

The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

General Trial Information

Study Director: Dr. Mark M. Loux
 Investigator: Dr. Mark M. Loux

Discipline: H herbicide
 Trial Status: E established
 Trial Status Date: Apr-23-2020 10:58 AM
 ARM Trial Created On: Mar-26-2020
 Initiation Date: Apr-22-2020
 Last Changed By: Dr. Mark M. Loux
 Trial Usage/Type: 0 Research and Development
 Protocol Revision Number: 1.0 Protocol Revision Date: Mar-26-2020

Trial Location

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

Latitude of LL Corner °: 39.85939 N
 Longitude of LL Corner °: -83.67415 W
 Altitude of LL Corner: 1092.00 FT

Conducted Under GLP: No
 Conducted Under GEP: No

Contacts

Study Director: Dr. Mark M. Loux

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C ZEAMD Zea mays indentata Dent corn BBCH Scale: BCOR
 Entry Date: Apr-23-2020 Stage Scale: BBCH
 Variety: Pioneer P1197AM
 Attributes: Glyphosate and Glufosinate Resistant
 Seed Lot No: B3PLY13085-N
 % Germination: 95
 Planting Rate: 32097 S/A
 Planting Date: Apr-22-2020
 Depth: 2 IN
 Rows per Plot: 4
 Row Spacing: 30 IN
 Soil Temperature: 54 F
 Emergence Date: May-14-2020
 Planting Method: PLANTD planted
 Planting Equipment: FPP finger pickup planter

Pest Description

Pest 1 Type: W Code: SETFA Setaria faberi
 Common Name: foxtail, giant Entry Date: Apr-23-2020
 Pest 2 Type: W Code: AMBTR Ambrosia trifida
 Common Name: ragweed, giant Entry Date: Jul-2-2020
 Pest 3 Type: W Code: CHEAL Chenopodium album
 Common Name: lambsquarters, common Entry Date: Jul-2-2020
 Pest 4 Type: W Code: ABUTH Abutilon theophrasti
 Common Name: velvetleaf Entry Date: Jul-2-2020
 Pest 5 Type: W Code: IPOHE Ipomoea hederacea
 Common Name: ivy-leaf morning glory Entry Date: Jul-2-2020
 Pest 6 Type: W Code: SIDSP Sida spinosa
 Common Name: sida, prickly Entry Date: Jul-9-2020
 Pest 7 Type: W Code: AMARE Amaranthus retroflexus
 Common Name: pigweed, redroot Entry Date: Jul-9-2020

Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 30 FT
 Treated Plot Area: 300 FT² Treatments: 12
 Replications: 4
 Site Type: FIELD field
 Experimental Unit: 1 PLOT plot
 Tillage Type: CONTIL conventional-till
 Study Design: RACOBL Randomized Complete Block (RCB)

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Trial Initiation Comments:

Fall Chisel Plow, spring finishing tool with disc, field cultivator, drag harrow, and rolling basket

Previous

No. Crop Year
 1. GLXMA 2019

Soil Description

Description Name: G-6
% Sand: 32 **% OM:** 2.2 **Texture:** SICL silty clay loam
% Silt: 53 **pH:** 5.9 **Soil Name:** Kokomo
% Clay: 15 **CEC:** 14.8 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date	Apr-22-2020	Jun-9-2020
Appl. Start Time	3:00 PM	8:00 AM
Appl. Stop Time	3:30 PM	8:30 AM
Interval to Prev. Appl.		48 DAYS
Application Method	NONINC	SPRAY
Application Timing	PREPRE	POSPOS
Application Placement	BROSOL	BROFOL
Applied By	Dobbels	Ackley
Appl. Entry Date	Apr-23-2020	Jul-2-2020
Air Temperature Start, Stop	56 57 F	69 69 F
% Relative Humidity Start, Stop	38 38	64 64
Wind Velocity+Dir. Start	7 MPH S	8 MPH ESE
Wind Velocity+Dir. Stop	7 MPH S	8 MPH ESE
Wind Velocity+Dir. Max	7 MPH S	8 MPH ESE
Wet Leaves (Y/N)	N no	N no
Soil Temperature	54 F	68 F
Soil Moisture	NORMAL	DRY
% Cloud Cover	30	15
Next Moisture Occurred On	Apr-23-2020	Jun-9-2020
Time to Next Moisture	20 HR	9.5 HR
Moisture 1 Week after Appl.	1.24 IN	0.37 IN

