

Ohio State University
Horticulture and Crop Science

Application Description

	A	B	C	D
Application Date:	Apr-25-2012	Apr-29-2012	Jun-6-2012	Jul-12-2012
Time of Day:	9:30 AM	4:00 PM	9:00AM	8:45AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	7 EPP	3 EPP	3-4"WDS	R3
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	REEB	DOBBELS	REEB	REEB
Air Temperature, Unit:	55 F	65 F	60 F	78 F
% Relative Humidity:	62	54	71	71
Wind Velocity, Unit:	5 MPH	6 MPH	5 MPH	2 MPH
Wind Direction:	S	W	N	E
Dew Presence (Y/N):	N no	N no	N no	N no
Soil Temperature, Unit:	45 F	57 F	58 F	75 F
Soil Moisture:	GOOD	MOIST	DRY	DRY
% Cloud Cover:	3	75	0	0
Next Rain Occurred On:	Apr-26-2012	Apr-30-2012	Jun-11-2012	Jul-15-2012

Crop Stage At Each Application

	A		B		C		D	
Crop 1 Code, BBCH Scale:	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used:					BBCH		BBCH	
Stage Majority, Percent:					12	100	69	100
Height, Unit:					5	IN	22	IN
Height Minimum, Maximum:					5	5	20	24

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Pest Stage At Each Application

	A		B		C		D	
Pest 1 Code, Type, Scale:	LAMPU	W	LAMPU	W	LAMPU	W	LAMPU	W
Stage Majority, Percent:	65	100	65	100				
Height, Unit:	5	IN	5	IN				
Height Minimum, Maximum:	3	5	3	5				
Density, Unit:	6.65	m2	6.65	m2				
Pest 2 Code, Type, Scale:	CAPBP	W	CAPBP	W	CAPBP	W	CAPBP	W
Stage Majority, Percent:	65	100	65	100				
Height, Unit:	16	IN	16	IN				
Height Minimum, Maximum:	14	16	14	16				
Density, Unit:	0.25	m2	0.25	m2				
Pest 3 Code, Type, Scale:	VERPG	W	VERPG	W	VERPG	W	VERPG	W
Stage Majority, Percent:	65	100	65	100				
Diameter, Unit:	8	IN	8	IN				
Height, Unit:	6	IN	6	IN				
Height Minimum, Maximum:	4	6	4	6				
Density, Unit:	0.25	m2	0.25	m2				
Pest 4 Code, Type, Scale:	VERAG	W	VERAG	W	VERAG	W	VERAG	W
Stage Majority, Percent:	65	100	65	100				
Diameter, Unit:	8	IN	8	IN				
Height, Unit:	4	IN	4	IN				
Height Minimum, Maximum:	2	4	2	4				
Density, Unit:	0.25	m2	0.25	m2				
Pest 5 Code, Type, Scale:	RANAB	W	RANAB	W	RANAB	W	RANAB	W
Stage Majority, Percent:	65	100	65	100				
Height, Unit:	9	IN	9	IN				
Height Minimum, Maximum:	7	9	7	9				
Density, Unit:	1.33	m2	1.33	m2				
Pest 6 Code, Type, Scale:	SENGL	W	SENGL	W	SENGL	W	SENGL	W
Stage Majority, Percent:	65	100	65	100	69	100		
Height, Unit:	13	IN	13	IN	18	IN		
Height Minimum, Maximum:	10	13	10	13	12	24		
Density, Unit:	6.65	m2	6.65	m2	6.65	M2		
Pest 7 Code, Type, Scale:	CHEAL	W	CHEAL	W	CHEAL	W	CHEAL	W
Stage Majority, Percent:	18	100	18	100	19	100		
Height, Unit:	3	IN	3	IN	10	IN		
Height Minimum, Maximum:	1	3	1	3	10	10		
Density, Unit:	0.25	m2	0.25	m2	0.25	M2		
Pest 8 Code, Type, Scale:	AMBTR	W	AMBTR	W	AMBTR	W	AMBTR	W
Stage Majority, Percent:	18	100	18	100	19	100		
Height, Unit:	4	IN	4	IN	16	IN		
Height Minimum, Maximum:	2	4	2	4	12	18		
Density, Unit:	10.64	m2	10.64	m2	10.64	M2		
Pest 9 Code, Type, Scale:	ERICA	W	ERICA	W	ERICA	W	ERICA	W
Stage Majority, Percent:	16	100	16	100	19	100		
Height, Unit:	0.25	IN	0.25	IN	3	IN		
Height Minimum, Maximum:	0.1	0.25	0.1	0.25	3	3		
Density, Unit:	26.6	m2	26.6	m2	26.6	M2		
Pest10 Code, Type, Scale:	SETFA	W	SETFA	W	SETFA	W	SETFA	W
Stage Majority, Percent:					15	100		
Height, Unit:					7.5	IN		
Height Minimum, Maximum:					6	9		
Density, Unit:					125	M2		
Pest11 Code, Type, Scale:	AMBEL	W	AMBEL	W	AMBEL	W	AMBEL	W
Stage Majority, Percent:					19	100		
Height, Unit:					4	IN		
Height Minimum, Maximum:					4	4		
Density, Unit:					2	M2		
Pest12 Code, Type, Scale:	POLPY	W	POLPY	W	POLPY	W	POLPY	W
Stage Majority, Percent:					19	100		
Height, Unit:					5	IN		
Height Minimum, Maximum:					5	5		
Density, Unit:					1	M2		

