

# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTRRXCT Location: Trial Year: 2020  
 Protocol ID: 20VALENTRRXCT Investigator: Dr. Mark M. Loux  
 Project ID: Study Director:  
 Sponsor Contact:

### General Trial Information

Investigator: Dr. Mark M. Loux

Discipline: H herbicide  
 Trial Status: E established

ARM Trial Created On: Mar-27-2020 Trial Usage/Type: 0 Research and Development  
 Initiation Date: May-13-2020

### Trial Location

Address (Location): 7721 South Charleston Pike  
 City: South Charleston Country: USA United States  
 State/Prov.: Ohio  
 Postal Code: 45368

Latitude of LL Corner °: 39.85781 N  
 Longitude of LL Corner °: -83.67 W  
 Altitude of LL Corner: 1098.00 FT

Conducted Under GLP: No  
 Conducted Under GEP: No

Investigator: Dr. Mark M. Loux

### Crop Description

Crop 1: C GLXMA Glycine max Soybean BBCH Scale: BSOY  
 Entry Date: May-14-2020 Stage Scale: BBCH  
 Variety: Pioneer 33A24X  
 Attributes: GLYPHOSATE-R,AUXIN-R  
 Seed Lot No: B3GRA13059-00-1207 Seed Source: Illinois  
 % Germination: 90 Seed Size: 2114 S/LB  
 Seed Treatment Products: L  
 Planting Date: May-13-2020 Planting Rate: 160000 S/A  
 Depth: 2 IN  
 Rows per Plot: 4 Planting Method: PLANTD planted  
 Row Spacing: 30 IN Planting Equipment: FE field equipment  
 Seed Bed: MEDIUM medium  
 Soil Temperature: 62 F Soil Moisture: NORMAL normal, adequate  
 Plant Arrangement: ROW  
 Emergence Date: May-25-2020

### Pest Description

Pest 1 Type: W Code: AMBTR Ambrosia trifida  
 Common Name: ragweed, giant Entry Date: May-14-2020  
 Pest 2 Type: W Code: SETFA Setaria faberi  
 Common Name: foxtail, giant Entry Date: Jun-25-2020  
 Pest 3 Type: W Code: ECHCG Echinochloa crus-galli  
 Common Name: barnyardgrass Entry Date: Jun-25-2020  
 Pest 4 Type: W Code: ABUTH Abutilon theophrasti  
 Common Name: velvetleaf Entry Date: Jun-25-2020  
 Pest 5 Type: W Code: CHEAL Chenopodium album  
 Common Name: lambsquarters, common Entry Date: Jun-25-2020  
 Pest 6 Type: W Code: AMARE Amaranthus retroflexus  
 Common Name: pigweed, redroot Entry Date: Jun-25-2020  
 Pest 7 Type: W Code: IPOHE Ipomoea hederacea  
 Common Name: ivy-leaf morning glory Entry Date: Jul-9-2020  
 Pest 8 Type: W Code: SOLPT Solanum ptychanthum  
 Common Name: Eastern black nightshade Entry Date: Jul-9-2020

### 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 FT2 Treatments: 10 Tillage Type: CONTIL conventional-till  
 Replications: 4 Study Design: RACOB� Randomized Complete Block (RCB)

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### Previous

**No. Crop Year**  
 1. CORN 2019

### Soil Description

**Description Name:** Big E  
**% Sand:** 44 **% OM:** 3.1 **Texture:** L loam  
**% Silt:** 45 **pH:** 6.6 **Soil Name:** Kokomo  
**% Clay:** 11 **CEC:** 15.2 **Fert. Level:** G good  
**Soil Drainage:** G good

### Application Description

	<b>A</b>	<b>B</b>
<b>Application Date</b>	May-13-2020	Jun-24-2020
<b>Appl. Start Time</b>	3:00 PM	8:30 AM
<b>Appl. Stop Time</b>	3:30 PM	9:00 AM
<b>Interval to Prev. Appl.</b>		42 DAYS
<b>Application Method</b>	NONINC	NONINC
<b>Application Timing</b>	PREPRE	POSPOS
<b>Application Placement</b>	BROSIOI	BROFOL
<b>Applied By</b>	Ackley and Essman	Kimmet
<b>Appl. Entry Date</b>	May-14-2020	Jun-25-2020
<b>Air Temperature Start, Stop</b>	64 64 F	66 66 F
<b>% Relative Humidity Start, Stop</b>	32 32	80 80
<b>Wind Velocity+Dir. Start</b>	10 MPH SE	8 MPH W
<b>Wind Velocity+Dir. Stop</b>	10 MPH SE	8 MPH W
<b>Wind Velocity+Dir. Max</b>	11 MPH SE	8 MPH W
<b>Wet Leaves (Y/N)</b>	N no	Y yes
<b>Soil Temperature</b>	62 F	69 F
<b>Soil Moisture</b>	NORMAL	SLIWET
<b>Soil Surface Condition</b>	MEDIUM	MEDIUM
<b>% Cloud Cover</b>	25	30
<b>Next Moisture Occurred On</b>	May-14-2020	Jun-25-2020
<b>Time to Next Moisture</b>	14 HR	1 DAY
<b>Moisture 6 Hours after Appl.</b>	0 IN	0 IN
<b>Moisture 1 Week after Appl.</b>	2.52 IN	0.09 IN

