay loam
pH: 6 **Soil Name:** Kokomo
CEC: 19.5 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	4-14-2015	6-3-2015
Appl. Start Time:	3:30 PM	9:00 AM
Appl. Stop Time:	4:00 PM	9:20 AM
Application Method:	SPRAY	SPRAY
Application Timing:	14 EPP	POST
Application Placement:	BROFOL	BROFOL
Applied By:	Dobbels	Loux
Air Temperature, Unit:	59 F	60 f
% Relative Humidity:	45	88
Wind Velocity, Unit:	8 MPH	5 MPH
Wind Direction:	NE	NNE
Dew Presence (Y/N):	N no	Y yes
Soil Temperature, Unit:	52 F	59 F
Soil Moisture:	MOIST	MOIST
% Cloud Cover:	100	100
Next Moisture Occurred On:	4-19-2015	6-5-2015
Time to Next Moisture, Unit:	5 DAY	2 DAY

Pest Stage At Each Application

	A		B	
Pest 1 Code, Type, Scale:	ERICA	W	ERICA	W
Stage Majority, Percent:	16	90	19	100
Stage Minimum, Percent:	14	10		
Stage Maximum, Percent:	16	90		
Diameter, Unit:	2	IN	4	IN
Height, Unit:	0.5	IN	5	IN
Height Minimum, Maximum:	0.5	1	2	10
Density, Unit:	25	M2	25	M2
Pest 2 Code, Type, Scale:	LAMPU	W	LAMPU	W
Stage Majority, Percent:	60	90		
Stage Minimum, Percent:	65	10		
Stage Maximum, Percent:	65	90		
Diameter, Unit:	2	IN		
Height, Unit:	3	IN		
Height Minimum, Maximum:	1	3		
Density, Unit:	5	M2		
Pest 3 Code, Type, Scale:	CARPE	W	CARPE	W
Stage Majority, Percent:	67	90		
Stage Minimum, Percent:	65	10		
Stage Maximum, Percent:	67	90		
Diameter, Unit:	2	IN		
Height, Unit:	3	IN		
Height Minimum, Maximum:	2	3		
Density, Unit:	0.33	M2		
Pest 4 Code, Type, Scale:	VERAR	W	VERAR	W
Stage Majority, Percent:	65	90		
Stage Minimum, Percent:	60	10		
Stage Maximum, Percent:	65	90		
Diameter, Unit:	3	IN		
Height, Unit:	0.5	IN		
Height Minimum, Maximum:	0.25	0.5		
Density, Unit:	1	M2		
Pest 5 Code, Type, Scale:	ERYRE	W	ERYRE	W
Stage Majority, Percent:	19	100		
Diameter, Unit:	3	IN		
Height, Unit:	0.5	IN		
Height Minimum, Maximum:	0.5	1		
Density, Unit:	3	M2		
Pest 6 Code, Type, Scale:	AMBTR	W	AMBTR	W
Stage Majority, Percent:	09	100	19	80
Stage Minimum, Percent:			16	20
Stage Maximum, Percent:			19	80
Diameter, Unit:	1	IN	4	IN
Height, Unit:	0.5	IN	12	IN
Height Minimum, Maximum:	0.5	1	8	21
Density, Unit:	5	M2	5	M2
Pest 7 Code, Type, Scale:	SETFA	W	SETFA	W
Stage Majority, Percent:			15	80
Stage Minimum, Percent:			13	20
Stage Maximum, Percent:			15	80
Height, Unit:			5	IN
Height Minimum, Maximum:			3	12
Density, Unit:			139	M2
Pest 8 Code, Type, Scale:	CHEAL	W	CHEAL	W
Stage Majority, Percent:			19	100
Diameter, Unit:			4	IN
Height, Unit:			6	IN
Height Minimum, Maximum:			2	7
Density, Unit:			4.5	M2

Application Equipment

	A	B
Appl. Equipment:	6 FOOT BOOM	6 Foot TTI
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	44 PSI	40 PSI
Nozzle Type:	AI XR	TTI
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	18 IN	18 IN
Boom Length, Unit:	6.67 FT	10 FT
Boom Height, Unit:	20 IN	20 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA
Mix Size, Unit:	1 Liters	1 Liters
Propellant:	CO2	CO2