Application Equipment

	A		B		C		D	
Appl. Equipment:	Backpack	TRACTOR	Backpack	Backpack				
Equipment Type:	SPRBAC	SPTRMO	SPRBAC	SPRBAC				
Operation Pressure, Unit:	44	PSI	33	PSI	44	PSI	44	PSI
Nozzle Type:	AIXR	AIXR	AIXR	AIXR				
Nozzle Size:	110015	11002	110015	110015				
Nozzle Spacing, Unit:	18	IN	20	IN	18	IN	18	IN
Boom Length, Unit:	10	FT	10	FT	10	FT	10	FT
Boom Height, Unit:	18	IN	18	IN	18	IN	18	IN
Ground Speed, Unit:	3	MPH	3.8	MPH	3	MPH	3	MPH
Carrier:	WATER	WATER	WATER	WATER				
Spray Volume, Unit:	15	gal/ac	15	gal/ac	15	gal/ac	15	gal/ac
Mix Size, Unit:	3	Liters	10	gallons	3	GALLONS	3	Liters
Propellant:	COMCO2	PUMROL	COMCO2	COMCO2				

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Soybean Yield Advantage Protocol

Title No. 2:

Trial ID: 12 SOYDEMO1
Location: Western Branch
Project ID: DEM-H-2012-US-D9F-G-01.0.Protocol ID: 12 SOYDEMO1
Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux
Sponsor Contact: Caren Schmidt, BASF

Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	SETFA	AMBTR	ERICA	CHEAL							
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Conyza canadensis	Chenopodium album							
Pest Name	Giant foxtail	Giant ragweed	Canada horseweed	Common lambsquarters							
Rating Date	Jun-5-2012	Jun-5-2012	Jun-5-2012	Jun-5-2012							
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Rating Timing	AT POST	AT POST	AT POST	AT POST							
Days After First/Last Applic.	41 37	41 37	41 37	41 37							
Trt-Eval Interval	37 DA-B	37 DA-B	37 DA-B	37 DA-B							
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	36 DP-1							
Days After Emergence	27 DE-1	27 DE-1	27 DE-1	27 DE-1							
Number of Decimals	0	0	0	0							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4
1	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C	0 c	0 b	0 c	0 c
1	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C				
1	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C				
2	Roundup Weathermax	0.77 lb	ae/a	22 oz/a		7 EPP	A	18 b	42 a	25 b	98 ab
2	Weedone LV-6	0.56 lb	ai/a	12 oz/a		7 EPP	A				
2	N-pak ams	5 %	v/v	3 qt/a		7 EPP	A				
2	NIS	0.25 %	v/v	0.15 qt/a		7 EPP	A				
2	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C				
2	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C				
2	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C				
3	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	54 a	48 a	93 a	100 a
3	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B				
3	Outlook	0.47 lb	ai/a	10 oz/a		3 EPP	B				
3	MSO	1 %	v/v	0.6 qt/a		3 EPP	B				
3	N-pak ams	5 %	v/v	3 qt/a		3 EPP	B				
3	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C				
3	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C				
3	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C				
4	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	49 a	42 a	88 a	100 a
4	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B				
4	Outlook	0.47 lb	ai/a	10 oz/a		3 EPP	B				
4	MSO	1 %	v/v	0.6 qt/a		3 EPP	B				
4	N-pak ams	5 %	v/v	3 qt/a		3 EPP	B				
4	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C				
4	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C				
4	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C				
4	Priaxor	0.13 lb	ai/a	4 oz/a		R3	D				
4	Preference	1.67 %	v/v	1 qt/a		R3	D				
4	Interlock	0.208 %	v/v	4 oz/a		R3	D				
5	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	50 a	53 a	89 a	96 b
5	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B				
5	Outlook	0.47 lb	ai/a	10 oz/a		3 EPP	B				
5	MSO	1 %	v/v	0.6 qt/a		3 EPP	B				
5	N-pak ams	5 %	v/v	3 qt/a		3 EPP	B				
5	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C				
5	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C				
5	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C				
5	Fastac	0.026 lb	ai/a	4 oz/a		R3	D				
5	Priaxor	0.13 lb	ai/a	4 oz/a		R3	D				
5	Preference	1.67 %	v/v	1 qt/a		R3	D				
5	Interlock	0.208 %	v/v	4 oz/a		R3	D				
6	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	59 a	55 a	92 a	100 a
6	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B				