### Crop Stage At Each Application

	<b>A</b>		<b>B</b>	
<b>Crop 1 Code, BBCH Scale</b>	GLXMA	BSOY	GLXMA	BSOY
<b>Days after Emergence</b>	-12		30	
<b>Stage Majority, Percent</b>			14	100
<b>Height Average</b>			8	IN
<b>Height Minimum, Maximum</b>			6	10

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### Pest Stage At Each Application

	A		B	
<b>Pest 1 Code, Type, Scale</b>	AMBTR	W	AMBTR	W BBCH
Stage Majority, Percent	18		80	
Stage Minimum, Percent	14		10	
Stage Maximum, Percent	19		10	
Height Average	6		IN	
Height Minimum, Maximum	2		18	
Density Average	55		PLA/m2	
Density Min, Max	4		84	
<b>Pest 2 Code, Type, Scale</b>	SETFA	W	SETFA	W BBCH
Stage Majority, Percent	16		80	
Stage Minimum, Percent	14		10	
Stage Maximum, Percent	19		10	
Height Average	4		IN	
Height Minimum, Maximum	2		8	
Density Average	122		PLA/m2	
Density Min, Max	96		172	
<b>Pest 3 Code, Type, Scale</b>	ECHCG	W	ECHCG	W BBCH
Stage Majority, Percent	18		80	
Stage Minimum, Percent	14		10	
Stage Maximum, Percent	19		10	
Height Average	4		IN	
Height Minimum, Maximum	2		6	
Density Average	43		PLA/m2	
Density Min, Max	28		64	
<b>Pest 4 Code, Type, Scale</b>	ABUTH	W	ABUTH	W BBCH
Stage Majority, Percent	15		90	
Stage Minimum, Percent	14		10	
Stage Maximum, Percent	15		90	
Height Average	4		IN	
Height Minimum, Maximum	2		8	
Density Average	2		PLA/m2	
Density Min, Max	0		8	
<b>Pest 5 Code, Type, Scale</b>	CHEAL	W	CHEAL	W BBCH
Stage Majority, Percent	16		80	
Stage Minimum, Percent	16		80	
Stage Maximum, Percent	19		10	
Height Average	4		IN	
Height Minimum, Maximum	2		8	
Density Average	6		PLA/m2	
Density Min, Max	0		16	
<b>Pest 6 Code, Type, Scale</b>	AMARE	W	AMARE	W BBCH
Stage Majority, Percent	16		80	
Stage Minimum, Percent	16		80	
Stage Maximum, Percent	19		10	
Height Average	4		IN	
Height Minimum, Maximum	2		6	
Density Average	22		PLA/m2	
Density Min, Max	0		60	
<b>Pest 7 Code, Type, Scale</b>	IPOHE	W	IPOHE	W
Density Average	2		PLA/m2	
Density Min, Max	0		8	
<b>Pest 8 Code, Type, Scale</b>	SOLPT	W	SOLPT	W
Density Average	3		PLA/m2	
Density Min, Max	0		4	

### Application Equipment

	A		B	
<b>Appl. Equipment</b>	6' TTI		10' TTI	
<b>Equipment Type</b>	BACCAI		BACCAI	
<b>Operation Pressure</b>	44 PSI		44 PSI	
<b>Nozzle Type</b>	TTI		TTI	
<b>Nozzle Size</b>	1110015		110015	
<b>Nozzle Spacing</b>	18 IN		18 IN	
<b>Boom Length</b>	6.67 FT		10 FT	
<b>Boom Height</b>	20 IN		20 IN	
<b>Ground Speed</b>	3 MPH		3 MPH	
<b>Carrier</b>	WATER		WATER	
<b>Application Amount</b>	15 GAL/AC		15 GAL/AC	
<b>Mix Size</b>	1 L		2 L	
<b>Propellant</b>	COMCO2		COMCO2	
<b>Tank Mix (Y/N)</b>			Y yes	

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Context	Date	By	Notes
STATUS	Mar-27-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Mar-27-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-14-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.
STATUS	May-28-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.

### Instructions:

**CROPS:** RR2 Xtend Soybeans

● The soybean seeds used in this trial should contain the Roundup Ready 2 Xtend (tolerant to dicamba and glyphosate) trait

**TARGETS:** Gly-R, PPO-R, Multiple-R, or difficult to control dicot weeds and annual grass weeds, AMBTR, AMBEL, IPOSS, ABUTH, XANST, AMATA, AMAPA

### CRITICAL PROTOCOL TASKS:

- This protocol is for medium textured soils - loam, silt loam, silt (organic matter generally < 3%)
- Start with a clean weed-free seedbed before making the preemergence application.
- If the scientist has the ability to irrigate and an activating rainfall is not received within 7 days of application please apply 0.5" of irrigation water.