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 Project ID: Fierce MD 64.06 Study Director: Anthony Dobbels
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Pest Type	W Weed	W Weed	W Weed
Pest Code	ERICA	STEME	LAMPU
Pest Scientific Name	Conyza canadensis	Stellaria media	Lamium purpureum
Pest Name	Canada horseweed	Common chickweed	Purple deadnettle
Rating Date	4-29-2015	4-29-2015	4-29-2015
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	15 15	15 15	15 15
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A
ARM Action Codes			
Number of Decimals	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	1	2	3
1	UTC						0 b	0 b	0 d
2	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	100 a	73 bc
	2 Clarity	1 pt/a		A		AT PLANT			
	2 Roundup PowerMax	32 oz/a		B		POST			
	2 Clarity	1 pt/a		B		POST			
	2 Interlock	4 oz/a		B		POST			
3	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	100 a	93 a
	3 Clarity	1 pt/a		A		AT PLANT			
	3 Valor SX	2.5 oz/a		A		AT PLANT			
	3 Roundup PowerMax	32 oz/a		B		POST			
	3 Clarity	1 pt/a		B		POST			
	3 Interlock	4 oz/a		B		POST			
4	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	100 a	67 c
	4 Clarity	1 pt/a		A		AT PLANT			
	4 Roundup PowerMax	32 oz/a		B		POST			
	4 Clarity	1 pt/a		B		POST			
	4 Cobra	12.5 oz/a		B		POST			
	4 Interlock	4 oz/a		B		POST			
5	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	100 a	90 ab
	5 Clarity	1 pt/a		A		AT PLANT			
	5 Valor SX	2.5 oz/a		A		AT PLANT			
	5 Roundup PowerMax	32 oz/a		B		POST			
	5 Clarity	1 pt/a		B		POST			
	5 Cobra	12.5 oz/a		B		POST			
	5 Interlock	4 oz/a		B		POST			
6	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	100 a	94 a
	6 Clarity	1 pt/a		A		AT PLANT			
	6 Fierce	3 oz/a		A		AT PLANT			
	6 Roundup PowerMax	32 oz/a		B		POST			
	6 Clarity	1 pt/a		B		POST			
	6 Interlock	4 oz/a		B		POST			

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

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=2

Could not calculate LSD (% mean diff) for columns 1,2,6,7,11 because error mean square = 0.

Pest Type	W Weed	W Weed	W Weed
Pest Code	ERICA	STEME	LAMPU
Pest Scientific Name	Conyza canadens>	Stellaria media	Lamium purpure>
Pest Name	Canada horsewe>	Common chickwe>	Purple deadnet>
Rating Date	4-29-2015	4-29-2015	4-29-2015
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	15 15	15 15	15 15
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A
ARM Action Codes			
Number of Decimals	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	1	2	3
7	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	88 ab
7	Clarity	1 pt/a			A	AT PLANT			
7	Fierce	3 oz/a			A	AT PLANT			
7	Roundup PowerMax	32 oz/a			B	POST			
7	Clarity	1 pt/a			B	POST			
7	Cobra	12.5 oz/a			B	POST			
7	Interlock	4 oz/a			B	POST			
8	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	100 a
8	V-10404	30 oz/a			A	AT PLANT			
8	Roundup PowerMax	32 oz/a			B	POST			
8	Clarity	1 pt/a			B	POST			
8	Interlock	4 oz/a			B	POST			
9	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	87 ab
9	Clarity	1 pt/a			A	AT PLANT			
9	Fierce	3 oz/a			A	AT PLANT			
9	Roundup PowerMax	32 oz/a			B	POST			
9	Clarity	1 pt/a			B	POST			
9	Interlock	4 oz/a			B	POST			
10	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	100 a
10	Clarity	1 pt/a			A	AT PLANT			
10	Fierce	3 oz/a			A	AT PLANT			
10	Metribuzin	5 oz/a			A	AT PLANT			
10	Roundup PowerMax	32 oz/a			B	POST			
10	Clarity	1 pt/a			B	POST			
10	Interlock	4 oz/a			B	POST			
LSD	P=.05						.	.	18.6
Standard Deviation							0.0	0.0	10.8
CV							0.0	0.0	13.67
Grand Mean							90.0	90.0	79.3
Bartlett's X2							0.0	0.0	2.476
P(Bartlett's X2)							.	.	0.871
Skewness							-2.8091*	-3.5905*	-1.8605*
Kurtosis							6.3081*	11.6955*	2.808*
Replicate F							0.000	0.000	1.760
Replicate Prob(F)							1.0000	1.0000	0.2003
Treatment F							0.000	0.000	22.759
Treatment Prob(F)							1.0000	1.0000	0.0001

