

# The Ohio State University

## UPL Fall - Spring Burndown Programs in Soybean

Trial ID: 20FALLSOY2  
 Protocol ID: FALL /SPRING CORN-SOY  
 Project ID: 20FALLSOY2

Location: Western Branch F-9 East Trial Year: 2019  
 Investigator: Dr. Mark M. Loux  
 Study Director: Anthony Dobbels  
 Sponsor Contact: Joe Reed, UPL

### General Trial Information

**Study Director:** Anthony Dobbels  
**Investigator:** Dr. Mark M. Loux

**Trial Status:** E established

**ARM Trial Created On:** Nov-18-2019

### Trial Location

**City:** South Charleston **Country:** USA United States  
**State/Prov.:** Ohio  
**Postal Code:** 45368 **Climate Zone:** USWARM US Warm Continental

**Latitude of LL Corner °:** 39.85876 N  
**Longitude of LL Corner °:** -83.67161 W  
**Altitude of LL Corner:** 1093.00 FT

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Contacts

**Study Director:** Anthony Dobbels

**Investigator:** Dr. Mark M. Loux

### Crop Description

<b>Crop 1:</b> C	GLXMA Glycine max	Soybean	<b>BBCH Scale:</b> BSOY
<b>Entry Date:</b> May-8-2020		<b>Stage Scale:</b> BBCH	
<b>Variety:</b> Pioneer P30T99E			
<b>Attributes:</b> 2,4-D Choline, Glyphosate, Glufosinate Tol			
<b>Planting Date:</b> May-7-2020		<b>Planting Rate:</b> 156000	S/A
<b>Depth:</b> 1.5 IN		<b>Planting Method:</b> PLANTD	planted
<b>Rows per Plot:</b> 4		<b>Planting Equipment:</b> FE	field equipment
<b>Row Spacing:</b> 30 IN		<b>Seed Bed:</b> MEDTRA	medium/trashy
<b>Soil Temperature:</b> 48 F		<b>Soil Moisture:</b> NORMAL	normal, adequate
<b>Emergence Date:</b> May-25-2020		<b>Harvest Equipment:</b> Kincaid 8XP	
<b>Harvest Date:</b> Oct-8-2020		<b>Harvested Width:</b> 5 FT	
<b>Moisture Meter:</b> Harvest Master		<b>Harvested Length:</b> 30 FT	
<b>% Standard Moisture:</b> 13			
<b>Weighing Equipment:</b> Harvest Master HM800			

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### Pest Description

**Pest 1 Type:** W **Code:** LAMPU *Lamium purpureum*  
**Common Name:** Purple deadnettle **Entry Date:** May-8-2020

**Pest 2 Type:** W **Code:** STEME *Stellaria media*  
**Common Name:** Common chickweed **Entry Date:** May-8-2020

**Pest 3 Type:** W **Code:** TAROF *Taraxacum officinale*  
**Common Name:** Blowball **Entry Date:** May-8-2020

**Pest 4 Type:** W **Code:** CARPE *Cardamine pensylvanica*  
**Common Name:** Pennsylvania bittercress **Entry Date:** May-8-2020

**Pest 5 Type:** W **Code:** CAPBP *Capsella bursa-pastoris*  
**Common Name:** Shepherd's purse **Entry Date:** May-8-2020

**Pest 6 Type:** W **Code:** RANAB *Ranunculus abortivus*  
**Common Name:** Smallflower buttercup **Entry Date:** May-8-2020

**Pest 7 Type:** W **Code:** VERAG *Veronica agrestis*  
**Common Name:** Field speedwell **Entry Date:** May-8-2020

**Pest 8 Type:** W **Code:** DRBSS *Draba sp.*  
**Common Name:** Whitlow-grass **Entry Date:** May-8-2020

**Pest 9 Type:** W **Code:** AMBTR *Ambrosia trifida*  
**Common Name:** Giant ragweed **Entry Date:** May-8-2020

**Pest10 Type:** W **Code:** SETFA *Setaria faberi*  
**Common Name:** foxtail, giant **Entry Date:** May-28-2020

**Pest11 Type:** W **Code:** ERICA *Conyza canadensis*  
**Common Name:** horseweed **Entry Date:** May-28-2020

**Pest12 Type:** W **Code:** ABUTH *Abitilon theophrasti*  
**Common Name:** velvetleaf **Entry Date:** Jun-25-2020

**Pest13 Type:** W **Code:** AMBEL *Ambrosia artemisiifolia*  
**Common Name:** ragweed, common **Entry Date:** Jun-25-2020

