

Purdue University

Country: UNITED STATES OF AMERICA Region: NJ Trial Use: Normal
 Discipline: HERBICIDE Sequence: 001 Year: 2008
 Trial Id.: USNJ0H0012008 Protocol Id.: HTF050A4-2008US Revision Date: OCT11
 Master Protocol Id.:

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

Title: Envoke: Tolerance of STS and GAT/HRA Soybeans and efficacy of Gly-R Marestalk to fall applications of Envoke. Northern version.

SITE AND DESIGN

Plot 1 Unit: F Plot 3 Uni FT Plot 300 Unit: FT No 4 No 14
 Width: 0 T Length: 0 t: Area: .0 2 Reps: Treats:

 Site Description 7/29/09 Plot Items: Plot Study RACO
 Event Date: Unit: Design: BL

Trial Location: Butlerville Farm/Station Name: Southeastern PAC
 County: Jennings Farm Manager: Don Biehle
 State/Province: IN Street: 4425 E Co Rd 350 N
 Postal Code: 47223 City+State/Prov: Butlerville, IN
 Cooperator Name: Purdue University Postal Code: 47223
 Coop. Trial ID: 08F-SEP-NTS-02 Country: UNITED STATES OF AMERICA
 Test Facility: Phone Number: 812-458-6977
 GEP Accreditation Number:

Fertility GOOD N-Latitude of LL
 Level: Corner/°:
 Soil Texture: SILT LOAM E-Longitude of LL
 Corner/°:
 Soil Altitude of LL Distance to Weather Station: Unit
 Drainage: Corner/m: :
 Tillage Type: NO-TILL Angle y-axis to Closest Weather Station:
 North/°:
 Slope (%): Exposure Distance between
 e: Blocks:

Block Arrangement:
 Untreated
 Arrangement:

SITE USAGE

No.	Site Type
	FIELD

Comment:

PREVIOUS TRIAL

No.	Trial Number	COUNTRY	REGION	USE	DISCIPLINE	SEQUENCE	YEAR

PREVIOUS MAINTENANCE

No.	Date or Month	Year	TYPE	Rate	Unit

PREVIOUS MAINTENANCE INGREDIENT

No.	Previous Maint. No.	Previous Product [DSP]	Form Type	Form Conc	Unit	Form Variety	Rate	Unit

PREVIOUS CROP/PEST

No.	Date or Month	Year	Previous Crop/Pest	Previous Crop/Pest Variety	Cultural Condition
		2008	ZEA MAYS		

GENERAL TRIAL INFORMATION

Initiation Date: 10/23/08
 Planned Completion: 7/28/09
 Protocol Id.: HTF050A4-2008US
 Titl Envoke: Tolerance of STS and GAT/HRA Soybeans and efficacy of Gly-R Marestail to fall e: applications of Envoke. Northern version.

Intl./Overall Protocol Owner : Les Glasgow
 Local Protocol Responsibility: Scott Cully
 Investigat or: Dr. Bill Johnson
 Titl R&D Scientist e: Affiliati on: Syngenta

Guideline	Description

No.	SYPOS Project	SYPOS Task
	P000453-07	T004635-07

Comment:

TRIAL STATUS

Date: 10/23/08 Trial Reliability: TRIAL STATUS: ESTABLISHED
 Comment: Generated by ARM

Date: 8/19/09 Trial Reliability: TRIAL STATUS: ONE-YEAR/FINAL
 Comment: 1) Objectives

- 2) Special Observations
- 3) Summary
- 4) Conclusions

SEED DESCRIPTION

1. Date: 5/26/09 Area: Trial Crop: GLYCINE MAX Var: AG 3402 % Germination:
 % Moisture: Source: 1000 Seed Weight: Unit: Lot Number:

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Genetic Type GLYPHOSATE-R
 A:
 Comment Planted with JD 7200
 :

B: C:

D:

CROP OCCURRENCE

	1.
Date:	5/26/09
Area:	Trial
Crop:	SOYBEANS
Crop Code:	GLXMA
BBCH Scale:	BSOY
Variety:	AG 3402
Seed Description:	1
Planting Date:	5/26/09
Emergence Date:	
Perennial Age, Unit:	
PL. TYPE:	PLANTING OF SEEDS
Planting/Pruning System:	
Ground Cover:	
Planting Depth Min, Max, Unit:	1.0 1.0 IN
Row Spacing, Unit:	30.0 IN
Spacing Within Row, Unit:	
Planting Rate, Unit:	150000.0 S/A
Method:	DIRECT DRILLED
Root Stock:	
Seed Bed:	
Genetic Type A:	
Genetic Type B:	
Genetic Type C:	
Genetic Type D:	

PEST OCCURRENCE

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	1.	2.	3.	4.
Date:	10/30/08	10/30/08	11/20/08	11/20/08
Area:	Trial	Trial	Trial	Trial
Pest:	ERIGERON CANADENSIS	TARAXACUM OFFICINALE	ERIGERON CANADENSIS	TARAXACUM OFFICINALE
Pest Code:	ERICA	TAROF	ERICA	TAROF
Stage Scale:	BBCH	BDIC	BBCH	BDIC
Variety:				
OCCURRENCE TYPE:	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
Genetic Type A:				
Genetic Type B:				
Genetic Type C:				
Genetic Type D:				
Seed Description:				

	5.	6.	7.	8.
Date:	11/20/08	11/20/08	3/31/09	5/5/09
Area:	Trial	Trial	Trial	Trial
Pest:	RANUNCULUS ABORTIVUS	CERASTIUM VULGATUM	TARAXACUM OFFICINALE	ERIGERON CANADENSIS
Pest Code:	RANAB	CERVU	TAROF	ERICA
Stage Scale:	BBCH	BBCH	BDIC	BBCH
Variety:				
OCCURRENCE TYPE:	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
Genetic Type A:				
Genetic Type B:				
Genetic Type C:				
Genetic Type D:				
Seed Description:				

	9.	10.	11.	12.
Date:	5/5/09	5/26/09	5/26/09	5/26/09
Area:	Trial	Trial	Trial	Trial
Pest:	TARAXACUM OFFICINALE	TARAXACUM OFFICINALE	ERIGERON CANADENSIS	PLANTAIN
Pest Code:	TAROF	TAROF	ERICA	PLASS
Stage Scale:	BDIC	BDIC	BBCH	BBCH
Variety:				
OCCURRENCE TYPE:	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
Genetic Type A:				
Genetic Type B:				
Genetic Type C:				
Genetic Type D:				
Seed Description:				

