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Country: UNITED STATES OF AMERICA Region: Trial Use: Normal
 Discipline: HERBICIDE Sequence: Year: 2009
 Trial Id.: US_0H__2009 Protocol Id.: HFM050B4-2009US Revision Date: MAR06
 Master Protocol Id.:

Trial Origin: COOPERATOR TRIAL Licensee: Dr. Bill Johnson GEP: N

Title: Flexstar GT: Exploring PRE fb POST and rate and timing options to maximize control of glyphosate resistant weeds (conv-till version)

SITE AND DESIGN

Plot Width: 10 Unit: FT Plot Length: 30 Plot Area: 300.0 Unit: FT2 No Reps: 4 No Treats: 20

Site Description Event Date: 5-12-2009 Plot Items: 1.0 Plot Unit: PLOT Study Design: RACOB
 Trial Location: LAFAYETTE Farm/Station Name: THROCKMORTON
 County: TIPPECANOE Farm Manager: JAY YOUNG
 State/Province: IN City+State/Prov: LAFAYETTE, IN
 Postal Code: 47909 Postal Code: 47909
 Country: UNITED STATES OF AMERICA

Soil Texture: SILT LOAM
 Tillage Type: NO-TILL

GENERAL TRIAL INFORMATION

Initiation 4-14-2009 Protocol Id. : HFM050B4-2009US
 Date: Title Flexstar GT: Exploring PRE fb POST and rate and timing options to maximize control of glyphosate resistant weeds (conv-till version)
 :
 Intl./Overall Protocol Don Investigator: Dr. Bill Johnson
 Owner : Porter r:
 Local Protocol Dain Title: BR&D Scientist
 Responsibility: Bruns
 Affiliation: Syngenta

SYPOS Project	SYPOS Task
P000316-07	T005469-08

TRIAL STATUS
 Date: 4-14-2009 TRIAL STATUS: ESTABLISHED
 Comment: Generated by ARM

SEED DESCRIPTION
 1. Date: 5-12-2009 Area: Trial Crop: GLYCINE MAX Var: AG3402 % Germination: 90.0
 Source: Indiana 1000 Seed Weight: 0.36 Unit: KG

CROP OCCURRENCE

	1.
Date:	5-12-2009
Area:	Trial
Crop:	SOYBEANS
Crop Code:	GLXMA
BBCH Scale:	BSOY
Variety:	AG3402
Seed Description:	1
Planting Date:	5-12-2009
PL. TYPE:	PLANTING OF SEEDS
Planting Depth Min, Max, Unit:	1.0 1.25 IN
Row Spacing, Unit:	15.0 IN
Spacing Within Row, Unit:	2.5 IN
Planting Rate, Unit:	160000.0 P/A
Method:	DIRECT DRILLED

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PEST OCCURRENCE				
	1.	2.	3.	4.
Date:	6-23-2009	6-23-2009	6-23-2009	6-23-2009
Area:	Trial	Trial	Trial	Trial
Pest:	SETARIA FABERI	AMBROSIA TRIFIDA	CHENOPODIUM ALBUM TRIAZINE RESIST.	TARAXACUM OFFICINALE
Pest Code:	SETFA	AMBTR	CHEAL	TAROF
Stage Scale:	BGRM	BBCH	BBCH	BDIC

	5.	6.
Date:	6-23-2009	6-23-2009
Area:	Trial	Trial
Pest:	AMARANTHUS RETROFLEXUS	ABUTILON THEOPHRASTI
Pest Code:	AMARE	ABUTH
Stage Scale:	BDWE	BBCH

CROP DEVELOPMENT						
	1.	2.	3.	4.	5.	6.
Date:	5-12-2009	6-23-2009	6-24-2009	6-29-2009	6-30-2009	7-9-2009
Crop:	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS
Crop Code:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale:	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Variety:	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402
Dev. Stage Min, Max:	00 00	13 15		16 16	16 61	
Dev. Stage Majority:		14		16		
Height Min, Max, Unit:		6.0 9.0 IN			6.0 10.0 IN	

Tree/Crop Row Volume Information						
Height Total (m):		0.19			0.2	

	7.	8.	9.	10.	11.
Date:	7-10-2009	7-13-2009	7-16-2009	7-20-2009	8-5-2009
Crop:	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS
Crop Code:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale:	BSOY	BSOY	BSOY	BSOY	BSOY
Variety:	AG3402	AG3402	AG3402	AG3402	AG3402
Dev. Stage Min, Max:	61 65	65 65	65 65	65 65	73 73
Dev. Stage Majority:					
Height Min, Max, Unit:	10.0 18.0 IN	8.0 12.0 IN	12.0 24.0 IN	20.0 28.0 IN	30.0 36.0 IN

Tree/Crop Row Volume Information					
Height Total (m):	0.36	0.25	0.46	0.61	0.84

PEST DEVELOPMENT		
	1.	2.
Date:	6-23-2009	6-23-2009
Pest:	1 SETARIA FABERI	2 AMBROSIA TRIFIDA
Pest Code:	SETFA	AMBTR
Stage Scale:	BGRM	BBCH
Dev. Stage Min, Max:	20 33	10 22
Density Min, Max, Majority:	20.0	0.0 1.0
Unit:	PER SQUARE FOOT	PER SQUARE METER
Height Min, Max, Unit:	0.0 10.0 IN	0.0 5.0 IN
Natural Incidence:	Y	Y

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	4.	5.	6.
Date:	6-23-2009	6-23-2009	6-23-2009
Pest:	4 TARAXACUM OFFICINALE	5 AMARANTHUS RETROFLEXUS	6 ABUTILON THEOPHRASTI
Pest Code:	TAROF	AMARE	ABUTH
Stage Scale:	BDIC	BDWE	BBCH
Dev. Stage Min, Max:	10 49	10 23	09 23
Density Min, Max, Majority:	5.0 10.0	1.0 3.0	0.0 1.0
Unit:	PER SQUARE METER	PER SQUARE METER	PER SQUARE METER
Height Min, Max, Unit:	2.0 10.0 IN	0.0 4.0 IN	0.0 2.0 IN
Natural Incidence:	Y	Y	Y