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	LAMAM	ERYRE	AMBTR	ERICA
Pest Scientific Name	Lamium amplexi>	Erysimum repan>	Ambrosia trifi>	Conyza canaden>
Pest Name	Henbit	Bushy wallflow>	Giant ragweed	Canada horsewe>
Rating Date	4-29-2015	4-29-2015	4-29-2015	5-12-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	15 15	15 15	15 15	28 28
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	28 DA-A
ARM Action Codes	AA			
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	4	5	6	7
1	UTC						0 d	0 b	0 b	0 b
2	Roundup PowerMax	32 oz/a		A		AT PLANT	81 bc	100 a	100 a	100 a
2	Clarity	1 pt/a		A		AT PLANT				
2	Roundup PowerMax	32 oz/a		B		POST				
2	Clarity	1 pt/a		B		POST				
2	Interlock	4 oz/a		B		POST				
3	Roundup PowerMax	32 oz/a		A		AT PLANT	96 ab	97 a	100 a	100 a
3	Clarity	1 pt/a		A		AT PLANT				
3	Valor SX	2.5 oz/a		A		AT PLANT				
3	Roundup PowerMax	32 oz/a		B		POST				
3	Clarity	1 pt/a		B		POST				
3	Interlock	4 oz/a		B		POST				
4	Roundup PowerMax	32 oz/a		A		AT PLANT	64 c	97 a	100 a	100 a
4	Clarity	1 pt/a		A		AT PLANT				
4	Roundup PowerMax	32 oz/a		B		POST				
4	Clarity	1 pt/a		B		POST				
4	Cobra	12.5 oz/a		B		POST				
4	Interlock	4 oz/a		B		POST				
5	Roundup PowerMax	32 oz/a		A		AT PLANT	93 abc	100 a	100 a	100 a
5	Clarity	1 pt/a		A		AT PLANT				
5	Valor SX	2.5 oz/a		A		AT PLANT				
5	Roundup PowerMax	32 oz/a		B		POST				
5	Clarity	1 pt/a		B		POST				
5	Cobra	12.5 oz/a		B		POST				
5	Interlock	4 oz/a		B		POST				
6	Roundup PowerMax	32 oz/a		A		AT PLANT	98 ab	98 a	100 a	100 a
6	Clarity	1 pt/a		A		AT PLANT				
6	Fierce	3 oz/a		A		AT PLANT				
6	Roundup PowerMax	32 oz/a		B		POST				
6	Clarity	1 pt/a		B		POST				
6	Interlock	4 oz/a		B		POST				

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	LAMAM	ERYRE	AMBTR	ERICA
Pest Scientific Name	Lamium amplexi>	Erysimum repa>	Ambrosia trifi>	Conyza canad>
Pest Name	Henbit	Bushy wallflow>	Giant ragweed	Canada horsewe>
Rating Date	4-29-2015	4-29-2015	4-29-2015	5-12-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	15 15	15 15	15 15	28 28
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	28 DA-A
ARM Action Codes	AA			
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	4	5	6	7
7	Roundup PowerMax	32 oz/a			A	AT PLANT	91 abc	95 a	100 a	100 a
7	Clarity	1 pt/a			A	AT PLANT				
7	Fierce	3 oz/a			A	AT PLANT				
7	Roundup PowerMax	32 oz/a			B	POST				
7	Clarity	1 pt/a			B	POST				
7	Cobra	12.5 oz/a			B	POST				
7	Interlock	4 oz/a			B	POST				
8	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	100 a	100 a
8	V-10404	30 oz/a			A	AT PLANT				
8	Roundup PowerMax	32 oz/a			B	POST				
8	Clarity	1 pt/a			B	POST				
8	Interlock	4 oz/a			B	POST				
9	Roundup PowerMax	32 oz/a			A	AT PLANT	88 abc	100 a	100 a	100 a
9	Clarity	1 pt/a			A	AT PLANT				
9	Fierce	3 oz/a			A	AT PLANT				
9	Roundup PowerMax	32 oz/a			B	POST				
9	Clarity	1 pt/a			B	POST				
9	Interlock	4 oz/a			B	POST				
10	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	100 a	100 a
10	Clarity	1 pt/a			A	AT PLANT				
10	Fierce	3 oz/a			A	AT PLANT				
10	Metribuzin	5 oz/a			A	AT PLANT				
10	Roundup PowerMax	32 oz/a			B	POST				
10	Clarity	1 pt/a			B	POST				
10	Interlock	4 oz/a			B	POST				
	LSD P=.05						22.6t	5.3	.	.
	Standard Deviation						13.2t	3.1	0.0	0.0
	CV						19.53t	3.5	0.0	0.0
	Grand Mean						67.4t	88.7	90.0	90.0
	Bartlett's X2						1.507	0.985	0.0	0.0
	P(Bartlett's X2)						0.959	0.805	.	.
	Skewness						-1.3503*	-2.754*	-2.8091*	-2.8091*
	Kurtosis						1.3483	6.1032*	6.3081*	6.3081*
	Replicate F						2.147	1.385	0.000	0.000
	Replicate Prob(F)						0.1458	0.2758	1.0000	1.0000
	Treatment F						11.897	303.423	0.000	0.000
	Treatment Prob(F)						0.0001	0.0001	1.0000	1.0000