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	SETFA	AMBTR	ERICA	CHEAL							
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Conyza canad>	Chenopodium al>							
Pest Name	Giant foxtail	Giant ragweed	Canada horsewe>	Common lambsqu>							
Rating Date	Jun-5-2012	Jun-5-2012	Jun-5-2012	Jun-5-2012							
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Rating Timing	AT POST	AT POST	AT POST	AT POST							
Days After First/Last Applic.	41 37	41 37	41 37	41 37							
Trt-Eval Interval	37 DA-B	37 DA-B	37 DA-B	37 DA-B							
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	36 DP-1							
Days After Emergence	27 DE-1	27 DE-1	27 DE-1	27 DE-1							
Number of Decimals	0	0	0	0							
Trt Treatment	Rate	Other	Other	Growth	Appl	1	2	3	4		
No. Name	Rate	Unit	Rate	Rate	Unit	Stage	Code				
6 Outlook	0.47 lb ai/a		10 oz/a			3 EPP	B				
6 MSO	1 % v/v		0.6 qt/a			3 EPP	B				
6 N-pak ams	5 % v/v		3 qt/a			3 EPP	B				
6 Roundup Power Max	0.77 lb ae/a		22 oz/a			3-4" WDS	C				
6 Firstrate	0.0158 lb ai/a		0.3 oz/a			3-4" WDS	C				
6 N-pak ams	5 % v/v		3 qt/a			3-4" WDS	C				
6 Fastac	0.026 lb ai/a		4 oz/a			R3	D				
6 Priaxor	0.13 lb ai/a		4 oz/a			R3	D				
6 AG 8050	0.5 % v/v		0.3 qt/a			R3	D				
6 MAX-IN	4.18 lb ai/a		2 qt/a			R3	D				
LSD (P=.05)								15.5	17.6	8.7	4.0
Standard Deviation								13.0	14.8	7.4	3.3
CV								33.83	37.16	11.41	4.05

