

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

General Trial Information

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

Discipline: H herbicide
Trial Status: E established
Initiation Date: May-17-2017

Trial Location

City: Lafayette **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47909

Latitude of LL Corner °: 40.29176 N
Longitude of LL Corner °: 86.9061 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Dustin Johnson **Title:** Research Associate
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** john1357@purdue.edu
Country: USA United States

Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Country: USA United States

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: XTEND AG30X6
Description: DICAMBA/RR
Planting Rate, Unit: 155000 S/A
Depth, Unit: 1.25 IN
Row Spacing, Unit: 15 IN
Soil Temperature, Unit: 69 F
Soil Moisture: SLIDRY slightly dry
Planting Date: May-17-2017
Planting Method: PLANTD planted
Planting Equipment: PP Plot Planter
Emergence Date: May-27-2017

Pest Description

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

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 26
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

Soil Description

Description Name: TPAC -Field 4A
% OM: 3.1 **Texture:** SIL silt loam
pH: 6 **Soil Name:** Toronto-Millbrook
CEC: 11.1

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	G
Appl. Equipment:	CO2 BACKPACK
Equipment Type:	BACSPR
Operation Pressure, Unit:	29 PSI
Nozzle Type:	AIXR
Nozzle Size:	110015
Nozzle Spacing, Unit:	15 IN
Nozzles/Row:	8
Boom Length, Unit:	10 FT
Boom Height, Unit:	17 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	1.8 liters
Propellant:	COMCO2

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

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Code	Amt Product to Measure	Rep			
								1	2	3	4
1	UNTREATED CHECK							101	403	513	703
2	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	102	305	510	806
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	B	30.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		L	38.4 fl oz/a	B	36.0 ml/mx				
3	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	103	406	507	712
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	B	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	B	26.62 ml/mx				
	INTACT	100 %		L	9.6 fl oz/a	B	9.0 ml/mx				
4	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	104	404	613	708
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	B	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	B	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	B	9.0 ml/mx				
	WARRANT ULTRA	3.49 LBA/GAL		CS	50 fl oz/a	B	46.87 ml/mx				
5	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	105	303	608	810
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	B	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	B	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	B	9.0 ml/mx				
	COBRA	2 LB/GAL		EC	10 fl oz/a	B	9.375 ml/mx				
6	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	106	304	606	707
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	C	30.0 ml/mx				
	N-PAK AMS LIQUID	34 %		SL	38.4 fl oz/a	C	36.0 ml/mx				
7	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	107	308	506	801
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	C	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	C	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	C	9.0 ml/mx				
8	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	108	402	512	711
	XTENDIMAX WITH	2.9 LBAE/GAL		SL	22 fl oz/a	C	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	C	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	C	9.0 ml/mx				
	WARRANT ULTRA	3.49 LBA/GAL		CS	50 fl oz/a	C	46.87 ml/mx				
9	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	109	407	603	805
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	C	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	C	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	C	9.0 ml/mx				
	COBRA	2 LB/GAL		EC	10 fl oz/a	C	9.375 ml/mx				
10	ROWEL DARK	51 %		WG	2 oz wt/a	A	1.797 g/mx	110	312	602	804
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	D	30.0 ml/mx				
	N-PAK AMS LIQUID	34 %		SL	38.4 fl oz/a	D	36.0 ml/mx				
11	ROWEL DARK	51 %		WG	2 oz wt/a	A	1.797 g/mx	111	309	609	702
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	D	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	D	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	D	9.0 ml/mx				

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Sponsor Contact: D. Childs - Monsanto		

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

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Code	Amt Product to Measure	Rep			
								1	2	3	4
12	ROWEL DARK	51 %		WG	2 oz wt/a	A	1.797 g/mx	112	408	511	706
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	D	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	D	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	D	9.0 ml/mx				
	WARRANT ULTRA	3.49 LBA/GAL		CS	50 fl oz/a	D	46.87 ml/mx				
13	ROWEL DARK	51 %		WG	2 oz wt/a	A	1.797 g/mx	113	401	504	807
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	D	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	D	26.62 ml/mx				
	INTACT	43.18 %		L	7.7 fl oz/a	D	7.219 ml/mx				
	COBRA	2 LB/GAL		EC	10 fl oz/a	D	9.375 ml/mx				
14	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	201	405	509	701
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	E	30.0 ml/mx				
	N-PAK AMS LIQUID	34 %		SL	38.4 fl oz/a	E	36.0 ml/mx				
15	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	202	311	501	705
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	E	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	E	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	E	9.0 ml/mx				
16	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	203	307	611	709
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	E	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	E	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	E	9.0 ml/mx				
	WARRANT ULTRA	3.49 LBA/GAL		CS	50 fl oz/a	E	46.87 ml/mx				
17	ROWEL SUNRISE	51 %		WG	2 oz wt/a	A	1.797 g/mx	204	413	508	704
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	E	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	E	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	E	9.0 ml/mx				
	COBRA	2 LB/GAL		EC	10 fl oz/a	E	9.375 ml/mx				
18	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	205	301	505	813
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	F	30.0 ml/mx				
	N-PAK AMS LIQUID	34 %		SL	38.4 fl oz/a	F	36.0 ml/mx				
19	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	206	410	610	811
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	F	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	F	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	F	9.0 ml/mx				
20	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	207	310	607	812
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	F	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	F	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	F	9.0 ml/mx				
	WARRANT ULTRA	3.49 LBA/GAL		CS	50 fl oz/a	F	46.87 ml/mx				
21	ROWEL SOLAR NOON	51 %		WG	2 oz wt/a	A	1.797 g/mx	208	411	612	713
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	F	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a	F	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a	F	9.0 ml/mx				
	COBRA	2 LB/GAL		EC	10 fl oz/a	F	9.375 ml/mx				

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Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
22	ROWEL DARK	51 %		WG	2 oz wt/a		A	1.797 g/mx	209	302	601	802
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a		G	30.0 ml/mx				
	N-PAK AMS LIQUID	34 %		SL	38.4 fl oz/a		G	36.0 ml/mx				
23	ROWEL DARK	51 %		WG	2 oz wt/a		A	1.797 g/mx	210	412	503	809
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a		G	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a		G	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a		G	9.0 ml/mx				
24	ROWEL DARK	51 %		WG	2 oz wt/a		A	1.797 g/mx	211	306	605	803
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a		G	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a		G	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a		G	9.0 ml/mx				
	WARRANT ULTRA	3.49 LBA/GAL		CS	50 fl oz/a		G	46.87 ml/mx				
25	ROWEL DARK	51 %		WG	2 oz wt/a		A	1.797 g/mx	212	313	604	808
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a		G	20.62 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	28.4 fl oz/a		G	26.62 ml/mx				
	INTACT	43.18 %		L	9.6 fl oz/a		G	9.0 ml/mx				
	COBRA	2 LB/GAL		EC	10 fl oz/a		G	9.375 ml/mx				
26	UNTREATED CHECK 2								213	409	502	710

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
53.922	g	ROWEL	51	%	WG	
824.062	ml	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	
45.000	ml	N-PAK AMS	3.4	LBA/GAL	L	
438.281	ml	XTENDIMAX	2.9	LBAE/GAL	SL	
11.250	ml	INTACT	100	%	L	
189.023	ml	INTACT	43.18	%	L	
351.562	ml	WARRANT ULTRA	3.49	LBA/GAL	CS	
70.312	ml	COBRA	2	LB/GAL	EC	
225.000	ml	N-PAK AMS LIQUID	34	%	SL	
25.781	ml	XTENDIMAX WITH	2.9	LBAE/GAL	SL	

* 'Per area' calculations based on spray volume= 15 GAL/AC, mix size= 1.8 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

6/21/17 There was leaf deformation and draw string throughout trial.

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Pest Type	W Weed							
Pest Code	AMBTR							
Pest Name	Giant ragweed							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017	Jun-14-2017	Jun-21-2017		
Rating Type	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL	PHYGEN		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A1	A2	A2	A3	A3	A4		
Days After First/Last Applic.	21 1	23 3	23 3	27 7	27 7	34 1		
Days After Emergence	12 DE-1	14 DE-1	14 DE-1	18 DE-1	18 DE-1	25 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	1	2	3	4	5	6
1 UNTREATED CHECK			0 a	0 a	0 e	0 c	0 c	0 d
2 ROWEL SUNRISE ROUNDUP POWERMAX N-PAK AMS	2 oz wt/a A 32 fl oz/a B 38.4 fl oz/a B		0 a	0 a	0 e	0 c	65 b	1 d
3 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B		0 a	0 a	3 de	1 c	86 a	6 bcd
4 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B 50 fl oz/a B		0 a	0 a	5 cd	6 b	79 a	13 abc
5 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B 10 fl oz/a B		0 a	0 a	11 a	11 a	81 a	13 abc
6 ROWEL SOLAR NOON ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a C 38.4 fl oz/a C		0 a	0 a	0 e	0 c	58 b	0 d
7 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C		0 a	0 a	3 de	3 c	78 a	5 bcd
8 ROWEL SOLAR NOON XTENDIMAX WITH ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C 50 fl oz/a C		0 a	0 a	6 cd	6 b	81 a	19 a
9 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C 10 fl oz/a C		0 a	0 a	8 bc	7 b	80 a	12 abc

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Average=1,2,10
 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