Pest Type	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	LAMAM
Pest Scientific Name	Stellaria media	Lamium purpure>	Lamium amplexi>
Pest Name	Common chickwe>	Purple deadnet>	Henbit
Rating Date	5-12-2015	5-12-2015	5-12-2015
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	28 28	28 28	28 28
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A
ARM Action Codes			
Number of Decimals	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	8	9	10
1	UTC						0 b	0 c	0 c
2	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	82 b	100 a
	2 Clarity	1 pt/a		A		AT PLANT			
	2 Roundup PowerMax	32 oz/a		B		POST			
	2 Clarity	1 pt/a		B		POST			
	2 Interlock	4 oz/a		B		POST			
3	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	95 ab	100 a
	3 Clarity	1 pt/a		A		AT PLANT			
	3 Valor SX	2.5 oz/a		A		AT PLANT			
	3 Roundup PowerMax	32 oz/a		B		POST			
	3 Clarity	1 pt/a		B		POST			
	3 Interlock	4 oz/a		B		POST			
4	Roundup PowerMax	32 oz/a		A		AT PLANT	97 a	87 ab	100 a
	4 Clarity	1 pt/a		A		AT PLANT			
	4 Roundup PowerMax	32 oz/a		B		POST			
	4 Clarity	1 pt/a		B		POST			
	4 Cobra	12.5 oz/a		B		POST			
	4 Interlock	4 oz/a		B		POST			
5	Roundup PowerMax	32 oz/a		A		AT PLANT	93 a	100 a	100 a
	5 Clarity	1 pt/a		A		AT PLANT			
	5 Valor SX	2.5 oz/a		A		AT PLANT			
	5 Roundup PowerMax	32 oz/a		B		POST			
	5 Clarity	1 pt/a		B		POST			
	5 Cobra	12.5 oz/a		B		POST			
	5 Interlock	4 oz/a		B		POST			
6	Roundup PowerMax	32 oz/a		A		AT PLANT	93 a	97 ab	100 a
	6 Clarity	1 pt/a		A		AT PLANT			
	6 Fierce	3 oz/a		A		AT PLANT			
	6 Roundup PowerMax	32 oz/a		B		POST			
	6 Clarity	1 pt/a		B		POST			
	6 Interlock	4 oz/a		B		POST			