**Pest14 Type:** W **Code:** AMARE *Amaranthus retroflexus*  
**Common Name:** pigweed, redroot **Entry Date:** Jun-25-2020

**Pest15 Type:** W **Code:** CHEAL *Chenopodium album*  
**Common Name:** lambsquarters, common **Entry Date:** Jun-25-2020

### Site and Design

**Treated Plot Width:** 6.67 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 200.1 FT<sup>2</sup> **Treatments:** 10 **Tillage Type:** NOTILL no-till  
**Replications:** 3 **Study Design:** RACOB L Randomized Complete Block (RCB)

### Previous

**No. Crop Year**  
 1. SOYBEAN 2019

### Soil Description

**Description Name:** F-9 E **Texture:** SICL silty clay loam  
**% Sand:** 36 **% OM:** 3 **pH:** 6.4 **Soil Name:** Kokomo  
**% Silt:** 49 **CEC:** 17.8 **Fert. Level:** G good  
**% Clay:** 15  
**Soil Drainage:** G good

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### Application Description

	A	B	C	D	E
Application Date	Nov-20-2019	May-7-2020	May-27-2020	Jun-9-2020	Jun-24-2020
Appl. Start Time	10:00 AM	11:30 AM	10:00 AM	8:00 AM	9:00 AM
Appl. Stop Time	10:15 AM	12:00 AM	10:30 AM	8:30 AM	9:30 AM
Interval to Prev. Appl.		169 DAYS	20 DAYS	13 DAYS	15 DAYS
Application Method	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing	FALL	PRE	EPO	POST	POST
Application Placement	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By	Dobbels	Lamb	Dobbels	Kimmet	Loux
Appl. Entry Date	May-8-2020	May-8-2020	May-28-2020	Jun-9-2020	Jun-25-2020
Air Temperature Start, Stop	43 43 F	58 58 F	73 75 F	69 69 F	66 66 F
% Relative Humidity Start, Stop	72 72	49 49	78 78	68 68	80 80
Wind Velocity+Dir. Start	3 MPH WNW	8 MPH WSW	7 MPH SSE	5 MPH ESE	8 MPH W
Wind Velocity+Dir. Stop	3 MPH WNW	8 MPH WSW	7 MPH SSE	5 MPH ESE	8 MPH W
Wind Velocity+Dir. Max	3 MPH WNW	10 MPH WSW	7 MPH SSE	5 MPH ESE	8 MPH W
Wet Leaves (Y/N)	N no	N no	N no	N no	Y yes
Soil Temperature	39 F	48 F	72 F	64 F	69 F
Soil Moisture	MOIST	NORMAL	DRY	DRY	SLIWET
Soil Surface Condition	MEDTRA	MEDTRA	MEDIUM	MEDTRA	MEDTRA
% Cloud Cover	60	0	15	20	30
Next Moisture Occurred On	Nov-22-2019	May-8-2020	May-28-2020	Jun-9-2020	Jun-25-2020
Time to Next Moisture	2 DAY	20 HR	21 HR	10 HR	1 DAY
Moisture 6 Hours after Appl.	0 IN	0 IN	0 IN	0 IN	0 IN
Moisture 1 Week after Appl.	0.72 IN	0.65 IN	0.95 IN	0.37 IN	0.09 IN

### Crop Stage At Each Application

	A		B		C		D		E	
Crop 1 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-187		-18		2		15		30	
Stage Scale Used	BBCH		BBCH		BBCH		BBCH		BBCH	
Stage Majority, Percent					11	100	12	100	14	50
Stage Minimum, Percent									14	50
Stage Maximum, Percent									15	50
Height Average					3	IN	6	IN	8	IN
Height Minimum, Maximum									6	10