	7.	8.	9.	10.
Date:	6-24-2009	6-24-2009	6-29-2009	6-29-2009
Pest:	1 SETARIA FABERI	2 AMBROSIA TRIFIDA	2 AMBROSIA TRIFIDA	1 SETARIA FABERI
Pest Code:	SETFA	AMBTR	AMBTR	SETFA
Stage Scale:	BGRM	BBCH	BBCH	BGRM
Dev. Stage Min, Max:			25 28	11 16
Density Min, Max, Majority:	1.0 20.0	1.0 3.0	0.0 1.0	5.0 50.0
Unit:	PER SQUARE YARD	PER SQUARE METER	PER SQUARE METER	PER SQUARE METER
Height Min, Max, Unit:	2.0 8.0 IN	4.0 8.0 IN	1.0 14.0 IN	2.0 18.0 IN
Natural Incidence:	Y	Y	Y	Y

	11.	12.	13.
Date:	6-30-2009	6-30-2009	6-30-2009
Pest:	1 SETARIA FABERI	2 AMBROSIA TRIFIDA	3 CHENOPODIUM ALBUM TRIAZINE RESIST.
Pest Code:	SETFA	AMBTR	CHEAL
Stage Scale:	BGRM	BBCH	BBCH
Dev. Stage Min, Max:	20 23	22 28	11 29
Density Min, Max, Majority:	3.0 20.0	1.0 5.0	0.0 1.0
Unit:	PER SQUARE FOOT	PER SQUARE METER	PER SQUARE METER
Height Min, Max, Unit:	1.0 1.0 IN	4.0 4.0 IN	1.0 1.0 IN
Natural Incidence:	Y	Y	Y

	14.	15.	16.
Date:	6-30-2009	6-30-2009	7-10-2009
Pest:	4 TARAXACUM OFFICINALE	5 AMARANTHUS RETROFLEXUS	2 AMBROSIA TRIFIDA
Pest Code:	TAROF	AMARE	AMBTR
Stage Scale:	BDIC	BDWE	BBCH
Dev. Stage Min, Max:	35 35	36 39	25 28
Density Min, Max, Majority:	1.0 3.0	0.0 1.0	5.0 30.0
Unit:	PER SQUARE METER	PER SQUARE METER	PER SQUARE YARD
Height Min, Max, Unit:	2.0 2.0 IN	10.0 10.0 IN	5.0 30.0 IN
Natural Incidence:	Y	Y	Y

	17.	18.	19.	20.
Date:	7-10-2009	7-13-2009	7-13-2009	7-16-2009
Pest:	1 SETARIA FABERI	2 AMBROSIA TRIFIDA	1 SETARIA FABERI	2 AMBROSIA TRIFIDA
Pest Code:	SETFA	AMBTR	SETFA	AMBTR
Stage Scale:	BGRM	BBCH	BGRM	BBCH
Dev. Stage Min, Max:	11 16	20 29		24 28
Density Min, Max, Majority:	5.0 50.0	1.0 20.0	5.0 50.0	1.0 10.0
Unit:	PER SQUARE YARD	PER SQUARE YARD	PER SQUARE YARD	PER SQUARE YARD
Height Min, Max, Unit:	2.0 18.0 IN	1.0 48.0 IN	1.0 24.0 IN	6.0 36.0 IN
Natural Incidence:	Y	Y	Y	Y

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	21.	22.	23.
Date:	7-16-2009	7-16-2009	7-16-2009
Pest:	3 CHENOPODIUM ALBUM TRIAZINE RESIST.	1 SETARIA FABERI	5 AMARANTHUS RETROFLEXUS
Pest Code:	CHEAL	SETFA	AMARE
Stage Scale:	BBCH	BGRM	BDWE
Dev. Stage Min, Max:	26 29	32 38	24 28
Density Min, Max, Majority:	1.0 3.0	20.0 150.0	1.0 3.0
Unit:	PER SQUARE YARD	PER SQUARE YARD	PER SQUARE YARD
Height Min, Max, Unit:	6.0 24.0 IN	2.0 18.0 IN	2.0 24.0 IN
Natural Incidence:	Y	Y	Y

	24.	25.	26.
Date:	7-20-2009	7-20-2009	7-20-2009
Pest:	1 SETARIA FABERI	2 AMBROSIA TRIFIDA	3 CHENOPODIUM ALBUM TRIAZINE RESIST.
Pest Code:	SETFA	AMBTR	CHEAL
Stage Scale:	BGRM	BBCH	BBCH
Dev. Stage Min, Max:	12 65	11 19	12 19
Density Min, Max, Majority:	5.0 20.0	20.0 40.0	20.0 30.0
Unit:	PER SQUARE YARD	PER SQUARE YARD	PER SQUARE YARD
Height Min, Max, Unit:	20.0 36.0 IN	20.0 40.0 IN	20.0 30.0 IN
Natural Incidence:	Y	Y	Y

	27.	28.	29.
Date:	8-5-2009	8-5-2009	8-5-2009
Pest:	1 SETARIA FABERI	2 AMBROSIA TRIFIDA	3 CHENOPODIUM ALBUM TRIAZINE RESIST.
Pest Code:	SETFA	AMBTR	CHEAL
Stage Scale:	BGRM	BBCH	BBCH
Dev. Stage Min, Max:	65 65	53 53	53 53
Density Min, Max, Majority:	5.0 20.0	3.0 10.0	2.0 5.0
Unit:	PER SQUARE FOOT	PER SQUARE YARD	PER SQUARE YARD
Height Min, Max, Unit:	20.0 40.0 IN	48.0 78.0 IN	20.0 48.0 IN
Natural Incidence:	Y	Y	Y