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Pest Type Pest Code Pest Name	W Weed AMBTR Giant ragweed							
Crop Code Crop Name Part Rated Rating Date Rating Type Rating Unit Number of Subsamples Assessed By	GLXMA Soybean PLOT - Jun-8-2017 DROOP %	GLXMA Soybean PLOT - Jun-10-2017 DROOP %	GLXMA Soybean PLOT - Jun-10-2017 PHYGEN %	GLXMA Soybean PLOT - Jun-14-2017 PHYGEN %	GLXMA Soybean PLOT - Jun-14-2017 CONTROL %	GLXMA Soybean PLOT - Jun-21-2017 PHYGEN %		
Rating Timing Days After First/Last Applic. Days After Emergence ARM Action Codes Number of Decimals	A1 21 1 12 DE-1 P 0	A2 23 3 14 DE-1 P 0	A2 23 3 14 DE-1 P 0	A3 27 7 18 DE-1 P 0	A3 27 7 18 DE-1 P 0	A4 34 1 25 DE-1 P 0		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	1	2	3	4	5	6
10 ROWEL DARK ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a 32 fl oz/a 38.4 fl oz/a	A D D	0 a	0 a	0 e	0 c	66 b	4 cd
11 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a	A D D D	0 a	0 a	2 e	1 c	78 a	6 bcd
12 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 50 fl oz/a	A D D D D	0 a	0 a	6 cd	6 b	76 a	19 a
13 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 7.7 fl oz/a 10 fl oz/a	A D D D D	0 a	0 a	10 ab	9 a	83 a	14 ab
14 ROWEL SUNRISE ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a 32 fl oz/a 38.4 fl oz/a	A E E						
15 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a	A E E E						
16 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 50 fl oz/a	A E E E E						
17 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 10 fl oz/a	A E E E E						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Average=1,2,10
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Sponsor Contact: D. Childs - Monsanto		

Pest Type Pest Code Pest Name	GLXMA Soybean PLOT - Jun-8-2017 DROOP %	GLXMA Soybean PLOT - Jun-10-2017 DROOP %	GLXMA Soybean PLOT - Jun-10-2017 PHYGEN %	GLXMA Soybean PLOT - Jun-14-2017 PHYGEN %	W Weed AMBTR Giant ragweed GLXMA Soybean PLOT - Jun-14-2017 CONTROL %	GLXMA Soybean PLOT - Jun-21-2017 PHYGEN %		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017	Jun-14-2017	Jun-21-2017		
Rating Type	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL	PHYGEN		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples Assessed By	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON		
Rating Timing	A1	A2	A2	A3	A3	A4		
Days After First/Last Applic.	21 1	23 3	23 3	27 7	27 7	34 1		
Days After Emergence	12 DE-1	14 DE-1	14 DE-1	18 DE-1	18 DE-1	25 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate Unit	Appl Code	1	2	3	4	5	6
18 ROWEL	2 oz wt/a A							
SOLAR NOON								
ROUNDUP POWERMAX	32 fl oz/a F							
N-PAK AMS LIQUID	38.4 fl oz/a F							
19 ROWEL	2 oz wt/a A							
SOLAR NOON								
XTENDIMAX	22 fl oz/a F							
ROUNDUP POWERMAX	28.4 fl oz/a F							
INTACT	9.6 fl oz/a F							
20 ROWEL	2 oz wt/a A							
SOLAR NOON								
XTENDIMAX	22 fl oz/a F							
ROUNDUP POWERMAX	28.4 fl oz/a F							
INTACT	9.6 fl oz/a F							
WARRANT ULTRA	50 fl oz/a F							
21 ROWEL	2 oz wt/a A							
SOLAR NOON								
XTENDIMAX	22 fl oz/a F							
ROUNDUP POWERMAX	28.4 fl oz/a F							
INTACT	9.6 fl oz/a F							
COBRA	10 fl oz/a F							
22 ROWEL	2 oz wt/a A							
DARK								
ROUNDUP POWERMAX	32 fl oz/a G							
N-PAK AMS LIQUID	38.4 fl oz/a G							
23 ROWEL	2 oz wt/a A							
DARK								
XTENDIMAX	22 fl oz/a G							
ROUNDUP POWERMAX	28.4 fl oz/a G							
INTACT	9.6 fl oz/a G							
24 ROWEL	2 oz wt/a A							
DARK								
XTENDIMAX	22 fl oz/a G							
ROUNDUP POWERMAX	28.4 fl oz/a G							
INTACT	9.6 fl oz/a G							
WARRANT ULTRA	50 fl oz/a G							
25 ROWEL	2 oz wt/a A	0 a	0 a					
DARK								
XTENDIMAX	22 fl oz/a G							
ROUNDUP POWERMAX	28.4 fl oz/a G							
INTACT	9.6 fl oz/a G							
COBRA	10 fl oz/a G							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Average=1,2,10
 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed							
Pest Code	AMBTR							
Pest Name	Giant ragweed							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017	Jun-14-2017	Jun-21-2017		
Rating Type	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL	PHYGEN		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A1	A2	A2	A3	A3	A4		
Days After First/Last Applic.	21 1	23 3	23 3	27 7	27 7	34 1		
Days After Emergence	12 DE-1	14 DE-1	14 DE-1	18 DE-1	18 DE-1	25 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	1	2	3	4	5	6
26 UNTREATED CHECK 2			0 a	0 a	0 e	0 c	0 c	0 d
LSD P=.05	.	.	2.3	2.2	7.8	6.2		
Standard Deviation	0.0	0.0	1.6	1.5	5.4	4.3		
CV	0.0	0.0	41.78	43.46	8.36	55.47		
Bartlett's X2	0.0	0.0	22.088	10.82	15.965	12.349		
P(Bartlett's X2)	.	.	0.002*	0.212	0.142	0.262		
Skewness	.	.	0.9156*	0.8919*	-1.7179*	0.5816		
Kurtosis	.	.	0.0954	-0.1793	1.5045*	-0.7705		
Replicate F	0.000	0.000	2.950	2.955	0.200	0.122		
Replicate Prob(F)	1.0000	1.0000	0.0445	0.0442	0.8959	0.9467		
Treatment F	0.000	0.000	23.245	25.576	110.829	9.632		
Treatment Prob(F)	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001		

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 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed						W Weed		
Pest Code	AMBTR						AMBTR		
Pest Name	Giant ragweed						Giant ragweed		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Rating Date	Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	Jun-27-2017	Jun-27-2017			
Rating Type	CONTROL	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON			
Rating Timing	A4	A5	A6	A6	A7	A7			
Days After First/Last Applic.	34 1	34 1	36 3	36 3	40 7	40 7			
Days After Emergence	25 DE-1	25 DE-1	27 DE-1	27 DE-1	31 DE-1	31 DE-1			
ARM Action Codes	P	P	P	P	P	P			
Number of Decimals	0	0	0	0	0	0			
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
1	UNTREATED CHECK			0 d	0 a	0 a	0 b	0 e	0 j
2	ROWEL SUNRISE ROUNDUP POWERMAX N-PAK AMS	2 oz wt/a A 32 fl oz/a B 38.4 fl oz/a B		81 bc				0 e	78 c-f
3	ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B		96 a				5 de	91 ab
4	ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B 50 fl oz/a B		88 ab				9 b-e	94 a
5	ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B 10 fl oz/a B		87 ab				7 cde	91 ab
6	ROWEL SOLAR NOON ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a C 38.4 fl oz/a C		74 c			0 b	0 e	68 f
7	ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C		93 a				4 de	93 a
8	ROWEL SOLAR NOON XTENDIMAX WITH ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C 50 fl oz/a C		93 a				16 bc	97 a
9	ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C 10 fl oz/a C		96 a				9 b-e	93 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
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Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed						W Weed	
Pest Code	AMBTR						AMBTR	
Pest Name	Giant ragweed						Giant ragweed	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	Jun-27-2017	Jun-27-2017		
Rating Type	CONTROL	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples Assessed By	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON		
Rating Timing	A4	A5	A6	A6	A7	A7		
Days After First/Last Applic.	34 1	34 1	36 3	36 3	40 7	40 7		
Days After Emergence	25 DE-1	25 DE-1	27 DE-1	27 DE-1	31 DE-1	31 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	7	8	9	10	11	12
10 ROWEL DARK ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a D 38.4 fl oz/a D		76 c				0 e	78 c-f
11 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a D 28.4 fl oz/a D 9.6 fl oz/a D		94 a				4 de	91 ab
12 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a D 28.4 fl oz/a D 9.6 fl oz/a D 50 fl oz/a D		91 ab				16 b	94 a
13 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a D 28.4 fl oz/a D 7.7 fl oz/a D 10 fl oz/a D		90 ab				9 b-e	91 ab
14 ROWEL SUNRISE ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a E 38.4 fl oz/a E			0 a	0 a	0 b	0 e	23 i
15 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a E 28.4 fl oz/a E 9.6 fl oz/a E			0 a	0 a	0 b	0 e	69 ef
16 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a E 28.4 fl oz/a E 9.6 fl oz/a E 50 fl oz/a E			0 a	0 a	12 b	13 bcd	85 a-d
17 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a E 28.4 fl oz/a E 9.6 fl oz/a E 10 fl oz/a E			0 a	0 a	32 a	30 a	80 b-e

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
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 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

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Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed						W Weed	
Pest Code	AMBTR						AMBTR	
Pest Name	Giant ragweed						Giant ragweed	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	Jun-27-2017	Jun-27-2017		
Rating Type	CONTROL	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples Assessed By	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON		
Rating Timing	A4	A5	A6	A6	A7	A7		
Days After First/Last Applic.	34 1	34 1	36 3	36 3	40 7	40 7		
Days After Emergence	25 DE-1	25 DE-1	27 DE-1	27 DE-1	31 DE-1	31 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	7	8	9	10	11	12
18 ROWEL SOLAR NOON ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a F 38.4 fl oz/a F	A		0 a	0 a	0 b	0 e	59 g
19 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a F 28.4 fl oz/a F 9.6 fl oz/a F	A		0 a	0 a	0 b	0 e	79 c-f
20 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a F 28.4 fl oz/a F 9.6 fl oz/a F 50 fl oz/a F	A		0 a	0 a	12 b	11 bcd	80 b-e
21 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a F 28.4 fl oz/a F 9.6 fl oz/a F 10 fl oz/a F	A		0 a	0 a	31 a	29 a	81 bcd
22 ROWEL DARK ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a G 38.4 fl oz/a G	A		0 a	0 a	0 b	0 e	39 h
23 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a G 28.4 fl oz/a G 9.6 fl oz/a G	A		0 a	0 a	0 b	0 e	74 def
24 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a G 28.4 fl oz/a G 9.6 fl oz/a G 50 fl oz/a G	A		0 a	0 a	0 b	1 e	76 def
25 ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a G 28.4 fl oz/a G 9.6 fl oz/a G 10 fl oz/a G	A		0 a	0 a	31 a	29 a	89 abc

