

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

General Trial Information

Study Director: Joe Ikley **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Joe Ikley **Title:** Research Associate
Organization: Purdue University
Address: 915 West State Street **Phone No.:** 765-494-0891
City+State/Prov: West Lafayette **Mobile No.:** 410-596-9091
Postal Code: 47907 **E-mail:** jikley@purdue.edu

Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address: 915 West State Street **Phone No.:** 765-494-4656
City+State/Prov: West Lafayette **Mobile No.:** 765-404-9801
Postal Code: 47907 **E-mail:** wgj@purdue.edu

Cooperator/Landowner

Cooperator: Jay Young **Role:** Superintendent
Organization: Purdue University
Address 1: 8343 US 231 S
City: Lafayette **Phone No.:** 765-538-3422
State/Prov: IN **Fax No.:** 765-538-3423
Postal Code: 47909
Country: USA United States **E-mail:** jayyoung@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Beck's 29L84
Description: LL

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1.25 IN
Row Spacing, Unit: 15 IN
Soil Temperature, Unit: 60 F
Soil Moisture: SLIWET slightly wet, moist

Planting Date: May-16-2016
Planting Method: SEEDED seeded
Planting Equipment: PP Plot Planter
Emergence Date: May-25-2016

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 2 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300 FT2 **Treatments:** 8 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: TPAC - Field 4B
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.2 **Soil Name:** Toronto-Millbrook
CEC: 13.3

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Application Description

	A	B	C
Application Date:	May-18-2016	Jun-7-2016	Jun-24-2016
Appl. Start Time:	10:00 AM	7:00 AM	11:00 AM
Appl. Stop Time:	10:30 AM	7:15 AM	11:05 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	E POST	L POST
Application Placement:	BROADC	BROADC	BROADC
Applied By:	TC	PD	JI
Air Temperature, Unit:	58 F	54 F	74 F
% Relative Humidity:	70	90	70
Wind Velocity, Unit:	5 MPH	1 MPH	3 MPH
Wind Direction:	ENE	W	NE
Dew Presence (Y/N):	N no	Y yes	Y yes
Soil Temperature, Unit:	62 F	65 F	77 F
Soil Moisture:	SLIWET	WET	WET
% Cloud Cover:	30	0	90

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH	BBCH
Stage Majority, Percent:		13	61
Stage Minimum, Percent:		12	16
Stage Maximum, Percent:		13	61
Height, Unit:		3.5 IN	12 IN
Height Minimum, Maximum:		3 4	10 14

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:		32G	33G
Stage Minimum, Percent:		31G	32G
Stage Maximum, Percent:		33G	35G
Height, Unit:		3 IN	6 IN
Height Minimum, Maximum:		2 4	2 10
Density, Unit:		75 YD2	50 YD2
Pest 2 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		13	15
Stage Minimum, Percent:		11	13
Stage Maximum, Percent:		15	17
Height, Unit:		2.5 IN	2.5 IN
Height Minimum, Maximum:		1 4	1 4
Density, Unit:		35 YD2	10 YD2

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Application Equipment

	A	B	C
Appl. Equipment:	CO2 BACKPACK	CO2 BACKPACK	CO2 BACKPACK
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	18 PSI	18 PSI	18 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	XR 11002	XR 11002	XR 11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	17 IN	17 IN	17 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	MEIGS	MEIGS	MEIGS
Spray Volume, Unit:	15 gal/ac	15 gal/ac	15 gal/ac
Mix Size, Unit:	1.8 liters	1.8 liters	1.8 liters
Propellant:	CO2	CO2	CO2