WEATHER DESCRIPTION

1. **Date:** 5-12-2009 **Air Temp. Min:** 75.0 **Max:** 75.0 **Unit:** F **% Rel. Humidity Min:** 34.0 **Max:** 34.0
Wind Velocity Min: 6.0 **Max:** 9.0 **Unit:** MPH **Wind Direction:** SSE
Sky Condition: CLEAR **Rain 24 Hours before:** NONE
2. **Date:** 6-23-2009 **Air Temp. Min:** 77.0 **Max:** 77.0 **Unit:** F **% Rel. Humidity Min:** 92.0 **Max:** 92.0
Wind Velocity Min: 1.0 **Max:** 2.0 **Unit:** MPH
Sky Condition: 0% Cloud Cover
3. **Date:** 6-30-2009 **Air Temp. Min:** 58.0 **Max:** 58.0 **Unit:** F **% Rel. Humidity Min:** 78.3 **Max:** 78.3
Wind Velocity Min: 1.0 **Max:** 2.0 **Unit:** MPH **Wind Direction:** E
Sky Condition: 30 %
4. **Date:** 7-10-2009 **Air Temp. Min:** 69.0 **Max:** 69.0 **Unit:** F **% Rel. Humidity Min:** 86.0 **Max:** 86.0
Wind Velocity Min: 3.0 **Max:** 3.0 **Unit:** MPH **Wind Direction:** SE
Sky Condition: 85% Cloud Cover
Sky Condition after: 85% Cloud Cover
5. **Date:** 7-16-2009 **Air Temp. Min:** 67.0 **Max:** 67.0 **Unit:** F **% Rel. Humidity Min:** 88.0 **Max:** 88.0
Wind Velocity Min: 4.0 **Max:** 4.0 **Unit:** MPH **Wind Direction:** W
Sky Condition: 10% Cloud Cover
Sky Condition after: 10% Cloud Cover

No.	Date	Soil Temp.	Unit	Soil Moisture Condition
1.	5-12-2009	64.0	F	ABOVE NORMAL
6	-23-2009	75.0	F	MOIST
6	-30-2009	70.0	F	DRY
7	-10-2009	70.0	F	
7	-16-2009	71.0	F	WET

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APPLICATION		B	C	D	E
Application Date/Time:	5-12-2009 3:45 PM	6-23-2009 6:05 AM	6-30-2009 6:11 AM	7-10-2009 12:00 AM	7-10-2009 12:00 AM
Applied By:	AR	PM/GK	AR/MH	PM	PM
Target (Crop):	1 GLXMA	2 GLXMA	3 GLXMA	7 GLXMA	7 GLXMA
Variety (Crop):	AG3402	AG3402	AG3402	AG3402	AG3402
Development (Crop):	00 00	13 15		61 65	61 65
Weather:	1	2	3	4	4
Soil:	1				
Equipment Name:	BACKPACK CO2	BACKPACK CO2	BACKPACK CO2	BACKPACK CO2	BACKPACK CO2
Application Equipment:	BOOSPH	BOOSPH	BOOSPH	BOOSPH	BOOSPH
Pressure, Unit:	28 PSI	28 PSI	28 PSI	28 PSI	28 PSI
Nozzle Type:	FLAFAN	FLAFAN	FLAFAN	FLAFAN	FLAFAN
Nozzle Description:	XR11002	XR11002	XR11002	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN	15 IN	15 IN
Nozzles/Row:	6	6	6	6	6
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Boom Height, Unit:	18 M	18 M	18 M	18 M	18 M
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH	3 MPH
Dew Presence (Y/N):	N	Y	N	Y	Y
Application Timing:	PREPRE	EAPOWE	EAPOWE	POSPOS	POSPOS
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL

APPLICATION		F
Application Date/Time:	7-16-2009 12:00 AM	
Applied By:	RH	
Target (Crop):	9 GLXMA	
Variety (Crop):	AG3402	
Development (Crop):	65 65	
Weather:	5	
Soil:		
Equipment Name:	BACKPACK CO2	
Application Equipment:	BOOSPH	
Pressure, Unit:	28 PSI	
Nozzle Type:	FLAFAN	
Nozzle Description:	XR11002	
Nozzle Spacing, Unit:	15 IN	
Nozzles/Row:	6	
Boom Length, Unit:	7.5 FT	
Boom Height, Unit:	18 M	
Ground Speed, Unit:	3 MPH	
Dew Presence (Y/N):	Y	
Application Timing:	POSPOS	
Applic. Placement:	BROFOL	

No.	Date	Area	Laboratory Name	pH/KCL	pH/H2O	CEC	Soil Texture
1.	5-12-2009	Trial	A&L GREAT LAKES, INC.	6.0	11.1		SILT LOAM
Soil Component:				P: 53.0 PPM	K: 208.0 PPM	Ca: 1100.0 PPM	Mg: 325.0 PPM
Soil Element:							
Soil Analy. No.							
1							

INOCULATION/INFESTATION	
1.	
Code	Comment
1.	
Area Name	Treatment Numbers in Area
1.	

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INSTRUCTIONS

CROPS: SOYBEANS

TARGETS: GLY-R DICOTS

OBJECTIVE:

1. Determine if Boundary PRE fb Flexstar GT increases glyphosate resistant weed control compared to Flexstar GT alone applied POST
2. Determine the effect Flexstar GT rates of 3.0, 3.75, and 4.5 pt/A on glyphosate resistant weed control
3. Determine the effect of EPOST and Mid-POST Flexstar GT application timings on glyphosate resistant weed control
4. Determine the effect of a PRE and Flexstar GT rate and application timing on soybean phytotoxicity
5. Determine the optimum Flexstar GT weed management program (i.e. w/ or w/o PRE, Flexstar GT rate and timing) to give gly-R weed control equal to or greater than current standard weed control programs in the marketplace

CRITICAL PROTOCOL TASKS:

- Weed targets must be gly-R AMASS or AMBTR because Flexstar GT will likely be used in management of gly-R weeds. However, weed control data on all other non-resistant (or PPO resistant) weeds are still needed to build the Flexstar GT database, therefore collect data on all weed species present in the trial.

- This is protocol version 'B' for conventional-till production, (PRE herbicide applic). For no-till soybean production (Early pre-plant herbicide applic.), use protocol version 'A'.

- Note: Treatment 6 contains Envive as a PRE residual treatment while trts 1 - 5 and 7 - 12 have PRE residual treatments containing Boundary. Trts 13 - 19 do not have an PRE.

- Note: Treatment 19 is a split application of Flexstar GT at 2.25 pt fb 2.25 pt applied at timing 'B' and 'F', respectively.

- see 'TREATMENT DETAILS' for application timing instructions

- The Roundup PowerMax rate is 1,120 g ae/ha (28 fl oz/A) to match the 1,120 g ae/ha glyphosate applied in 3.0 pt/A of Flexstar GT.