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Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed						W Weed	
Pest Code	AMBTR						AMBTR	
Pest Name	Giant ragweed						Giant ragweed	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	Jun-27-2017	Jun-27-2017		
Rating Type	CONTROL	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A4	A5	A6	A6	A7	A7		
Days After First/Last Applic.	34 1	34 1	36 3	36 3	40 7	40 7		
Days After Emergence	25 DE-1	25 DE-1	27 DE-1	27 DE-1	31 DE-1	31 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	7	8	9	10	11	12
26 UNTREATED CHECK 2			0 d	0 a	0 a	0 b	0 e	0 j
LSD P=.05	7.6	.	.	.	7.4	5.5	7.4	
Standard Deviation	5.3	0.0	0.0	0.0	5.2	3.9	5.3	
CV	6.99	0.0	0.0	0.0	65.92	53.22	7.27	
Bartlett's X2	21.618	0.0	0.0	0.0	5.14	26.583	18.313	
P(Bartlett's X2)	0.028*	.	.	.	0.273	0.022*	0.74	
Skewness	-1.843*	.	.	.	1.3863*	1.5601*	-1.6254*	
Kurtosis	1.8356*	.	.	.	0.4363	1.7767*	1.7122*	
Replicate F	0.796	0.000	0.000	0.000	1.551	1.266	0.799	
Replicate Prob(F)	0.5035	1.0000	1.0000	1.0000	0.2171	0.2921	0.4985	
Treatment F	153.689	0.000	0.000	0.000	24.729	24.132	108.006	
Treatment Prob(F)	0.0001	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
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 Missing data estimates are included in columns: Average=1,2,10
 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed			W Weed			W Weed	
Pest Code			AMBTR			AMBTR			AMBTR	
Pest Name			Giant ragweed			Giant ragweed			Giant ragweed	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jul-5-2017	Jul-5-2017	Jul-12-2017	Jul-12-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL	CONTROL	
Rating Unit	%	%	%	%	%	%	%	%	%	
Number of Subsamples	1	1	1	1	1	1	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A8	A8	A9	A9	A10	A10	A10	A10	A10	
Days After First/Last Applic.	48 15	48 15	55 22	55 22	62 29	62 29	62 29	62 29	62 29	
Days After Emergence	39 DE-1	39 DE-1	46 DE-1	46 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	
ARM Action Codes	P	P	P	P	P	P	P	P	P	
Number of Decimals	0	0	0	0	0	0	0	0	0	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	13	14	15	16	17	18		
1 UNTREATED CHECK			0 d	0 g	0 f	0 d	0 c	0 j		
2 ROWEL SUNRISE ROUNDUP POWERMAX N-PAK AMS	2 oz wt/a A 32 fl oz/a B 38.4 fl oz/a B		0 d	71 cd	0 f	56 b	0 c	43 hi		
3 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B		5 cd	85 abc	3 def	78 a	1 c	66 efg		
4 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B 50 fl oz/a B		6 cd	92 ab	4 def	90 a	2 c	76 a-g		
5 ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a B 28.4 fl oz/a B 9.6 fl oz/a B 10 fl oz/a B		4 cd	84 abc	2 ef	78 a	0 c	63 fg		
6 ROWEL SOLAR NOON ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a A 32 fl oz/a C 38.4 fl oz/a C		0 d	61 de	0 f	50 bc	0 c	38 hi		
7 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C		3 d	87 abc	2 ef	77 a	0 c	69 c-g		
8 ROWEL SOLAR NOON XTENDIMAX WITH ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C 50 fl oz/a C		12 b	95 a	11 bc	95 a	6 b	84 a-f		
9 ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a A 22 fl oz/a C 28.4 fl oz/a C 9.6 fl oz/a C 10 fl oz/a C		6 cd	90 ab	3 def	80 a	0 c	67 d-g		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Average=1,2,10
 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type				W Weed				W Weed				W Weed
Pest Code				AMBTR				AMBTR				AMBTR
Pest Name				Giant ragweed				Giant ragweed				Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jul-5-2017	Jul-5-2017	Jul-12-2017	Jul-12-2017	Jul-12-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	Jul-19-2017	
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL	CONTROL	
Rating Unit	%	%	%	%	%	%	%	%	%	%	%	
Number of Subsamples Assessed By	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	
Rating Timing	A8	A8	A9	A9	A9	A10	A10	A10	A10	A10	A10	
Days After First/Last Applic.	48 15	48 15	55 22	55 22	55 22	62 29	62 29	62 29	62 29	62 29	62 29	
Days After Emergence	39 DE-1	39 DE-1	46 DE-1	46 DE-1	46 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	
ARM Action Codes	P	P	P	P	P	P	P	P	P	P	P	
Number of Decimals	0	0	0	0	0	0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Appl Code	13	14	15	16	17	18			
10	ROWEL DARK ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a 32 fl oz/a 38.4 fl oz/a	A D D	0 d	68 d	0 f	53 bc	0 c	38 hi			
11	ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a	A D D D	3 d	87 abc	2 ef	77 a	1 c	70 b-g			
12	ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 50 fl oz/a	A D D D D	11 b	93 ab	7 de	93 a	3 bc	82 a-f			
13	ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 7.7 fl oz/a 10 fl oz/a	A D D D D	7 bcd	89 ab	4 def	80 a	1 c	69 c-g			
14	ROWEL SUNRISE ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a 32 fl oz/a 38.4 fl oz/a	A E E	0 d	34 f	0 f	36 c	0 c	29 i			
15	ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a	A E E E	2 d	85 abc	1 ef	87 a	0 c	93 abc			
16	ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 50 fl oz/a	A E E E E	12 b	88 abc	11 bc	90 a	9 a	89 a-e			
17	ROWEL SUNRISE XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 10 fl oz/a	A E E E E	19 a	91 ab	15 ab	92 a	11 a	93 abc			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Average=1,2,10
 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed			W Weed					
Pest Code	AMBTR			AMBTR					
Pest Name	Giant ragweed			Giant ragweed					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Rating Date	Jul-5-2017	Jul-5-2017	Jul-12-2017	Jul-12-2017	Jul-19-2017	Jul-19-2017			
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples Assessed By	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON			
Rating Timing	A8	A8	A9	A9	A10	A10			
Days After First/Last Applic.	48 15	48 15	55 22	55 22	62 29	62 29			
Days After Emergence	39 DE-1	39 DE-1	46 DE-1	46 DE-1	53 DE-1	53 DE-1			
ARM Action Codes	P	P	P	P	P	P			
Number of Decimals	0	0	0	0	0	0			
Trt No.	Treatment Name	Rate	Appl Code	13	14	15	16	17	18
18	ROWEL SOLAR NOON ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a 32 fl oz/a 38.4 fl oz/a	A F F	0 d	75 bcd	0 f	75 a	0 c	78 a-g
19	ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a	A F F F	2 d	90 ab	1 f	93 a	0 c	94 abc
20	ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 50 fl oz/a	A F F F F	9 bc	88 abc	8 cd	90 a	5 b	91 a-d
21	ROWEL SOLAR NOON XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 10 fl oz/a	A F F F F	20 a	90 ab	17 a	94 a	12 a	93 abc
22	ROWEL DARK ROUNDUP POWERMAX N-PAK AMS LIQUID	2 oz wt/a 32 fl oz/a 38.4 fl oz/a	A G G	0 d	54 e	0 f	55 b	0 c	55 gh
23	ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a	A G G G	1 d	88 abc	1 f	93 a	1 c	95 ab
24	ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT WARRANT ULTRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 50 fl oz/a	A G G G G	4 d	88 abc	3 def	89 a	2 c	90 a-d
25	ROWEL DARK XTENDIMAX ROUNDUP POWERMAX INTACT COBRA	2 oz wt/a 22 fl oz/a 28.4 fl oz/a 9.6 fl oz/a 10 fl oz/a	A G G G G	21 a	97 a	17 a	97 a	11 a	98 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Average=1,2,10
 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	W Weed		W Weed		W Weed			
Pest Code	AMBTR		AMBTR		AMBTR			
Pest Name	Giant ragweed		Giant ragweed		Giant ragweed			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jul-5-2017	Jul-5-2017	Jul-12-2017	Jul-12-2017	Jul-19-2017	Jul-19-2017		
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A8	A8	A9	A9	A10	A10		
Days After First/Last Applic.	48 15	48 15	55 22	55 22	62 29	62 29		
Days After Emergence	39 DE-1	39 DE-1	46 DE-1	46 DE-1	53 DE-1	53 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	13	14	15	16	17	18
26 UNTREATED CHECK 2	0 d	0 g	0 f	0 d	0 c	0 j		
LSD P=.05	3.7	10.6	3.3	13.7	2.4	14.7		
Standard Deviation	2.6	7.5	2.3	9.7	1.7	10.4		
CV	47.24	9.96	54.75	13.31	69.5	15.38		
Bartlett's X2	40.364	48.82	32.942	55.358	12.854	58.589		
P(Bartlett's X2)	0.001*	0.001*	0.011*	0.001*	0.38	0.001*		
Skewness	1.3906*	-1.8922*	1.5257*	-1.4583*	1.6564*	-1.0267*		
Kurtosis	1.176*	2.6116*	1.306*	1.285*	1.6702*	0.0043		
Replicate F	2.297	0.231	4.263	1.030	2.488	2.814		
Replicate Prob(F)	0.0845	0.8744	0.0078	0.3844	0.0669	0.0449		
Treatment F	24.332	49.260	21.964	30.715	21.684	29.083		
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		