Trial Comments

Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Unit	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
1	Untreated Check								101	303	601	703
2	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	B		27.19 ml/mx	102	304	602	701
	DRY AMS	100 %		SG	2.5 lb/a	B		35.95 g/mx				
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	C		27.19 ml/mx				
	SELECT MAX	0.97	LB/GAL	L	6 fl oz/a	C		5.625 ml/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v	C		4.5 ml/mx				
	DRY AMS	100 %		SG	2.5 lb/a	C		35.95 g/mx				
3	AUTHORITY ELITE	7	LB/GAL	EC	25 fl oz/a	A		23.44 ml/mx	103	302	502	702
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	B		27.19 ml/mx				
	DRY AMS	100 %		SG	2.5 lb/a	B		35.95 g/mx				
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	C		27.19 ml/mx				
	SELECT MAX	0.97	LB/GAL	L	6 fl oz/a	C		5.625 ml/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v	C		4.5 ml/mx				
DRY AMS	100 %		SG	2.5 lb/a	C		35.95 g/mx					
4	FIERCE	76 %		WG	3 oz/a	A		2.696 g/mx	104	403	504	804
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	B		27.19 ml/mx				
	DRY AMS	100 %		SG	2.5 lb/a	B		35.95 g/mx				
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	C		27.19 ml/mx				
	SELECT MAX	0.97	LB/GAL	L	6 fl oz/a	C		5.625 ml/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v	C		4.5 ml/mx				
DRY AMS	100 %		SG	2.5 lb/a	C		35.95 g/mx					
5	FIERCE	76 %		WG	3.75 oz/a	A		3.37 g/mx	201	401	603	801
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	B		27.19 ml/mx				
	DRY AMS	100 %		SG	2.5 lb/a	B		35.95 g/mx				
	LIBERTY 280 SL	2.34	LB/GAL	SL	29 fl oz/a	C		27.19 ml/mx				
	SELECT MAX	0.97	LB/GAL	L	6 fl oz/a	C		5.625 ml/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v	C		4.5 ml/mx				
DRY AMS	100 %		SG	2.5 lb/a	C		35.95 g/mx					

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type		W Weed AMBTR	W Weed SETFA		W Weed AMBTR	W Weed SETFA		
Pest Code		Giant ragweed	Giant foxtail		Giant ragweed	Giant foxtail		
Pest Name	GLXMA Soybean			GLXMA Soybean				
Crop Code	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P		
Crop Name	Jun-7-2016	Jun-7-2016	Jun-7-2016	Jun-24-2016	Jun-24-2016	Jun-24-2016		
Part Rated	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO		
Rating Date	%	%	%	%	%	%		
Rating Type	1	1	1	1	1	1		
Rating Unit	20 20	20 20	20 20	37 17	37 17	37 17		
Number of Subsamples	0 DA-B	0 DA-B	0 DA-B	0 DA-C	0 DA-C	0 DA-C		
Days After First/Last Applic.	13 DE-1	13 DE-1	13 DE-1	30 DE-1	30 DE-1	30 DE-1		
Trt-Eval Interval	P	P	P	P	P	P		
Days After Emergence	0	0	0	0	0	0		
ARM Action Codes	0	0	0	0	0	0		
Number of Decimals								
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6
2 LIBERTY 280 SL	29 fl oz/a	B 102	0	0	0	0	85	95
DRY AMS	2.5 lb/a	B 304	0	0	0	0	75	95
LIBERTY 280 SL	29 fl oz/a	C 602	0	0	0	0	70	80
SELECT MAX	6 fl oz/a	C 701	0	0	0	0	60	80
ACTIVATOR 90 - NIS	0.25 % v/v	C						
DRY AMS	2.5 lb/a	C						
Mean =			0	0	0	0	73	88
3 AUTHORITY ELITE	25 fl oz/a	A 103	0	95	96	0	90	100
LIBERTY 280 SL	29 fl oz/a	B 302	0	84	98	0	80	100
DRY AMS	2.5 lb/a	B 502	0	75	90	0	60	100
LIBERTY 280 SL	29 fl oz/a	C 702	0	92	98	0	95	100
SELECT MAX	6 fl oz/a	C						
ACTIVATOR 90 - NIS	0.25 % v/v	C						
DRY AMS	2.5 lb/a	C						
Mean =			0	87	96	0	81	100
4 FIERCE	3 oz/a	A 104	3	96	95	0	99	100
LIBERTY 280 SL	29 fl oz/a	B 403	3	95	89	5	90	90
DRY AMS	2.5 lb/a	B 504	3	80	95	0	80	100
LIBERTY 280 SL	29 fl oz/a	C 804	3	92	99	5	90	100
SELECT MAX	6 fl oz/a	C						
ACTIVATOR 90 - NIS	0.25 % v/v	C						
DRY AMS	2.5 lb/a	C						
Mean =			3	91	95	3	90	98
5 FIERCE	3.75 oz/a	A 201	4	88	95	5	95	100
LIBERTY 280 SL	29 fl oz/a	B 401	5	90	100	0	70	100
DRY AMS	2.5 lb/a	B 603	4	94	90	0	80	100
LIBERTY 280 SL	29 fl oz/a	C 801	2	75	98	0	70	100
SELECT MAX	6 fl oz/a	C						
ACTIVATOR 90 - NIS	0.25 % v/v	C						
DRY AMS	2.5 lb/a	C						
Mean =			4	87	96	1	79	100
6 FIERCE XLT	4 oz/a	A 202	2	95	100	5	97	100
LIBERTY 280 SL	29 fl oz/a	B 301	2	80	93	0	85	100
DRY AMS	2.5 lb/a	B 503	4	94	90	0	85	100
LIBERTY 280 SL	29 fl oz/a	C 704	4	93	94	0	85	100
SELECT MAX	6 fl oz/a	C						
ACTIVATOR 90 - NIS	0.25 % v/v	C						
DRY AMS	2.5 lb/a	C						
Mean =			3	91	94	1	88	100