Crop Stage At Each Application

	A		B	
Crop 1 Code, BBCH Scale	ZEAMD	BCOR	ZEAMD	BCOR
Stage Scale Used			BBCH	
Stage Majority, Percent			15	90
Stage Minimum, Percent			14	10
Stage Maximum, Percent			15	90
Height Average			15	IN
Height Minimum, Maximum			12	16

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	SETFA W	SETFA W BBCH
Stage Majority, Percent	12	90
Stage Minimum, Percent	11	10
Stage Maximum, Percent	12	90
Height Average	3	IN
Height Minimum, Maximum	1	3
Density Average	42	PLA/m2
Density Min, Max	20	80
Pest 2 Code, Type, Scale	AMBTR W	AMBTR W BBCH
Stage Majority, Percent	18	60
Stage Minimum, Percent	12	20
Stage Maximum, Percent	18	60
Height Average	6	IN
Height Minimum, Maximum	1	8
Density Average	16	PLA/m2
Density Min, Max	12	24
Pest 3 Code, Type, Scale	CHEAL W	CHEAL W BBCH
Stage Majority, Percent	14	80
Stage Minimum, Percent	12	10
Stage Maximum, Percent	14	80
Height Average	2	IN
Height Minimum, Maximum	1	2
Density Average	74	PLA/m2
Density Min, Max	48	88
Pest 4 Code, Type, Scale	ABUTH W	ABUTH W BBCH
Stage Majority, Percent	12	100
Height Average	1	IN
Height Minimum, Maximum	0.5	
Density Average	2	PLA/m2
Density Min, Max	0	8
Pest 5 Code, Type, Scale	IPOHE W	IPOHE W BBCH
Stage Majority, Percent	10	90
Stage Minimum, Percent	10	90
Stage Maximum, Percent	12	10
Height Average	1	IN
Height Minimum, Maximum	0.5	1
Density Average	0.25	PLA/m2
Density Min, Max	0	2
Pest 6 Code, Type, Scale	SIDSP W	SIDSP W
Density Average	3	PLA/m2
Density Min, Max	1	5
Pest 7 Code, Type, Scale	AMARE W	AMARE W
Density Average	4	PLA/m2
Density Min, Max	0	12

Application Equipment

	A	B
Appl. Equipment	10 Foot TTI	10' AIXR
Equipment Type	BACCAI	BACCAI
Operation Pressure	44 PSI	44 PSI
Nozzle Type	TTI	AIXR
Nozzle Size	110015	110015
Nozzle Spacing	18 IN	18 IN
Boom Length	10 FT	10 FT
Boom Height	20 IN	20 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Size	2 L	2 L
Propellant	COMCO2	COMCO2