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 Could not calculate LSD (% mean diff) for columns 1,2,8,9 because error mean square = 0.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30	Location: TPAC	Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-30	Investigator: Dr. Bill Johnson	
Project ID: 2017-01-B7-16	Study Director: Dustin Johnson	
	Sponsor Contact: D. Childs - Monsanto	

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

A2 = 2nd Assessment According to trial Schedule

A3 = 3rd Assessment According to Trial Schedule

A4 = 4th Assessment According to Trial Schedule

A5 = 5th Assessment According to Trial Schedule

A6 = 6th Assessment according to Trial Schedule

A7 = 7th Assessment According to Trial Schedule

A8 = 8th Assessment According to Trial Schedule

A9 = 9th Assessment According to Trial Schedule

ARM Action Codes

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

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

			GLXMA	GLXMA	GLXMA	GLXMA	W Weed
Pest Type							AMBTR
Pest Code							Giant ragweed
Pest Name							GLXMA
Crop Code			Soybean	Soybean	Soybean	Soybean	Soybean
Crop Name			PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Part Rated							
Rating Date			Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017	Jun-14-2017
Rating Type			DROOP	DROOP	PHYGEN	PHYGEN	CONTROL
Rating Unit			%	%	%	%	%
Number of Subsamples			1	1	1	1	1
Assessed By			D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing			A1	A2	A2	A3	A3
Days After First/Last Applic.			21 1	23 3	23 3	27 7	27 7
Days After Emergence			12 DE-1	14 DE-1	14 DE-1	18 DE-1	18 DE-1
ARM Action Codes			P	P	P	P	P
Number of Decimals			0	0	0	0	0
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
1 UNTREATED CHECK		101	0	0	0	0	0
		403	0	0	0	0	0
		513	0	0	0	0	0
		703	0	0	0	0	0
		Mean =	0	0	0	0	0
2 ROWEL	2 oz wt/a A	102	0	0	0	0	75
SUNRISE		305	0	0	0	0	75
ROUNDUP POWERMAX	32 fl oz/a B	510	0	0	0	0	55
N-PAK AMS	38.4 fl oz/a B	806	0	0	0	0	55
		Mean =	0	0	0	0	65
3 ROWEL	2 oz wt/a A	103	0	0	5	0	80
SUNRISE		406	0	0	2	2	85
XTENDIMAX	22 fl oz/a B	507	0	0	3	2	92
ROUNDUP POWERMAX	28.4 fl oz/a B	712	0	0	3	0	88
INTACT	9.6 fl oz/a B						
		Mean =	0	0	3	1	86
4 ROWEL	2 oz wt/a A	104	0	0	5	5	80
SUNRISE		404	0	0	5	5	75
XTENDIMAX	22 fl oz/a B	613	0	0	6	7	85
ROUNDUP POWERMAX	28.4 fl oz/a B	708	0	0	5	5	75
INTACT	9.6 fl oz/a B						
WARRANT ULTRA	50 fl oz/a B						
		Mean =	0	0	5	6	79
5 ROWEL	2 oz wt/a A	105	0	0	10	10	80
SUNRISE		303	0	0	10	10	80
XTENDIMAX	22 fl oz/a B	608	0	0	10	10	80
ROUNDUP POWERMAX	28.4 fl oz/a B	810	0	0	15	15	85
INTACT	9.6 fl oz/a B						
COBRA	10 fl oz/a B						
		Mean =	0	0	11	11	81
6 ROWEL	2 oz wt/a A	106	0	0	0	0	70
SOLAR NOON		304	0	0	0	0	60
ROUNDUP POWERMAX	32 fl oz/a C	606	0	0	0	0	50
N-PAK AMS LIQUID	38.4 fl oz/a C	707	0	0	0	0	50
		Mean =	0	0	0	0	58
7 ROWEL	2 oz wt/a A	107	0	0	2	0	75
SOLAR NOON		308	0	0	3	3	80
XTENDIMAX	22 fl oz/a C	506	0	0	4	4	75
ROUNDUP POWERMAX	28.4 fl oz/a C	801	0	0	3	3	80
INTACT	9.6 fl oz/a C						
		Mean =	0	0	3	3	78
8 ROWEL	2 oz wt/a A	108	0	0	5	5	75
SOLAR NOON		402	0	0	7	7	80
XTENDIMAX WITH	22 fl oz/a C	512	0	0	5	5	85
ROUNDUP POWERMAX	28.4 fl oz/a C	711	0	0	7	7	85
INTACT	9.6 fl oz/a C						
WARRANT ULTRA	50 fl oz/a C						
		Mean =	0	0	6	6	81

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type	GLXMA					W Weed	
Pest Code	Soybean					AMBTR	
Pest Name	PLOT -					Giant ragweed	
Crop Code	PLOT -					GLXMA	
Crop Name	PLOT -					Soybean	
Part Rated	PLOT -					PLOT -	
Rating Date	Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017	Jun-14-2017	Jun-14-2017	
Rating Type	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL	CONTROL	
Rating Unit	%	%	%	%	%	%	
Number of Subsamples	1	1	1	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A1	A2	A2	A3	A3	A3	
Days After First/Last Applic.	21 1	23 3	23 3	27 7	27 7	27 7	
Days After Emergence	12 DE-1	14 DE-1	14 DE-1	18 DE-1	18 DE-1	18 DE-1	
ARM Action Codes	P	P	P	P	P	P	
Number of Decimals	0	0	0	0	0	0	
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
9 ROWEL	2 oz wt/a A	109	0	0	7	5	75
SOLAR NOON		407	0	0	3	3	80
XTENDIMAX	22 fl oz/a C	603	0	0	7	7	80
ROUNDUP POWERMAX	28.4 fl oz/a C	805	0	0	15	12	85
INTACT	9.6 fl oz/a C						
COBRA	10 fl oz/a C						
	Mean =		0	0	8	7	80
10 ROWEL	2 oz wt/a A	110	0	0	0	0	60
DARK		312	0	0	0	0	70
ROUNDUP POWERMAX	32 fl oz/a D	602	0	0	0	0	70
N-PAK AMS LIQUID	38.4 fl oz/a D	804	0	0	0	0	65
	Mean =		0	0	0	0	66
11 ROWEL	2 oz wt/a A	111	0	0	3	2	75
DARK		309	0	0	1	0	75
XTENDIMAX	22 fl oz/a D	609	0	0	1	2	80
ROUNDUP POWERMAX	28.4 fl oz/a D	702	0	0	2	0	80
INTACT	9.6 fl oz/a D						
	Mean =		0	0	2	1	78
12 ROWEL	2 oz wt/a A	112	0	0	5	5	80
DARK		408	0	0	5	5	75
XTENDIMAX	22 fl oz/a D	511	0	0	5	5	80
ROUNDUP POWERMAX	28.4 fl oz/a D	706	0	0	10	10	70
INTACT	9.6 fl oz/a D						
WARRANT ULTRA	50 fl oz/a D						
	Mean =		0	0	6	6	76
13 ROWEL	2 oz wt/a A	113	0	0	10	7	85
DARK		401	0	0	10	10	85
XTENDIMAX	22 fl oz/a D	504	0	0	10	10	80
ROUNDUP POWERMAX	28.4 fl oz/a D	807	0	0	10	10	80
INTACT	7.7 fl oz/a D						
COBRA	10 fl oz/a D						
	Mean =		0	0	10	9	83
14 ROWEL	2 oz wt/a A	201					
SUNRISE		405					
ROUNDUP POWERMAX	32 fl oz/a E	509					
N-PAK AMS LIQUID	38.4 fl oz/a E	701					
	Mean =		.	.	.	.	.
15 ROWEL	2 oz wt/a A	202					
SUNRISE		311					
XTENDIMAX	22 fl oz/a E	501					
ROUNDUP POWERMAX	28.4 fl oz/a E	705					
INTACT	9.6 fl oz/a E						
	Mean =		.	.	.	.	.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30	Location: TPAC	Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-30	Investigator: Dr. Bill Johnson	
Project ID: 2017-01-B7-16	Study Director: Dustin Johnson	
	Sponsor Contact: D. Childs - Monsanto	

Pest Type						W Weed
Pest Code						AMBTR
Pest Name						Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA		GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean		Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -		PLOT -
Rating Date	Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017		Jun-14-2017
Rating Type	DROOP	DROOP	PHYGEN	PHYGEN		CONTROL
Rating Unit	%	%	%	%		%
Number of Subsamples	1	1	1	1		1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		D. JOHNSON
Rating Timing	A1	A2	A2	A3		A3
Days After First/Last Applic.	21 1	23 3	23 3	27 7		27 7
Days After Emergence	12 DE-1	14 DE-1	14 DE-1	18 DE-1		18 DE-1
ARM Action Codes	P	P	P	P		P
Number of Decimals	0	0	0	0		0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	1	2	3	4
16 ROWEL	2 oz wt/a A	203				
SUNRISE		307				
XTENDIMAX	22 fl oz/a E	611				
ROUNDUP POWERMAX	28.4 fl oz/a E	709				
INTACT	9.6 fl oz/a E					
WARRANT ULTRA	50 fl oz/a E					
	Mean =		.	.	.	.
17 ROWEL	2 oz wt/a A	204				
SUNRISE		413				
XTENDIMAX	22 fl oz/a E	508				
ROUNDUP POWERMAX	28.4 fl oz/a E	704				
INTACT	9.6 fl oz/a E					
COBRA	10 fl oz/a E					
	Mean =		.	.	.	.
18 ROWEL	2 oz wt/a A	205				
SOLAR NOON		301				
ROUNDUP POWERMAX	32 fl oz/a F	505				
N-PAK AMS LIQUID	38.4 fl oz/a F	813				
	Mean =		.	.	.	.
19 ROWEL	2 oz wt/a A	206				
SOLAR NOON		410				
XTENDIMAX	22 fl oz/a F	610				
ROUNDUP POWERMAX	28.4 fl oz/a F	811				
INTACT	9.6 fl oz/a F					
	Mean =		.	.	.	.
20 ROWEL	2 oz wt/a A	207				
SOLAR NOON		310				
XTENDIMAX	22 fl oz/a F	607				
ROUNDUP POWERMAX	28.4 fl oz/a F	812				
INTACT	9.6 fl oz/a F					
WARRANT ULTRA	50 fl oz/a F					
	Mean =		.	.	.	.
21 ROWEL	2 oz wt/a A	208				
SOLAR NOON		411				
XTENDIMAX	22 fl oz/a F	612				
ROUNDUP POWERMAX	28.4 fl oz/a F	713				
INTACT	9.6 fl oz/a F					
COBRA	10 fl oz/a F					
	Mean =		.	.	.	.
22 ROWEL	2 oz wt/a A	209				
DARK		302				
ROUNDUP POWERMAX	32 fl oz/a G	601				
N-PAK AMS LIQUID	38.4 fl oz/a G	802				
	Mean =		.	.	.	.