### Pest Stage At Each Application

	A		B		C		D		E	
Pest 1 Code, Type, Scale	LAMPU	W	LAMPU	W	LAMPU	W	LAMPU	W	LAMPU	W
Stage Majority, Percent	16	90	65	90						
Stage Minimum, Percent	14	10	69	10						
Stage Maximum, Percent	16	90	69	10						
Diameter	2	IN	3	IN						
Height Average	1	IN	5	IN						
Height Minimum, Maximum	0.5	1	5	7						
Density Average	30	PLA/m2	30	PLA/M2						
Density Min, Max	5	50	3	50						
Pest 2 Code, Type, Scale	STEME	W	STEME	W	STEME	W	STEME	W	STEME	W
Stage Majority, Percent	14	80	65	80						
Stage Minimum, Percent	12	10	69	10						
Stage Maximum, Percent	16	10	69	10						
Diameter	0.25	IN	8	IN						
Height Average	0.5	IN	3	IN						
Height Minimum, Maximum	0.25	0.5	3	4						
Density Average	0.33	PLA/m2	5	PLA/m2						
Density Min, Max	0.33	3	0.33	10						
Pest 3 Code, Type, Scale	TAROF	W	TAROF	W	TAROF	W	TAROF	W	TAROF	W
Stage Majority, Percent	16	80	60	80			65	100		
Stage Minimum, Percent	14	10	60	80						
Stage Maximum, Percent	18	10	65	10						
Diameter	6	IN	6	IN						
Height Average	1	IN	3	IN			6	IN		
Height Minimum, Maximum	0.5	1.5	2	4						
Density Average	6	PLA/m2	1	PLA/M2						
Density Min, Max	0	20	0	10						
Pest 4 Code, Type, Scale	CARPE	W	CARPE	W	CARPE	W	CARPE	W	CARPE	W
Stage Majority, Percent	14	80	89	90						
Stage Minimum, Percent	12	10	89	90						
Stage Maximum, Percent	16	10	97	10						
Diameter	0.5	IN	1	IN						
Height Average	0.5	IN	3	IN						
Height Minimum, Maximum	0.25	0.5	3	4						
Density Average	0.33	PLA/m2	6	PLA/m2						
Density Min, Max	0	3	0	12						

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<b>Pest 5 Code, Type, Scale</b>	CAPBP W	CAPBP W	CAPBP W	CAPBP W	CAPBP W
Stage Majority, Percent	65	75	69	75	
Stage Minimum, Percent	65	75	69	75	
Stage Maximum, Percent	69	10	71	25	
Diameter	4	IN			
Height Average	10	IN	16	IN	
Height Minimum, Maximum	10	12	15	18	
Density Average	3	PLA/m2			
Density Min, Max	0	5			
<b>Pest 6 Code, Type, Scale</b>	RANAB W	RANAB W	RANAB W	RANAB W	RANAB W
Stage Majority, Percent	61	90			
Stage Minimum, Percent	51	10			
Stage Maximum, Percent	61	90			
Diameter	3	IN			
Height Average	10	IN			
Height Minimum, Maximum	8	12			
Density Average	3	PLA/m2			
Density Min, Max	0	6			
<b>Pest 7 Code, Type, Scale</b>	VERAG W	VERAG W	VERAG W	VERAG W	VERAG W
Stage Majority, Percent	65	90	69	90	65
Stage Minimum, Percent	65	90	67	10	
Stage Maximum, Percent	69	10	69	90	
Diameter	4	IN			
Height Average	0.5	IN	6	IN	6
Height Minimum, Maximum	0.25	0.5	6	8	
Density Average	3	PLA/m2			
Density Min, Max	0	6			
<b>Pest 8 Code, Type, Scale</b>	DRBSS W	DRBSS W	DRBSS W	DRBSS W	DRBSS W
Stage Majority, Percent	71	80			
Stage Minimum, Percent	71	80			
Stage Maximum, Percent	89	10			
Diameter	1	IN			
Height Average	2	IN			
Height Minimum, Maximum	2	3			
Density Average	5	PLA/m2			
Density Min, Max	0	15			
<b>Pest 9 Code, Type, Scale</b>	AMBTR W	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent	12	80	21	90	18
Stage Minimum, Percent	12	80	19	10	16
Stage Maximum, Percent	14	10	21	90	19
Diameter	2	IN			
Height Average	2	IN	14	IN	6
Height Minimum, Maximum	2	4	12	18	4
Density Average	6	PLA/m2	8	PLA/m2	4
Density Min, Max	0	12	2	12	
<b>Pest10 Code, Type, Scale</b>	SETFA W	SETFA W	SETFA W	SETFA W	SETFA W
Stage Majority, Percent			12	90	13
Stage Minimum, Percent			11	10	100
Stage Maximum, Percent			12	90	
Height Average			1	IN	6
Height Minimum, Maximum			1	1	IN
Density Average			136	PLA/m2	136
Density Min, Max			97	213	97
<b>Pest11 Code, Type, Scale</b>	ERICA W	ERICA W	ERICA W	ERICA W	ERICA W
Stage Majority, Percent			19	80	21
Stage Minimum, Percent			17	10	100
Stage Maximum, Percent			19	10	
Height Average			3	IN	4
Height Minimum, Maximum			2	3	IN
Density Average			2	PLA/m2	4
Density Min, Max			0	5	2
<b>Pest12 Code, Type, Scale</b>	ABUTH W	ABUTH W	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent					16
Stage Minimum, Percent					80
Stage Maximum, Percent					14
Height Average					10
Height Minimum, Maximum					19
Density Average					10
Density Min, Max					4
<b>Pest13 Code, Type, Scale</b>	AMBEL W	AMBEL W	AMBEL W	AMBEL W	AMBEL W
Stage Majority, Percent					IN
Stage Minimum, Percent					6
Stage Maximum, Percent					8
Height Average					
Height Minimum, Maximum					

