

**Time of day effects on the activity of Xtend in RR2 Xtend soybean**

Trial ID: SOY20-16 Study Dir.: Sprague, Powell, Stiles  
 Conducted: Campus B-8 (Adams) Investigator: Christy Sprague

**Planting Date:** May-25-2016 **Row Spacing:** 30 IN  
**Variety:** AG 25X6 RR XTEND **No. of Reps:** 4  
**Population:** 150000 seeds/A **% OM:** 2.8  
**Soil Type:** SCL sandy clay loam **pH:** 6.9  
**Plot Size:** 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Fall chisel plowed; spring soil finished  
**Fertilizer:**

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	lambsquarters, common	Chenopodium album
3	AMAPO	amaranth, Powell	Amaranthus powellii
4	AMBEL	ragweed, common	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

**Application Description**

	A	B	C	D	E	F
<b>Application Timing:</b>	Noon	Dark	Sunrise	Sunrise	Noon	Dark
<b>Date Treated:</b>	Jun-21-2016	Jun-21-2016	Jun-22-2016	Jun-29-2016	Jun-29-2016	Jun-29-2016
<b>Time Treated:</b>	1:30 PM	9:35 PM	6:00 AM	6:00 AM	1:40 PM	9:40 PM
<b>% Cloud Cover:</b>	30	5	10	0	0	10
<b>Air Temp., Unit:</b>	78 F	70 F	56 F	48 F	72 F	68 F
<b>% Relative Humidity:</b>	31	44	77	91	32	68
<b>Wind Speed/Unit/Dir:</b>	10 mph W	3 mph W	1 mph NE	0 mph	4 mph	4 mph
<b>Soil Temp, Unit:</b>	79.5 F	78 F	69 F	72 F	81 F	81 F
<b>Leaf Moist/Dew Presence (Y/N):</b>	5	5	5	5	5	5
<b>Soil Moist:</b>	4	4	4	5	5	5

**Crop Stage at Each Application**

	A	B	C	D	E	F
<b>Crop 1 Name:</b>	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
<b>Height:</b>	8-10 " (10)	8-10 " (10)	8-10 " (10)	9-10 " (10)	9-10 " (10)	9-10 " (10)
<b>Stage:</b>	V3	V3	V3	V4	V4	V4

**Weed Stage at Each Application**

	A	B	C	D	E	F
<b>Weed 1 Name:</b>	ANGR	ANGR	ANGR	ANGR	ANGR	ANGR
<b>Height:</b>	5-7 " (6)	5-7 " (6)	5-7 " (6)	5-17 " (10)	5-17 " (10)	5-17 " (10)
<b>Stage:</b>	4-6L	4-6L	4-6L	5-7L	5-7L	5-7L
<b>Weed 2 Name:</b>	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
<b>Height:</b>	3-4 " (3)	3-4 " (3)	3-4 " (3)	3-6 " (4)	3-6 " (4)	3-6 " (4)
<b>Stage:</b>	many	many	many	12-14L	12-14L	12-14L
<b>Weed 3 Name:</b>	AMAPO	AMAPO	AMAPO	AMAPO	AMAPO	AMAPO
<b>Height:</b>	3-5 " (4)	3-5 " (4)	3-5 " (4)	6-8 " (7)	6-8 " (7)	6-8 " (7)
<b>Stage:</b>	5-7L	5-7L	5-7L	10-12L	10-12L	10-12L
<b>Weed 4 Name:</b>	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
<b>Height:</b>				7-8 " (7)	7-8 " (7)	7-8 " (7)
<b>Stage:</b>				10-12L	10-12L	10-12L
<b>Weed 5 Name:</b>	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
<b>Height:</b>				6 "	6 "	6 "
<b>Stage:</b>				5L	5L	5L

**Weed Density**

	1	2	3	4	5
<b>Date:</b>	Jun-29-2016	Jun-29-2016	Jun-29-2016	Jun-29-2016	Jun-29-2016
<b>Weed Name:</b>	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
<b>Density:</b>	9 FT2	5 FT2	5 FT2	1 FT2	1 FT2