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30	Location: TPAC	Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-30	Investigator: Dr. Bill Johnson	
Project ID: 2017-01-B7-16	Study Director: Dustin Johnson	
	Sponsor Contact: D. Childs - Monsanto	

	GLXMA Soybean PLOT -	GLXMA Soybean PLOT -	GLXMA Soybean PLOT -	GLXMA Soybean PLOT -	W Weed AMBTR Giant ragweed GLXMA Soybean PLOT -		
Pest Type							
Pest Code							
Pest Name							
Crop Code							
Crop Name							
Part Rated							
Rating Date	Jun-8-2017	Jun-10-2017	Jun-10-2017	Jun-14-2017	Jun-14-2017		
Rating Type	DROOP	DROOP	PHYGEN	PHYGEN	CONTROL		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A1	A2	A2	A3	A3		
Days After First/Last Applic.	21 1	23 3	23 3	27 7	27 7		
Days After Emergence	12 DE-1	14 DE-1	14 DE-1	18 DE-1	18 DE-1		
ARM Action Codes	P	P	P	P	P		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
23 ROWEL	2 oz wt/a A	210					
DARK		412					
XTENDIMAX	22 fl oz/a G	503					
ROUNDUP POWERMAX	28.4 fl oz/a G	809					
INTACT	9.6 fl oz/a G						
	Mean =		.	.	.	.	.
24 ROWEL	2 oz wt/a A	211					
DARK		306					
XTENDIMAX	22 fl oz/a G	605					
ROUNDUP POWERMAX	28.4 fl oz/a G	803					
INTACT	9.6 fl oz/a G						
WARRANT ULTRA	50 fl oz/a G						
	Mean =		.	.	.	.	.
25 ROWEL	2 oz wt/a A	212	0*	0*			
DARK		313	0	0			
XTENDIMAX	22 fl oz/a G	604	0*	0*			
ROUNDUP POWERMAX	28.4 fl oz/a G	808	0*	0*			
INTACT	9.6 fl oz/a G						
COBRA	10 fl oz/a G						
	Mean =		0	0	.	.	.
26 UNTREATED CHECK 2		213	0	0	0	0	0
		409	0	0	0	0	0
		502	0	0	0	0	0
		710	0	0	0	0	0
	Mean =		0	0	0	0	0

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed				
Pest Code			AMBTR				
Pest Name			Giant ragweed				
Crop Code	GLXMA		GLXMA	GLXMA	GLXMA	GLXMA	
Crop Name	Soybean		Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -		PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jun-21-2017		Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	
Rating Type	PHYGEN		CONTROL	DROOP	DROOP	PHYGEN	
Rating Unit	%		%	%	%	%	
Number of Subsamples	1		1	1	1	1	
Assessed By	D. JOHNSON		D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A4		A4	A5	A6	A6	
Days After First/Last Applic.	34 1		34 1	34 1	36 3	36 3	
Days After Emergence	25 DE-1		25 DE-1	25 DE-1	27 DE-1	27 DE-1	
ARM Action Codes	P		P	P	P	P	
Number of Decimals	0		0	0	0	0	
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	6	7	8	9	10
1 UNTREATED CHECK		101	0	0	0	0	0
		403	0	0	0	0	0
		513	0	0	0	0	0
		703	0	0	0	0	0
		Mean =	0	0	0	0	0
2 ROWEL	2 oz wt/a A	102	0	88			
SUNRISE		305	5	90			
ROUNDUP POWERMAX	32 fl oz/a B	510	0	70			
N-PAK AMS	38.4 fl oz/a B	806	0	75			
		Mean =	1	81			
3 ROWEL	2 oz wt/a A	103	5	92			
SUNRISE		406	7	98			
XTENDIMAX	22 fl oz/a B	507	5	95			
ROUNDUP POWERMAX	28.4 fl oz/a B	712	5	98			
INTACT	9.6 fl oz/a B						
		Mean =	6	96			
4 ROWEL	2 oz wt/a A	104	10	85			
SUNRISE		404	10	85			
XTENDIMAX	22 fl oz/a B	613	10	90			
ROUNDUP POWERMAX	28.4 fl oz/a B	708	20	90			
INTACT	9.6 fl oz/a B						
WARRANT ULTRA	50 fl oz/a B						
		Mean =	13	88			
5 ROWEL	2 oz wt/a A	105	10	85			
SUNRISE		303	15	85			
XTENDIMAX	22 fl oz/a B	608	10	85			
ROUNDUP POWERMAX	28.4 fl oz/a B	810	15	92			
INTACT	9.6 fl oz/a B						
COBRA	10 fl oz/a B						
		Mean =	13	87			
6 ROWEL	2 oz wt/a A	106	0	90			0*
SOLAR NOON		304	0	75			0*
ROUNDUP POWERMAX	32 fl oz/a C	606	0	70			0
N-PAK AMS LIQUID	38.4 fl oz/a C	707	0	60			0*
		Mean =	0	74			0
7 ROWEL	2 oz wt/a A	107	12	92			
SOLAR NOON		308	2	90			
XTENDIMAX	22 fl oz/a C	506	5	98			
ROUNDUP POWERMAX	28.4 fl oz/a C	801	2	92			
INTACT	9.6 fl oz/a C						
		Mean =	5	93			
8 ROWEL	2 oz wt/a A	108	10	92			
SOLAR NOON		402	20	92			
XTENDIMAX WITH	22 fl oz/a C	512	20	99			
ROUNDUP POWERMAX	28.4 fl oz/a C	711	25	90			
INTACT	9.6 fl oz/a C						
WARRANT ULTRA	50 fl oz/a C						
		Mean =	19	93			

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed							
Pest Code			AMBTR							
Pest Name			Giant ragweed							
Crop Code	GLXMA		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Name	Soybean		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -		PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jun-21-2017		Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	Jun-23-2017	Jun-23-2017	Jun-23-2017	
Rating Type	PHYGEN		CONTROL	DROOP	DROOP	DROOP	DROOP	PHYGEN	PHYGEN	
Rating Unit	%		%	%	%	%	%	%	%	
Number of Subsamples	1		1	1	1	1	1	1	1	
Assessed By	D. JOHNSON		D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A4		A4	A5	A6	A6	A6	A6	A6	
Days After First/Last Applic.	34 1		34 1	34 1	36 3	36 3	36 3	36 3	36 3	
Days After Emergence	25 DE-1		25 DE-1	25 DE-1	27 DE-1	27 DE-1	27 DE-1	27 DE-1	27 DE-1	
ARM Action Codes	P		P	P	P	P	P	P	P	
Number of Decimals	0		0	0	0	0	0	0	0	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	6	7	8	9	10			
9 ROWEL	2 oz wt/a A	109	15	98						
SOLAR NOON		407	10	95						
XTENDIMAX	22 fl oz/a C	603	7	95						
ROUNDUP POWERMAX	28.4 fl oz/a C	805	15	97						
INTACT	9.6 fl oz/a C									
COBRA	10 fl oz/a C									
	Mean =		12	96						
10 ROWEL	2 oz wt/a A	110	15	80						
DARK		312	0	80						
ROUNDUP POWERMAX	32 fl oz/a D	602	0	70						
N-PAK AMS LIQUID	38.4 fl oz/a D	804	0	75						
	Mean =		4	76						
11 ROWEL	2 oz wt/a A	111	7	90						
DARK		309	5	92						
XTENDIMAX	22 fl oz/a D	609	10	97						
ROUNDUP POWERMAX	28.4 fl oz/a D	702	2	98						
INTACT	9.6 fl oz/a D									
	Mean =		6	94						
12 ROWEL	2 oz wt/a A	112	15	90						
DARK		408	15	95						
XTENDIMAX	22 fl oz/a D	511	20	85						
ROUNDUP POWERMAX	28.4 fl oz/a D	706	25	92						
INTACT	9.6 fl oz/a D									
WARRANT ULTRA	50 fl oz/a D									
	Mean =		19	91						
13 ROWEL	2 oz wt/a A	113	15	92						
DARK		401	20	95						
XTENDIMAX	22 fl oz/a D	504	15	85						
ROUNDUP POWERMAX	28.4 fl oz/a D	807	5	88						
INTACT	7.7 fl oz/a D									
COBRA	10 fl oz/a D									
	Mean =		14	90						
14 ROWEL	2 oz wt/a A	201			0	0	0	0	0	
SUNRISE		405			0	0	0	0	0	
ROUNDUP POWERMAX	32 fl oz/a E	509			0	0	0	0	0	
N-PAK AMS LIQUID	38.4 fl oz/a E	701			0	0	0	0	0	
	Mean =				0	0	0	0	0	
15 ROWEL	2 oz wt/a A	202			0	0	0	0	0	
SUNRISE		311			0	0	0	0	0	
XTENDIMAX	22 fl oz/a E	501			0	0	0	0	0	
ROUNDUP POWERMAX	28.4 fl oz/a E	705			0	0	0	0	0	
INTACT	9.6 fl oz/a E									
	Mean =				0	0	0	0	0	