Pest Type	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	LAMAM
Pest Scientific Name	Stellaria media	Lamium purpure>	Lamium amplexi>
Pest Name	Common chickwe>	Purple deadnet>	Henbit
Rating Date	5-12-2015	5-12-2015	5-12-2015
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	28 28	28 28	28 28
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A
ARM Action Codes			
Number of Decimals	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	8	9	10
7	Roundup PowerMax	32 oz/a			A	AT PLANT	93 a	87 ab	93 b
7	Clarity	1 pt/a			A	AT PLANT			
7	Fierce	3 oz/a			A	AT PLANT			
7	Roundup PowerMax	32 oz/a			B	POST			
7	Clarity	1 pt/a			B	POST			
7	Cobra	12.5 oz/a			B	POST			
7	Interlock	4 oz/a			B	POST			
8	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	100 a
8	V-10404	30 oz/a			A	AT PLANT			
8	Roundup PowerMax	32 oz/a			B	POST			
8	Clarity	1 pt/a			B	POST			
8	Interlock	4 oz/a			B	POST			
9	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	88 ab	100 a
9	Clarity	1 pt/a			A	AT PLANT			
9	Fierce	3 oz/a			A	AT PLANT			
9	Roundup PowerMax	32 oz/a			B	POST			
9	Clarity	1 pt/a			B	POST			
9	Interlock	4 oz/a			B	POST			
10	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a	100 a
10	Clarity	1 pt/a			A	AT PLANT			
10	Fierce	3 oz/a			A	AT PLANT			
10	Metribuzin	5 oz/a			A	AT PLANT			
10	Roundup PowerMax	32 oz/a			B	POST			
10	Clarity	1 pt/a			B	POST			
10	Interlock	4 oz/a			B	POST			
LSD	P=.05						11.3	15.4	6.3
Standard Deviation							6.6	9.0	3.7
CV							7.51	10.74	4.09
Grand Mean							87.7	83.5	89.3
Bartlett's X2							1.046	7.668	0.0
P(Bartlett's X2)							0.79	0.176	.
Skewness							-2.6125*	-2.2889*	-2.7435*
Kurtosis							5.5329*	4.319*	6.0387*
Replicate F							1.000	2.082	1.000
Replicate Prob(F)							0.3874	0.1537	0.3874
Treatment F							66.333	33.727	222.667
Treatment Prob(F)							0.0001	0.0001	0.0001

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERYRE	AMBTR	ERICA	SETFA
Pest Scientific Name	Erysimum repan>	Ambrosia trifi>	Conyza canad>	Setaria faberi
Pest Name	Bushy wallflow>	Giant ragweed	Canada horsewe>	Giant foxtail
Rating Date	5-12-2015	5-12-2015	5-27-2015	5-27-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	28 28	28 28	43 43	43 43
Trt-Eval Interval	28 DA-A	28 DA-A	43 DA-A	43 DA-A
ARM Action Codes			ET1	
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	11	12	13	14
1	UTC						0 b	0 c	0	0 d
2	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	87 ab	63 b	47 c
	2 Clarity	1 pt/a		A		AT PLANT				
	2 Roundup PowerMax	32 oz/a		B		POST				
	2 Clarity	1 pt/a		B		POST				
	2 Interlock	4 oz/a		B		POST				
3	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	85 ab	67 b	73 ab
	3 Clarity	1 pt/a		A		AT PLANT				
	3 Valor SX	2.5 oz/a		A		AT PLANT				
	3 Roundup PowerMax	32 oz/a		B		POST				
	3 Clarity	1 pt/a		B		POST				
	3 Interlock	4 oz/a		B		POST				
4	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	82 ab	67 b	63 b
	4 Clarity	1 pt/a		A		AT PLANT				
	4 Roundup PowerMax	32 oz/a		B		POST				
	4 Clarity	1 pt/a		B		POST				
	4 Cobra	12.5 oz/a		B		POST				
	4 Interlock	4 oz/a		B		POST				
5	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	78 b	70 b	77 ab
	5 Clarity	1 pt/a		A		AT PLANT				
	5 Valor SX	2.5 oz/a		A		AT PLANT				
	5 Roundup PowerMax	32 oz/a		B		POST				
	5 Clarity	1 pt/a		B		POST				
	5 Cobra	12.5 oz/a		B		POST				
	5 Interlock	4 oz/a		B		POST				
6	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	93 ab	90 a	87 a
	6 Clarity	1 pt/a		A		AT PLANT				
	6 Fierce	3 oz/a		A		AT PLANT				
	6 Roundup PowerMax	32 oz/a		B		POST				
	6 Clarity	1 pt/a		B		POST				
	6 Interlock	4 oz/a		B		POST				