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Density Average					0.66	PLA/m2
Density Min, Max					0	2
Pest14 Code, Type, Scale	AMARE W	AMARE W	AMARE W	AMARE W	AMARE W	
Stage Majority, Percent					16	80
Stage Minimum, Percent					16	
Stage Maximum, Percent					19	
Height Average					4	IN
Height Minimum, Maximum					4	6
Density Average					0.33	PLA/m2
Density Min, Max					0	1
Pest15 Code, Type, Scale	CHEAL W	CHEAL W	CHEAL W	CHEAL W	CHEAL W	
Stage Majority, Percent					19	90
Stage Minimum, Percent					16	
Stage Maximum, Percent					19	
Height Average					6	IN
Height Minimum, Maximum					4	8
Density Average					0.66	pla/m2
Density Min, Max					0	2

### Application Equipment

	A	B	C	D	E
Appl. Equipment	6 Foot AI XR	6 Foot AI XR	6' AIXR	6' AIXR	6' AIXR
Equipment Type	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI
Operation Pressure	44 PSI	44 PSI	44 PSI	44 PSI	44 PSI
Nozzle Type	AI XR	AI XR	AIXR	AIXR	AIXR
Nozzle Size	110015	110015	1110015	1110015	1110015
Nozzle Spacing	18 IN	18 IN	18 IN	18 IN	18 IN
Boom Length	6.67 FT	6.67 FT	6.67 FT	6.67 FT	6.67 FT
Boom Height	20 IN	20 IN	20 IN	20 IN	20 IN
Ground Speed	3 MPH	3 MPH	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size	2 L	2 L	1 L	1 L	1 L
Propellant	COMCO2	COMCO2	COMCO2	COMCO2	COMCO2

Context	Date	By	Notes
STATUS	Nov-18-2019	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-8-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

### Instructions:

OBJECTIVES: Observe Fall applications of UPL herbicides, Audit 1:1 at two different rates compared to metribuzin + sulfentrazone tankmix applied at two different rates effect upon control of fall and winter annual weeds as well length of residual followed up by various Spring herbicidie tre3atments.

DESIGN: Randomized Complete Block Design replicated 4 times.

TILLAGE: No-Tillage

TARGET WEEDS: Marestalk, cressleaf groundsel, corn speedwell, henbit, purple deadnettle, amd others.

PARAMETERS: Take weed control ratings for Fall applications in the Spring. Spring herbicide applications % weed control ratings need to be taken at 3, 7, 14, 30 days after treatment (DAT), as well as % crop reponse. Same for POST applications. Yields to be taken.

### CONTINGENCIES:

1. Roundup formulation may be switched out to another Bayer (Monsanto) Glyphosate formulation.
2. Can switch out TRICOR 4F 6 oz to TRICOR 75 DF 4 oz and so on.
3. Can use Liquid AMS if you are comfortable withusing.