	13.	14.	15.
Date:	5/26/09	5/26/09	6/30/09
Area:	Trial	Trial	Trial
Pest:	VERNONIA ALTISSIMA	DIGITARIA HALLER SPEC.	TARAXACUM OFFICINALE
Pest Code:	VENAL	DIGSA	TAROF
Stage Scale:	BBCH	BBCH	BDIC
Variety:			
OCCURRENCE TYPE:	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
Genetic Type A:			
Genetic Type B:			
Genetic Type C:			
Genetic Type D:			
Seed Description:			

	16.	17.
Date:	6/30/09	11/4/09
Area:	Trial	Trial
Pest:	ERIGERON CANADENSIS	ERIGERON CANADENSIS
Pest Code:	ERICA	ERICA
Stage Scale:	BBCH	BBCH
Variety:		
OCCURRENCE TYPE:	NOT APPLICABLE	NOT APPLICABLE
Genetic Type A:		
Genetic Type B:		
Genetic Type C:		
Genetic Type D:		
Seed Description:		

CROP DEVELOPMENT

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	1.	2.	3.
Date:	5/26/09	6/8/09	6/30/09
Crop:	1 SOYBEANS	1 SOYBEANS	1 SOYBEANS
Crop Code:	GLXMA	GLXMA	GLXMA
BBCH Scale:	BSOY	BSOY	BSOY
Variety:	AG 3402	AG 3402	AG 3402
Dev. Stage Min, Max:	00 00	12 12	15 15
Dev. Stage Majority:			
Density Min, Max, Majority:			
Unit:			
Stand:			
Vigor:			
Height Min, Max, Unit:		2.0 2.0 IN	10.0 10.0 IN
Plant Diameter Min, Max, Unit:			
Leaves Min, Max, Average:			
Tillers Min, Max:			
Fruit Diameter Min, Max, Unit:			
Natural Incidence:			

Tree/Crop Row Volume Information			
Height Total (m):		0.05	0.25
Average Width (m):			
Distance Soil - 1st Leaf, Unit:			
Foliage Height (m):			
TRV Row Spacing, Unit:			
Tree/Crop Row Volume (m3/ha):			
Leaf Wall Area [LWA] (m2/ha):			

LAI Leaf Area Index Information			
LAI Spacing within Row, Unit:			
Leaf Length, Unit:			
Leaf Width, Unit:			
Average Size of 1 Leaf (cm2):			
LAI (Leaf Area Index):			

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	4.			5.			6.		
Date:	7/14/09			7/28/09			11/4/09		
Crop:	1 SOYBEANS			1 SOYBEANS			1 SOYBEANS		
Crop Code:	GLXMA			GLXMA			GLXMA		
BBCH Scale:	BSOY			BSOY			BSOY		
Variety:	AG 3402			AG 3402			AG 3402		
Dev. Stage Min, Max:	65	65		66	66		89	89	
Dev. Stage Majority:									
Density Min, Max, Majority:									
Unit:									
Stand:									
Vigor:									
Height Min, Max, Unit:	20.0	20.0	IN	20.0	20.0	IN			
Plant Diameter Min, Max, Unit:									
Leaves Min, Max, Average:									
Tillers Min, Max:									
Fruit Diameter Min, Max, Unit:									
Natural Incidence:									

Tree/Crop Row Volume Information									
Height Total (m):	0.51			0.51					
Average Width (m):									
Distance Soil - 1st Leaf, Unit:									
Foliage Height (m):									
TRV Row Spacing, Unit:									
Tree/Crop Row Volume (m3/ha):									
Leaf Wall Area [LWA] (m2/ha):									

LAI Leaf Area Index Information									
LAI Spacing within Row, Unit:									
Leaf Length, Unit:									
Leaf Width, Unit:									
Average Size of 1 Leaf (cm2):									
LAI (Leaf Area Index):									

	7.
Date:	11/6/09
Crop:	1 SOYBEANS
Crop Code:	GLXMA
BBCH Scale:	BSOY
Variety:	AG 3402
Dev. Stage Min, Max:	99 99
Dev. Stage Majority:	
Density Min, Max, Majority:	
Unit:	
Stand:	
Vigor:	
Height Min, Max, Unit:	
Plant Diameter Min, Max, Unit:	
Leaves Min, Max, Average:	
Tillers Min, Max:	
Fruit Diameter Min, Max, Unit:	
Natural Incidence:	

Tree/Crop Row Volume Information	
Height Total (m):	
Average Width (m):	
Distance Soil - 1st Leaf, Unit:	
Foliage Height (m):	
TRV Row Spacing, Unit:	
Tree/Crop Row Volume (m3/ha):	
Leaf Wall Area [LWA] (m2/ha):	

LAI Leaf Area Index Information	
LAI Spacing within Row, Unit:	
Leaf Length, Unit:	
Leaf Width, Unit:	
Average Size of 1 Leaf (cm2):	
LAI (Leaf Area Index):	

PEST DEVELOPMENT

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	1.	2.
Date:	10/30/08	10/30/08
Pest:	1 ERIGERON CANADENSIS	2 TARAXACUM OFFICINALE
Pest Code:	ERICA	TAROF
Stage Scale:	BBCH	BDIC
Variety:		
Dev. Stage Min, Max:	31 33	31 31
Dev. Stage Majority:		
Density Min, Max, Majority:	5.0 40.0	10.0 25.0
Unit:	PER SQUARE YARD	PER SQUARE YARD
Stand:		
Vigor:		
Height Min, Max, Unit:	0.0 8.0 IN	0.5 6.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

	3.	4.
Date:	11/20/08	11/20/08
Pest:	3 ERIGERON CANADENSIS	4 TARAXACUM OFFICINALE
Pest Code:	ERICA	TAROF
Stage Scale:	BBCH	BDIC
Variety:		
Dev. Stage Min, Max:	31 33	31 31
Dev. Stage Majority:		
Density Min, Max, Majority:	1.0 5.0	10.0 60.0
Unit:	PER SQUARE YARD	PER SQUARE YARD
Stand:		
Vigor:		
Height Min, Max, Unit:	0.0 6.0 IN	2.0 10.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