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed							
Pest Code			AMBTR							
Pest Name			Giant ragweed							
Crop Code	GLXMA		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Name	Soybean		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -		PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jun-21-2017		Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017	Jun-23-2017	Jun-23-2017	Jun-23-2017	
Rating Type	PHYGEN		CONTROL	DROOP	DROOP	DROOP	DROOP	PHYGEN	PHYGEN	
Rating Unit	%		%	%	%	%	%	%	%	
Number of Subsamples	1		1	1	1	1	1	1	1	
Assessed By	D. JOHNSON		D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A4		A4	A5	A6	A6	A6	A6	A6	
Days After First/Last Applic.	34 1		34 1	34 1	36 3	36 3	36 3	36 3	36 3	
Days After Emergence	25 DE-1		25 DE-1	25 DE-1	27 DE-1	27 DE-1	27 DE-1	27 DE-1	27 DE-1	
ARM Action Codes	P		P	P	P	P	P	P	P	
Number of Decimals	0		0	0	0	0	0	0	0	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	6	7	8	9	10			
16 ROWEL	2 oz wt/a	A 203			0	0	10			
SUNRISE		307			0	0	7			
XTENDIMAX	22 fl oz/a	E 611			0	0	15			
ROUNDUP POWERMAX	28.4 fl oz/a	E 709			0	0	15			
INTACT	9.6 fl oz/a	E								
WARRANT ULTRA	50 fl oz/a	E								
	Mean =		.	.	0	0	12			
17 ROWEL	2 oz wt/a	A 204			0	0	24			
SUNRISE		413			0	0	35			
XTENDIMAX	22 fl oz/a	E 508			0	0	40			
ROUNDUP POWERMAX	28.4 fl oz/a	E 704			0	0	30			
INTACT	9.6 fl oz/a	E								
COBRA	10 fl oz/a	E								
	Mean =		.	.	0	0	32			
18 ROWEL	2 oz wt/a	A 205			0	0	0			
SOLAR NOON		301			0	0	0			
ROUNDUP POWERMAX	32 fl oz/a	F 505			0	0	0			
N-PAK AMS LIQUID	38.4 fl oz/a	F 813			0	0	0			
	Mean =		.	.	0	0	0			
19 ROWEL	2 oz wt/a	A 206			0	0	0			
SOLAR NOON		410			0	0	0*			
XTENDIMAX	22 fl oz/a	F 610			0	0	0			
ROUNDUP POWERMAX	28.4 fl oz/a	F 811			0	0	0			
INTACT	9.6 fl oz/a	F								
	Mean =		.	.	0	0	0			
20 ROWEL	2 oz wt/a	A 207			0	0	15			
SOLAR NOON		310			0	0	2			
XTENDIMAX	22 fl oz/a	F 607			0	0	15			
ROUNDUP POWERMAX	28.4 fl oz/a	F 812			0	0	15			
INTACT	9.6 fl oz/a	F								
WARRANT ULTRA	50 fl oz/a	F								
	Mean =		.	.	0	0	12			
21 ROWEL	2 oz wt/a	A 208			0	0	35			
SOLAR NOON		411			0	0	10			
XTENDIMAX	22 fl oz/a	F 612			0	0	40			
ROUNDUP POWERMAX	28.4 fl oz/a	F 713			0	0	40			
INTACT	9.6 fl oz/a	F								
COBRA	10 fl oz/a	F								
	Mean =		.	.	0	0	31			
22 ROWEL	2 oz wt/a	A 209			0	0	0			
DARK		302			0	0	0			
ROUNDUP POWERMAX	32 fl oz/a	G 601			0	0	0			
N-PAK AMS LIQUID	38.4 fl oz/a	G 802			0	0	0			
	Mean =		.	.	0	0	0			

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30	Location: TPAC	Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-30	Investigator: Dr. Bill Johnson	
Project ID: 2017-01-B7-16	Study Director: Dustin Johnson	
	Sponsor Contact: D. Childs - Monsanto	

Pest Type		W Weed			
Pest Code		AMBTR			
Pest Name		Giant ragweed			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-21-2017	Jun-21-2017	Jun-21-2017	Jun-23-2017	Jun-23-2017
Rating Type	PHYGEN	CONTROL	DROOP	DROOP	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A4	A4	A5	A6	A6
Days After First/Last Applic.	34 1	34 1	34 1	36 3	36 3
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	27 DE-1	27 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	6	7	8
23 ROWEL	2 oz wt/a A	210			0
DARK		412			0
XTENDIMAX	22 fl oz/a G	503			0
ROUNDUP POWERMAX	28.4 fl oz/a G	809			0
INTACT	9.6 fl oz/a G				0
	Mean =	.	.	0	0
24 ROWEL	2 oz wt/a A	211			0
DARK		306			0
XTENDIMAX	22 fl oz/a G	605			0
ROUNDUP POWERMAX	28.4 fl oz/a G	803			0
INTACT	9.6 fl oz/a G				0
WARRANT ULTRA	50 fl oz/a G				0
	Mean =	.	.	0	0
25 ROWEL	2 oz wt/a A	212			0
DARK		313			0
XTENDIMAX	22 fl oz/a G	604			0
ROUNDUP POWERMAX	28.4 fl oz/a G	808			0
INTACT	9.6 fl oz/a G				20
COBRA	10 fl oz/a G				
	Mean =	.	.	0	31
26 UNTREATED CHECK 2		213	0	0	0
		409	0	0	0
		502	0	0	0
		710	0	0	0
	Mean =	0	0	0	0

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed		W Weed	
Pest Code			AMBTR		AMBTR	
Pest Name			Giant ragweed		Giant ragweed	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-27-2017	Jun-27-2017	Jul-5-2017	Jul-5-2017	Jul-12-2017	
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN	
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A7	A7	A8	A8	A9	A9
Days After First/Last Applic.	40 7	40 7	48 15	48 15	55 22	
Days After Emergence	31 DE-1	31 DE-1	39 DE-1	39 DE-1	46 DE-1	
ARM Action Codes	P	P	P	P	P	P
Number of Decimals	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	11	12	13	14
1 UNTREATED CHECK		101	0	0	0	0
		403	0	0	0	0
		513	0	0	0	0
		703	0	0	0	0
		Mean =	0	0	0	0
2 ROWEL	2 oz wt/a A	102	0	78	0	80
SUNRISE		305	0	82	0	70
ROUNDUP POWERMAX	32 fl oz/a B	510	0	70	0	65
N-PAK AMS	38.4 fl oz/a B	806	0	80	0	70
		Mean =	0	78	0	71
3 ROWEL	2 oz wt/a A	103	0	88	0	80
SUNRISE		406	7	92	5	85
XTENDIMAX	22 fl oz/a B	507	3	90	3	85
ROUNDUP POWERMAX	28.4 fl oz/a B	712	10	95	10	90
INTACT	9.6 fl oz/a B					
		Mean =	5	91	5	85
4 ROWEL	2 oz wt/a A	104	5	95	3	92
SUNRISE		404	7	88	5	85
XTENDIMAX	22 fl oz/a B	613	7	97	7	95
ROUNDUP POWERMAX	28.4 fl oz/a B	708	15	95	10	95
INTACT	9.6 fl oz/a B					
WARRANT ULTRA	50 fl oz/a B					
		Mean =	9	94	6	92
5 ROWEL	2 oz wt/a A	105	10	96	5	90
SUNRISE		303	7	90	3	85
XTENDIMAX	22 fl oz/a B	608	5	92	3	90
ROUNDUP POWERMAX	28.4 fl oz/a B	810	7	85	5	70
INTACT	9.6 fl oz/a B					
COBRA	10 fl oz/a B					
		Mean =	7	91	4	84
6 ROWEL	2 oz wt/a A	106	0	75	0	80
SOLAR NOON		304	0	65	0	60
ROUNDUP POWERMAX	32 fl oz/a C	606	0	70	0	65
N-PAK AMS LIQUID	38.4 fl oz/a C	707	0	60	0	40
		Mean =	0	68	0	61
7 ROWEL	2 oz wt/a A	107	7	97	4	92
SOLAR NOON		308	2	85	2	80
XTENDIMAX	22 fl oz/a C	506	3	95	3	85
ROUNDUP POWERMAX	28.4 fl oz/a C	801	3	95	3	92
INTACT	9.6 fl oz/a C					
		Mean =	4	93	3	87
8 ROWEL	2 oz wt/a A	108	12	95	7	95
SOLAR NOON		402	15	98	10	97
XTENDIMAX WITH	22 fl oz/a C	512	15	99	10	95
ROUNDUP POWERMAX	28.4 fl oz/a C	711	20	95	20	92
INTACT	9.6 fl oz/a C					
WARRANT ULTRA	50 fl oz/a C					
		Mean =	16	97	12	95