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERYRE	AMBTR	ERICA	SETFA
Pest Scientific Name	Erysimum repa>	Ambrosia trifi>	Conyza canad>	Setaria faberi
Pest Name	Bushy wallflow>	Giant ragweed	Canada horsewe>	Giant foxtail
Rating Date	5-12-2015	5-12-2015	5-27-2015	5-27-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	28 28	28 28	43 43	43 43
Trt-Eval Interval	28 DA-A	28 DA-A	43 DA-A	43 DA-A
ARM Action Codes			ET1	
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	11	12	13	14
7 Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	87 ab	87 a	80 a
7 Clarity	1 pt/a			A	AT PLANT				
7 Fierce	3 oz/a			A	AT PLANT				
7 Roundup PowerMax	32 oz/a			B	POST				
7 Clarity	1 pt/a			B	POST				
7 Cobra	12.5 oz/a			B	POST				
7 Interlock	4 oz/a			B	POST				
8 Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	88 ab	90 a	73 ab
8 V-10404	30 oz/a			A	AT PLANT				
8 Roundup PowerMax	32 oz/a			B	POST				
8 Clarity	1 pt/a			B	POST				
8 Interlock	4 oz/a			B	POST				
9 Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	92 ab	97 a	83 a
9 Clarity	1 pt/a			A	AT PLANT				
9 Fierce	3 oz/a			A	AT PLANT				
9 Roundup PowerMax	32 oz/a			B	POST				
9 Clarity	1 pt/a			B	POST				
9 Interlock	4 oz/a			B	POST				
10 Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	97 a	100 a	87 a
10 Clarity	1 pt/a			A	AT PLANT				
10 Fierce	3 oz/a			A	AT PLANT				
10 Metribuzin	5 oz/a			A	AT PLANT				
10 Roundup PowerMax	32 oz/a			B	POST				
10 Clarity	1 pt/a			B	POST				
10 Interlock	4 oz/a			B	POST				
LSD P=.05						.	16.3	15.6	16.4
Standard Deviation						0.0	9.5	9.0	9.6
CV						0.0	12.08	11.15	14.3
Grand Mean						90.0	78.8	81.1	67.0
Bartlett's X2						0.0	8.123	3.091	4.888
P(Bartlett's X2)						.	0.422	0.876	0.674
Skewness						-2.8091*	-2.2748*	-0.0798	-1.6756*
Kurtosis						6.3081*	4.4336*	-1.5764	2.1051*
Replicate F						0.000	0.561	3.713	0.435
Replicate Prob(F)						1.0000	0.5804	0.0474	0.6536
Treatment F						0.000	26.354	7.521	22.859
Treatment Prob(F)						1.0000	0.0001	0.0003	0.0001

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	ERICA	SETFA	AMBTR
Pest Scientific Name	Ambrosia trifi>	Conyza canaden>	Setaria faberi	Ambrosia trifi>
Pest Name	Giant ragweed	Canada horsewe>	Giant foxtail	Giant ragweed
Rating Date	5-27-2015	6-30-2015	6-30-2015	6-30-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	43 43	77 27	77 27	77 27
Trt-Eval Interval	43 DA-A	27 DA-B	27 DA-B	27 DA-B
ARM Action Codes				
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	15	16	17	18
1	UTC						0 d	0 e	0 c	0 b
2	Roundup PowerMax	32 oz/a		A		AT PLANT	50 bc	78 cd	72 ab	77 a
2	Clarity	1 pt/a		A		AT PLANT				
2	Roundup PowerMax	32 oz/a		B		POST				
2	Clarity	1 pt/a		B		POST				
2	Interlock	4 oz/a		B		POST				
3	Roundup PowerMax	32 oz/a		A		AT PLANT	57 abc	88 bc	78 ab	78 a
3	Clarity	1 pt/a		A		AT PLANT				
3	Valor SX	2.5 oz/a		A		AT PLANT				
3	Roundup PowerMax	32 oz/a		B		POST				
3	Clarity	1 pt/a		B		POST				
3	Interlock	4 oz/a		B		POST				
4	Roundup PowerMax	32 oz/a		A		AT PLANT	50 bc	76 d	72 ab	77 a
4	Clarity	1 pt/a		A		AT PLANT				
4	Roundup PowerMax	32 oz/a		B		POST				
4	Clarity	1 pt/a		B		POST				
4	Cobra	12.5 oz/a		B		POST				
4	Interlock	4 oz/a		B		POST				
5	Roundup PowerMax	32 oz/a		A		AT PLANT	47 c	93 ab	73 ab	78 a
5	Clarity	1 pt/a		A		AT PLANT				
5	Valor SX	2.5 oz/a		A		AT PLANT				
5	Roundup PowerMax	32 oz/a		B		POST				
5	Clarity	1 pt/a		B		POST				
5	Cobra	12.5 oz/a		B		POST				
5	Interlock	4 oz/a		B		POST				
6	Roundup PowerMax	32 oz/a		A		AT PLANT	67 a	90 b	82 a	78 a
6	Clarity	1 pt/a		A		AT PLANT				
6	Fierce	3 oz/a		A		AT PLANT				
6	Roundup PowerMax	32 oz/a		B		POST				
6	Clarity	1 pt/a		B		POST				
6	Interlock	4 oz/a		B		POST				