	5.	6.
Date:	11/20/08	11/20/08
Pest:	5 RANUNCULUS ABORTIVUS	6 CERASTIUM VULGATUM
Pest Code:	RANAB	CERVU
Stage Scale:	BBCH	BBCH
Variety:		
Dev. Stage Min, Max:	11 11	11 11
Dev. Stage Majority:		
Density Min, Max, Majority:	10.0 100.0	5.0 20.0
Unit:	PER SQUARE YARD	PER SQUARE YARD
Stand:		
Vigor:		
Height Min, Max, Unit:	0.0 1.0 IN	0.0 1.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

	7.	8.
Date:	3/31/09	5/5/09
Pest:	7 TARAXACUM OFFICINALE	8 ERIGERON CANADENSIS
Pest Code:	TAROF	ERICA
Stage Scale:	BDIC	BBCH
Variety:		
Dev. Stage Min, Max:	36 36	43 43
Dev. Stage Majority:		
Density Min, Max, Majority:	5.0 25.0	5.0 50.0
Unit:	PER SQUARE YARD	PER SQUARE FOOT
Stand:		
Vigor:		
Height Min, Max, Unit:	3.0 12.0 IN	0.5 2.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

	9.	10.
Date:	5/5/09	5/26/09
Pest:	9 TARAXACUM OFFICINALE	10 TARAXACUM OFFICINALE
Pest Code:	TAROF	TAROF
Stage Scale:	BDIC	BDIC
Variety:		
Dev. Stage Min, Max:	34 65	10 69
Dev. Stage Majority:		
Density Min, Max, Majority:	2.0 25.0	10.0 50.0
Unit:	PER SQUARE FOOT	PER SQUARE YARD
Stand:		
Vigor:		
Height Min, Max, Unit:	4.0 14.0 IN	0.0 12.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

	11.	12.	13.
Date:	5/26/09	5/26/09	5/26/09
Pest:	11 ERIGERON CANADENSIS	12 PLANTAIN	13 VERNONIA ALTISSIMA
Pest Code:	ERICA	PLASS	VENAL
Stage Scale:	BBCH	BBCH	BBCH
Variety:			
Dev. Stage Min, Max:	31 41	33 51	41 41
Dev. Stage Majority:			
Density Min, Max, Majority:	1.0 50.0	10.0 50.0	1.0 1.0
Unit:	PER SQUARE YARD	PER SQUARE YARD	PER SQUARE YARD
Stand:			
Vigor:			
Height Min, Max, Unit:	0.0 4.0 IN	0.25 6.0 IN	6.0 18.0 IN
Leaves Min, Max:			
Plant Diameter Min, Max, Unit:			
Tillers Min, Max:			
Crop Part Attacked:			
Natural Incidence:			

	14.	15.
Date:	5/26/09	6/30/09
Pest:	14 DIGITARIA HALLER SPEC.	15 TARAXACUM OFFICINALE
Pest Code:	DIGSA	TAROF
Stage Scale:	BBCH	BDIC
Variety:		
Dev. Stage Min, Max:	10 13	31 39
Dev. Stage Majority:		
Density Min, Max, Majority:	25.0 75.0	10.0 60.0
Unit:	PER SQUARE FOOT	PER SQUARE YARD
Stand:		
Vigor:		
Height Min, Max, Unit:	0.0 2.0 IN	4.0 16.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

	16.	17.
Date:	6/30/09	11/4/09
Pest:	16 ERIGERON CANADENSIS	17 ERIGERON CANADENSIS
Pest Code:	ERICA	ERICA
Stage Scale:	BBCH	BBCH
Variety:		
Dev. Stage Min, Max:	31 44	31 69
Dev. Stage Majority:		
Density Min, Max, Majority:	0.5 5.0	5.0 15.0
Unit:	PER SQUARE YARD	PER SQUARE YARD
Stand:		
Vigor:		
Height Min, Max, Unit:	1.0 5.0 IN	1.0 36.0 IN
Leaves Min, Max:		
Plant Diameter Min, Max, Unit:		
Tillers Min, Max:		
Crop Part Attacked:		
Natural Incidence:		

WEATHER DESCRIPTION

1. Date: 10/30/08 Air Temp. Min: 45.0 Max: 45.0 Unit: F % Rel. Humidity Min: 57.0
 Max: 57.0
 Wind Velocity Min: 4.0 Max: 4.0 Unit: MPH Wind Direction: SE Wind Speed
 Comment:
 Sky Condition: 5% cloud cover Rain 24 Hours before: Time from

Application to Rainfall:

Sky Condition after: Rain 24 Hours after: Meteo
 Station:

Comment: No dew present

5/26/09

83.0

83.0

F

56.0

56.0

2.0

6.0

MPH

SSW

50% cloud cover

6/30/09

62.0

62.0

F

75.0

75.0

3.0

3.0

MPH

WNW

0% cloud cover

2. Date: 5/26/09 Air Temp. Min: 83.0 Max: 83.0 Unit: F % Rel. Humidity Min: 56.0
 Max: 56.0

Wind Velocity Min: 2.0 Max: 6.0 Unit: MPH Wind Direction: SSW Wind Speed

Comment:

Sky Condition: 50% cloud cover Rain 24 Hours before: Time from

Application to Rainfall:

Sky Condition after: Rain 24 Hours after: Meteo

Station:

Comment:

3. Date: 6/30/09 Air Temp. Min: 62.0 Max: 62.0 Unit: F % Rel. Humidity Min: 75.0
 Max: 75.0

Wind Velocity Min: 3.0 Max: 3.0 Unit: MPH Wind Direction: WNW Wind Speed

Comment:

Sky Condition: 0% cloud cover Rain 24 Hours before: Time from

Application to Rainfall:

Sky Condition after: Rain 24 Hours after: Meteo

Station:

Comment:

SOIL DESCRIPTION

No.	Date	Soil Temp.	Unit	Soil Moisture Condition	Comment
1.	10/30/08	40.0	F	Dry	

2.	5/26/09	78.0	F	Dry
3.	6/30/09	75.0	F	Dry

APPLICATION

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		B	C
Application Date/Time:	10/30/08 10:01 AM	5/26/09 3:28 PM	6/30/09 9:22 AM
Applied By:	GK MK	GK MK	GK MK
Target (Crop):	1 GLXMA	1 GLXMA	3 GLXMA
Variety (Crop):	AG 3402	AG 3402	AG 3402
Development (Crop):	00 00	00 00	15 15
Target (Pest):			
Variety (Pest):			
Development (Pest):			
Weather:	1	2	3
Soil:	1	2	3
Equipment Name:	C02 Backpack Sprayer	C02 Backpack Sprayer	C02 Backpack Sprayer
Application Equipment:	BOOSPH	BOOSPH	BOOSPH
Pressure, Unit:	27 PSI	27 PSI	27 PSI
Nozzle Type:	FLAFAN	FLAFAN	FLAFAN
Nozzle Description:	XR 11002	XR 11002	XR 11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8
Band Width, Unit:			
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Air Volume (m3/hour):			
Nozzle Filter Mesh:			
Droplet Size Information:			
Incorporation Equip:			
Hours to Incorp.:			
Incorp. Depth, Unit:			
Spray Volume, Unit:	15.0 GPA	15.0 GPA	15.0 GPA
Mix Size, Unit:	1.8 L	1.8 L	1.8 L
Concentration Factor:			
Spray Quality:			
Propellent:	COMCO2	COMCO2	COMCO2
Spray pH:			
Spray CEC:			
Water Hardness:			
Ground Cover:			
Drying Condition:			
Dew Presence (Y/N):	N	N	N
Wet Leaves (Y/N):			
Application Method:			
Application Timing:	FALPRE	ATPLAN	POSPOS
Applic. Placement:	BROFOL	BROFOL	BROFOL

CROP/PEST OCCURRENCE COMMENTS

Code Crop Occurrence Comment

Code Pest Occurrence Comment

CROP/PEST DEVELOPMENT COMMENTS

Code Crop Development Comment

Code Pest Development Comment

APPLICATION COMMENTS

Code Comment

RAINFALL/IRRIGATION COMMENTS

Code Comment
1.

COMBINED AREA

Area Name Treatment Numbers in Area
1.

INSTRUCTIONS

Crops: SOYBEANS
Targets: CONYZA CANADENSIS GLYR,WEEDS WINTER

Objective Notes:

- 1. Determine the tolerance of Roundup Ready+STS & GAT/HRA soybeans following fall-applied Envoke (trifloxysulfuron) herbicide applied at the maximum labelled rate of 0.15 oz/A and 2X the maximum labelled rate of 0.3 oz/A.
2. Determine the efficacy of Envoke herbicide (0.1, 0.125, and 0.15 oz/A) + 2,4-D (16 oz/A) compared to commercial standards Canopy EX (1.1 oz/A) + 2,4-D and Valor SX (2.0 oz/A) + 2,4-D applied all with and without Touchdown Total (24 oz/A) for fall burndown and residual control of Gly-R marestail and winter annual weeds ahead of Roundup Ready+STS & GAT/HRA soybeans.
3. Determine the utility of Envoke, Canopy EX, and Valor SX as Fall applied residual components in a program approach to control Gly-R Marestail that includes a fall application followed by an at planting application of Gramoxone Inteon + Prefix followed by a POST application of Touchdown Total in Roundup Ready+STS & GAT/HRA soybeans.

Critical Protocol Tasks:

Place trials in populations of GLY-R ERICA as first priority and general winter annual weed mix as second priority. Trial must carried through to harvest for yields. Yield is a primary goal. Plant Roundup Ready+STS tolerant and GAT/HRA soybeans

Trial Design Notes:

RCB small plot X 4 replications

RR+STS and GAT/HRA soybeans will need to be planted into each treatment. Enter and rate as two crop occurrences within each treatment.

Treatment Notes:

A = Fall Applied Burndown
Application volume: 10-20 GPA

Use the following treatments for in-season weed control across the entire trial:
(enter in Maintenance Applications, not in Treatment list)

If there is no suspicion of Gly-R AMass utilize this program for soybean:
Apply Gramoxone Inteon 40 oz/A + Prefix 32 oz/A PRE broadcast over entire trial including check at planting.
Apply Touchdown Total 24 oz/A + AMS POST broadcast over entire trial including check when escaped weeds from PRE reach 2-4 inches.

If there is Gly-R AMass utilize this program:
Apply Gramoxone Inteon 40 oz/A + Boundary applied at the maximum labelled rate for soil type PRE broadcast over entire trial including check at planting.
Apply A16918A: Fomesafen + Glyphosate premix at 1402 g ae/ha broadcast over entire trial including check when escaped weeds from PRE reach 2-4 inches.

Assessment Notes:

- % weed control:
- 14-21 DA-A (in fall),
- April 1,
- At planting (prior to Gramoxone Inteon + Prefix application),
- At in-season post application,
- At 35-42 days after in-season post application,
- At harvest

% PHYGEN and PHYSTU on each soybean variety: 7-14, 21-28, 35-42, 56-63 DAE
Yield of each soybean variety in bu/A (converted to 13.5% moisture)

Reporting Notes:

Date Data Required By: 10/15/2009

Other Notes:

PLEASE DELETE SECTIONS BELOW FOR EXTERNAL USE.

DM Contact: T. Beckett
Proposed Trials: 1-IL-Cully, 1-IN-Mroczkiewicz, 1-OH-Bruns, 1-MO-Nichols, 1-IL-Thomas
No. Evaluations: 9
Primary Reviewers (2): Bruns Dain, Hunter Leon, Holloway James

Feedback Provided By:

Syngenta Confidential Information:

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If we will require an APHIS permit in 2009 for the GAT/HRA soybeans, we will DROP them as well and only use RR+STS. We will wait and see on this.

OBJECTIVES

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	Scale Max	Calc. Mult.	No. Subs.	Action Code	Trans. Code
1.	1	ZUSW001	%Control	PLANT	CONTRO	%	1.0	PLOT	1.	PLOT	1.0	PLOT	NO R	RAW	NC	S	0	100				0
2.	2	ZUSX001	%Phyto-General	PLANT	PHYGEN	%	1.0	PLOT	1.	PLOT	1.0	PLOT	NO R	RAW	NC	S	0	100				0
3.	3	ZUSX003	%Phyto-Stunting	PLANT	PHYS TU	%	1.0	PLOT	1.	PLOT	1.0	PLOT	NO R	RAW	NC	S	0	100				0
			Yield	GRAIN	YIELD	BU	1.0	PLOT	1.	PLOT	1.0	ACRE	YLW	RAW	IN	O						

No.	Timing ID	Min Reps	Max Reps	Intv Min	Intv Max	Intv Unit	Start Date	Days After	End Date	PHI	Crop	Target	Timing From	Timing To	Timing Unit
1.	1														
2.	2														
3.	3														

No. Task Comment

Purdue University

Country: UNITED STATES OF AMERICA Region: NJ Trial Use: Normal
 Discipline: HERBICIDE Sequence: 001 Year: 2008
 Trial Id.: USNJ0H0012008 Protocol Id.: HTF050A4-2008US Revision Date: OCT11
 Master Protocol Id.:
 Trial Origin: COOPERATOR TRIAL Licensee: Dr. Bill Johnson GEP: N
 Title: Envoke: Tolerance of STS and GAT/HRA Soybeans and efficacy of Gly-R Marestalk to fall applications of Envoke. Northern version.