**Application Equipment**

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<b>Appl</b>	<b>Sprayer Type</b>	<b>Ground Speed</b>	<b>Nozzle Type</b>	<b>Nozzle Size</b>	<b>Nozzle Height</b>	<b>Nozzle Spacing</b>	<b>Boom Width</b>	<b>Spray Volume</b>	<b>Carrier</b>	<b>Operation Pressure</b>
<b>A</b>	CUB	3.8 mph	TTI	11003	22 "	20 "	100 "	19 GAL/AC	WATER	25 PSI
<b>B</b>	CUB	3.8 mph	TTI	11003	22 "	20 "	100 "	19 GAL/AC	WATER	25 PSI
<b>C</b>	CUB	3.8 mph	TTI	11003	22 "	20 "	100 "	19 GAL/AC	WATER	25 PSI
<b>D</b>	CUB	3.8 mph	TTI	11003	24 "	20 "	100 "	19 GAL/AC	WATER	25 PSI
<b>E</b>	CUB	3.8 mph	TTI	11003	24 "	20 "	100 "	19 GAL/AC	WATER	25 PSI
<b>F</b>	CUB	3.8 mph	TTI	11003	24 "	20 "	100 "	19 GAL/AC	WATER	25 PSI

**Comments:**

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Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code				ANGR	CHEAL	AMAPO
Crop Code	GLXMA	GLXMA	GLXMA			
Rating Date	Jun-22-2016	Jun-24-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016
Rating Type	injury	injury	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	1 DA-A	3 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Code						
1	Roundup PowerMax	32 fl oz/a	A		0	0	0	89	88	85
1	AMSOL	2 % v/v	A							
2	MON 76980	22 fl oz/a	A		18	4	0	91	95	90
2	Roundup PowerMax	28.4 fl oz/a	A							
2	Impetro	1 % v/v	A							
3	Warrant Ultra	50 fl oz/a	A		31	23	26	92	98	94
3	MON 76980	22 fl oz/a	A							
3	Roundup PowerMax	28.4 fl oz/a	A							
3	Impetro	1 % v/v	A							
4	Cobra	10 fl oz/a	A		36	30	33	93	91	95
4	MON 76980	22 fl oz/a	A							
4	Roundup PowerMax	28.4 fl oz/a	A							
4	Impetro	1 % v/v	A							
5	Roundup PowerMax	32 fl oz/a	B		0	0	0	97	96	97
5	AMSOL	2 % v/v	B							
6	MON 76980	22 fl oz/a	B		6	9	2	99	100	99
6	Roundup PowerMax	28.4 fl oz/a	B							
6	Impetro	1 % v/v	B							
7	Warrant Ultra	50 fl oz/a	B		14	16	33	99	100	98
7	MON 76980	22 fl oz/a	B							
7	Roundup PowerMax	28.4 fl oz/a	B							
7	Impetro	1 % v/v	B							
8	Cobra	10 fl oz/a	B		25	25	34	100	100	98
8	MON 76980	22 fl oz/a	B							
8	Roundup PowerMax	28.4 fl oz/a	B							
8	Impetro	1 % v/v	B							
9	Roundup PowerMax	32 fl oz/a	C		0	1	1	95	100	100
9	AMSOL	2 % v/v	C							
10	MON 76980	22 fl oz/a	C		9	4	0	100	100	100
10	Roundup PowerMax	28.4 fl oz/a	C							
10	Impetro	1 % v/v	C							
11	Warrant Ultra	50 fl oz/a	C		21	16	21	98	100	100
11	MON 76980	22 fl oz/a	C							
11	Roundup PowerMax	28.4 fl oz/a	C							
11	Impetro	1 % v/v	C							

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Study Director: Sprague, Powell, Stiles