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed			W Weed		
Pest Code			AMBTR			AMBTR		
Pest Name			Giant ragweed			Giant ragweed		
Crop Code	GLXMA		GLXMA		GLXMA		GLXMA	
Crop Name	Soybean		Soybean		Soybean		Soybean	
Part Rated	PLOT -		PLOT -		PLOT -		PLOT -	
Rating Date	Jun-27-2017		Jun-27-2017		Jul-5-2017		Jul-5-2017	
Rating Type	PHYGEN		CONTROL		PHYGEN		CONTROL	
Rating Unit	%		%		%		%	
Number of Subsamples	1		1		1		1	
Assessed By	D. JOHNSON		D. JOHNSON		D. JOHNSON		D. JOHNSON	
Rating Timing	A7		A7		A8		A8	
Days After First/Last Applic.	40 7		40 7		48 15		48 15	
Days After Emergence	31 DE-1		31 DE-1		39 DE-1		39 DE-1	
ARM Action Codes	P		P		P		P	
Number of Decimals	0		0		0		0	
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	11	12	13	14	15	
9 ROWEL	2 oz wt/a A	109	15	98	10	95	7	
SOLAR NOON		407	7	95	5	90	2	
XTENDIMAX	22 fl oz/a C	603	5	85	2	78	2	
ROUNDUP POWERMAX	28.4 fl oz/a C	805	10	95	5	95	2	
INTACT	9.6 fl oz/a C							
COBRA	10 fl oz/a C							
	Mean =		9	93	6	90	3	
10 ROWEL	2 oz wt/a A	110	0	78	0	70	0	
DARK		312	0	85	0	80	0	
ROUNDUP POWERMAX	32 fl oz/a D	602	0	70	0	50	0	
N-PAK AMS LIQUID	38.4 fl oz/a D	804	0	80	0	70	0	
	Mean =		0	78	0	68	0	
11 ROWEL	2 oz wt/a A	111	5	85	3	80	0	
DARK		309	3	87	3	80	2	
XTENDIMAX	22 fl oz/a D	609	5	95	5	90	4	
ROUNDUP POWERMAX	28.4 fl oz/a D	702	2	98	2	98	2	
INTACT	9.6 fl oz/a D							
	Mean =		4	91	3	87	2	
12 ROWEL	2 oz wt/a A	112	15	95	10	95	5	
DARK		408	15	99	10	95	7	
XTENDIMAX	22 fl oz/a D	511	15	88	10	88	6	
ROUNDUP POWERMAX	28.4 fl oz/a D	706	20	95	15	95	8	
INTACT	9.6 fl oz/a D							
WARRANT ULTRA	50 fl oz/a D							
	Mean =		16	94	11	93	7	
13 ROWEL	2 oz wt/a A	113	12	95	7	95	4	
DARK		401	12	97	10	92	6	
XTENDIMAX	22 fl oz/a D	504	7	85	5	85	3	
ROUNDUP POWERMAX	28.4 fl oz/a D	807	5	88	5	85	3	
INTACT	7.7 fl oz/a D							
COBRA	10 fl oz/a D							
	Mean =		9	91	7	89	4	
14 ROWEL	2 oz wt/a A	201	0	20	0	30	0	
SUNRISE		405	0	20	0	25	0	
ROUNDUP POWERMAX	32 fl oz/a E	509	0	25	0	35	0	
N-PAK AMS LIQUID	38.4 fl oz/a E	701	0	25	0	45	0	
	Mean =		0	23	0	34	0	
15 ROWEL	2 oz wt/a A	202	0	72	2	85	0	
SUNRISE		311	0	72	2	85	1	
XTENDIMAX	22 fl oz/a E	501	0	65	2	88	1	
ROUNDUP POWERMAX	28.4 fl oz/a E	705	0	65	3	82	3	
INTACT	9.6 fl oz/a E							
	Mean =		0	69	2	85	1	

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type			W Weed		W Weed		
Pest Code			AMBTR		AMBTR		
Pest Name			Giant ragweed		Giant ragweed		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jun-27-2017	Jun-27-2017	Jul-5-2017	Jul-5-2017	Jul-12-2017		
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN		
Rating Unit	%	%	%	%	%	%	
Number of Subsamples	1	1	1	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A7	A7	A8	A8	A9	A9	
Days After First/Last Applic.	40 7	40 7	48 15	48 15	55 22		
Days After Emergence	31 DE-1	31 DE-1	39 DE-1	39 DE-1	46 DE-1		
ARM Action Codes	P	P	P	P	P	P	
Number of Decimals	0	0	0	0	0	0	
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	11	12	13	14	15
16 ROWEL	2 oz wt/a A	203	10	80	10	90	10
SUNRISE		307	10	80	10	90	10
XTENDIMAX	22 fl oz/a E	611	15	85	15	90	15
ROUNDUP POWERMAX	28.4 fl oz/a E	709	15	95	12	80	10
INTACT	9.6 fl oz/a E						
WARRANT ULTRA	50 fl oz/a E						
	Mean =		13	85	12	88	11
17 ROWEL	2 oz wt/a A	204	25	82	15	90	12
SUNRISE		413	25	72	15	85	10
XTENDIMAX	22 fl oz/a E	508	40	85	25	95	20
ROUNDUP POWERMAX	28.4 fl oz/a E	704	30	80	20	92	18
INTACT	9.6 fl oz/a E						
COBRA	10 fl oz/a E						
	Mean =		30	80	19	91	15
18 ROWEL	2 oz wt/a A	205	0	60	0	75	0
SOLAR NOON		301	0	55	0	75	0
ROUNDUP POWERMAX	32 fl oz/a F	505	0	50	0	60	0
N-PAK AMS LIQUID	38.4 fl oz/a F	813	0	70	0	88	0
	Mean =		0	59	0	75	0
19 ROWEL	2 oz wt/a A	206	0	80	0	95	0
SOLAR NOON		410	0	72	2	88	0
XTENDIMAX	22 fl oz/a F	610	0	80	2	90	2
ROUNDUP POWERMAX	28.4 fl oz/a F	811	0	82	3	88	2
INTACT	9.6 fl oz/a F						
	Mean =		0	79	2	90	1
20 ROWEL	2 oz wt/a A	207	15	75	10	85	7
SOLAR NOON		310	2	78	5	85	3
XTENDIMAX	22 fl oz/a F	607	15	80	12	90	12
ROUNDUP POWERMAX	28.4 fl oz/a F	812	10	85	10	90	8
INTACT	9.6 fl oz/a F						
WARRANT ULTRA	50 fl oz/a F						
	Mean =		11	80	9	88	8
21 ROWEL	2 oz wt/a A	208	35	88	25	92	20
SOLAR NOON		411	10	70	10	82	8
XTENDIMAX	22 fl oz/a F	612	35	85	20	97	20
ROUNDUP POWERMAX	28.4 fl oz/a F	713	35	80	25	90	20
INTACT	9.6 fl oz/a F						
COBRA	10 fl oz/a F						
	Mean =		29	81	20	90	17
22 ROWEL	2 oz wt/a A	209	0	35	0	45	0
DARK		302	0	50	0	65	0
ROUNDUP POWERMAX	32 fl oz/a G	601	0	40	0	70	0
N-PAK AMS LIQUID	38.4 fl oz/a G	802	0	30	0	35	0
	Mean =		0	39	0	54	0

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

Pest Type		W Weed		W Weed	
Pest Code		AMBTR		AMBTR	
Pest Name		Giant ragweed		Giant ragweed	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-27-2017	Jun-27-2017	Jul-5-2017	Jul-5-2017	Jul-12-2017
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A7	A7	A8	A8	A9
Days After First/Last Applic.	40 7	40 7	48 15	48 15	55 22
Days After Emergence	31 DE-1	31 DE-1	39 DE-1	39 DE-1	46 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	11	12	13
23 ROWEL	2 oz wt/a A	210	0	70	0
DARK		412	0	70	0
XTENDIMAX	22 fl oz/a G	503	0	75	0
ROUNDUP POWERMAX	28.4 fl oz/a G	809	0	80	2
INTACT	9.6 fl oz/a G				
	Mean =		0	74	1
24 ROWEL	2 oz wt/a A	211	0	68	2
DARK		306	0	74	3
XTENDIMAX	22 fl oz/a G	605	5	80	5
ROUNDUP POWERMAX	28.4 fl oz/a G	803	0	80	4
INTACT	9.6 fl oz/a G				
WARRANT ULTRA	50 fl oz/a G				
	Mean =		1	76	4
25 ROWEL	2 oz wt/a A	212	30	88	20
DARK		313	35	90	25
XTENDIMAX	22 fl oz/a G	604	30	90	20
ROUNDUP POWERMAX	28.4 fl oz/a G	808	20	88	17
INTACT	9.6 fl oz/a G				
COBRA	10 fl oz/a G				
	Mean =		29	89	21
26 UNTREATED CHECK 2		213	0	0	0
		409	0	0	0
		502	0	0	0
		710	0	0	0
	Mean =		0	0	0

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

			W Weed		W Weed
			AMBTR		AMBTR
			Giant ragweed		Giant ragweed
			GLXMA	GLXMA	GLXMA
			Soybean	Soybean	Soybean
			PLOT -	PLOT -	PLOT -
			Jul-12-2017	Jul-19-2017	Jul-19-2017
			CONTROL	PHYGEN	CONTROL
			%	%	%
			1	1	1
			D. JOHNSON	D. JOHNSON	D. JOHNSON
			A9	A10	A10
			55 22	62 29	62 29
			46 DE-1	53 DE-1	53 DE-1
			P	P	P
			0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	16	17	18
1 UNTREATED CHECK		101	0	0	0
		403	0	0	0
		513	0	0	0
		703	0	0	0
		Mean =	0	0	0
2 ROWEL	2 oz wt/a A	102	70	0	60
SUNRISE		305	55	0	50
ROUNDUP POWERMAX	32 fl oz/a B	510	50	0	25
N-PAK AMS	38.4 fl oz/a B	806	50	0	35
		Mean =	56	0	43
3 ROWEL	2 oz wt/a A	103	75	0	60
SUNRISE		406	75	0	65
XTENDIMAX	22 fl oz/a B	507	80	0	68
ROUNDUP POWERMAX	28.4 fl oz/a B	712	80	4	70
INTACT	9.6 fl oz/a B				
		Mean =	78	1	66
4 ROWEL	2 oz wt/a A	104	95	0	80
SUNRISE		404	75	0	60
XTENDIMAX	22 fl oz/a B	613	93	4	85
ROUNDUP POWERMAX	28.4 fl oz/a B	708	95	3	80
INTACT	9.6 fl oz/a B				
WARRANT ULTRA	50 fl oz/a B				
		Mean =	90	2	76
5 ROWEL	2 oz wt/a A	105	90	0	80
SUNRISE		303	70	0	60
XTENDIMAX	22 fl oz/a B	608	90	0	70
ROUNDUP POWERMAX	28.4 fl oz/a B	810	60	0	40
INTACT	9.6 fl oz/a B				
COBRA	10 fl oz/a B				
		Mean =	78	0	63
6 ROWEL	2 oz wt/a A	106	70	0	60
SOLAR NOON		304	50	0	40
ROUNDUP POWERMAX	32 fl oz/a C	606	50	0	30
N-PAK AMS LIQUID	38.4 fl oz/a C	707	30	0	20
		Mean =	50	0	38
7 ROWEL	2 oz wt/a A	107	82	0	85
SOLAR NOON		308	60	0	50
XTENDIMAX	22 fl oz/a C	506	75	0	60
ROUNDUP POWERMAX	28.4 fl oz/a C	801	90	0	80
INTACT	9.6 fl oz/a C				
		Mean =	77	0	69
8 ROWEL	2 oz wt/a A	108	92	0	90
SOLAR NOON		402	99	4	85
XTENDIMAX WITH	22 fl oz/a C	512	99	8	90
ROUNDUP POWERMAX	28.4 fl oz/a C	711	90	10	70
INTACT	9.6 fl oz/a C				
WARRANT ULTRA	50 fl oz/a C				
		Mean =	95	6	84