Assessment Date	6/8/09 12:00 AM	6/30/09 12:00 AM	7/14/09 12:00 AM	7/28/09 12:00 AM
Assessed By	GK	GK	CB	MK
Crop Code	2 GLXMA	3 GLXMA	4 GLXMA	5 GLXMA
Crop Variety	AG 3402	AG 3402	AG 3402	AG 3402
Crop Development	12 12	15 15	65 65	66 66
Pest Code				
Pest Development				
SE Group No.	10	11	12	13
Part Assessed	PLOT	PLOT	PLOT	PLOT
Assessment Data Type	PHYGEN	PHYGEN	PHYGEN	PHYGEN
Assessment Unit	%	%	%	%
Reporting Basis, Unit	1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type	NC	NC	NC	NC
Scale Minimum, Maximum				
Number of Subsamples	1	1	1	1
ARM Action Codes				
Days After Planting	13DAP-1	35DAP-1	49DAP-1	63DAP-1
Days After Last Application	13	35	14	28
No. Decimals Reported				
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	
	8	9	12	13
1 CHECK UNTREATED				
Gramoxone Inteon 2.0 L	700.0 ga/ha		ATPLAN	
PREFIX	1480.0 ga/ha		ATPLAN	
TOUCHDOWN TOTAL 4.17 SL	880.0 gae/ha		POSPOS	
AMMONIUM SULFATE SG	3.0 %aw/w		POSPOS	
2 N-PAK AMS LIQUID	3.33 %v/v		FALPRE	
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha		FALPRE	
TOUCHDOWN TOTAL 4.17 SL	880.0 gae/ha		FALPRE	
3 N-PAK AMS LIQUID	3.33 %v/v		FALPRE	
ENVOKE 75 WG	5.25 ga/ha		FALPRE	
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha		FALPRE	
TOUCHDOWN TOTAL 4.17 SL	880.0 gae/ha		FALPRE	
4 ENVOKE 75 WG	5.25 ga/ha		FALPRE	
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha		FALPRE	
COC	1.0 %v/v		FALPRE	
5 N-PAK AMS LIQUID	3.33 %v/v		FALPRE	
ENVOKE 75 WG	6.57 ga/ha		FALPRE	
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha		FALPRE	
TOUCHDOWN TOTAL 4.17 SL	880.0 gae/ha		FALPRE	
6 ENVOKE 75 WG	6.57 ga/ha		FALPRE	
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha		FALPRE	
COC	1.0 %v/v		FALPRE	

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Assessment Date					6/8/09 12:00 AM	6/30/09 12:00 AM	7/14/09 12:00 AM	7/28/09 12:00 AM
Assessed By					GK	GK	CB	MK
Crop Code					2 GLXMA	3 GLXMA	4 GLXMA	5 GLXMA
Crop Variety					AG 3402	AG 3402	AG 3402	AG 3402
Crop Development					12 12	15 15	65 65	66 66
Pest Code								
Pest Development								
SE Group No.					10	11	12	13
Part Assessed					PLOT	PLOT	PLOT	PLOT
Assessment Data Type					PHYGEN	PHYGEN	PHYGEN	PHYGEN
Assessment Unit					%	%	%	%
Reporting Basis, Unit					1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type					NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type					NC	NC	NC	NC
Scale Minimum, Maximum								
Number of Subsamples					1	1	1	1
ARM Action Codes								
Days After Planting					13DAP-1	35DAP-1	49DAP-1	63DAP-1
Days After Last Application					13	35	14	28
No. Decimals Reported								
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	8	9	12	13
7	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	3.0 a	4.5 c	2.3 c	11.0 c
	ENVOKE 75 WG	7.9	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
8	ENVOKE 75 WG	7.9	ga/ha	FALPRE	1.8 a	2.5 cd	2.8 c	8.3 c
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
9	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	2.8 a	8.8 b	8.8 b	26.3 b
	ENVOKE 75 WG	15.8	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
10	ENVOKE 75 WG	15.8	ga/ha	FALPRE	2.3 a	17.5 a	31.3 a	45.0 a
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
11	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	3.0 a	0.0 d	0.0 c	0.0 c
	CLASSIC	17.5	ga/ha	FALPRE				
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
12	CLASSIC	17.5	ga/ha	FALPRE	0.0 a	0.0 d	0.0 c	0.0 c
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
13	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	1.3 a	0.0 d	0.0 c	0.0 c
	VALOR SX 51 WG	71.5	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				

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Assessment Date	6/8/09 12:00 AM	6/30/09 12:00 AM	7/14/09 12:00 AM	7/28/09 12:00 AM				
Assessed By	GK	GK	CB	MK				
Crop Code	2 GLXMA	3 GLXMA	4 GLXMA	5 GLXMA				
Crop Variety	AG 3402	AG 3402	AG 3402	AG 3402				
Crop Development	12 12	15 15	65 65	66 66				
Pest Code								
Pest Development								
SE Group No.	10	11	12	13				
Part Assessed	PLOT	PLOT	PLOT	PLOT				
Assessment Data Type	PHYGEN	PHYGEN	PHYGEN	PHYGEN				
Assessment Unit	%	%	%	%				
Reporting Basis, Unit	1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT				
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW	NOR RAW				
Calculation, Scale Type	NC	NC	NC	NC				
Scale Minimum, Maximum								
Number of Subsamples	1	1	1	1				
ARM Action Codes								
Days After Planting	13DAP-1	35DAP-1	49DAP-1	63DAP-1				
Days After Last Application	13	35	14	28				
No. Decimals Reported								
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	8	9	12	13
14	VALOR SX 51 WG	71.5	ga/ha	FALPRE	1.3 a	0.0 d	0.0 c	0.8 c
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
LSD (P=.05)		2.12			2.56		4.63	8.52
Standard Deviation		1.48			1.79		3.24	5.96
CV		74.85			66.11		97.55	74.7
Bartlett's X2		2.921			8.708		29.586	26.645
P(Bartlett's X2)		0.992			0.191		0.001*	0.001*
Replicate F		4.681			2.322		0.891	0.949
Replicate Prob(F)		0.0069			0.0901		0.4542	0.4265
Treatment F		2.245			30.184		26.735	19.017
Treatment Prob(F)		0.0258			0.0001		0.0001	0.0001