Pest Code				ANGR	CHEAL	AMAPO
Crop Code	GLXMA	GLXMA	GLXMA			
Rating Date	Jun-22-2016	Jun-24-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016
Rating Type	injury	injury	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	1 DA-A	3 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code						
		Rate Unit							
12	Cobra	10 fl oz/a	C	31	26	33	99	96	100
12	MON 76980	22 fl oz/a	C						
12	Roundup PowerMax	28.4 fl oz/a	C						
12	Impetro	1 % v/v	C						
13	Untreated			0	0	0	0	0	0
14	Roundup PowerMax	32 fl oz/a	D						
14	AMSOL	2 % v/v	D						
15	MON 76980	22 fl oz/a	D						
15	Roundup PowerMax	28.4 fl oz/a	D						
15	Impetro	1 % v/v	D						
16	Warrant Ultra	50 fl oz/a	D						
16	MON 76980	22 fl oz/a	D						
16	Roundup PowerMax	28.4 fl oz/a	D						
16	Impetro	1 % v/v	D						
17	Cobra	10 fl oz/a	D						
17	MON 76980	22 fl oz/a	D						
17	Roundup PowerMax	28.4 fl oz/a	D						
17	Impetro	1 % v/v	D						
18	Roundup PowerMax	32 fl oz/a	E						
18	AMSOL	2 % v/v	E						
19	MON 76980	22 fl oz/a	E						
19	Roundup PowerMax	28.4 fl oz/a	E						
19	Impetro	1 % v/v	E						
20	Warrant Ultra	50 fl oz/a	E						
20	MON 76980	22 fl oz/a	E						
20	Roundup PowerMax	28.4 fl oz/a	E						
20	Impetro	1 % v/v	E						
21	Cobra	10 fl oz/a	E						
21	MON 76980	22 fl oz/a	E						
21	Roundup PowerMax	28.4 fl oz/a	E						
21	Impetro	1 % v/v	E						
22	Roundup PowerMax	32 fl oz/a	F						
22	AMSOL	2 % v/v	F						
23	MON 76980	22 fl oz/a	F						
23	Roundup PowerMax	28.4 fl oz/a	F						
23	Impetro	1 % v/v	F						

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Crop Code	GLXMA	GLXMA	GLXMA			
Rating Date	Jun-22-2016	Jun-24-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016
Rating Type	injury	injury	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	1 DA-A	3 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code
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24	Warrant Ultra	50 fl oz/a	F	
24	MON 76980	22 fl oz/a	F	
24	Roundup PowerMax	28.4 fl oz/a	F	
24	Impetro	1 % v/v	F	

25	Cobra	10 fl oz/a	F	
25	MON 76980	22 fl oz/a	F	
25	Roundup PowerMax	28.4 fl oz/a	F	
25	Impetro	1 % v/v	F	

LSD P=.05	6.6	3.8	4.5	9.3	11.3	13.0
Standard Deviation	4.6	2.6	3.1	6.5	7.9	9.1
CV	31.2	22.32	22.34	7.31	8.79	10.21

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Pest Code	AMBEL	ABUTH				ANGR	CHEAL
Crop Code			GLXMA	GLXMA	GLXMA		
Rating Date	Jun-28-2016	Jun-28-2016	Jun-30-2016	Jul-2-2016	Jul-6-2016	Jul-6-2016	Jul-6-2016
Rating Type	control	control	injury	injury	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-A	7 DA-A	1 DA-D	3 DA-D	7 DA-D	7 DA-D	7 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Code						
1	Roundup PowerMax	32 fl oz/a	A		92	74		0	99	94
1	AMSOL	2 % v/v	A							
2	MON 76980	22 fl oz/a	A		95	82		0	98	99
2	Roundup PowerMax	28.4 fl oz/a	A							
2	Impetro	1 % v/v	A							
3	Warrant Ultra	50 fl oz/a	A		100	86		18	97	99
3	MON 76980	22 fl oz/a	A							
3	Roundup PowerMax	28.4 fl oz/a	A							
3	Impetro	1 % v/v	A							
4	Cobra	10 fl oz/a	A		100	86		15	97	99
4	MON 76980	22 fl oz/a	A							
4	Roundup PowerMax	28.4 fl oz/a	A							
4	Impetro	1 % v/v	A							
5	Roundup PowerMax	32 fl oz/a	B		93	86		0	100	95
5	AMSOL	2 % v/v	B							
6	MON 76980	22 fl oz/a	B		99	89		0	99	100
6	Roundup PowerMax	28.4 fl oz/a	B							
6	Impetro	1 % v/v	B							
7	Warrant Ultra	50 fl oz/a	B		100	99		17	99	100
7	MON 76980	22 fl oz/a	B							
7	Roundup PowerMax	28.4 fl oz/a	B							
7	Impetro	1 % v/v	B							
8	Cobra	10 fl oz/a	B		100	98		15	97	100
8	MON 76980	22 fl oz/a	B							
8	Roundup PowerMax	28.4 fl oz/a	B							
8	Impetro	1 % v/v	B							
9	Roundup PowerMax	32 fl oz/a	C		100	96		0	99	97
9	AMSOL	2 % v/v	C							
10	MON 76980	22 fl oz/a	C		98	100		0	99	100
10	Roundup PowerMax	28.4 fl oz/a	C							
10	Impetro	1 % v/v	C							
11	Warrant Ultra	50 fl oz/a	C		100	98		13	99	100
11	MON 76980	22 fl oz/a	C							
11	Roundup PowerMax	28.4 fl oz/a	C							
11	Impetro	1 % v/v	C							