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct-8-2020	Oct-8-2020	Oct-8-2020
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2020	Oct-12-2020	0
Rating Timing	HARVEST	HARVEST	HARVEST
Days After First/Last Applic.	323 106	323 106	323 106
Trt-Eval Interval			
Plant-Eval Interval	154 DP-1	154 DP-1	154 DP-1
Days After Emergence	136 DE-1	136 DE-1	136 DE-1
ARM Action Codes			TY1
Number of Decimals	2	2	1

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	23*	24*	25*
1	UNTREATED CHECK						1.02 c	10.82 -	5.0 c
2	WEEDMASTER	32 fl oz/a		0.97 lb ai/a		A	8.56 ab	12.13 -	41.9 ab
2	ROUNDUP POWER MAX	32 fl oz/a		1.38 lb ae/a		A			
2	N Pak AMS	5 % v/v		5 % v/v		A			
2	Moccasin II PPlus	1.24 lb ai/a		1.3 pt/a		B			
2	Tricor	0.094 lb ai/a		3 oz/a		B			
2	Interline	0.585 lb ai/a		32 oz/a		B			
2	AMSOL	5 % v/v		5 % v/v		B			
2	Interline	0.585 lb ai/a		32 oz/a		D			
2	AMSOL	5 % v/v		5 % v/v		D			
3	AUDIT 1:1	0.75 oz/a		0.0234 lb ai/a		A	8.86 ab	12.30 -	43.3 ab
3	ROUNDUP POWER MAX	32 fl oz/a		1.38 lb ae/a		A			
3	N Pak AMS	5 % v/v		5 % v/v		A			
3	Tripzin ZC	0.91 lb ai/a		29 oz/a		B			
3	Interline	0.585 lb ai/a		32 oz/a		B			
3	AMSOL	5 % v/v		5 % v/v		B			
3	Interline	0.585 lb ai/a		32 oz/a		D			
3	AMSOL	5 % v/v		5 % v/v		D			
4	AUDIT 1:1	1 oz/a		0.0313 lb ai/a		A	6.17 b	12.10 -	30.2 b
4	ROUNDUP POWER MAX	32 fl oz/a		1.38 lb ae/a		A			
4	N Pak AMS	5 % v/v		5 % v/v		A			
4	Shutdown	0.0975 lb ai/a		3 oz/a		B			
4	Tricor	0.188 lb ai/a		6 oz/a		B			
4	Interline	0.585 lb ai/a		32 oz/a		B			
4	AMSOL	5 % v/v		5 % v/v		B			
4	Interline	0.585 lb ai/a		32 oz/a		D			
4	AMSOL	5 % v/v		5 % v/v		D			
5	SHUTDOWN	3 fl oz/a		0.0975 lb ai/a		A	6.79 ab	13.13 -	32.8 ab
5	TRICOR	6 fl oz/a		0.188 lb ai/a		A			
5	ROUNDUP POWER MAX	32 fl oz/a		1.38 lb ae/a		A			
5	N Pak AMS	5 % v/v		5 % v/v		A			
5	Moccasin II PPlus	1.24 lb ai/a		1.3 pt/a		B			
5	Upstage	0.49 lb ai/a		21 oz/a		B			
5	Interline	0.585 lb ai/a		32 oz/a		B			
5	AMSOL	5 % v/v		5 % v/v		B			
5	Interline	0.585 lb ai/a		32 oz/a		D			
5	AMSOL	5 % v/v		5 % v/v		D			