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Pest Type	W Weed	W Weed	W Weed	W Weed	D Disease							
Pest Code	SENGL	SETFA	AMBTR	ERICA								
Pest Scientific Name	Senecio glaberrimus	Setaria faberii	Ambrosia trifida	Conyza canadensis								
Pest Name	Cressleaf groundsel	Giant foxtail	Giant ragweed	Canada horseweed								
Rating Date	Jun-5-2012	Jun-25-2012	Jun-25-2012	Jun-25-2012	Aug-2-2012							
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	DISEASE							
Rating Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Rating Timing	AT POST											
Days After First/Last Applic.	41 37	61 19	61 19	61 19	99 21							
Trt-Eval Interval	37 DA-B	19 DA-C	19 DA-C	19 DA-C	21 DA-D							
Plant-Eval Interval	36 DP-1	56 DP-1	56 DP-1	56 DP-1	94 DP-1							
Days After Emergence	27 DE-1	47 DE-1	47 DE-1	47 DE-1	85 DE-1							
Number of Decimals	0	0	0	0	0							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	5	6	7	8	9
1	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C	0 b	83 a	57 a	44 b	0 a
1	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C					
1	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C					
2	Roundup Weathermax	0.77 lb	ae/a	22 oz/a		7 EPP	A	91 a	73 a	90 a	38 b	0 a
2	Weedone LV-6	0.56 lb	ai/a	12 oz/a		7 EPP	A					
2	N-pak ams	5 %	v/v	3 qt/a		7 EPP	A					
2	NIS	0.25 %	v/v	0.15 qt/a		7 EPP	A					
2	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C					
2	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C					
2	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C					
3	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	97 a	62 a	82 a	89 a	0 a
3	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B					
3	Outlook	0.47 lb	ai/a	10 oz/a		3 EPP	B					
3	MSO	1 %	v/v	0.6 qt/a		3 EPP	B					
3	N-pak ams	5 %	v/v	3 qt/a		3 EPP	B					
3	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C					
3	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C					
3	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C					
4	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	94 a	62 a	80 a	89 a	0 a
4	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B					
4	Outlook	0.47 lb	ai/a	10 oz/a		3 EPP	B					
4	MSO	1 %	v/v	0.6 qt/a		3 EPP	B					
4	N-pak ams	5 %	v/v	3 qt/a		3 EPP	B					
4	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C					
4	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C					
4	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C					
4	Priaxor	0.13 lb	ai/a	4 oz/a		R3	D					
4	Preference	1.67 %	v/v	1 qt/a		R3	D					
4	Interlock	0.208 %	v/v	4 oz/a		R3	D					
5	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	93 a	55 a	79 a	81 a	0 a
5	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B					
5	Outlook	0.47 lb	ai/a	10 oz/a		3 EPP	B					
5	MSO	1 %	v/v	0.6 qt/a		3 EPP	B					
5	N-pak ams	5 %	v/v	3 qt/a		3 EPP	B					
5	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3-4" WDS	C					
5	Firstrate	0.0158 lb	ai/a	0.3 oz/a		3-4" WDS	C					
5	N-pak ams	5 %	v/v	3 qt/a		3-4" WDS	C					
5	Fastac	0.026 lb	ai/a	4 oz/a		R3	D					
5	Priaxor	0.13 lb	ai/a	4 oz/a		R3	D					
5	Preference	1.67 %	v/v	1 qt/a		R3	D					
5	Interlock	0.208 %	v/v	4 oz/a		R3	D					
6	Roundup Power Max	0.77 lb	ae/a	22 oz/a		3 EPP	B	96 a	67 a	81 a	87 a	0 a
6	OpTill	0.085 lb	ai/a	2 oz/a		3 EPP	B					

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Pest Type	W Weed	W Weed	W Weed	W Weed	D Disease			
Pest Code	SENGL	SETFA	AMBTR	ERICA				
Pest Scientific Name	Senecio glabel>	Setaria faberi	Ambrosia trifi>	Conyza canaden>				
Pest Name	Cressleaf grou>	Giant foxtail	Giant ragweed	Canada horsewe>				
Rating Date	Jun-5-2012	Jun-25-2012	Jun-25-2012	Jun-25-2012	Aug-2-2012			
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	DISEASE			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Rating Timing	AT POST							
Days After First/Last Applic.	41 37	61 19	61 19	61 19	99 21			
Trt-Eval Interval	37 DA-B	19 DA-C	19 DA-C	19 DA-C	21 DA-D			
Plant-Eval Interval	36 DP-1	56 DP-1	56 DP-1	56 DP-1	94 DP-1			
Days After Emergence	27 DE-1	47 DE-1	47 DE-1	47 DE-1	85 DE-1			
Number of Decimals	0	0	0	0	0			
Trt Treatment	Rate	Other	Other	Growth	Appl			
No. Name	Rate	Rate	Rate	Stage	Code			
6 Outlook	0.47 lb ai/a	10 oz/a		3 EPP	B			
6 MSO	1 % v/v	0.6 qt/a		3 EPP	B			
6 N-pak ams	5 % v/v	3 qt/a		3 EPP	B			
6 Roundup Power Max	0.77 lb ae/a	22 oz/a		3-4" WDS	C			
6 Firstrate	0.0158 lb ai/a	0.3 oz/a		3-4" WDS	C			
6 N-pak ams	5 % v/v	3 qt/a		3-4" WDS	C			
6 Fastac	0.026 lb ai/a	4 oz/a		R3	D			
6 Priaxor	0.13 lb ai/a	4 oz/a		R3	D			
6 AG 8050	0.5 % v/v	0.3 qt/a		R3	D			
6 MAX-IN	4.18 lb ai/a	2 qt/a		R3	D			
LSD (P=.05)								
Standard Deviation								
CV								
				5	6	7	8	9
				6.7	18.6	21.2	30.4	0.0
				5.6	15.7	17.8	25.5	0.0
				7.21	23.42	22.8	35.76	0.0