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	ERICA	SETFA	AMBTR
Pest Scientific Name	Ambrosia trifi>	Conyza canaden>	Setaria faberi	Ambrosia trifi>
Pest Name	Giant ragweed	Canada horsewe>	Giant foxtail	Giant ragweed
Rating Date	5-27-2015	6-30-2015	6-30-2015	6-30-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	43 43	77 27	77 27	77 27
Trt-Eval Interval	43 DA-A	27 DA-B	27 DA-B	27 DA-B
ARM Action Codes				
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	15	16	17	18
7 Roundup PowerMax	32 oz/a			A	AT PLANT	50 bc	100 a	77 ab	68 a
7 Clarity	1 pt/a			A	AT PLANT				
7 Fierce	3 oz/a			A	AT PLANT				
7 Roundup PowerMax	32 oz/a			B	POST				
7 Clarity	1 pt/a			B	POST				
7 Cobra	12.5 oz/a			B	POST				
7 Interlock	4 oz/a			B	POST				
8 Roundup PowerMax	32 oz/a			A	AT PLANT	57 abc	86 bc	67 b	75 a
8 V-10404	30 oz/a			A	AT PLANT				
8 Roundup PowerMax	32 oz/a			B	POST				
8 Clarity	1 pt/a			B	POST				
8 Interlock	4 oz/a			B	POST				
9 Roundup PowerMax	32 oz/a			A	AT PLANT	60 ab	100 a	70 ab	72 a
9 Clarity	1 pt/a			A	AT PLANT				
9 Fierce	3 oz/a			A	AT PLANT				
9 Roundup PowerMax	32 oz/a			B	POST				
9 Clarity	1 pt/a			B	POST				
9 Interlock	4 oz/a			B	POST				
10 Roundup PowerMax	32 oz/a			A	AT PLANT	57 abc	95 ab	76 ab	75 a
10 Clarity	1 pt/a			A	AT PLANT				
10 Fierce	3 oz/a			A	AT PLANT				
10 Metribuzin	5 oz/a			A	AT PLANT				
10 Roundup PowerMax	32 oz/a			B	POST				
10 Clarity	1 pt/a			B	POST				
10 Interlock	4 oz/a			B	POST				
LSD P=.05						11.8	9.5	14.0	16.1
Standard Deviation						6.9	5.6	8.2	9.4
CV						13.9	6.9	12.29	13.91
Grand Mean						49.3	80.6	66.6	67.7
Bartlett's X2						1.049	5.715	14.385	4.32
P(Bartlett's X2)						0.984	0.456	0.072	0.827
Skewness						-1.6146*	-2.3214*	-2.122*	-2.2095*
Kurtosis						2.7674*	4.596*	4.0214*	4.0699*
Replicate F						7.299	0.340	4.362	2.324
Replicate Prob(F)						0.0048	0.7159	0.0285	0.1265
Treatment F						21.386	84.164	25.389	19.462
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001

Pest Type	W Weed	W Weed
Pest Code	CHEAL	ABUTH
Pest Scientific Name	Chenopodium al>	Abutilon theop>
Pest Name	Common lambsqu>	velvetleaf
Rating Date	6-30-2015	6-30-2015
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Days After First/Last Applic.	77 27	77 27
Trt-Eval Interval	27 DA-B	27 DA-B
ARM Action Codes		
Number of Decimals	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Appl Code	Description	19	20
1	UTC						0 b	0 d
2	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	82 c
	2 Clarity	1 pt/a		A		AT PLANT		
2	Roundup PowerMax	32 oz/a		B		POST		
	2 Clarity	1 pt/a		B		POST		
	2 Interlock	4 oz/a		B		POST		
3	Roundup PowerMax	32 oz/a		A		AT PLANT	98 a	87 bc
	3 Clarity	1 pt/a		A		AT PLANT		
	3 Valor SX	2.5 oz/a		A		AT PLANT		
	3 Roundup PowerMax	32 oz/a		B		POST		
	3 Clarity	1 pt/a		B		POST		
	3 Interlock	4 oz/a		B		POST		
4	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	83 c
	4 Clarity	1 pt/a		A		AT PLANT		
	4 Roundup PowerMax	32 oz/a		B		POST		
	4 Clarity	1 pt/a		B		POST		
	4 Cobra	12.5 oz/a		B		POST		
	4 Interlock	4 oz/a		B		POST		
5	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	95 ab
	5 Clarity	1 pt/a		A		AT PLANT		
	5 Valor SX	2.5 oz/a		A		AT PLANT		
	5 Roundup PowerMax	32 oz/a		B		POST		
	5 Clarity	1 pt/a		B		POST		
	5 Cobra	12.5 oz/a		B		POST		
	5 Interlock	4 oz/a		B		POST		
6	Roundup PowerMax	32 oz/a		A		AT PLANT	100 a	95 ab
	6 Clarity	1 pt/a		A		AT PLANT		
	6 Fierce	3 oz/a		A		AT PLANT		
	6 Roundup PowerMax	32 oz/a		B		POST		
	6 Clarity	1 pt/a		B		POST		
	6 Interlock	4 oz/a		B		POST		