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

				W Weed		W Weed
				AMBTR		AMBTR
				Giant ragweed		Giant ragweed
				GLXMA	GLXMA	GLXMA
				Soybean	Soybean	Soybean
				PLOT -	PLOT -	PLOT -
				Jul-12-2017	Jul-19-2017	Jul-19-2017
				CONTROL	PHYGEN	CONTROL
				%	%	%
				1	1	1
				D. JOHNSON	D. JOHNSON	D. JOHNSON
				A9	A10	A10
				55 22	62 29	62 29
				46 DE-1	53 DE-1	53 DE-1
				P	P	P
				0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot		16	17	18
9 ROWEL	2 oz wt/a	A 109		95	0	85
SOLAR NOON		407		80	0	70
XTENDIMAX	22 fl oz/a	C 603		55	0	35
ROUNDUP POWERMAX	28.4 fl oz/a	C 805		90	0	78
INTACT	9.6 fl oz/a	C				
COBRA	10 fl oz/a	C				
		Mean =		80	0	67
10 ROWEL	2 oz wt/a	A 110		60	0	45
DARK		312		60	0	45
ROUNDUP POWERMAX	32 fl oz/a	D 602		40	0	20
N-PAK AMS LIQUID	38.4 fl oz/a	D 804		50	0	40
		Mean =		53	0	38
11 ROWEL	2 oz wt/a	A 111		75	0	75
DARK		309		60	0	50
XTENDIMAX	22 fl oz/a	D 609		80	4	70
ROUNDUP POWERMAX	28.4 fl oz/a	D 702		93	0	85
INTACT	9.6 fl oz/a	D				
		Mean =		77	1	70
12 ROWEL	2 oz wt/a	A 112		95	0	90
DARK		408		95	4	85
XTENDIMAX	22 fl oz/a	D 511		88	3	70
ROUNDUP POWERMAX	28.4 fl oz/a	D 706		95	4	83
INTACT	9.6 fl oz/a	D				
WARRANT ULTRA	50 fl oz/a	D				
		Mean =		93	3	82
13 ROWEL	2 oz wt/a	A 113		95	0	92
DARK		401		90	2	75
XTENDIMAX	22 fl oz/a	D 504		75	0	65
ROUNDUP POWERMAX	28.4 fl oz/a	D 807		60	0	45
INTACT	7.7 fl oz/a	D				
COBRA	10 fl oz/a	D				
		Mean =		80	1	69
14 ROWEL	2 oz wt/a	A 201		30	0	25
SUNRISE		405		30	0	20
ROUNDUP POWERMAX	32 fl oz/a	E 509		55	0	40
N-PAK AMS LIQUID	38.4 fl oz/a	E 701		30	0	30
		Mean =		36	0	29
15 ROWEL	2 oz wt/a	A 202		85	0	90
SUNRISE		311		90	0	95
XTENDIMAX	22 fl oz/a	E 501		88	0	90
ROUNDUP POWERMAX	28.4 fl oz/a	E 705		85	0	95
INTACT	9.6 fl oz/a	E				
		Mean =		87	0	93

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
 Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
 Sponsor Contact: D. Childs - Monsanto

				W Weed		W Weed
				AMBTR		AMBTR
				Giant ragweed		Giant ragweed
				GLXMA	GLXMA	GLXMA
				Soybean	Soybean	Soybean
				PLOT -	PLOT -	PLOT -
				Jul-12-2017	Jul-19-2017	Jul-19-2017
				CONTROL	PHYGEN	CONTROL
				%	%	%
				1	1	1
				D. JOHNSON	D. JOHNSON	D. JOHNSON
				A9	A10	A10
				55 22	62 29	62 29
				46 DE-1	53 DE-1	53 DE-1
				P	P	P
				0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot		16	17	18
16 ROWEL	2 oz wt/a	A 203		90	10	90
SUNRISE		307		92	7	90
XTENDIMAX	22 fl oz/a	E 611		92	10	90
ROUNDUP POWERMAX	28.4 fl oz/a	E 709		87	10	87
INTACT	9.6 fl oz/a	E				
WARRANT ULTRA	50 fl oz/a	E				
		Mean =		90	9	89
17 ROWEL	2 oz wt/a	A 204		88	10	90
SUNRISE		413		90	7	93
XTENDIMAX	22 fl oz/a	E 508		98	10	98
ROUNDUP POWERMAX	28.4 fl oz/a	E 704		92	15	90
INTACT	9.6 fl oz/a	E				
COBRA	10 fl oz/a	E				
		Mean =		92	11	93
18 ROWEL	2 oz wt/a	A 205		70	0	75
SOLAR NOON		301		82	0	78
ROUNDUP POWERMAX	32 fl oz/a	F 505		60	0	70
N-PAK AMS LIQUID	38.4 fl oz/a	F 813		88	0	90
		Mean =		75	0	78
19 ROWEL	2 oz wt/a	A 206		98	0	98
SOLAR NOON		410		90	0	88
XTENDIMAX	22 fl oz/a	F 610		95	0	95
ROUNDUP POWERMAX	28.4 fl oz/a	F 811		90	0	95
INTACT	9.6 fl oz/a	F				
		Mean =		93	0	94
20 ROWEL	2 oz wt/a	A 207		88	5	90
SOLAR NOON		310		88	2	88
XTENDIMAX	22 fl oz/a	F 607		94	8	95
ROUNDUP POWERMAX	28.4 fl oz/a	F 812		90	6	90
INTACT	9.6 fl oz/a	F				
WARRANT ULTRA	50 fl oz/a	F				
		Mean =		90	5	91
21 ROWEL	2 oz wt/a	A 208		99	15	98
SOLAR NOON		411		88	8	85
XTENDIMAX	22 fl oz/a	F 612		99	15	98
ROUNDUP POWERMAX	28.4 fl oz/a	F 713		88	10	90
INTACT	9.6 fl oz/a	F				
COBRA	10 fl oz/a	F				
		Mean =		94	12	93
22 ROWEL	2 oz wt/a	A 209		40	0	50
DARK		302		70	0	70
ROUNDUP POWERMAX	32 fl oz/a	G 601		70	0	55
N-PAK AMS LIQUID	38.4 fl oz/a	G 802		40	0	45
		Mean =		55	0	55

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30	Location: TPAC	Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-30	Investigator: Dr. Bill Johnson	
Project ID: 2017-01-B7-16	Study Director: Dustin Johnson	
Sponsor Contact: D. Childs - Monsanto		

Pest Type	W Weed		W Weed
Pest Code	AMBTR		AMBTR
Pest Name	Giant ragweed		Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -
Rating Date	Jul-12-2017	Jul-19-2017	Jul-19-2017
Rating Type	CONTROL	PHYGEN	CONTROL
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A9	A10	A10
Days After First/Last Applic.	55 22	62 29	62 29
Days After Emergence	46 DE-1	53 DE-1	53 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0

Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	16	17	18
23 ROWEL	2 oz wt/a	A	210	96	0
DARK			412	90	0
XTENDIMAX	22 fl oz/a	G	503	94	0
ROUNDUP POWERMAX	28.4 fl oz/a	G	809	92	2
INTACT	9.6 fl oz/a	G			
		Mean =	93	1	95
24 ROWEL	2 oz wt/a	A	211	88	2
DARK			306	90	2
XTENDIMAX	22 fl oz/a	G	605	85	4
ROUNDUP POWERMAX	28.4 fl oz/a	G	803	92	0
INTACT	9.6 fl oz/a	G			
WARRANT ULTRA	50 fl oz/a	G			
		Mean =	89	2	90
25 ROWEL	2 oz wt/a	A	212	98	10
DARK			313	99	15
XTENDIMAX	22 fl oz/a	G	604	98	10
ROUNDUP POWERMAX	28.4 fl oz/a	G	808	93	10
INTACT	9.6 fl oz/a	G			
COBRA	10 fl oz/a	G			
		Mean =	97	11	98
26 UNTREATED CHECK 2			213	0	0
			409	0	0
			502	0	0
			710	0	0
		Mean =	0	0	0

Purdue Weed Science

Photoperiod Effect of Xtendimax on Efficacy

Trial ID: 17S-TPAC-SOY-30 Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-30 Investigator: Dr. Bill Johnson
Project ID: 2017-01-B7-16 Study Director: Dustin Johnson
Sponsor Contact: D. Childs - Monsanto

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

A2 = 2nd Assessment According to trial Schedule

A3 = 3rd Assessment According to Trial Schedule

A4 = 4th Assessment According to Trial Schedule

A5 = 5th Assessment According to Trial Schedule

A6 = 6th Assessment according to Trial Schedule

A7 = 7th Assessment According to Trial Schedule

A8 = 8th Assessment According to Trial Schedule

A9 = 9th Assessment According to Trial Schedule

ARM Action Codes

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