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Pest Code	AMBEL	ABUTH				ANGR	CHEAL
Crop Code			GLXMA	GLXMA	GLXMA		
Rating Date	Jun-28-2016	Jun-28-2016	Jun-30-2016	Jul-2-2016	Jul-6-2016	Jul-6-2016	Jul-6-2016
Rating Type	control	control	injury	injury	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-A	7 DA-A	1 DA-D	3 DA-D	7 DA-D	7 DA-D	7 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code							
		Rate Unit								
12	Cobra	10 fl oz/a	C	100	98		16	99	100	
12	MON 76980	22 fl oz/a	C							
12	Roundup PowerMax	28.4 fl oz/a	C							
12	Impetro	1 % v/v	C							
13	Untreated			0	0		0	0	0	
14	Roundup PowerMax	32 fl oz/a	D			1	0	0	98	97
14	AMSOL	2 % v/v	D							
15	MON 76980	22 fl oz/a	D			0	0	0	97	99
15	Roundup PowerMax	28.4 fl oz/a	D							
15	Impetro	1 % v/v	D							
16	Warrant Ultra	50 fl oz/a	D			18	7	25	93	99
16	MON 76980	22 fl oz/a	D							
16	Roundup PowerMax	28.4 fl oz/a	D							
16	Impetro	1 % v/v	D							
17	Cobra	10 fl oz/a	D			26	24	36	92	93
17	MON 76980	22 fl oz/a	D							
17	Roundup PowerMax	28.4 fl oz/a	D							
17	Impetro	1 % v/v	D							
18	Roundup PowerMax	32 fl oz/a	E			0	0	0	96	91
18	AMSOL	2 % v/v	E							
19	MON 76980	22 fl oz/a	E			1	0	0	93	93
19	Roundup PowerMax	28.4 fl oz/a	E							
19	Impetro	1 % v/v	E							
20	Warrant Ultra	50 fl oz/a	E			15	15	23	90	95
20	MON 76980	22 fl oz/a	E							
20	Roundup PowerMax	28.4 fl oz/a	E							
20	Impetro	1 % v/v	E							
21	Cobra	10 fl oz/a	E			19	16	30	90	92
21	MON 76980	22 fl oz/a	E							
21	Roundup PowerMax	28.4 fl oz/a	E							
21	Impetro	1 % v/v	E							
22	Roundup PowerMax	32 fl oz/a	F			0	0	0	96	96
22	AMSOL	2 % v/v	F							
23	MON 76980	22 fl oz/a	F			0	1	0	90	97
23	Roundup PowerMax	28.4 fl oz/a	F							
23	Impetro	1 % v/v	F							