### Data requirements include:

- **Crop:** At all applications – growth stage (BBCH) and height. At establishment - variety, attributes (including AI traits), and planting date, method, rate, equipment, depth, and row spacing  
 - Including date of crop emergence in the Crop Description section of ARM
- **Pest – Weed:** growth stage range (BBCH or number of leaves) and height required at each application, density, attributes (identify AI resistance), natural/artificial population
- **Application Time Weather:** beginning/ending temps (air and soil), %RH, wind details; wet leaves (Y/N); soil moisture; cloud cover.
- **Applications via Liquids:** spray volume, nozzle/type and screens, spray pressure, ground speed, boom height, carrier, propellant
- **Soil:** sand:silt:clay, %OM, pH, CEC, and soil texture
- **Trial Rainfall and Irrigation:** overall moisture conditions, closest weather station, and rainfall/irrigation data from planting until four (4) weeks after application, including first activating rainfall/Irrigation date and amount following each application

### EXPERIMENTAL DESIGN AND PLOT DIMENSIONS:

- RCBD, four (4) replications, minimum suggested plot size of 10 x 30 ft, treating at least the center 5 ft of each plot  
 Nozzles: Nozzle selection is at the discretion of the scientist
- Spray volume = minimum of 15 GPA  
 Application codes/Timing:
- Application A: PRE - Trial should be weed-free at planting
- Application B: POST - application to weeds when they reach 2 to 4" in PRE treatment #4 or V4 soybean but no later than 45 days after planting

### FORMULATION OBSERVATIONS:

- Please inform the Syngenta contact if any abnormal characteristics, such as excessive settling, separation, nozzle clogging due to particulate matter, etc. are observed with the A23372A formulation by e-mail or phone.

### MAINTENANCE DETAILS:

- No other residual herbicides should be applied to the trial site. If a burndown treatment is needed it should be applied across the entire trial site including the checks and running checks and should not contain any residual herbicide components.

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### **ASSESSMENT TIMING SUMMARY:**

Assessment at the following dates:

- EVALUATION 1:** 7 +/- 1 day after emergence - PHYGEN
- EVALUATION 2:** 21 +/-2 days days after emergence - PHYGEN, WEED CONTROL and PHOTOS (see below)
- EVALUATION 3:** 14 d (+/-3) after post application - PHYGEN and CONTROL
- EVALUATION 4:** 28 d (+/-3) after post application - PHYGEN and CONTROL
- EVALUATION 5:** At Harvest or Maturity - CONTROL and PHOTOS (see below)

Yield (BU/A) - OPTIONAL:

**EVALUATION 6:** Soybean yield at maturity in bu/A.

**PHOTOS:** If interesting results are visible, please take pictures of treatments that exhibit differences. Select a representative replication at an appropriate assessment time.

### **ASSESSMENT DETAILS:**

\*Use "SE" files attached to the protocol to help standardize evaluations

**PHYGEN, General Phytotoxicity** (%/Plot), (ZUSX001): Visually assess crop injury (%) due to the treatment (ignoring any environmental stress affect) at the time of the assessment. PHYGEN represents an overall phytotoxicity assessment and could include necrosis, chlorosis, stunting, epinasty, etc. PHYGEN ratings range from 0 to 100%, with the untreated check (or running check) representing 0% PHYGEN and complete death representing 100% PHYGEN. Compare the treated crop to the untreated check (or running checks) in each replicate. If no phytotoxicity is observed, record data as zeroes in ARM for each requested assessment date. Describe any symptomology in the conclusions section.

**WEED CONTROL** (%/Plot), (ZUSW001): Visually assess % weed control due to the treatment for each weed species independently. Identify genus and species of each weed. Document known resistant types in the pest description tab in the Attributes field even if only a small percentage is resistant. Compare the treated plots to the untreated check (or running check) within each replicate to determine % weed control. Ratings range from 100% being complete control and 0% representing weed populations/growth similar to what is observed in the untreated check. Only assess species present at a sufficient density/consistency for reliable ratings.

**PHOTOS:** Take photos of any relevant plots showing good control along with a photo of check and a competitive standard at that same time. Photos should be compiled by the Syngenta trial manager (including photos from cooperators), labeled, and saved in the "G" drive folder named "2020-Herbicide-PRT-Photos". Instructions for photo taking and labeling can be found on the "Bioteam Image Capture Instructions.docx" and "2020 Syngenta Field Trial Photo Instructions - Plot.docx" file in that folder. Save your photos under the pertinent subfolder for the protocol and create a subfolder for the trial manager name.

**REPORT DATA BY:** 10/09/2020

### **OTHER NOTES:**

### **CROP DESTRUCT:**

Plots, and/or harvested material from plots, from this trial must be destroyed to ensure that no plant material enters the food or feed system. Any exception can only be granted, in writing, from Syngenta Crop Protection.