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

Assessment Date					11/20/08 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM	11/4/09 12:00 AM
Assessed By					MK	WGJ	GK	MK
Crop Code					1 GLXMA	1 GLXMA	3 GLXMA	6 GLXMA
Crop Variety					AG 3402	AG 3402	AG 3402	AG 3402
Crop Development					00 00	00 00	15 15	89 89
Pest Code					3 ERICA	8 ERICA	16 ERICA	17 ERICA
Pest Development					31 33	43 43	31 44	31 69
SE Group No.					1	9	11	16
Part Assessed					PLOT	PLOT	PLOT	PLOT
Assessment Data Type					CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit					%	%	%	%
Reporting Basis, Unit					1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type					NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type					EF S	EF S	EF S	
Scale Minimum, Maximum					0 100	0 100	0 100	
Number of Subsamples					1	1	1	1
ARM Action Codes								
Days After Planting					-187DAP-1	-21DAP-1	35DAP-1	162DAP-1
Days After Last Application					21	187	35	127
No. Decimals Reported								
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	1	6	10	14
1	CHECK UNTREATED				0.0 b	0.0 b	0.0 c	0.0 d
	Gramoxone Inteon 2.0 L	700.0	ga/ha	ATPLAN				
	PREFIX	1480.0	ga/ha	ATPLAN				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	POSPOS				
	AMMONIUM SULFATE SG	3.0	%aw/w	POSPOS				
2	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	95.0 a	72.5 ab	100.0 a
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
3	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	100.0 a	76.3 ab	85.0 c
	ENVOKE 75 WG	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
4	ENVOKE 75 WG	5.25	ga/ha	FALPRE	99.3 a	100.0 a	86.3 ab	97.0 ab
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
5	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	100.0 a	100.0 a	95.0 a	93.5 abc
	ENVOKE 75 WG	6.57	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
6	ENVOKE 75 WG	6.57	ga/ha	FALPRE	98.5 a	100.0 a	85.0 ab	94.8 ab
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				

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					11/20/08 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM	11/4/09 12:00 AM
Assessment Date					11/20/08 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM	11/4/09 12:00 AM
Assessed By					MK	WGJ	GK	MK
Crop Code					1 GLXMA	1 GLXMA	3 GLXMA	6 GLXMA
Crop Variety					AG 3402	AG 3402	AG 3402	AG 3402
Crop Development					00 00	00 00	15 15	89 89
Pest Code					3 ERICA	8 ERICA	16 ERICA	17 ERICA
Pest Development					31 33	43 43	31 44	31 69
SE Group No.					1	9	11	16
Part Assessed					PLOT	PLOT	PLOT	PLOT
Assessment Data Type					CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit					%	%	%	%
Reporting Basis, Unit					1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type					NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type					EF S	EF S	EF S	
Scale Minimum, Maximum					0 100	0 100	0 100	
Number of Subsamples					1	1	1	1
ARM Action Codes								
Days After Planting					-187DAP-1	-21DAP-1	35DAP-1	162DAP-1
Days After Last Application					21	187	35	127
No. Decimals Reported								
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	1	6	10	14
7	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	100.0 a	100.0 a	100.0 a	90.0 bc
	ENVOKE 75 WG	7.9	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
8	ENVOKE 75 WG	7.9	ga/ha	FALPRE	98.3 a	95.0 a	90.0 ab	93.3 abc
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
9	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.3 a	100.0 a	100.0 a	88.8 bc
	ENVOKE 75 WG	15.8	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
10	ENVOKE 75 WG	15.8	ga/ha	FALPRE	96.3 a	100.0 a	100.0 a	92.3 abc
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
11	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	100.0 a	95.0 a	99.3 a
	CLASSIC	17.5	ga/ha	FALPRE				
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
12	CLASSIC	17.5	ga/ha	FALPRE	97.5 a	100.0 a	97.5 a	99.8 a
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
13	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	100.0 a	100.0 a	55.0 b	100.0 a
	VALOR SX 51 WG	71.5	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				

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Assessment Date	11/20/08 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM	11/4/09 12:00 AM
Assessed By	MK	WGJ	GK	MK
Crop Code	1 GLXMA	1 GLXMA	3 GLXMA	6 GLXMA
Crop Variety	AG 3402	AG 3402	AG 3402	AG 3402
Crop Development	00 00	00 00	15 15	89 89
Pest Code	3 ERICA	8 ERICA	16 ERICA	17 ERICA
Pest Development	31 33	43 43	31 44	31 69
SE Group No.	1	9	11	16
Part Assessed	PLOT	PLOT	PLOT	PLOT
Assessment Data Type	CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit	%	%	%	%
Reporting Basis, Unit	1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type	EF S	EF S	EF S	
Scale Minimum, Maximum	0 100	0 100	0 100	
Number of Subsamples	1	1	1	1
ARM Action Codes				
Days After Planting	-187DAP-1	-21DAP-1	35DAP-1	162DAP-1
Days After Last Application	21	187	35	127
No. Decimals Reported				
Tit Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	
	1	6	10	14
14 VALOR SX 51 WG	71.5 ga/ha	FALPRE	98.5 a	
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha	FALPRE	93.8 a	
COC	1.0 %v/v	FALPRE	85.0 ab	100.0 a
LSD (P=.05)	2.99	6.35	23.41	5.88
Standard Deviation	2.09	4.45	16.38	4.12
CV	2.27	4.85	20.16	4.67
Bartlett's X2	29.438	0.012	18.733	25.467
P(Bartlett's X2)	0.001*	0.994	0.028*	0.002*
Replicate F	0.135	1.649	0.774	8.559
Replicate Prob(F)	0.9387	0.1939	0.5155	0.0002
Treatment F	641.457	142.008	10.572	157.254
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Assessment Date					11/20/08 12:00 AM	3/31/09 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM
Assessed By					MK	MK JM	WGJ	GK
Crop Code					1 GLXMA	1 GLXMA	1 GLXMA	3 GLXMA
Crop Variety					AG 3402	AG 3402	AG 3402	AG 3402
Crop Development					00 00	00 00	00 00	15 15
Pest Code					4 TAROF	7 TAROF	9 TAROF	15 TAROF
Pest Development					31 31	36 36	34 65	31 39
SE Group No.					1	8	9	11
Part Assessed					PLOT	PLOT	PLOT	PLOT
Assessment Data Type					CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit					%	%	%	%
Reporting Basis, Unit					1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type					NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type					EF S	EF S	EF S	EF S
Scale Minimum, Maximum					0 100	0 100	0 100	0 100
Number of Subsamples					1	1	1	1
ARM Action Codes								
Days After Planting					-187DAP-1	-56DAP-1	-21DAP-1	35DAP-1
Days After Last Application					21	152	187	35
No. Decimals Reported								
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	2	5	7	11
1	CHECK UNTREATED				0.0 c	0.0 b	0.0 d	0.0 c
	Gramoxone Inteon 2.0 L	700.0	ga/ha	ATPLAN				
	PREFIX	1480.0	ga/ha	ATPLAN				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	POSPOS				
	AMMONIUM SULFATE SG	3.0	%aw/w	POSPOS				
2	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	93.3 a	99.3 a	89.5 ab	65.0 ab
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
3	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	97.3 a	100.0 a	98.8 a	90.0 a
	ENVOKE 75 WG	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
4	ENVOKE 75 WG	5.25	ga/ha	FALPRE	92.3 a	100.0 a	85.0 b	87.5 a
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
5	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	94.3 a	100.0 a	100.0 a	97.5 a
	ENVOKE 75 WG	6.57	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
6	ENVOKE 75 WG	6.57	ga/ha	FALPRE	83.8 ab	100.0 a	94.5 ab	90.0 a
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				