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Pest Code	AMBEL	ABUTH				ANGR	CHEAL
Crop Code			GLXMA	GLXMA	GLXMA		
Rating Date	Jun-28-2016	Jun-28-2016	Jun-30-2016	Jul-2-2016	Jul-6-2016	Jul-6-2016	Jul-6-2016
Rating Type	control	control	injury	injury	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-A	7 DA-A	1 DA-D	3 DA-D	7 DA-D	7 DA-D	7 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Code				
24	Warrant Ultra	50 fl oz/a	F		0	4	18	92
24	MON 76980	22 fl oz/a	F					94
24	Roundup PowerMax	28.4 fl oz/a	F					
24	Impetro	1 % v/v	F					
25	Cobra	10 fl oz/a	F		3	8	30	91
25	MON 76980	22 fl oz/a	F					96
25	Roundup PowerMax	28.4 fl oz/a	F					
25	Impetro	1 % v/v	F					
LSD P=.05		4.4	18.6	3.7	3.5	3.8	6.2	6.5
Standard Deviation		3.1	13.0	2.6	2.4	2.7	4.4	4.6
CV		3.42	15.49	37.75	39.37	26.63	4.81	4.95



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Pest Code	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO
Crop Code				GLYMX			
Rating Date	Jul-6-2016	Jul-6-2016	Jul-6-2016	Jul-13-2016	Jul-13-2016	Jul-13-2016	Jul-13-2016
Rating Type	control	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-D	7 DA-D	7 DA-D	14 DA-D	14 DA-D	14 DA-D	14 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	AMAPO	AMBEL	ABUTH	GLYMX	ANGR	CHEAL	AMAPO
1	Roundup PowerMax	32 fl oz/a	A	100	91	89	0	99	91	100
1	AMSOL	2 % v/v	A							
2	MON 76980	22 fl oz/a	A	100	100	80	0	97	100	100
2	Roundup PowerMax	28.4 fl oz/a	A							
2	Impetro	1 % v/v	A							
3	Warrant Ultra	50 fl oz/a	A	99	100	82	7	96	100	100
3	MON 76980	22 fl oz/a	A							
3	Roundup PowerMax	28.4 fl oz/a	A							
3	Impetro	1 % v/v	A							
4	Cobra	10 fl oz/a	A	100	100	90	5	94	100	100
4	MON 76980	22 fl oz/a	A							
4	Roundup PowerMax	28.4 fl oz/a	A							
4	Impetro	1 % v/v	A							
5	Roundup PowerMax	32 fl oz/a	B	100	97	95	0	95	86	99
5	AMSOL	2 % v/v	B							
6	MON 76980	22 fl oz/a	B	100	100	94	1	93	99	100
6	Roundup PowerMax	28.4 fl oz/a	B							
6	Impetro	1 % v/v	B							
7	Warrant Ultra	50 fl oz/a	B	100	100	99	5	95	100	100
7	MON 76980	22 fl oz/a	B							
7	Roundup PowerMax	28.4 fl oz/a	B							
7	Impetro	1 % v/v	B							
8	Cobra	10 fl oz/a	B	99	100	99	7	91	100	100
8	MON 76980	22 fl oz/a	B							
8	Roundup PowerMax	28.4 fl oz/a	B							
8	Impetro	1 % v/v	B							
9	Roundup PowerMax	32 fl oz/a	C	100	100	96	0	94	95	100
9	AMSOL	2 % v/v	C							
10	MON 76980	22 fl oz/a	C	100	100	100	0	97	100	100
10	Roundup PowerMax	28.4 fl oz/a	C							
10	Impetro	1 % v/v	C							
11	Warrant Ultra	50 fl oz/a	C	100	100	94	5	95	100	100
11	MON 76980	22 fl oz/a	C							
11	Roundup PowerMax	28.4 fl oz/a	C							
11	Impetro	1 % v/v	C							