### **DESIGN CODES:**

A23372A = SMOC/MTZ/ Cloransulam Premix

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Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	AMARE	ABUTH
Pest Scientific Name		Setaria faberi	Ambrosia trifida	Amaranthus retrofractus	Abutilon theophrasti
Pest Name		Giant foxtail	Giant ragweed	Redroot pigweed	velvetleaf
Crop Type, Code	C GLXMA				
BBCH Scale	BSOY				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	Jun-3-2020	Jun-3-2020	Jun-3-2020	Jun-3-2020	Jun-3-2020
Rating Type	PHYMAL	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-22-2020	Jun-9-2020	Jun-9-2020	Jun-9-2020	Jun-9-2020
Days After First/Last Applic.	21 21	21 21	21 21	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	9 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
1	UTC					0 -	0 d	0 c	0 b	0 b
2	Roundup Powermax	1.13 lb ae/a	32 oz/a		B	0 -	0 d	0 c	0 b	0 b
	2 Xtendimax	0.5 lb ae/a	22 oz/a		B					
	2 Select Max	0.07 lb ai/a	9 oz/a		B					
	2 Induce	0.25 % v/v	0.25 % v/v		B					
	2 In-Place	0.25 % v/v	0.25 % v/v		B					
3	Roundup Powermax	1.13 lb ae/a	32 oz/a		B	0 -	0 d	0 c	0 b	0 b
	3 Xtendimax	0.5 lb ae/a	22 oz/a		B					
	3 Perpetuo	0.108 lb ai/a	6 oz/a		B					
	3 Select Max	0.07 lb ai/a	9 oz/a		B					
	3 Induce	0.25 % v/v	0.25 % v/v		B					
	3 In-Place	0.25 % v/v	0.25 % v/v		B					
4	Fierce EZ	0.143 lb ai/a	6 oz/a		A	0 -	98 ab	50 a	100 a	100 a
	4 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
	4 Xtendimax	0.5 lb ae/a	22 oz/a		B					
	4 Select Max	0.07 lb ai/a	9 oz/a		B					
	4 Induce	0.25 % v/v	0.25 % v/v		B					
	4 In-Place	0.25 % v/v	0.25 % v/v		B					
5	Fierce MTZ	0.33 lb ai/a	1 pt/a		A	0 -	100 a	50 a	100 a	100 a
	5 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
	5 Xtendimax	0.5 lb ae/a	22 oz/a		B					
	5 Select Max	0.07 lb ai/a	9 oz/a		B					
	5 Induce	0.25 % v/v	0.25 % v/v		B					
	5 In-Place	0.25 % v/v	0.25 % v/v		B					
6	Authority MTZ	0.31 lb ai/a	11 oz/a		A	0 -	78 c	30 b	100 a	100 a
	6 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
	6 Xtendimax	0.5 lb ae/a	22 oz/a		B					
	6 Select Max	0.07 lb ai/a	9 oz/a		B					
	6 Induce	0.25 % v/v	0.25 % v/v		B					
	6 In-Place	0.25 % v/v	0.25 % v/v		B					
7	Zidua Pro	0.192 lb ai/a	6 oz/a		A	0 -	95 b	63 a	100 a	100 a
	7 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
	7 Xtendimax	0.5 lb ae/a	22 oz/a		B					
	7 Select Max	0.07 lb ai/a	9 oz/a		B					
	7 Induce	0.25 % v/v	0.25 % v/v		B					
	7 In-Place	0.25 % v/v	0.25 % v/v		B					

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Pest Code		SETFA	AMBTR	AMARE	ABUTH
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Amaranthus ret>	Abutilon theop>
Pest Name		Giant foxtail	Giant ragweed	Redroot pigweed	velvetleaf
Crop Type, Code	C GLXMA				
BBCH Scale	BSOY				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
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Rating Type	PHYMAL	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-22-202	Jun-9-2020	Jun-9-2020	Jun-9-2020	Jun-9-2020
Days After First/Last Applic.	21 21	21 21	21 21	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	9 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	1*	2*	3*	4*	5*
8	Fierce EZ	0.143 lb	ai/a	6 oz/a		A	0 -	100 a	50 a	100 a	100 a
8	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
8	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
8	Perpetuo	0.108 lb	ai/a	6 oz/a		B					
8	Select Max	0.07 lb	ai/a	9 oz/a		B					
8	Induce	0.25 %	v/v	0.25 %	v/v	B					
8	In-Place	0.25 %	v/v	0.25 %	v/v	B					
9	Fierce MTZ	0.33 lb	ai/a	1 pt/a		A	0 -	100 a	65 a	100 a	100 a
9	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
9	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
9	Perpetuo	0.108 lb	ai/a	6 oz/a		B					
9	Select Max	0.07 lb	ai/a	9 oz/a		B					
9	Induce	0.25 %	v/v	0.25 %	v/v	B					
9	In-Place	0.25 %	v/v	0.25 %	v/v	B					
10	Fierce XLT	0.156 lb	ai/a	4 oz/a		A	0 -	100 a	68 a	100 a	100 a
10	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
10	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
10	Select Max	0.07 lb	ai/a	9 oz/a		B					
10	Induce	0.25 %	v/v	0.25 %	v/v	B					
10	In-Place	0.25 %	v/v	0.25 %	v/v	B					
LSD	P=.05							5.4	18.9		
Standard Deviation		0.0		3.8				13.0		0.0	0.0
CV		0.0		5.6				34.73		0.0	0.0
Grand Mean		0.0		67.0				37.5		70.0	70.0
Levene's F		0.00		3.658				1.905		0.00	0.00
Levene's Prob(F)		.		0.003*				0.09		.	.
Rank X2		.		.				.		.	.
P(Rank X2)		.		.				.		.	.
Skewness		.		-0.828*				-0.2059		-0.9073*	-0.9073*
Kurtosis		.		-1.2958				-1.6802*		-1.2416	-1.2416
Replicate F		0.000		2.395				2.103		0.000	0.000
Replicate Prob(F)		1.0000		0.0903				0.1233		1.0000	1.0000
Treatment F		0.000		619.733				18.406		0.000	0.000
Treatment Prob(F)		1.0000		0.0001				0.0001		1.0000	1.0000