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type		W Weed AMBTR	W Weed SETFA		W Weed AMBTR	W Weed SETFA
Pest Code		Giant ragweed	Giant foxtail		Giant ragweed	Giant foxtail
Pest Name	GLXMA Soybean			GLXMA Soybean		
Crop Code	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P
Crop Name	Jun-7-2016	Jun-7-2016	Jun-7-2016	Jun-24-2016	Jun-24-2016	Jun-24-2016
Part Rated	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Date	%	%	%	%	%	%
Rating Type	1	1	1	1	1	1
Rating Unit	20 20	20 20	20 20	37 17	37 17	37 17
Number of Subsamples	0 DA-B	0 DA-B	0 DA-B	0 DA-C	0 DA-C	0 DA-C
Days After First/Last Applic.	13 DE-1	13 DE-1	13 DE-1	30 DE-1	30 DE-1	30 DE-1
Trt-Eval Interval	P	P	P	P	P	P
Days After Emergence	0	0	0	0	0	0
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	1	2	3	4
7 BOUNDARY	2 pt/a A	203	0	95	97	0
LIBERTY 280 SL	29 fl oz/a B	402	0	83	95	0
DRY AMS	2.5 lb/a B	604	0	96	98	0
LIBERTY 280 SL	29 fl oz/a C	802	0	60	95	0
SELECT MAX	6 fl oz/a C					
ACTIVATOR 90 - NIS	0.25 % v/v C					
DRY AMS	2.5 lb/a C					
	Mean =		0	84	96	0
8 Untreated Check		204	0	0	0	0
		404	0	0	0	0
		501	0	0	0	0
		803	0	0	0	0
	Mean =		0	0	0	0

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type		W Weed	W Weed
Pest Code		AMBTR	SETFA
Pest Name		Giant ragweed	Giant foxtail
Crop Code			
Crop Name			
Part Rated		PLOT P	PLOT P
Rating Date		Jul-14-2016	Jul-14-2016
Rating Type		CONTRO	CONTRO
Rating Unit		%	%
Number of Subsamples		1	1
Days After First/Last Applic.		57 20	57 20
Trt-Eval Interval		20 DA-C	20 DA-C
Days After Emergence		50 DE-1	50 DE-1
ARM Action Codes		P	P
Number of Decimals		0	0
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code Plot	7	8
1 Untreated Check	101	0	0
	303	0	0
	601	0	0
	703	0	0
	Mean =	0	0