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Pest ID Code	SETFA	AMBTR	CHEAL
Pest Code	SETFA	AMBTR	CHEAL
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Chenopodium album
Pest Name	foxtail, giant	ragweed, giant	lambsquarters, comm>
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jun-8-2020	Jun-8-2020	Jun-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	47 47	47 47	47 47
Trt-Eval Interval	-1 DA-B	-1 DA-B	-1 DA-B
Plant-Eval Interval	47 DP-1	47 DP-1	47 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*
1	UNTREATED CHECK					0 f	0 e	0 d
2	BICEP II MAGNUM	35.3 oz ai/a	1.6 qt/a		A	100 a	60 bc	95 bc
2	AMSOL	2.5 % v/v	2.5 % v/v		B			
2	NIS	0.25 % v/v	0.25 % v/v		B			
2	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
3	LEXAR EZ 3.7 ZC	26.7 oz ai/a	1.8 qt/a		A	100 a	65 ab	100 a
3	AMSOL	2.5 % v/v	2.5 % v/v		B			
3	NIS	0.25 % v/v	0.25 % v/v		B			
3	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
4	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a		A	85 e	63 abc	100 a
4	AMSOL	2.5 % v/v	2.5 % v/v		B			
4	NIS	0.25 % v/v	0.25 % v/v		B			
4	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
5	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	91 cd	58 cd	95 c
5	AMSOL	2.5 % v/v	2.5 % v/v		B			
5	NIS	0.25 % v/v	0.25 % v/v		B			
5	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
6	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	94 bc	60 bc	100 a
6	AMSOL	2.5 % v/v	2.5 % v/v		B			
6	NIS	0.25 % v/v	0.25 % v/v		B			
6	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
7	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a		A	94 bc	63 abc	100 a
7	AMSOL	2.5 % v/v	2.5 % v/v		B			
7	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
7	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 * Adjusted means
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	1 W Weed	2 W Weed	3 W Weed
Pest ID Code	SETFA	AMBTR	CHEAL
Pest Code	SETFA	AMBTR	CHEAL
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Chenopodium album
Pest Name	foxtail, giant	ragweed, giant	lambsquarters, comm>
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jun-8-2020	Jun-8-2020	Jun-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	47 47	47 47	47 47
Trt-Eval Interval	-1 DA-B	-1 DA-B	-1 DA-B
Plant-Eval Interval	47 DP-1	47 DP-1	47 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	1*	2*	3*
8	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a	A	96 abc	53 d	95 c
8	AMSOL	2.5 % v/v	2.5 % v/v	B			
8	LAUDIS 3.5 SC	1.31 oz ai/a	3 fl oz/a	B			
8	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a	B			
8	SUPERB HC	0.5 % v/v	0.5 % v/v	B			
9	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a	A	99 ab	69 a	100 ab
9	AMSOL	2.5 % v/v	2.5 % v/v	B			
9	ARMEZON PRO	13.4 oz ai/a	20 fl oz/a	B			
9	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a	B			
10	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a	A	86 de	68 a	100 a
10	AMSOL	2.5 % v/v	2.5 % v/v	B			
10	DIFLEXX DUO 1.53 SC	6.1 oz ai/a	32 fl oz/a	B			
10	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a	B			
11	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a	A	88 de	66 ab	100 a
11	AMSOL	2.5 % v/v	2.5 % v/v	B			
11	HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a	B			
11	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a	B			

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Pest ID Code	1 W Weed	2 W Weed	3 W Weed
Pest Code	SETFA	AMBTR	CHEAL
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Chenopodium album
Pest Name	foxtail, giant	ragweed, giant	lambsquarters, comm>
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jun-8-2020	Jun-8-2020	Jun-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	47 47	47 47	47 47
Trt-Eval Interval	-1 DA-B	-1 DA-B	-1 DA-B
Plant-Eval Interval	47 DP-1	47 DP-1	47 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	1*	2*	3*
12 BALANCE FLEXX 2 SC	1 oz ai/a	4 fl oz/a	A	84 e	65 ab	100 a
12 AMSOL	2.5 % v/v	2.5 % v/v	B			
12 HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a	B			
12 ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a	B			
LSD P=.05				6.1	7.0	4.6
Standard Deviation				4.3	4.9	3.2
CV				5.05	8.47	3.58
Grand Mean				84.6	57.3	90.3
Levene's F				3.063	0.916	4.237
Levene's Prob(F)				0.005*	0.536	0.001*
Rank X2				.	.	.
P(Rank X2)				.	.	.
Skewness				-2.7652*	-2.3627*	-3.0252*
Kurtosis				6.6665*	5.1692*	7.6532*
Replicate F				1.685	9.702	0.802
Replicate Prob(F)				0.1892	0.0001	0.5016
Treatment F				163.045	58.818	312.450
Treatment Prob(F)				0.0001	0.0001	0.0001