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Pest Code	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO
Crop Code				GLYMX			
Rating Date	Jul-6-2016	Jul-6-2016	Jul-6-2016	Jul-13-2016	Jul-13-2016	Jul-13-2016	Jul-13-2016
Rating Type	control	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-D	7 DA-D	7 DA-D	14 DA-D	14 DA-D	14 DA-D	14 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code							
		Rate Unit								
12	Cobra	10 fl oz/a	C	100	100	91	7	96	100	100
12	MON 76980	22 fl oz/a	C							
12	Roundup PowerMax	28.4 fl oz/a	C							
12	Impetro	1 % v/v	C							
13	Untreated			0	0	0	0	0	0	0
14	Roundup PowerMax	32 fl oz/a	D	98	86	80	0	97	95	99
14	AMSOL	2 % v/v	D							
15	MON 76980	22 fl oz/a	D	96	91	73	0	98	100	99
15	Roundup PowerMax	28.4 fl oz/a	D							
15	Impetro	1 % v/v	D							
16	Warrant Ultra	50 fl oz/a	D	93	93	93	12	95	100	95
16	MON 76980	22 fl oz/a	D							
16	Roundup PowerMax	28.4 fl oz/a	D							
16	Impetro	1 % v/v	D							
17	Cobra	10 fl oz/a	D	88	100	94	18	91	99	91
17	MON 76980	22 fl oz/a	D							
17	Roundup PowerMax	28.4 fl oz/a	D							
17	Impetro	1 % v/v	D							
18	Roundup PowerMax	32 fl oz/a	E	99	93	76	0	99	87	100
18	AMSOL	2 % v/v	E							
19	MON 76980	22 fl oz/a	E	100	93	93	1	90	97	100
19	Roundup PowerMax	28.4 fl oz/a	E							
19	Impetro	1 % v/v	E							
20	Warrant Ultra	50 fl oz/a	E	98	98	98	11	84	99	99
20	MON 76980	22 fl oz/a	E							
20	Roundup PowerMax	28.4 fl oz/a	E							
20	Impetro	1 % v/v	E							
21	Cobra	10 fl oz/a	E	94	96	94	16	90	98	96
21	MON 76980	22 fl oz/a	E							
21	Roundup PowerMax	28.4 fl oz/a	E							
21	Impetro	1 % v/v	E							
22	Roundup PowerMax	32 fl oz/a	F	99	91	83	0	99	92	100
22	AMSOL	2 % v/v	F							
23	MON 76980	22 fl oz/a	F	100	94	100	0	85	99	100
23	Roundup PowerMax	28.4 fl oz/a	F							
23	Impetro	1 % v/v	F							

## Time of day effects on the activity of Xtend in RR2 Xtend soybean

Trial ID: SOY20-16

Location: Campus B-8 (Adams)

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO
Crop Code				GLYMX			
Rating Date	Jul-6-2016	Jul-6-2016	Jul-6-2016	Jul-13-2016	Jul-13-2016	Jul-13-2016	Jul-13-2016
Rating Type	control	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-D	7 DA-D	7 DA-D	14 DA-D	14 DA-D	14 DA-D	14 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Code							
24	Warrant Ultra	50 fl oz/a	F		99	93	86	8	91	98	100
24	MON 76980	22 fl oz/a	F								
24	Roundup PowerMax	28.4 fl oz/a	F								
24	Impetro	1 % v/v	F								
25	Cobra	10 fl oz/a	F		100	93	90	13	87	100	100
25	MON 76980	22 fl oz/a	F								
25	Roundup PowerMax	28.4 fl oz/a	F								
25	Impetro	1 % v/v	F								
LSD	P=.05				4.1	11.0	18.5	4.9	7.7	5.7	3.7
Standard Deviation					2.9	7.8	13.1	3.4	5.4	4.1	2.6
CV					3.05	8.47	15.15	75.34	6.05	4.34	2.75



## Time of day effects on the activity of Xtend in RR2 Xtend soybean

Trial ID: SOY20-16

Location: Campus B-8 (Adams)