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				11/20/08 12:00 AM	3/31/09 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM	
Assessment Date				11/20/08 12:00 AM	3/31/09 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM	
Assessed By				MK	MK JM	WGJ	GK	
Crop Code				1 GLXMA	1 GLXMA	1 GLXMA	3 GLXMA	
Crop Variety				AG 3402	AG 3402	AG 3402	AG 3402	
Crop Development				00 00	00 00	00 00	15 15	
Pest Code				4 TAROF	7 TAROF	9 TAROF	15 TAROF	
Pest Development				31 31	36 36	34 65	31 39	
SE Group No.				1	8	9	11	
Part Assessed				PLOT	PLOT	PLOT	PLOT	
Assessment Data Type				CONTRO	CONTRO	CONTRO	CONTRO	
Assessment Unit				%	%	%	%	
Reporting Basis, Unit				1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT	
Assessment Type, Sub-Type				NOR RAW	NOR RAW	NOR RAW	NOR RAW	
Calculation, Scale Type				EF S	EF S	EF S	EF S	
Scale Minimum, Maximum				0 100	0 100	0 100	0 100	
Number of Subsamples				1	1	1	1	
ARM Action Codes								
Days After Planting				-187DAP-1	-56DAP-1	-21DAP-1	35DAP-1	
Days After Last Application				21	152	187	35	
No. Decimals Reported								
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	2	5	7	11
7	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	97.3 a	77.5 a	100.0 a	98.8 a
	ENVOKE 75 WG	7.9	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
8	ENVOKE 75 WG	7.9	ga/ha	FALPRE	95.0 a	98.3 a	92.0 ab	90.0 a
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
9	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	94.0 a	100.0 a	98.8 a	97.5 a
	ENVOKE 75 WG	15.8	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
10	ENVOKE 75 WG	15.8	ga/ha	FALPRE	96.8 a	100.0 a	99.0 a	96.3 a
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
11	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	97.5 a	100.0 a	100.0 a	95.0 a
	CLASSIC	17.5	ga/ha	FALPRE				
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
12	CLASSIC	17.5	ga/ha	FALPRE	70.5 b	100.0 a	97.0 a	83.8 a
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
13	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.0 a	100.0 a	94.5 ab	92.5 a
	VALOR SX 51 WG	71.5	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				

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Assessment Date	11/20/08 12:00 AM	3/31/09 12:00 AM	5/5/09 12:00 AM	6/30/09 12:00 AM
Assessed By	MK	MK JM	WGJ	GK
Crop Code	1 GLXMA	1 GLXMA	1 GLXMA	3 GLXMA
Crop Variety	AG 3402	AG 3402	AG 3402	AG 3402
Crop Development	00 00	00 00	00 00	15 15
Pest Code	4 TAROF	7 TAROF	9 TAROF	15 TAROF
Pest Development	31 31	36 36	34 65	31 39
SE Group No.	1	8	9	11
Part Assessed	PLOT	PLOT	PLOT	PLOT
Assessment Data Type	CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit	%	%	%	%
Reporting Basis, Unit	1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW	NOR RAW
Calculation, Scale Type	EF S	EF S	EF S	EF S
Scale Minimum, Maximum	0 100	0 100	0 100	0 100
Number of Subsamples	1	1	1	1
ARM Action Codes				
Days After Planting	-187DAP-1	-56DAP-1	-21DAP-1	35DAP-1
Days After Last Application	21	152	187	35
No. Decimals Reported				
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	
				2
				5
				7
				11
14 VALOR SX 51 WG	71.5 ga/ha	FALPRE		96.0 a
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha	FALPRE		90.0 a
COC	1.0 %v/v	FALPRE		73.8 c
				53.8 b
LSD (P=.05)	15.09	17.98	7.54	23.20
Standard Deviation	10.56	12.58	5.28	16.23
CV	12.25	13.92	6.04	19.98
Bartlett's X2	81.607	27.589	24.543	33.187
P(Bartlett's X2)	0.001*	0.001*	0.004*	0.001*
Replicate F	0.919	0.624	5.606	0.693
Replicate Prob(F)	0.4405	0.6036	0.0027	0.5616
Treatment F	24.055	18.097	98.483	10.827
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Assessment Date					11/20/08 12:00 AM	11/20/08 12:00 AM	11/6/09 12:00 AM	11/6/09 12:00 AM
Assessed By					MK	MK	PM	PM
Crop Code					1 GLXMA	1 GLXMA	7 GLXMA	7 GLXMA
Crop Variety					AG 3402	AG 3402	AG 3402	AG 3402
Crop Development					00 00	00 00	99 99	99 99
Pest Code					5 RANAB	6 CERVU		
Pest Development					11 11	11 11		
SE Group No.					1	1	14	15
Part Assessed					PLOT	PLOT	PLOT	PLOT
Assessment Data Type					CONTRO	CONTRO	YIELD	YIELD
Assessment Unit					%	%	LB	BU
Reporting Basis, Unit					1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type					NOR RAW	NOR RAW	NOR RAW	YLD YLR
Calculation, Scale Type					EF S	EF S		
Scale Minimum, Maximum					0 100	0 100		
Number of Subsamples					1	1	1	1
ARM Action Codes								TY1
Days After Planting					-187DAP-1	-187DAP-1	164DAP-1	164DAP-1
Days After Last Application					21	21	129	129
No. Decimals Reported								1
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	3	4	15	16
1	CHECK UNTREATED				0.0 b	0.0 b	19.65 cd	57.1 cd
	Gramoxone Inteon 2.0 L	700.0	ga/ha	ATPLAN				
	PREFIX	1480.0	ga/ha	ATPLAN				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	POSPOS				
	AMMONIUM SULFATE SG	3.0	%aw/w	POSPOS				
2	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	99.5 a	22.60 ab	65.6 ab
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
3	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	98.8 a	20.63 bc	59.9 bc
	ENVOKE 75 WG	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
4	ENVOKE 75 WG	5.25	ga/ha	FALPRE	99.3 a	98.0 a	20.90 bc	60.7 bc
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
5	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	99.5 a	19.10 cd	55.5 cd
	ENVOKE 75 WG	6.57	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
6	ENVOKE 75 WG	6.57	ga/ha	FALPRE	97.3 a	97.8 a	18.55 cd	53.9 cd
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				