Pest Type	W Weed	W Weed
Pest Code	CHEAL	ABUTH
Pest Scientific Name	Chenopodium al-	Abutilon theop>
Pest Name	Common lambsqu>	velvetleaf
Rating Date	6-30-2015	6-30-2015
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Days After First/Last Applic.	77 27	77 27
Trt-Eval Interval	27 DA-B	27 DA-B
ARM Action Codes		
Number of Decimals	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	19	20
7	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	100 a
7	Clarity	1 pt/a			A	AT PLANT		
7	Fierce	3 oz/a			A	AT PLANT		
7	Roundup PowerMax	32 oz/a			B	POST		
7	Clarity	1 pt/a			B	POST		
7	Cobra	12.5 oz/a			B	POST		
7	Interlock	4 oz/a			B	POST		
8	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	89 bc
8	V-10404	30 oz/a			A	AT PLANT		
8	Roundup PowerMax	32 oz/a			B	POST		
8	Clarity	1 pt/a			B	POST		
8	Interlock	4 oz/a			B	POST		
9	Roundup PowerMax	32 oz/a			A	AT PLANT	97 a	100 a
9	Clarity	1 pt/a			A	AT PLANT		
9	Fierce	3 oz/a			A	AT PLANT		
9	Roundup PowerMax	32 oz/a			B	POST		
9	Clarity	1 pt/a			B	POST		
9	Interlock	4 oz/a			B	POST		
10	Roundup PowerMax	32 oz/a			A	AT PLANT	100 a	99 a
10	Clarity	1 pt/a			A	AT PLANT		
10	Fierce	3 oz/a			A	AT PLANT		
10	Metribuzin	5 oz/a			A	AT PLANT		
10	Roundup PowerMax	32 oz/a			B	POST		
10	Clarity	1 pt/a			B	POST		
10	Interlock	4 oz/a			B	POST		
LSD P=.05							3.3	9.0
Standard Deviation							1.9	5.2
CV							2.18	6.32
Grand Mean							89.5	83.0
Bartlett's X2							0.871	7.228
P(Bartlett's X2)							0.351	0.30
Skewness							-2.7875*	-2.4321*
Kurtosis							6.2263*	4.9668*
Replicate F							1.976	2.182
Replicate Prob(F)							0.1676	0.1418
Treatment F							782.463	97.853
Treatment Prob(F)							0.0001	0.0001

Fierce Horseweed Programs for RR2X Soybeans

Trial ID: 15FIERCEBGHW Location: Western Branch F-10 E Trial Year: 2015
Protocol ID: 15FIERCEBGHW Investigator: Dr. Mark M. Loux
Project ID: Fierce MD 64.06 Study Director: Anthony Dobbels
Sponsor Contact: Eric Ott, Valent

Pest Type

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

Pest Code

ERICA, Conyza canadensis, = US
STEME, Stellaria media, = US
LAMPU, Lamium purpureum, = US
LAMAM, Lamium amplexicaule, = US
ERYRE, Erysimum repandum, = US
AMBTR, Ambrosia trifida, = US
SETFA, Setaria faberi, = US
CHEAL, Chenopodium album, = US
ABUTH, Abutilon theophrasti, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

ARM Action Codes

AA = Automatic arcsine square root % transformation

ET1 = Excluded treatment 1