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL
Crop Code			GLYMX				
Rating Date	Jul-13-2016	Jul-13-2016	Jul-20-2016	Jul-21-2016	Jul-21-2016	Jul-21-2016	Jul-21-2016
Rating Type	control	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-D	14 DA-D	21 DA-D	21 DA-D	21 DA-D	21 DA-D	21 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code						
		Rate Unit							
12	Cobra	10 fl oz/a	C	100	98	0	91	100	100
12	MON 76980	22 fl oz/a	C						
12	Roundup PowerMax	28.4 fl oz/a	C						
12	Impetro	1 % v/v	C						
13	Untreated			0	0	0	0	0	0
14	Roundup PowerMax	32 fl oz/a	D	91	89	0	96	89	98
14	AMSOL	2 % v/v	D						
15	MON 76980	22 fl oz/a	D	97	83	0	95	100	100
15	Roundup PowerMax	28.4 fl oz/a	D						
15	Impetro	1 % v/v	D						
16	Warrant Ultra	50 fl oz/a	D	97	95	1	93	100	96
16	MON 76980	22 fl oz/a	D						
16	Roundup PowerMax	28.4 fl oz/a	D						
16	Impetro	1 % v/v	D						
17	Cobra	10 fl oz/a	D	100	94	3	88	100	93
17	MON 76980	22 fl oz/a	D						
17	Roundup PowerMax	28.4 fl oz/a	D						
17	Impetro	1 % v/v	D						
18	Roundup PowerMax	32 fl oz/a	E	100	86	0	91	66	100
18	AMSOL	2 % v/v	E						
19	MON 76980	22 fl oz/a	E	98	98	0	90	100	100
19	Roundup PowerMax	28.4 fl oz/a	E						
19	Impetro	1 % v/v	E						
20	Warrant Ultra	50 fl oz/a	E	100	100	6	81	100	100
20	MON 76980	22 fl oz/a	E						
20	Roundup PowerMax	28.4 fl oz/a	E						
20	Impetro	1 % v/v	E						
21	Cobra	10 fl oz/a	E	100	100	6	89	99	97
21	MON 76980	22 fl oz/a	E						
21	Roundup PowerMax	28.4 fl oz/a	E						
21	Impetro	1 % v/v	E						
22	Roundup PowerMax	32 fl oz/a	F	98	93	0	95	83	100
22	AMSOL	2 % v/v	F						
23	MON 76980	22 fl oz/a	F	98	100	1	85	100	100
23	Roundup PowerMax	28.4 fl oz/a	F						
23	Impetro	1 % v/v	F						

## Time of day effects on the activity of Xtend in RR2 Xtend soybean

Trial ID: SOY20-16

Location: Campus B-8 (Adams)

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL
Crop Code			GLYMX				
Rating Date	Jul-13-2016	Jul-13-2016	Jul-20-2016	Jul-21-2016	Jul-21-2016	Jul-21-2016	Jul-21-2016
Rating Type	control	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-D	14 DA-D	21 DA-D	21 DA-D	21 DA-D	21 DA-D	21 DA-D
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Code							
24	Warrant Ultra	50 fl oz/a	F		99	89	1	93	100	100	100
24	MON 76980	22 fl oz/a	F								
24	Roundup PowerMax	28.4 fl oz/a	F								
24	Impetro	1 % v/v	F								
25	Cobra	10 fl oz/a	F		100	93	2	87	100	100	100
25	MON 76980	22 fl oz/a	F								
25	Roundup PowerMax	28.4 fl oz/a	F								
25	Impetro	1 % v/v	F								
	LSD P=.05				5.1	14.1	2.3	10.7	15.1	3.7	3.5
	Standard Deviation				3.6	10.0	1.6	7.6	10.7	2.6	2.5
	CV				3.83	11.1	205.17	8.67	11.76	2.72	2.62

## Time of day effects on the activity of Xtend in RR2 Xtend soybean

Trial ID: SOY20-16

Location: Campus B-8 (Adams)

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	ABUTH
Crop Code	
Rating Date	Jul-21-2016
Rating Type	control
Rating Unit	percent
Trt-Eval Interval	21 DA-D
Number of Decimals	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	
1	Roundup PowerMax	32 fl oz/a	A		95
1	AMSOL	2 % v/v	A		
2	MON 76980	22 fl oz/a	A		90
2	Roundup PowerMax	28.4 fl oz/a	A		
2	Impetro	1 % v/v	A		
3	Warrant Ultra	50 fl oz/a	A		86
3	MON 76980	22 fl oz/a	A		
3	Roundup PowerMax	28.4 fl oz/a	A		
3	Impetro	1 % v/v	A		
4	Cobra	10 fl oz/a	A		86
4	MON 76980	22 fl oz/a	A		
4	Roundup PowerMax	28.4 fl oz/a	A		
4	Impetro	1 % v/v	A		
5	Roundup PowerMax	32 fl oz/a	B		100
5	AMSOL	2 % v/v	B		
6	MON 76980	22 fl oz/a	B		96
6	Roundup PowerMax	28.4 fl oz/a	B		
6	Impetro	1 % v/v	B		
7	Warrant Ultra	50 fl oz/a	B		95
7	MON 76980	22 fl oz/a	B		
7	Roundup PowerMax	28.4 fl oz/a	B		
7	Impetro	1 % v/v	B		
8	Cobra	10 fl oz/a	B		99
8	MON 76980	22 fl oz/a	B		
8	Roundup PowerMax	28.4 fl oz/a	B		
8	Impetro	1 % v/v	B		
9	Roundup PowerMax	32 fl oz/a	C		96
9	AMSOL	2 % v/v	C		
10	MON 76980	22 fl oz/a	C		100
10	Roundup PowerMax	28.4 fl oz/a	C		
10	Impetro	1 % v/v	C		
11	Warrant Ultra	50 fl oz/a	C		94
11	MON 76980	22 fl oz/a	C		
11	Roundup PowerMax	28.4 fl oz/a	C		
11	Impetro	1 % v/v	C		