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Name	Giant ragweed	Giant foxtail
Crop Code		
Crop Name		
Part Rated	PLOT P	PLOT P
Rating Date	Jul-14-2016	Jul-14-2016
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Days After First/Last Applic.	57 20	57 20
Trt-Eval Interval	20 DA-C	20 DA-C
Days After Emergence	50 DE-1	50 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code Plot
		7
		8
2 LIBERTY 280 SL	29 fl oz/a B	102
DRY AMS	2.5 lb/a B	304
LIBERTY 280 SL	29 fl oz/a C	602
SELECT MAX	6 fl oz/a C	701
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
	Mean =	
		100
		100
3 AUTHORITY ELITE	25 fl oz/a A	103
LIBERTY 280 SL	29 fl oz/a B	302
DRY AMS	2.5 lb/a B	502
LIBERTY 280 SL	29 fl oz/a C	702
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
	Mean =	
		100
		100
4 FIERCE	3 oz/a A	104
LIBERTY 280 SL	29 fl oz/a B	403
DRY AMS	2.5 lb/a B	504
LIBERTY 280 SL	29 fl oz/a C	804
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
	Mean =	
		100
		100
5 FIERCE	3.75 oz/a A	201
LIBERTY 280 SL	29 fl oz/a B	401
DRY AMS	2.5 lb/a B	603
LIBERTY 280 SL	29 fl oz/a C	801
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
	Mean =	
		100
		100
6 FIERCE XLT	4 oz/a A	202
LIBERTY 280 SL	29 fl oz/a B	301
DRY AMS	2.5 lb/a B	503
LIBERTY 280 SL	29 fl oz/a C	704
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
	Mean =	
		100
		100

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type		W Weed	W Weed
Pest Code		AMBTR	SETFA
Pest Name		Giant ragweed	Giant foxtail
Crop Code			
Crop Name			
Part Rated		PLOT P	PLOT P
Rating Date		Jul-14-2016	Jul-14-2016
Rating Type		CONTRO	CONTRO
Rating Unit		%	%
Number of Subsamples		1	1
Days After First/Last Applic.		57 20	57 20
Trt-Eval Interval		20 DA-C	20 DA-C
Days After Emergence		50 DE-1	50 DE-1
ARM Action Codes		P	P
Number of Decimals		0	0
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code Plot	7	8
7 BOUNDARY	2 pt/a A 203	100	100
LIBERTY 280 SL	29 fl oz/a B 402	100	100
DRY AMS	2.5 lb/a B 604	100	100
LIBERTY 280 SL	29 fl oz/a C 802	100	100
SELECT MAX	6 fl oz/a C		
ACTIVATOR 90 - NIS	0.25 % v/v C		
DRY AMS	2.5 lb/a C		
	Mean =	100	100
8 Untreated Check	204	0	0
	404	0	0
	501	0	0
	803	0	0
	Mean =	0	0

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type
 W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
 AMBTR, Ambrosia trifida, = US
 SETFA, Setaria faberi, = US
Crop Code
 GLXMA, BSOY, Glycine max, = US
Part Rated
 PLOT = plot
 C = Crop is Part Rated
 P = Pest is Part Rated
Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
Rating Unit
 % = percent
ARM Action Codes
 P = Rating scale of 0 to 100 (e.g. % control or injury)

Pest Type		W Weed	W Weed		W Weed	W Weed	W Weed
Pest Code		AMBTR	SETFA		AMBTR	SETFA	AMBTR
Pest Name		Giant ragweed	Giant foxtail		Giant ragweed	Giant foxtail	Giant ragweed
Crop Code	GLXMA			GLXMA			
Crop Name	Soybean			Soybean			
Part Rated	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P	PLOT P
Rating Date	Jun-7-2016	Jun-7-2016	Jun-7-2016	Jun-24-2016	Jun-24-2016	Jun-24-2016	Jul-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Days After First/Last Applic.	20 20	20 20	20 20	37 17	37 17	37 17	57 20
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-C	0 DA-C	0 DA-C	20 DA-C
Days After Emergence	13 DE-1	13 DE-1	13 DE-1	30 DE-1	30 DE-1	30 DE-1	50 DE-1
ARM Action Codes	P	P	P	P	P	P	P
Number of Decimals	0	0	0	0	0	0	0
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code	1	2	3	4	5
1 Untreated Check			0 b	0 b	0 b	0 -	0 b
2 LIBERTY 280 SL	29 fl oz/a B		0 b	0 b	0 b	0 -	73 a
DRY AMS	2.5 lb/a B						88 b
LIBERTY 280 SL	29 fl oz/a C						100 a
SELECT MAX	6 fl oz/a C						
ACTIVATOR 90 - NIS	0.25 % v/v C						
DRY AMS	2.5 lb/a C						
3 AUTHORITY ELITE	25 fl oz/a A		0 b	87 a	96 a	0 -	81 a
LIBERTY 280 SL	29 fl oz/a B						100 a
DRY AMS	2.5 lb/a B						100 a
LIBERTY 280 SL	29 fl oz/a C						
SELECT MAX	6 fl oz/a C						
ACTIVATOR 90 - NIS	0.25 % v/v C						
DRY AMS	2.5 lb/a C						
4 FIERCE	3 oz/a A		3 a	91 a	95 a	3 -	90 a
LIBERTY 280 SL	29 fl oz/a B						98 a
DRY AMS	2.5 lb/a B						100 a
LIBERTY 280 SL	29 fl oz/a C						
SELECT MAX	6 fl oz/a C						
ACTIVATOR 90 - NIS	0.25 % v/v C						
DRY AMS	2.5 lb/a C						
5 FIERCE	3.75 oz/a A		4 a	87 a	96 a	1 -	79 a
LIBERTY 280 SL	29 fl oz/a B						100 a
DRY AMS	2.5 lb/a B						100 a
LIBERTY 280 SL	29 fl oz/a C						
SELECT MAX	6 fl oz/a C						
ACTIVATOR 90 - NIS	0.25 % v/v C						
DRY AMS	2.5 lb/a C						