EXPERIMENTAL DESIGN AND PLOT DIMENSIONS:

RCBD factorial arrangement:

- Three (3) factors (a, b, and c)
 - a = 2; PRE herbicide: with and without PRE
 - b = 2; Flexstar GT applic timing: EPOST and Mid-POST
 - c = 3; Flexstar GT rate: 3.0, 3.75, and 4.5 pt/A
- Treatment subtotal = 12
- Plus standard treatments

TREATMENT DETAILS:

POST application volume: 15 - 20 GPA

Application timings:

A = PRE

B = EPOST w/out PRE Boundary

- for AMASS, B = 1 - 2" tall
- for AMBTR, B = 2 - 6" tall

C = EPOST with PRE Boundary or Envive

- for AMASS, B = 1 - 2" tall
- for AMBTR, B = 2 - 6" tall

D = MPOST w/out PRE Boundary

- for AMASS, C = 4 - 6"
- for AMBTR, C = 6 - 12"

E = MPOST with PRE Boundary

- for AMASS, C = 4 - 6"
- for AMBTR, C = 6 - 12"

F = second split of Flexstar GT (trt 19)

- for AMASS, C = 4 - 6"
- for AMBTR, C = 6 - 12"
- the estimated timing of 'F' will be 2 to 3 weeks after timing B

- note that the PRE herbicide (with and without) will influence the rate of weed growth. For example, AMASS will likely reach 1 - 2" sooner without than with a PRE herbicide, therefore two different application dates may be needed to obtain the weed target of 1 - 2" for timing B (w/o PRE) and timing C (w/ PRE).

- Special note regarding Application Codes: although it is anticipated that the chronological order of the applications will follow the ABCDEF order, there may be cases where the C and D timings will be reversed (due PRE herbicide) and the actual order is AB-D-CEF. Do not change the order in actual treatment list, but rather carefully enter the application information (in the application tab under 'site descriptions') as it is always entered in the ABCDEF order. Therefore, a temporary C timing date would need to be entered to allow entry of the D timing information, then enter application C timing when actually applied.

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ASSESSMENT DETAILS:

Rate soybean phytotoxicity:

- at application timing 'B' (i.e. did PRE injure soybean)
- at application timing 'C'
- at timing 'E' and 7 d after 'E'

Rate weed control:

- 7 d after 'E' (rate WC from all treatments)
- 21 d after 'E' (+/- 2 d)
- 35 d after 'E' (+/- 4 d)

Yield not requested, trial can be terminated after last weed control evaluation.

REPORT DATA BY: 10/16/2009

OTHER NOTES:

Assessment Tasks																	
No.	Timing ID	SE Name	SE Description	Part Assess	Assess Data Type	Assess Unit	Samples per 1 Collect. basis	Sample Unit	Coll. Basis	Basis Unit	Reporting Basis	Reporting Basis Unit	Asmt Type	Asmt Sub Type	Calc Type	Scale Type	Scale Min
1.	1	ZUSX001	%Phyto-General	PLAN T	PHYGE N	%	1.0	PLOT	1.0	PLOT	1.0	PLOT	NO R	RAW	NC	S	0
2.	2	ZUSW001	%Control	PLAN T	CONTR O	%	1	PLOT	1	PLOT	1	PLOT	NO R	RAW	NC	S	0
No.	Timing ID																
1.	1																
2.	2																

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Assessment Date	6-24-2009 12:00 AM		6-24-2009 12:00 AM		6-24-2009 12:00 AM	
Assessed By	PM/JD		PM/JD		PM/JD	
Crop Code	2 GLXMA		2 GLXMA		2 GLXMA	
Crop Variety	AG3402		AG3402		AG3402	
Crop Development	13 15		13 15		13 15	
Pest Code			12 AMBTR		13 SETFA	
Pest Development						
SE Group No.	1		1		1	
Part Assessed	PLOT		PLOT		PLOT	
Assessment Data Type	PHYGEN		CONTRO		CONTRO	
Assessment Unit	%		%		%	
Assessment Type, Sub-Type	NOR RAW		NOR RAW		NOR RAW	
Number of Subsamples	1		1		1	
Days After Planting	43DAP-1		43DAP-1		43DAP-1	
Days After Last Application	1		1		1	
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Code	1	2	3
13 BOUNDARY 6.5 EC	1590.0 gai/ha		A	0.0 a	80.0 a	90.0 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		E			
14 AMMONIUM SULFATE	2.5 %v/v		B			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		B			
15 AMMONIUM SULFATE	2.5 %v/v		B			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		B			
16 AMMONIUM SULFATE	2.5 %v/v		B			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		B			
17 AMMONIUM SULFATE	2.5 %v/v		D			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		D			
18 AMMONIUM SULFATE	2.5 %v/v		D			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		D			
19 AMMONIUM SULFATE	2.5 %v/v		D			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		D			
20 AMMONIUM SULFATE	2.5 %v/v		B			
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		F			
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		F			
LSD (P=.05)				21.14	36.69	32.65
Standard Deviation				14.64	25.41	22.61
CV				711.62	38.66	28.83
Bartlett's X2				31.124	12.56	57.027
P(Bartlett's X2)				0.001*	0.249	0.001*
Replicate F				1.027	1.256	1.492
Replicate Prob(F)				0.3938	0.3060	0.2360
Treatment F				0.889	3.897	5.990
Treatment Prob(F)				0.5666	0.0010	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Assessment Date	6-29-2009 12:00 AM	6-29-2009 12:00 AM	6-29-2009 12:00 AM			
Assessed By						
Crop Code	3 GLXMA	3 GLXMA	3 GLXMA			
Crop Variety	AG3402	AG3402	AG3402			
Crop Development						
Pest Code		8 AMBTR	7 SETFA			
Pest Development						
SE Group No.	2	2	2			
Part Assessed	PLOT	PLOT	PLOT			
Assessment Data Type	PHYGEN	CONTRO	CONTRO			
Assessment Unit	%	%	%			
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW			
Number of Subsamples	1	1	1			
Days After Planting	48DAP-1	48DAP-1	48DAP-1			
Days After Last Application	6	6	6			
Trt Treatment/Product Name	Product/Rate	Product/Rate Unit	Applic. Code	4	5	6
1 UNTREATED				0.0 a	0.0 b	0.0 b
2 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	96.0 a	99.8 a
AMMONIUM SULFATE	2.5 %v/v	B				
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha	B				
AMMONIUM SULFATE	2.5 %v/v	D				
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha	D				
3 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	82.5 a	95.8 a
AMMONIUM SULFATE	2.5 %v/v	C				
COBRA 2 EC	175.0 gai/ha	C				
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha	C				
4 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	86.0 a	94.0 a
AMMONIUM SULFATE	2.5 %v/v	C				
ULTRA BLAZER 2 SL	280.0 gai/ha	C				
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha	C				
5 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	63.8 a	74.3 a
AMMONIUM SULFATE	2.5 %v/v	C				
RESOURCE	22.6 gai/ha	C				
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha	C				
6 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	70.0 a	86.0 a
AMMONIUM SULFATE	2.5 %v/v	C				
FLEXSTAR 1.88 EC (A12967A)	280.0 gai/ha	C				
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha	C				
7 CLASSIC	22.4 gai/ha	A		0.0 a	87.5 a	89.5 a
HARMONY	7.0 gai/ha	A				
VALOR	70.0 gai/ha	A				
AMMONIUM SULFATE	2.5 %v/v	C				
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	C				
8 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	85.0 a	74.5 a
AMMONIUM SULFATE	2.5 %v/v	C				
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	C				
9 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	75.0 a	80.5 a
AMMONIUM SULFATE	2.5 %v/v	C				
FLEXSTAR GT 3.31 SL	1750.0 gae/ha	C				
10 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	81.8 a	93.5 a
AMMONIUM SULFATE	2.5 %v/v	C				
FLEXSTAR GT 3.31 SL	2100.0 gae/ha	C				
11 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	89.5 a	94.5 a
AMMONIUM SULFATE	2.5 %v/v	E				
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	E				
12 BOUNDARY 6.5 EC	1590.0 gai/ha	A		0.0 a	88.8 a	97.5 a
AMMONIUM SULFATE	2.5 %v/v	E				
FLEXSTAR GT 3.31 SL	1750.0 gae/ha	E				