## Time of day effects on the activity of Xtend in RR2 Xtend soybean

Trial ID: SOY20-16

Location: Campus B-8 (Adams)

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	ABUTH
Crop Code	
Rating Date	Jul-21-2016
Rating Type	control
Rating Unit	percent
Trt-Eval Interval	21 DA-D
Number of Decimals	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	
12	Cobra	10 fl oz/a	C		94
12	MON 76980	22 fl oz/a	C		
12	Roundup PowerMax	28.4 fl oz/a	C		
12	Impetro	1 % v/v	C		
13	Untreated				0
14	Roundup PowerMax	32 fl oz/a	D		91
14	AMSOL	2 % v/v	D		
15	MON 76980	22 fl oz/a	D		81
15	Roundup PowerMax	28.4 fl oz/a	D		
15	Impetro	1 % v/v	D		
16	Warrant Ultra	50 fl oz/a	D		95
16	MON 76980	22 fl oz/a	D		
16	Roundup PowerMax	28.4 fl oz/a	D		
16	Impetro	1 % v/v	D		
17	Cobra	10 fl oz/a	D		91
17	MON 76980	22 fl oz/a	D		
17	Roundup PowerMax	28.4 fl oz/a	D		
17	Impetro	1 % v/v	D		
18	Roundup PowerMax	32 fl oz/a	E		88
18	AMSOL	2 % v/v	E		
19	MON 76980	22 fl oz/a	E		95
19	Roundup PowerMax	28.4 fl oz/a	E		
19	Impetro	1 % v/v	E		
20	Warrant Ultra	50 fl oz/a	E		100
20	MON 76980	22 fl oz/a	E		
20	Roundup PowerMax	28.4 fl oz/a	E		
20	Impetro	1 % v/v	E		
21	Cobra	10 fl oz/a	E		100
21	MON 76980	22 fl oz/a	E		
21	Roundup PowerMax	28.4 fl oz/a	E		
21	Impetro	1 % v/v	E		
22	Roundup PowerMax	32 fl oz/a	F		95
22	AMSOL	2 % v/v	F		
23	MON 76980	22 fl oz/a	F		98
23	Roundup PowerMax	28.4 fl oz/a	F		
23	Impetro	1 % v/v	F		



**Time of day effects on the activity of Xtend in RR2 Xtend soybean****Trial ID: SOY20-16****Location: Campus B-8 (Adams)****Investigator: Christy Sprague****Study Director: Sprague, Powell, Stiles**

Pest Code	ABUTH
Crop Code	
Rating Date	Jul-21-2016
Rating Type	control
Rating Unit	percent
Trt-Eval Interval	21 DA-D
Number of Decimals	0

Trt No.	Treatment Name	Rate	Unit	Appl Code
24	Warrant Ultra	50 fl oz/a	F	85
24	MON 76980	22 fl oz/a	F	
24	Roundup PowerMax	28.4 fl oz/a	F	
24	Impetro	1 % v/v	F	
25	Cobra	10 fl oz/a	F	92
25	MON 76980	22 fl oz/a	F	
25	Roundup PowerMax	28.4 fl oz/a	F	
25	Impetro	1 % v/v	F	
LSD P=.05				16.3
Standard Deviation				11.6
CV				12.91