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 \* Adjusted means

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Pest Code								
Pest Scientific Name								
Pest Name								
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA					
Crop Name	Soybean	Soybean	Soybean					
Rating Date	Oct-8-2020	Oct-8-2020	Oct-8-2020					
Rating Type	YIELD	MOICON	YIELD					
Rating Unit	LBS	%	BU					
Number of Subsamples	1	1	1					
Data Entry Date	Oct-12-2020	Oct-12-2020	0					
Rating Timing	HARVEST	HARVEST	HARVEST					
Days After First/Last Applic.	323 106	323 106	323 106					
Trt-Eval Interval								
Plant-Eval Interval	154 DP-1	154 DP-1	154 DP-1					
Days After Emergence	136 DE-1	136 DE-1	136 DE-1					
ARM Action Codes			TY1					
Number of Decimals	2	2	1					
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	23*	24*	25*
6 SHUTDOWN	4 fl oz/a		0.13 lb ai/a		A	10.22 a	12.20 -	49.9 a
6 TRICOR	8 fl oz/a		0.25 lb ai/a		A			
6 ROUNDUP POWER MAX	32 fl oz/a		1.38 lb ae/a		A			
6 N Pak AMS	5 % v/v		5 % v/v		A			
6 Moccasin II PLus	1.24 lb ai/a		1.3 pt/a		C			
6 Classic	0.0156 lb ai/a		1 oz/a		C			
6 Interline	0.585 lb ai/a		32 oz/a		C			
6 AMSOL	5 % v/v		5 % v/v		C			
6 Interline	0.585 lb ai/a		32 oz/a		E			
6 AMSOL	5 % v/v		5 % v/v		E			
7						6.62 ab	12.87 -	32.0 ab
7 Roundup Powermax	1.13 lb ae/a		32 oz/a		B			
7 Zidua Pro	0.144 lb ai/a		4.5 oz/a		B			
7 MSO	1 % v/v		1 % v/v		B			
7 AMSOL	5 % v/v		5 % v/v		B			
7 Liberty	0.585 lb ai/a		32 oz/a		D			
7 AMSOL	5 % v/v		5 % v/v		D			
8						8.33 ab	13.37 -	40.3 ab
8 Fierce MTZ	0.33 lb ai/a		16 oz/a		B			
8 Scout	0.53 lb ai/a		29 oz/a		B			
8 AMSOL	5 % v/v		5 % v/v		B			
8 Scout	0.585 lb ai/a		32 oz/a		D			
8 AMSOL	5 % v/v		5 % v/v		D			
9						9.64 ab	13.53 -	46.6 ab
9 Panther Pro	0.397 lb ai/a		12 oz/a		B			
9 Cheetah	0.585 lb ai/a		32 oz/a		B			
9 AMSOL	5 % v/v		5 % v/v		B			
9 Cheetah	0.585 lb ai/a		32 oz/a		D			
9 AMSOL	5 % v/v		5 % v/v		D			

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 \* Adjusted means

# The Ohio State University

## UPL Fall - Spring Burndown Programs in Soybean

Trial ID: 20FALLSOY2  
 Protocol ID: FALL /SPRING CORN-SOY  
 Project ID: 20FALLSOY2

Location: Western Branch F-9 East Trial Year: 2019  
 Investigator: Dr. Mark M. Loux  
 Study Director: Anthony Dobbels  
 Sponsor Contact: Joe Reed, UPL

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct-8-2020	Oct-8-2020	Oct-8-2020
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2020	Oct-12-2020	0
Rating Timing	HARVEST	HARVEST	HARVEST
Days After First/Last Applic.	323 106	323 106	323 106
Trt-Eval Interval			
Plant-Eval Interval	154 DP-1	154 DP-1	154 DP-1
Days After Emergence	136 DE-1	136 DE-1	136 DE-1
ARM Action Codes			TY1
Number of Decimals	2	2	1

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	23*	24*	25*
10							7.91 ab	15.00 -	37.7 ab
	10 Gramoxone	1.13 lb ai/a		3 pt/a		B			
	10 Tricor	0.375 lb ai/a		12 oz/a		B			
	10 NIS	0.25 % v/v		0.25 % v/v		B			
	10 Interline	0.585 lb ai/a		32 oz/a		D			
	10 AMSOL	5 % v/v		5 % v/v		D			
	LSD P=.05						3.813	2.484	19.11
	Standard Deviation						2.223	1.448	11.14
	CV						29.99	11.36	30.98
	Grand Mean						7.411	12.746	35.97
	Levene's F						0.628	0.867	0.66
	Levene's Prob(F)						0.76	0.568	0.734
	Rank X2						.	.	.
	P(Rank X2)						.	.	.
	Skewness						-0.1615	1.4197*	-0.0958
	Kurtosis						0.3667	3.568*	0.2955
	Replicate F						1.728	1.344	1.781
	Replicate Prob(F)						0.2058	0.2858	0.1970
	Treatment F						4.105	1.786	3.850
	Treatment Prob(F)						0.0052	0.1409	0.0072

Crop Type, Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

YIELD = yield  
 MOICON = moisture content

Rating Unit

% = percent  
 BU = bushel

Plant-Eval Interval

154 DP-1 = 1 GLXMA May-7-2020

ARM Action Codes

TY1 = 4.84\*[23]\*(100-[24])/87

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 \* Adjusted means