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Assessment Date	6-29-2009 12:00 AM	6-29-2009 12:00 AM	6-29-2009 12:00 AM
Assessed By			
Crop Code	3 GLXMA	3 GLXMA	3 GLXMA
Crop Variety	AG3402	AG3402	AG3402
Crop Development			
Pest Code		8 AMBTR	7 SETFA
Pest Development			
SE Group No.	2	2	2
Part Assessed	PLOT	PLOT	PLOT
Assessment Data Type	PHYGEN	CONTRO	CONTRO
Assessment Unit	%	%	%
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW
Number of Subsamples	1	1	1
Days After Planting	48DAP-1	48DAP-1	48DAP-1
Days After Last Application	6	6	6
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate	Applic. Code
	4	5	6
13 BOUNDARY 6.5 EC	1590.0 gai/ha	A	0.0 a
AMMONIUM SULFATE	2.5 %v/v	E	85.0 a
FLEXSTAR GT 3.31 SL	2100.0 gae/ha	E	96.5 a
14 AMMONIUM SULFATE	2.5 %v/v	B	0.5 a
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	B	97.3 a
15 AMMONIUM SULFATE	2.5 %v/v	B	1.3 a
FLEXSTAR GT 3.31 SL	1750.0 gae/ha	B	95.5 a
16 AMMONIUM SULFATE	2.5 %v/v	B	1.8 a
FLEXSTAR GT 3.31 SL	2100.0 gae/ha	B	94.3 a
17 AMMONIUM SULFATE	2.5 %v/v	D	
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	D	
18 AMMONIUM SULFATE	2.5 %v/v	D	
FLEXSTAR GT 3.31 SL	1750.0 gae/ha	D	
19 AMMONIUM SULFATE	2.5 %v/v	D	
FLEXSTAR GT 3.31 SL	2100.0 gae/ha	D	
20 AMMONIUM SULFATE	2.5 %v/v	B	0.0 a
FLEXSTAR GT 3.31 SL	1040.0 gae/ha	B	94.3 a
AMMONIUM SULFATE	2.5 %v/v	F	99.8 a
FLEXSTAR GT 3.31 SL	1040.0 gae/ha	F	
LSD (P=.05)	1.28	26.73	27.26
Standard Deviation	0.89	18.70	19.07
CV	432.56	23.18	21.99
Bartlett's X2	2.388	41.368	148.865
P(Bartlett's X2)	0.303	0.001*	0.001*
Replicate F	0.419	0.232	0.188
Replicate Prob(F)	0.7403	0.8738	0.9042
Treatment F	1.300	5.930	6.292
Treatment Prob(F)	0.2368	0.0001	0.0001

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Assessment Date	7-9-2009 6:11 AM		7-13-2009 6:10 AM		7-13-2009 6:10 AM	
Assessed By	RH/JD		PM		PM	
Crop Code	6 GLXMA		8 GLXMA		8 GLXMA	
Crop Variety	AG3402		AG3402		AG3402	
Crop Development			65 65		65 65	
Pest Code					18 AMBTR	
Pest Development					20 29	
SE Group No.	3		4		4	
Part Assessed						
Assessment Data Type	PHYGEN		PHYGEN		CONTRO	
Assessment Unit	%		%		%	
Assessment Type, Sub-Type	NOR RAW		NOR RAW		NOR RAW	
Number of Subsamples	1		1		1	
Days After Planting	58DAP-1		62DAP-1		62DAP-1	
Days After Last Application	9		3		3	
Trt Treatment/Product Name	Product/Rate	AI Product/Rate Unit	AI Applic. Code	7	8	9
1 UNTREATED				0.0 c	0.0 a	0.0 c
2 BOUNDARY 6.5 EC	1590.0 gai/ha		A	0.0 c	0.0 a	91.3 ab
AMMONIUM SULFATE	2.5 %v/v		B			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		D			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		D			
3 BOUNDARY 6.5 EC	1590.0 gai/ha		A	24.3 a	8.8 a	99.5 a
AMMONIUM SULFATE	2.5 %v/v		C			
COBRA 2 EC	175.0 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
4 BOUNDARY 6.5 EC	1590.0 gai/ha		A	13.0 b	6.8 a	96.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
ULTRA BLAZER 2 SL	280.0 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
5 BOUNDARY 6.5 EC	1590.0 gai/ha		A	7.0 bc	1.3 a	86.8 ab
AMMONIUM SULFATE	2.5 %v/v		C			
RESOURCE	22.6 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
6 BOUNDARY 6.5 EC	1590.0 gai/ha		A	9.3 bc	6.3 a	98.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR 1.88 EC (A12967A)	280.0 gai/ha		C			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		C			
7 CLASSIC	22.4 gai/ha		A	3.3 c	1.0 a	92.5 ab
HARMONY	7.0 gai/ha		A			
VALOR	70.0 gai/ha		A			
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		C			
8 BOUNDARY 6.5 EC	1590.0 gai/ha		A	3.8 c	1.3 a	95.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		C			
9 BOUNDARY 6.5 EC	1590.0 gai/ha		A	2.5 c	3.0 a	98.5 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		C			
10 BOUNDARY 6.5 EC	1590.0 gai/ha		A	4.5 c	1.8 a	98.8 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		C			
11 BOUNDARY 6.5 EC	1590.0 gai/ha		A	0.3 c	3.8 a	72.5 ab
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		E			
12 BOUNDARY 6.5 EC	1590.0 gai/ha		A	0.3 c	7.5 a	77.5 ab
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		E			