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type		W Weed AMBTR	W Weed SETFA		W Weed AMBTR	W Weed SETFA	W Weed AMBTR
Pest Code		Giant ragweed	Giant foxtail		Giant ragweed	Giant foxtail	Giant ragweed
Pest Name							
Crop Code	GLXMA			GLXMA			
Crop Name	Soybean			Soybean			
Part Rated	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P	PLOT P
Rating Date	Jun-7-2016	Jun-7-2016	Jun-7-2016	Jun-24-2016	Jun-24-2016	Jun-24-2016	Jul-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Days After First/Last Applic.	20 20	20 20	20 20	37 17	37 17	37 17	57 20
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-C	0 DA-C	0 DA-C	20 DA-C
Days After Emergence	13 DE-1	13 DE-1	13 DE-1	30 DE-1	30 DE-1	30 DE-1	50 DE-1
ARM Action Codes	P	P	P	P	P	P	P
Number of Decimals	0	0	0	0	0	0	0
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code	1	2	3	4	5
6 FIERCE XLT	4 oz/a	A	3 a	91 a	94 a	1 -	88 a
LIBERTY 280 SL	29 fl oz/a	B					100 a
DRY AMS	2.5 lb/a	B					
LIBERTY 280 SL	29 fl oz/a	C					
SELECT MAX	6 fl oz/a	C					
ACTIVATOR 90 - NIS	0.25 % v/v	C					
DRY AMS	2.5 lb/a	C					100 a
7 BOUNDARY	2 pt/a	A	0 b	84 a	96 a	0 -	81 a
LIBERTY 280 SL	29 fl oz/a	B					100 a
DRY AMS	2.5 lb/a	B					
LIBERTY 280 SL	29 fl oz/a	C					
SELECT MAX	6 fl oz/a	C					
ACTIVATOR 90 - NIS	0.25 % v/v	C					
DRY AMS	2.5 lb/a	C					100 a
8 Untreated Check			0 b	0 b	0 b	0 -	0 b
LSD P=.05			0.9	12.0	4.2	2.4	12.9
Standard Deviation			0.6	8.1	2.9	1.6	8.8
CV			51.91	14.85	4.85	261.86	14.31
Bartlett's X2			0.022	3.384	3.059	0.082	2.856
P(Bartlett's X2)			0.883	0.496	0.548	0.96	0.722
Skewness			0.8979*	-0.4569	-0.5317	2.3809*	-0.9799*
Kurtosis			-0.8258	-1.8142*	-1.8207*	3.9094*	-0.7924
Replicate F			0.286	1.056	1.415	0.778	2.360
Replicate Prob(F)			0.8348	0.3888	0.2665	0.5195	0.1005
Treatment F			28.807	124.782	1167.295	1.333	75.891
Treatment Prob(F)			0.0001	0.0001	0.0001	0.2839	0.0001