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Pest Code	CHEAL	SETFA	ECHCG	AMBTR	AMARE
Pest Scientific Name	Chenopodium al>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Amaranthus ret>
Pest Name	common lambsqu>	Giant foxtail	Common barnyar>	Giant ragweed	Redroot pigweed
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-3-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-9-2020	Jul-2-2020	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	21 21	42 42	42 42	42 42	42 42
Trt-Eval Interval	21 DA-A	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Plant-Eval Interval	21 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1
Days After Emergence	9 DE-1	30 DE-1	30 DE-1	30 DE-1	30 DE-1
Number of Decimals	0	0	0	0	0

Trt Treatment	Rate	Unit	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*	
1 UTC							0 b	0 c	0 b	0 d	0 c
2 Roundup Powermax	1.13 lb	ae/a	32 oz/a		B		0 b	0 c	0 b	0 d	0 c
2 Xtendimax	0.5 lb	ae/a	22 oz/a		B						
2 Select Max	0.07 lb	ai/a	9 oz/a		B						
2 Induce	0.25 %	v/v	0.25 % v/v		B						
2 In-Place	0.25 %	v/v	0.25 % v/v		B						
3 Roundup Powermax	1.13 lb	ae/a	32 oz/a		B		0 b	0 c	0 b	0 d	0 c
3 Xtendimax	0.5 lb	ae/a	22 oz/a		B						
3 Perpetuo	0.108 lb	ai/a	6 oz/a		B						
3 Select Max	0.07 lb	ai/a	9 oz/a		B						
3 Induce	0.25 %	v/v	0.25 % v/v		B						
3 In-Place	0.25 %	v/v	0.25 % v/v		B						
4 Fierce EZ	0.143 lb	ai/a	6 oz/a		A	100 a	74 a	80 a	35 abc	100 a	
4 Roundup Powermax	1.13 lb	ae/a	32 oz/a		B						
4 Xtendimax	0.5 lb	ae/a	22 oz/a		B						
4 Select Max	0.07 lb	ai/a	9 oz/a		B						
4 Induce	0.25 %	v/v	0.25 % v/v		B						
4 In-Place	0.25 %	v/v	0.25 % v/v		B						
5 Fierce MTZ	0.33 lb	ai/a	1 pt/a		A	100 a	79 a	81 a	33 abc	100 a	
5 Roundup Powermax	1.13 lb	ae/a	32 oz/a		B						
5 Xtendimax	0.5 lb	ae/a	22 oz/a		B						
5 Select Max	0.07 lb	ai/a	9 oz/a		B						
5 Induce	0.25 %	v/v	0.25 % v/v		B						
5 In-Place	0.25 %	v/v	0.25 % v/v		B						
6 Authority MTZ	0.31 lb	ai/a	11 oz/a		A	100 a	59 b	71 a	25 c	100 a	
6 Roundup Powermax	1.13 lb	ae/a	32 oz/a		B						
6 Xtendimax	0.5 lb	ae/a	22 oz/a		B						
6 Select Max	0.07 lb	ai/a	9 oz/a		B						
6 Induce	0.25 %	v/v	0.25 % v/v		B						
6 In-Place	0.25 %	v/v	0.25 % v/v		B						
7 Zidua Pro	0.192 lb	ai/a	6 oz/a		A	100 a	75 a	78 a	46 ab	100 a	
7 Roundup Powermax	1.13 lb	ae/a	32 oz/a		B						
7 Xtendimax	0.5 lb	ae/a	22 oz/a		B						
7 Select Max	0.07 lb	ai/a	9 oz/a		B						
7 Induce	0.25 %	v/v	0.25 % v/v		B						
7 In-Place	0.25 %	v/v	0.25 % v/v		B						



# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTTRRXCT  
 Protocol ID: 20VALENTTRRXCT  
 Project ID:

Location: Trial Year: 2020  
 Investigator: Dr. Mark M. Loux  
 Study Director:  
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	SETFA	ECHCG	AMBTR	AMARE
Pest Scientific Name	Chenopodium al>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Amaranthus ret>
Pest Name	common lambsqu>	Giant foxtail	Common barnyar>	Giant ragweed	Redroot pigweed
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-3-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-9-2020	Jul-2-2020	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	21 21	42 42	42 42	42 42	42 42
Trt-Eval Interval	21 DA-A	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Plant-Eval Interval	21 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1
Days After Emergence	9 DE-1	30 DE-1	30 DE-1	30 DE-1	30 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Unit	Code	6*	7*	8*	9*	10*
8	Fierce EZ	0.143 lb ai/a	6 oz/a		A		100 a	74 a	74 a	30 bc	100 a
8	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
8	Xtendimax	0.5 lb ae/a	22 oz/a		B						
8	Perpetuo	0.108 lb ai/a	6 oz/a		B						
8	Select Max	0.07 lb ai/a	9 oz/a		B						
8	Induce	0.25 % v/v	0.25 % v/v		B						
8	In-Place	0.25 % v/v	0.25 % v/v		B						
9	Fierce MTZ	0.33 lb ai/a	1 pt/a		A		100 a	79 a	78 a	38 abc	95 b
9	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
9	Xtendimax	0.5 lb ae/a	22 oz/a		B						
9	Perpetuo	0.108 lb ai/a	6 oz/a		B						
9	Select Max	0.07 lb ai/a	9 oz/a		B						
9	Induce	0.25 % v/v	0.25 % v/v		B						
9	In-Place	0.25 % v/v	0.25 % v/v		B						
10	Fierce XLT	0.156 lb ai/a	4 oz/a		A		100 a	78 a	74 a	50 a	100 a
10	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
10	Xtendimax	0.5 lb ae/a	22 oz/a		B						
10	Select Max	0.07 lb ai/a	9 oz/a		B						
10	Induce	0.25 % v/v	0.25 % v/v		B						
10	In-Place	0.25 % v/v	0.25 % v/v		B						
LSD P=.05							.	8.7	14.4	17.9	4.6
Standard Deviation							0.0	6.0	9.9	12.3	3.2
CV							0.0	11.68	18.55	48.04	4.55
Grand Mean							70.0	51.6	53.5	25.6	69.5
Levene's F							0.00	4.319	1.726	3.928	1.00
Levene's Prob(F)							.	0.001*	0.126	0.002*	0.461
Rank X2							.	.	.	.	.
P(Rank X2)							.	.	.	.	.
Skewness							-0.9073*	-0.7517*	-0.7234	0.4747	-0.8935*
Kurtosis							-1.2416	-1.292	-1.3294	-0.8852	-1.2514
Replicate F							0.000	1.255	0.389	5.558	1.000
Replicate Prob(F)							1.0000	0.3096	0.7618	0.0042	0.4079
Treatment F							0.000	143.146	55.697	9.634	921.000
Treatment Prob(F)							1.0000	0.0001	0.0001	0.0001	0.0001

# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTRRXCT  
 Protocol ID: 20VALENTRRXCT  
 Project ID:

Location: Trial Year: 2020  
 Investigator: Dr. Mark M. Loux  
 Study Director:  
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	CHEAL	SETFA	ECHCG	AMBTR
Pest Scientific Name	Abutilon theop>	Chenopodium al>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>
Pest Name	velvetleaf	common lambsqu>	foxtail, giant	barnyardgrass	ragweed, giant
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-24-2020	Jun-24-2020	Jul-8-2020	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	42 42	42 42	56 14	56 14	56 14
Trt-Eval Interval	0 DA-B	0 DA-B	14 DA-B	14 DA-B	14 DA-B
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	30 DE-1	30 DE-1	44 DE-1	44 DE-1	44 DE-1
Number of Decimals	0	0	0	0	0

Trt Treatment	Rate	Other	Other	Appl	11*	12*	13*	14*	15*
No. Name	Rate	Unit	Rate	Rate	Unit	Code			
1 UTC							0 c	0 b	0 c
2 Roundup Powermax	1.13 lb ae/a		32 oz/a		B		0 c	0 b	92 a
2 Xtendimax	0.5 lb ae/a		22 oz/a		B			100 a	80 ab
2 Select Max	0.07 lb ai/a		9 oz/a		B				
2 Induce	0.25 % v/v		0.25 % v/v		B				
2 In-Place	0.25 % v/v		0.25 % v/v		B				
3 Roundup Powermax	1.13 lb ae/a		32 oz/a		B		0 c	0 b	89 ab
3 Xtendimax	0.5 lb ae/a		22 oz/a		B			100 a	79 ab
3 Perpetuo	0.108 lb ai/a		6 oz/a		B				
3 Select Max	0.07 lb ai/a		9 oz/a		B				
3 Induce	0.25 % v/v		0.25 % v/v		B				
3 In-Place	0.25 % v/v		0.25 % v/v		B				
4 Fierce EZ	0.143 lb ai/a		6 oz/a		A		100 a	100 a	90 ab
4 Roundup Powermax	1.13 lb ae/a		32 oz/a		B				100 a
4 Xtendimax	0.5 lb ae/a		22 oz/a		B				80 ab
4 Select Max	0.07 lb ai/a		9 oz/a		B				
4 Induce	0.25 % v/v		0.25 % v/v		B				
4 In-Place	0.25 % v/v		0.25 % v/v		B				
5 Fierce MTZ	0.33 lb ai/a		1 pt/a		A		100 a	100 a	88 ab
5 Roundup Powermax	1.13 lb ae/a		32 oz/a		B				100 a
5 Xtendimax	0.5 lb ae/a		22 oz/a		B				80 ab
5 Select Max	0.07 lb ai/a		9 oz/a		B				
5 Induce	0.25 % v/v		0.25 % v/v		B				
5 In-Place	0.25 % v/v		0.25 % v/v		B				
6 Authority MTZ	0.31 lb ai/a		11 oz/a		A		100 a	100 a	90 ab
6 Roundup Powermax	1.13 lb ae/a		32 oz/a		B				100 a
6 Xtendimax	0.5 lb ae/a		22 oz/a		B				80 ab
6 Select Max	0.07 lb ai/a		9 oz/a		B				
6 Induce	0.25 % v/v		0.25 % v/v		B				
6 In-Place	0.25 % v/v		0.25 % v/v		B				
7 Zidua Pro	0.192 lb ai/a		6 oz/a		A		99 b	100 a	83 b
7 Roundup Powermax	1.13 lb ae/a		32 oz/a		B				100 a
7 Xtendimax	0.5 lb ae/a		22 oz/a		B				76 b
7 Select Max	0.07 lb ai/a		9 oz/a		B				
7 Induce	0.25 % v/v		0.25 % v/v		B				
7 In-Place	0.25 % v/v		0.25 % v/v		B				

# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTTRRXCT  
 Protocol ID: 20VALENTTRRXCT  
 Project ID:

Location: Trial Year: 2020  
 Investigator: Dr. Mark M. Loux  
 Study Director:  
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	CHEAL	SETFA	ECHCG	AMBTR
Pest Scientific Name	Abutilon theop>	Chenopodium al>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>
Pest Name	velvetleaf	common lambsqu>	foxtail, giant	barnyardgrass	ragweed, giant
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-24-2020	Jun-24-2020	Jul-8-2020	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	42 42	42 42	56 14	56 14	56 14
Trt-Eval Interval	0 DA-B	0 DA-B	14 DA-B	14 DA-B	14 DA-B
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	30 DE-1	30 DE-1	44 DE-1	44 DE-1	44 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	11*	12*	13*	14*	15*
8	Fierce EZ	0.143 lb ai/a		6 oz/a		A	100 a	100 a	89 ab	100 a	80 ab
8	Roundup Powermax	1.13 lb ae/a		32 oz/a		B					
8	Xtendimax	0.5 lb ae/a		22 oz/a		B					
8	Perpetuo	0.108 lb ai/a		6 oz/a		B					
8	Select Max	0.07 lb ai/a		9 oz/a		B					
8	Induce	0.25 % v/v		0.25 % v/v		B					
8	In-Place	0.25 % v/v		0.25 % v/v		B					
9	Fierce MTZ	0.33 lb ai/a		1 pt/a		A	100 a	100 a	90 ab	100 a	86 a
9	Roundup Powermax	1.13 lb ae/a		32 oz/a		B					
9	Xtendimax	0.5 lb ae/a		22 oz/a		B					
9	Perpetuo	0.108 lb ai/a		6 oz/a		B					
9	Select Max	0.07 lb ai/a		9 oz/a		B					
9	Induce	0.25 % v/v		0.25 % v/v		B					
9	In-Place	0.25 % v/v		0.25 % v/v		B					
10	Fierce XLT	0.156 lb ai/a		4 oz/a		A	100 a	100 a	96 a	100 a	83 ab
10	Roundup Powermax	1.13 lb ae/a		32 oz/a		B					
10	Xtendimax	0.5 lb ae/a		22 oz/a		B					
10	Select Max	0.07 lb ai/a		9 oz/a		B					
10	Induce	0.25 % v/v		0.25 % v/v		B					
10	In-Place	0.25 % v/v		0.25 % v/v		B					
LSD P=.05		1.1							9.5		7.6
Standard Deviation		0.8						0.0	6.5	0.0	5.3
CV		1.13						0.0	8.1	0.0	7.25
Grand Mean		69.9						70.0	80.5	90.0	72.4
Levene's F		1.00						0.00	1.502	0.00	2.95
Levene's Prob(F)		0.461						.	0.192	.	0.012*
Rank X2		.						.	.	.	.
P(Rank X2)		.						.	.	.	.
Skewness		-0.9063*						-0.9073*	-2.5007*	-2.7717*	-2.5535*
Kurtosis		-1.242						-1.2416	5.0415*	5.9791*	5.2278*
Replicate F		1.000						0.000	0.764	0.000	1.050
Replicate Prob(F)		0.4079						1.0000	0.5242	1.0000	0.3864
Treatment F		14881.001						0.000	76.372	0.000	94.783
Treatment Prob(F)		0.0001						1.0000	0.0001	1.0000	0.0001

# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTRRXCT  
 Protocol ID: 20VALENTRRXCT  
 Project ID:

Location: Trial Year: 2020  
 Investigator: Dr. Mark M. Loux  
 Study Director:  
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed
Pest Code	AMARE	ABUTH	CHEAL
Pest Scientific Name	Amaranthus ret>	Abutilon theop>	Chenopodium al>
Pest Name	pigweed, redro>	velvetleaf	lambsquarters,>
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jul-8-2020	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	56 14	56 14	56 14
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-B
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	44 DE-1	44 DE-1	44 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Unit Code	16*	17*	18*
1	UTC						0 b	0 c	0 c
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B	98 a	95 ab	100 b
2	Xtendimax	0.5 lb	ae/a	22 oz/a		B			
2	Select Max	0.07 lb	ai/a	9 oz/a		B			
2	Induce	0.25 %	v/v	0.25 %	v/v	B			
2	In-Place	0.25 %	v/v	0.25 %	v/v	B			
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B	95 a	90 b	100 a
3	Xtendimax	0.5 lb	ae/a	22 oz/a		B			
3	Perpetuo	0.108 lb	ai/a	6 oz/a		B			
3	Select Max	0.07 lb	ai/a	9 oz/a		B			
3	Induce	0.25 %	v/v	0.25 %	v/v	B			
3	In-Place	0.25 %	v/v	0.25 %	v/v	B			
4	Fierce EZ	0.143 lb	ai/a	6 oz/a		A	100 a	99 a	100 a
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B			
4	Xtendimax	0.5 lb	ae/a	22 oz/a		B			
4	Select Max	0.07 lb	ai/a	9 oz/a		B			
4	Induce	0.25 %	v/v	0.25 %	v/v	B			
4	In-Place	0.25 %	v/v	0.25 %	v/v	B			
5	Fierce MTZ	0.33 lb	ai/a	1 pt/a		A	100 a	100 a	100 a
5	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B			
5	Xtendimax	0.5 lb	ae/a	22 oz/a		B			
5	Select Max	0.07 lb	ai/a	9 oz/a		B			
5	Induce	0.25 %	v/v	0.25 %	v/v	B			
5	In-Place	0.25 %	v/v	0.25 %	v/v	B			
6	Authority MTZ	0.31 lb	ai/a	11 oz/a		A	100 a	100 a	100 a
6	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B			
6	Xtendimax	0.5 lb	ae/a	22 oz/a		B			
6	Select Max	0.07 lb	ai/a	9 oz/a		B			
6	Induce	0.25 %	v/v	0.25 %	v/v	B			
6	In-Place	0.25 %	v/v	0.25 %	v/v	B			
7	Zidua Pro	0.192 lb	ai/a	6 oz/a		A	100 a	100 a	100 a
7	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B			
7	Xtendimax	0.5 lb	ae/a	22 oz/a		B			
7	Select Max	0.07 lb	ai/a	9 oz/a		B			
7	Induce	0.25 %	v/v	0.25 %	v/v	B			
7	In-Place	0.25 %	v/v	0.25 %	v/v	B			

# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTTRRXCT  
 Protocol ID: 20VALENTTRRXCT  
 Project ID:

Location: Trial Year: 2020  
 Investigator: Dr. Mark M. Loux  
 Study Director:  
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed
Pest Code	AMARE	ABUTH	CHEAL
Pest Scientific Name	Amaranthus ret>	Abutilon theop>	Chenopodium al>
Pest Name	pigweed, redro>	velvetleaf	lambsquarters.>
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jul-8-2020	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	56 14	56 14	56 14
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-B
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	44 DE-1	44 DE-1	44 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	16*	17*	18*
8	Fierce EZ	0.143 lb ai/a	6 oz/a		A	100 a	100 a	100 a
8	Roundup Powermax	1.13 lb ae/a	32 oz/a		B			
8	Xtendimax	0.5 lb ae/a	22 oz/a		B			
8	Perpetuo	0.108 lb ai/a	6 oz/a		B			
8	Select Max	0.07 lb ai/a	9 oz/a		B			
8	Induce	0.25 % v/v	0.25 % v/v		B			
8	In-Place	0.25 % v/v	0.25 % v/v		B			
9	Fierce MTZ	0.33 lb ai/a	1 pt/a		A	100 a	100 a	100 a
9	Roundup Powermax	1.13 lb ae/a	32 oz/a		B			
9	Xtendimax	0.5 lb ae/a	22 oz/a		B			
9	Perpetuo	0.108 lb ai/a	6 oz/a		B			
9	Select Max	0.07 lb ai/a	9 oz/a		B			
9	Induce	0.25 % v/v	0.25 % v/v		B			
9	In-Place	0.25 % v/v	0.25 % v/v		B			
10	Fierce XLT	0.156 lb ai/a	4 oz/a		A	100 a	99 a	100 a
10	Roundup Powermax	1.13 lb ae/a	32 oz/a		B			
10	Xtendimax	0.5 lb ae/a	22 oz/a		B			
10	Select Max	0.07 lb ai/a	9 oz/a		B			
10	Induce	0.25 % v/v	0.25 % v/v		B			
10	In-Place	0.25 % v/v	0.25 % v/v		B			
LSD P=.05		5.2	6.0					0.5
Standard Deviation		3.6	4.1					0.3
CV		4.02	4.7					0.35
Grand Mean		89.3	88.3					90.0
Levene's F		0.911	11.556					1.00
Levene's Prob(F)		0.529	0.001*					0.461
Rank X2		.	.					.
P(Rank X2)		.	.					.
Skewness		-2.7107*	-2.6456*					-2.7712*
Kurtosis		5.7405*	5.4952*					5.9772*
Replicate F		0.712	2.371					1.000
Replicate Prob(F)		0.5532	0.0926					0.4079
Treatment F		306.496	225.742					39956.560
Treatment Prob(F)		0.0001	0.0001					0.0001

# The Ohio State University

## Valent Actives in a Roundup Ready Xtend System - Conventional Tillage

Trial ID: 20VALENTRRXCT  
Protocol ID: 20VALENTRRXCT  
Project ID:

Location:  
Investigator: Dr. Mark M. Loux  
Study Director:  
Sponsor Contact:  
Trial Year: 2020

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US  
AMBTR, Ambrosia trifida, Giant ragweed = US  
AMARE, Amaranthus retroflexus, Redroot pigweed = US  
ABUTH, Abutilon theophrasti, velvetleaf = US  
CHEAL, Chenopodium album, common lambsquarters = US  
ECHCG, Echinochloa crus-galli, Common barnyard grass = US  
SETFA, Setaria faberi, foxtail, giant = US  
ECHCG, Echinochloa crus-galli, barnyardgrass = US  
AMBTR, Ambrosia trifida, ragweed, giant = US  
AMARE, Amaranthus retroflexus, pigweed, redroot = US  
CHEAL, Chenopodium album, lambsquarters, common = US

Crop Type Code

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

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

21 DP-1 = 1 GLXMA May-13-2020  
42 DP-1 = 1 GLXMA May-13-2020  
56 DP-1 = 1 GLXMA May-13-2020