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Assessment Date	7-9-2009 6:11 AM		7-13-2009 6:10 AM		7-13-2009 6:10 AM	
Assessed By	RH/JD		PM		PM	
Crop Code	6 GLXMA		8 GLXMA		8 GLXMA	
Crop Variety	AG3402		AG3402		AG3402	
Crop Development			65 65		65 65	
Pest Code					18 AMBTR	
Pest Development					20 29	
SE Group No.	3		4		4	
Part Assessed						
Assessment Data Type	PHYGEN		PHYGEN		CONTRO	
Assessment Unit	%		%		%	
Assessment Type, Sub-Type	NOR RAW		NOR RAW		NOR RAW	
Number of Subsamples	1		1		1	
Days After Planting	58DAP-1		62DAP-1		62DAP-1	
Days After Last Application	9		3		3	
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Code	7	8	9
13 BOUNDARY 6.5 EC	1590.0 gai/ha		A	0.0 c	1.8 a	68.8 ab
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		E			
14 AMMONIUM SULFATE	2.5 %v/v		B	1.0 c	0.0 a	78.8 ab
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		B			
15 AMMONIUM SULFATE	2.5 %v/v		B	1.3 c	0.5 a	82.5 ab
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		B			
16 AMMONIUM SULFATE	2.5 %v/v		B	6.3 bc	2.5 a	87.5 ab
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		B			
17 AMMONIUM SULFATE	2.5 %v/v		D	0.0 c	3.5 a	69.5 ab
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		D			
18 AMMONIUM SULFATE	2.5 %v/v		D	0.0 c	5.0 a	66.3 ab
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		D			
19 AMMONIUM SULFATE	2.5 %v/v		D	3.8 c	2.5 a	52.5 b
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		D			
20 AMMONIUM SULFATE	2.5 %v/v		B	0.5 c		
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		F			
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		F			
LSD (P=.05)				5.86	5.99	24.53
Standard Deviation				4.14	4.24	17.35
CV				102.6	141.22	21.79
Bartlett's X2				75.829	27.632	69.456
P(Bartlett's X2)				0.001*	0.024*	0.001*
Replicate F				2.438	0.628	0.351
Replicate Prob(F)				0.0738	0.6004	0.7886
Treatment F				8.253	1.606	7.339
Treatment Prob(F)				0.0001	0.0915	0.0001

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Assessment Date	7-13-2009 6:10 AM		7-20-2009 6:10 AM		7-20-2009 6:10 AM	
Assessed By	PM		MK		MK	
Crop Code	8 GLXMA		10 GLXMA		10 GLXMA	
Crop Variety	AG3402		AG3402		AG3402	
Crop Development	65 65		65 65		65 65	
Pest Code	19 SETFA				18 AMBTR	
Pest Development					20 29	
SE Group No.	4		5		5	
Part Assessed						
Assessment Data Type	CONTRO		PHYGEN		CONTRO	
Assessment Unit	%		%		%	
Assessment Type, Sub-Type	NOR RAW		NOR RAW		NOR RAW	
Number of Subsamples	1		1		1	
Days After Planting	62DAP-1		69DAP-1		69DAP-1	
Days After Last Application	3		4		4	
Trt Treatment/Product Name	Product/Rate	AI Product/Rate Unit	AI Applic. Code	10	11	12
1 UNTREATED				0.0 c	0.0 b	0.0 b
2 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	98.5 a
AMMONIUM SULFATE	2.5 %v/v		B			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		D			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		D			
3 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	97.5 a
AMMONIUM SULFATE	2.5 %v/v		C			
COBRA 2 EC	175.0 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
4 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	95.8 a
AMMONIUM SULFATE	2.5 %v/v		C			
ULTRA BLAZER 2 SL	280.0 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
5 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	92.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
RESOURCE	22.6 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
6 BOUNDARY 6.5 EC	1590.0 gai/ha		A	97.5 a	100.0 a	95.5 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR 1.88 EC (A12967A)	280.0 gai/ha		C			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		C			
7 CLASSIC	22.4 gai/ha		A	99.5 a	100.0 a	95.5 a
HARMONY	7.0 gai/ha		A			
VALOR	70.0 gai/ha		A			
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		C			
8 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	94.5 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		C			
9 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	97.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		C			
10 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	98.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		C			
11 BOUNDARY 6.5 EC	1590.0 gai/ha		A	73.8 ab	100.0 a	96.5 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		E			
12 BOUNDARY 6.5 EC	1590.0 gai/ha		A	95.0 a	100.0 a	95.5 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		E			