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					11/20/08 12:00 AM	11/20/08 12:00 AM	11/6/09 12:00 AM	11/6/09 12:00 AM
Assessment Date					11/20/08 12:00 AM	11/20/08 12:00 AM	11/6/09 12:00 AM	11/6/09 12:00 AM
Assessed By					MK	MK	PM	PM
Crop Code					1 GLXMA	1 GLXMA	7 GLXMA	7 GLXMA
Crop Variety					AG 3402	AG 3402	AG 3402	AG 3402
Crop Development					00 00	00 00	99 99	99 99
Pest Code					5 RANAB	6 CERVU		
Pest Development					11 11	11 11		
SE Group No.					1	1	14	15
Part Assessed					PLOT	PLOT	PLOT	PLOT
Assessment Data Type					CONTRO	CONTRO	YIELD	YIELD
Assessment Unit					%	%	LB	BU
Reporting Basis, Unit					1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type					NOR RAW	NOR RAW	NOR RAW	YLD YLR
Calculation, Scale Type					EF S	EF S		
Scale Minimum, Maximum					0 100	0 100		
Number of Subsamples					1	1	1	1
ARM Action Codes								TY1
Days After Planting					-187DAP-1	-187DAP-1	164DAP-1	164DAP-1
Days After Last Application					21	21	129	129
No. Decimals Reported								1
Trt	Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	3	4	15	16
7	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	98.3 a	98.5 a	18.73 cd	54.4 cd
	ENVOKE 75 WG	7.9	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
8	ENVOKE 75 WG	7.9	ga/ha	FALPRE	98.5 a	98.5 a	17.43 d	50.6 d
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
9	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	95.8 a	93.5 a	15.33 e	44.5 e
	ENVOKE 75 WG	15.8	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
10	ENVOKE 75 WG	15.8	ga/ha	FALPRE	98.8 a	99.8 a	9.25 f	26.9 f
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
11	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.5 a	98.8 a	23.20 ab	67.4 ab
	CLASSIC	17.5	ga/ha	FALPRE				
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				
12	CLASSIC	17.5	ga/ha	FALPRE	97.5 a	96.3 a	23.90 a	69.4 a
	EXPRESS XP 75 DF	5.25	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	COC	1.0	%v/v	FALPRE				
13	N-PAK AMS LIQUID	3.33	%v/v	FALPRE	99.8 a	99.5 a	23.85 a	69.3 a
	VALOR SX 51 WG	71.5	ga/ha	FALPRE				
	2,4-D ESTER 3.8 EC (AE)	533.0	gae/ha	FALPRE				
	TOUCHDOWN TOTAL 4.17 SL	880.0	gae/ha	FALPRE				

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Assessment Date	11/20/08 12:00 AM	11/20/08 12:00 AM	11/6/09 12:00 AM	11/6/09 12:00 AM
Assessed By	MK	MK	PM	PM
Crop Code	1 GLXMA	1 GLXMA	7 GLXMA	7 GLXMA
Crop Variety	AG 3402	AG 3402	AG 3402	AG 3402
Crop Development	00 00	00 00	99 99	99 99
Pest Code	5 RANAB	6 CERVU		
Pest Development	11 11	11 11		
SE Group No.	1	1	14	15
Part Assessed	PLOT	PLOT	PLOT	PLOT
Assessment Data Type	CONTRO	CONTRO	YIELD	YIELD
Assessment Unit	%	%	LB	BU
Reporting Basis, Unit	1.0 PLOT	1.0 PLOT	1.0 PLOT	1.0 PLOT
Assessment Type, Sub-Type	NOR RAW	NOR RAW	NOR RAW	YLD YLR
Calculation, Scale Type	EF S	EF S		
Scale Minimum, Maximum	0 100	0 100		
Number of Subsamples	1	1	1	1
ARM Action Codes				TY1
Days After Planting	-187DAP-1	-187DAP-1	164DAP-1	164DAP-1
Days After Last Application	21	21	129	129
No. Decimals Reported				1
Trt Treatment/Product Name	Product/AI Rate	Product/AI Rate Unit	Applic. Timing	
				3
14 VALOR SX 51 WG	71.5 ga/ha	FALPRE		100.0 a
2,4-D ESTER 3.8 EC (AE)	533.0 gae/ha	FALPRE		99.0 a
COC	1.0 %v/v	FALPRE		22.48 ab
				65.3 ab
LSD (P=.05)	4.07	3.58	1.944	5.65
Standard Deviation	2.85	2.51	1.360	3.95
CV	3.1	2.75	6.91	6.91
Bartlett's X2	52.537	39.38	24.906	24.909
P(Bartlett's X2)	0.001*	0.001*	0.024*	0.024*
Replicate F	1.389	1.420	9.694	9.690
Replicate Prob(F)	0.2604	0.2514	0.0001	0.0001
Treatment F	344.622	440.778	33.535	33.529
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001