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12	Location: TPAC Trial Year: 2016
Protocol ID: 16S-TPAC-SOY-12	Investigator: Dr. Bill Johnson
Project ID: Fierce 64.05	Study Director: Joe Ikley
	Sponsor Contact: Valent - Eric Ott

Pest Type	W Weed	
Pest Code	SETFA	
Pest Name	Giant foxtail	
Crop Code		
Crop Name		
Part Rated	PLOT P	
Rating Date	Jul-14-2016	
Rating Type	CONTRO	
Rating Unit	%	
Number of Subsamples	1	
Days After First/Last Applic.	57 20	
Trt-Eval Interval	20 DA-C	
Days After Emergence	50 DE-1	
ARM Action Codes	P	
Number of Decimals	0	
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
1 Untreated Check		8
2 LIBERTY 280 SL	29 fl oz/a B	100 -
DRY AMS	2.5 lb/a B	
LIBERTY 280 SL	29 fl oz/a C	
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
3 AUTHORITY ELITE	25 fl oz/a A	100 -
LIBERTY 280 SL	29 fl oz/a B	
DRY AMS	2.5 lb/a B	
LIBERTY 280 SL	29 fl oz/a C	
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
4 FIERCE	3 oz/a A	100 -
LIBERTY 280 SL	29 fl oz/a B	
DRY AMS	2.5 lb/a B	
LIBERTY 280 SL	29 fl oz/a C	
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	
5 FIERCE	3.75 oz/a A	100 -
LIBERTY 280 SL	29 fl oz/a B	
DRY AMS	2.5 lb/a B	
LIBERTY 280 SL	29 fl oz/a C	
SELECT MAX	6 fl oz/a C	
ACTIVATOR 90 - NIS	0.25 % v/v C	
DRY AMS	2.5 lb/a C	

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
 Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
 Project ID: Fierce 64.05 Study Director: Joe Ikley
 Sponsor Contact: Valent - Eric Ott

Pest Type	W Weed	
Pest Code	SETFA	
Pest Name	Giant foxtail	
Crop Code		
Crop Name		
Part Rated	PLOT P	
Rating Date	Jul-14-2016	
Rating Type	CONTRO	
Rating Unit	%	
Number of Subsamples	1	
Days After First/Last Applic.	57 20	
Trt-Eval Interval	20 DA-C	
Days After Emergence	50 DE-1	
ARM Action Codes	P	
Number of Decimals	0	
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
		8
6 FIERCE XLT	4 oz/a	A
LIBERTY 280 SL	29 fl oz/a	B
DRY AMS	2.5 lb/a	B
LIBERTY 280 SL	29 fl oz/a	C
SELECT MAX	6 fl oz/a	C
ACTIVATOR 90 - NIS	0.25 % v/v	C
DRY AMS	2.5 lb/a	C
		100 -
7 BOUNDARY	2 pt/a	A
LIBERTY 280 SL	29 fl oz/a	B
DRY AMS	2.5 lb/a	B
LIBERTY 280 SL	29 fl oz/a	C
SELECT MAX	6 fl oz/a	C
ACTIVATOR 90 - NIS	0.25 % v/v	C
DRY AMS	2.5 lb/a	C
		100 -
8 Untreated Check		0 -
LSD P=.05		.
Standard Deviation		0.0
CV		0.0
Bartlett's X2		0.0
P(Bartlett's X2)		.
Skewness		-1.2123*
Kurtosis		-0.5701
Replicate F		0.000
Replicate Prob(F)		1.0000
Treatment F		0.000
Treatment Prob(F)		1.0000

Purdue Weed Science

Fierce Programs for Control of Giant Ragweed in Conventional Till Liberty Link Soybean

Trial ID: 16S-TPAC-SOY-12 Location: TPAC Trial Year: 2016
Protocol ID: 16S-TPAC-SOY-12 Investigator: Dr. Bill Johnson
Project ID: Fierce 64.05 Study Director: Joe Ikley
Sponsor Contact: Valent - Eric Ott

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, = US

SETFA, Setaria faberi, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Part Rated

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

ARM Action Codes

P = Rating scale of 0 to 100 (e.g. % control or injury)