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Assessment Date	7-13-2009 6:10 AM		7-20-2009 6:10 AM		7-20-2009 6:10 AM	
Assessed By	PM		MK		MK	
Crop Code	8 GLXMA		10 GLXMA		10 GLXMA	
Crop Variety	AG3402		AG3402		AG3402	
Crop Development	65 65		65 65		65 65	
Pest Code	19 SETFA				18 AMBTR	
Pest Development					20 29	
SE Group No.	4		5		5	
Part Assessed						
Assessment Data Type	CONTRO		PHYGEN		CONTRO	
Assessment Unit	%		%		%	
Assessment Type, Sub-Type	NOR RAW		NOR RAW		NOR RAW	
Number of Subsamples	1		1		1	
Days After Planting	62DAP-1		69DAP-1		69DAP-1	
Days After Last Application	3		4		4	
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Code	10	11	12
13 BOUNDARY 6.5 EC	1590.0 gai/ha		A	96.5 a	100.0 a	97.5 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		E			
14 AMMONIUM SULFATE	2.5 %v/v		B	100.0 a	100.0 a	91.3 a
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		B			
15 AMMONIUM SULFATE	2.5 %v/v		B	100.0 a	100.0 a	93.0 a
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		B			
16 AMMONIUM SULFATE	2.5 %v/v		B	100.0 a	100.0 a	95.0 a
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		B			
17 AMMONIUM SULFATE	2.5 %v/v		D	46.3 b	99.5 a	98.5 a
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		D			
18 AMMONIUM SULFATE	2.5 %v/v		D	47.0 b	100.0 a	97.5 a
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		D			
19 AMMONIUM SULFATE	2.5 %v/v		D	49.5 b	100.0 a	99.5 a
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		D			
20 AMMONIUM SULFATE	2.5 %v/v		B		100.0 a	120.3 a
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		F			
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		F			
LSD (P=.05)				22.47	0.32	17.51
Standard Deviation				15.89	0.22	12.38
CV				18.81	0.24	13.39
Bartlett's X2				35.559	0.0	125.17
P(Bartlett's X2)				0.001*	.	0.001*
Replicate F				1.076	1.000	1.363
Replicate Prob(F)				0.3672	0.3995	0.2634
Treatment F				12.678	39979.953	13.240
Treatment Prob(F)				0.0001	0.0001	0.0001

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Assessment Date	7-20-2009 6:10 AM			8-5-2009 12:00 AM	8-5-2009 12:00 AM	
Assessed By	MK			CB	CB	
Crop Code	10 GLXMA			11 GLXMA	11 GLXMA	
Crop Variety	AG3402			AG3402	AG3402	
Crop Development	65 65			73 73	73 73	
Pest Code	19 SETFA			27 SETFA	28 AMBTR	
Pest Development				65 65	53 53	
SE Group No.	5			6	7	
Part Assessed						
Assessment Data Type	CONTRO			CONTRO	CONTRO	
Assessment Unit	%			%	%	
Assessment Type, Sub-Type	NOR RAW			NOR RAW	NOR RAW	
Number of Subsamples	1			1	1	
Days After Planting	69DAP-1			85DAP-1	85DAP-1	
Days After Last Application	4			20	20	
Trt Treatment/Product Name	Product/Rate	AI Product/Rate	AI Applic. Unit Code	13	14	15
1 UNTREATED				0.0 b	0.0 b	0.0 b
2 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	99.0 a	98.3 a
AMMONIUM SULFATE	2.5 %v/v		B			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		D			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		D			
3 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	99.8 a	98.8 a
AMMONIUM SULFATE	2.5 %v/v		C			
COBRA 2 EC	175.0 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
4 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	98.0 a
AMMONIUM SULFATE	2.5 %v/v		C			
ULTRA BLAZER 2 SL	280.0 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
5 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	93.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
RESOURCE	22.6 gai/ha		C			
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha		C			
6 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	93.8 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR 1.88 EC (A12967A)	280.0 gai/ha		C			
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha		C			
7 CLASSIC	22.4 gai/ha		A	100.0 a	100.0 a	96.5 a
HARMONY	7.0 gai/ha		A			
VALOR	70.0 gai/ha		A			
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		C			
8 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	97.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		C			
9 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	94.5 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		C			
10 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	98.3 a
AMMONIUM SULFATE	2.5 %v/v		C			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		C			
11 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	98.0 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		E			
12 BOUNDARY 6.5 EC	1590.0 gai/ha		A	99.8 a	100.0 a	98.5 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		E			

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Assessment Date	7-20-2009 6:10 AM		8-5-2009 12:00 AM		8-5-2009 12:00 AM	
Assessed By	MK		CB		CB	
Crop Code	10 GLXMA		11 GLXMA		11 GLXMA	
Crop Variety	AG3402		AG3402		AG3402	
Crop Development	65 65		73 73		73 73	
Pest Code	19 SETFA		27 SETFA		28 AMBTR	
Pest Development			65 65		53 53	
SE Group No.	5		6		7	
Part Assessed						
Assessment Data Type	CONTRO		CONTRO		CONTRO	
Assessment Unit	%		%		%	
Assessment Type, Sub-Type	NOR RAW		NOR RAW		NOR RAW	
Number of Subsamples	1		1		1	
Days After Planting	69DAP-1		85DAP-1		85DAP-1	
Days After Last Application	4		20		20	
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Code	13	14	15
13 BOUNDARY 6.5 EC	1590.0 gai/ha		A	100.0 a	100.0 a	99.8 a
AMMONIUM SULFATE	2.5 %v/v		E			
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		E			
14 AMMONIUM SULFATE	2.5 %v/v		B	100.0 a	99.8 a	88.8 a
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		B			
15 AMMONIUM SULFATE	2.5 %v/v		B	100.0 a	99.8 a	91.5 a
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		B			
16 AMMONIUM SULFATE	2.5 %v/v		B	99.8 a	100.0 a	95.0 a
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		B			
17 AMMONIUM SULFATE	2.5 %v/v		D	99.8 a	99.8 a	99.8 a
FLEXSTAR GT 3.31 SL	1400.0 gae/ha		D			
18 AMMONIUM SULFATE	2.5 %v/v		D	99.8 a	100.0 a	98.8 a
FLEXSTAR GT 3.31 SL	1750.0 gae/ha		D			
19 AMMONIUM SULFATE	2.5 %v/v		D	100.0 a	100.0 a	99.8 a
FLEXSTAR GT 3.31 SL	2100.0 gae/ha		D			
20 AMMONIUM SULFATE	2.5 %v/v		B	100.0 a	100.0 a	98.8 a
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		B			
AMMONIUM SULFATE	2.5 %v/v		F			
FLEXSTAR GT 3.31 SL	1040.0 gae/ha		F			
LSD (P=.05)				0.32	0.55	6.90
Standard Deviation				0.23	0.39	4.88
CV				0.24	0.41	5.31
Bartlett's X2				0.0	6.715	55.525
P(Bartlett's X2)				.	0.152	0.001*
Replicate F				0.655	0.655	0.494
Replicate Prob(F)				0.5830	0.5830	0.6879
Treatment F				39269.797	13077.312	80.000
Treatment Prob(F)				0.0001	0.0001	0.0001

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Assessment Date	8-5-2009 12:00 AM		
Assessed By	CB		
Crop Code	11 GLXMA		
Crop Variety	AG3402		
Crop Development	73 73		
Pest Code	29 CHEAL		
Pest Development	53 53		
SE Group No.	8		
Part Assessed			
Assessment Data Type	CONTRO		
Assessment Unit	%		
Assessment Type, Sub-Type	NOR RAW		
Number of Subsamples	1		
Days After Planting	85DAP-1		
Days After Last Application	20		
Trt Treatment/Product Name	Product/Rate	AI Product/Rate Unit	Applic. Code
1 UNTREATED			16
			0.0 b
2 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	B	
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha	B	
AMMONIUM SULFATE	2.5 %v/v	D	
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha	D	
3 BOUNDARY 6.5 EC	1590.0 gai/ha	A	99.5 a
AMMONIUM SULFATE	2.5 %v/v	C	
COBRA 2 EC	175.0 gai/ha	C	
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha	C	
4 BOUNDARY 6.5 EC	1590.0 gai/ha	A	99.8 a
AMMONIUM SULFATE	2.5 %v/v	C	
ULTRA BLAZER 2 SL	280.0 gai/ha	C	
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha	C	
5 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	C	
RESOURCE	22.6 gai/ha	C	
ROUNDUP POWERMAX 4.5 SL	1120.0 gae/ha	C	
6 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	C	
FLEXSTAR 1.88 EC (A12967A)	280.0 gai/ha	C	
TOUCHDOWN TOTAL 4.17 SL	1120.0 gae/ha	C	
7 CLASSIC	22.4 gai/ha	A	100.0 a
HARMONY	7.0 gai/ha	A	
VALOR	70.0 gai/ha	A	
AMMONIUM SULFATE	2.5 %v/v	C	
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	C	
8 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	C	
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	C	
9 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	C	
FLEXSTAR GT 3.31 SL	1750.0 gae/ha	C	
10 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	C	
FLEXSTAR GT 3.31 SL	2100.0 gae/ha	C	
11 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	E	
FLEXSTAR GT 3.31 SL	1400.0 gae/ha	E	
12 BOUNDARY 6.5 EC	1590.0 gai/ha	A	100.0 a
AMMONIUM SULFATE	2.5 %v/v	E	
FLEXSTAR GT 3.31 SL	1750.0 gae/ha	E	

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Assessment Date	8-5-2009 12:00 AM		
Assessed By	CB		
Crop Code	11 GLXMA		
Crop Variety	AG3402		
Crop Development	73 73		
Pest Code	29 CHEAL		
Pest Development	53 53		
SE Group No.	8		
Part Assessed			
Assessment Data Type	CONTRO		
Assessment Unit	%		
Assessment Type, Sub-Type	NOR RAW		
Number of Subsamples	1		
Days After Planting	85DAP-1		
Days After Last Application	20		
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Code
			16
13 BOUNDARY 6.5 EC AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	1590.0 gai/ha 2.5 %v/v 2100.0 gae/ha	A E E	100.0 a
14 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 1400.0 gae/ha	B B	100.0 a
15 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 1750.0 gae/ha	B B	100.0 a
16 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 2100.0 gae/ha	B B	98.8 a
17 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 1400.0 gae/ha	D D	100.0 a
18 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 1750.0 gae/ha	D D	100.0 a
19 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 2100.0 gae/ha	D D	100.0 a
20 AMMONIUM SULFATE FLEXSTAR GT 3.31 SL AMMONIUM SULFATE FLEXSTAR GT 3.31 SL	2.5 %v/v 1040.0 gae/ha 2.5 %v/v 1040.0 gae/ha	B B F F	100.0 a
LSD (P=.05)	0.86		
Standard Deviation	0.61		
CV	0.64		
Bartlett's X2	6.807		
P(Bartlett's X2)	0.033*		
Replicate F	1.070		
Replicate Prob(F)	0.3689		
Treatment F	5341.789		
Treatment Prob(F)	0.0001		

Purdue University

Country: UNITED STATES OF AMERICA	Region:	Trial Use: Normal	Year: 2009
Discipline: HERBICIDE	Sequence:	Protocol Id.: HFM050B4-2009US	Revision Date: MAR06
Trial Id.: US__0H__2009	Master Protocol Id.:		

Trial Origin: COOPERATOR TRIAL

Licensee: Dr. Bill Johnson

GEP: N

 Title: Flexstar GT: Exploring PRE fb POST and rate and timing options to maximize control of glyphosate resistant weeds (conv-till version)

T121, T79, 2, GLXMA, AG3402, 13, 15 = 1
 T122, T79, 3, GLXMA, AG3402, , = 1
 T248, T79, 6, GLXMA, AG3402, , = 1
 T250, T79, 8, GLXMA, AG3402, 65, 65 = 1
 T252, T79, 10, GLXMA, AG3402, 65, 65 = 1
 T355, T79, 11, GLXMA, AG3402, 73, 73 = 1

T132, T95, 8, AMBTR, , , = 2
 T131, T87, 7, SETFA, , , = 1
 T260, T95, 18, AMBTR, , 20, 29 = 2
 T261, T87, 19, SETFA, , , = 1
 T356, T87, 27, SETFA, , 65, 65 = 1
 T357, T95, 28, AMBTR, , 53, 53 = 2
 T358, T102, 29, CHEAL, , 53, 53 = 3

25908, PLOT = PLOT

5315, PHYGEN = PHYTOTOXICITY - GENERAL
 5260, CONTRO = CONTROL

1221, % = PERCENT
 , % = PERCENT

Assessment Type, Sub-Type

NOR = NORMAL

RAW = RAW DATA

Days After Planting

43DAP-1 = 1 5-12-2009
 48DAP-1 = 1 5-12-2009
 58DAP-1 = 1 5-12-2009
 62DAP-1 = 1 5-12-2009
 69DAP-1 = 1 5-12-2009
 85DAP-1 = 1 5-12-2009