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Pest ID Code	4 W Weed	1 W Weed	1 W Weed
Pest Code	ABUTH	SETFA	SETFA
Pest Scientific Name	Abutilon theophrasti	Setaria faberi	Setaria faberi
Pest Name	velvetleaf	foxtail, giant	foxtail, giant
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jun-8-2020	Jun-16-2020	Jul-8-2020
SE Name	ZUSW001	ZUSX001	ZUSW001
SE Description	%CONTROL	%PHYTO-GENERAL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT P
Rating Type	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020
Days After First/Last Applic.	47 47	55 7	77 29
Trt-Eval Interval	-1 DA-B	7 DA-B	29 DA-B
Plant-Eval Interval	47 DP-1	55 DP-1	77 DP-1
Days After Emergence	25 DE-1	33 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	4*	5*	6*
1	UNTREATED CHECK						0 c	0 c	0 d
2	BICEP II MAGNUM	35.3 oz ai/a	1.6 qt/a			A	94 b	0 c	95 a
2	AMSOL	2.5 % v/v	2.5 % v/v			B			
2	NIS	0.25 % v/v	0.25 % v/v			B			
2	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
3	LEXAR EZ 3.7 ZC	26.7 oz ai/a	1.8 qt/a			A	100 a	0 c	95 a
3	AMSOL	2.5 % v/v	2.5 % v/v			B			
3	NIS	0.25 % v/v	0.25 % v/v			B			
3	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
4	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a			A	98 ab	0 c	88 abc
4	AMSOL	2.5 % v/v	2.5 % v/v			B			
4	NIS	0.25 % v/v	0.25 % v/v			B			
4	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
5	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a			A	96 ab	0 c	94 a
5	AMSOL	2.5 % v/v	2.5 % v/v			B			
5	NIS	0.25 % v/v	0.25 % v/v			B			
5	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
6	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a			A	98 ab	0 c	93 a
6	AMSOL	2.5 % v/v	2.5 % v/v			B			
6	NIS	0.25 % v/v	0.25 % v/v			B			
6	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
7	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a			A	100 a	0 c	90 ab
7	AMSOL	2.5 % v/v	2.5 % v/v			B			
7	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a			B			
7	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a			B			

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Pest Name	velvetleaf	foxtail, giant	
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jun-8-2020	Jun-16-2020	Jul-8-2020
SE Name	ZUSW001	ZUSX001	ZUSW001
SE Description	%CONTROL	%PHYTO-GENERAL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT P
Rating Type	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
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Number of Subsamples	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020
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Trt-Eval Interval	-1 DA-B	7 DA-B	29 DA-B
Plant-Eval Interval	47 DP-1	55 DP-1	77 DP-1
Days After Emergence	25 DE-1	33 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	4*	5*	6*
8	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a	A	94 b	0 c	80 c
8	AMSOL	2.5 % v/v	2.5 % v/v	B			
8	LAUDIS 3.5 SC	1.31 oz ai/a	3 fl oz/a	B			
8	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a	B			
8	SUPERB HC	0.5 % v/v	0.5 % v/v	B			
9	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a	A	98 ab	0 c	86 abc
9	AMSOL	2.5 % v/v	2.5 % v/v	B			
9	ARMEZON PRO	13.4 oz ai/a	20 fl oz/a	B			
9	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a	B			
10	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a	A	99 a	0 c	80 c
10	AMSOL	2.5 % v/v	2.5 % v/v	B			
10	DIFLEXX DUO 1.53 SC	6.1 oz ai/a	32 fl oz/a	B			
10	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a	B			
11	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a	A	100 a	2 b	83 bc
11	AMSOL	2.5 % v/v	2.5 % v/v	B			
11	HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a	B			
11	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a	B			

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
 Could not calculate LSD (% mean diff) for columns 8,14 because error mean square = 0.

The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HB1008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

Pest ID Code	4 W Weed		1 W Weed
Pest Code	ABUTH		SETFA
Pest Scientific Name	Abutilon theophrasti		Setaria faberi
Pest Name	velvetleaf		foxtail, giant
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jun-8-2020	Jun-16-2020	Jul-8-2020
SE Name	ZUSW001	ZUSX001	ZUSW001
SE Description	%CONTROL	%PHYTO-GENERAL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT P
Rating Type	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020
Days After First/Last Applic.	47 47	55 7	77 29
Trt-Eval Interval	-1 DA-B	7 DA-B	29 DA-B
Plant-Eval Interval	47 DP-1	55 DP-1	77 DP-1
Days After Emergence	25 DE-1	33 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other	Other	Appl	4*	5*	6*
		Rate Unit	Rate	Rate	Unit Code			
12	BALANCE FLEXX 2 SC	1 oz ai/a	4 fl oz/a		A	100 a	6 a	94 a
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			
LSD P=.05						4.9	0.7	9.5
Standard Deviation						3.4	0.5	6.6
CV						3.77	72.3	8.11
Grand Mean						89.5	0.7	81.3
Levene's F						1.454	1.059	1.353
Levene's Prob(F)						0.192	0.419	0.237
Rank X2						.	.	.
P(Rank X2)						.	.	.
Skewness						-2.9975*	2.8855*	-2.4849*
Kurtosis						7.5364*	8.2168*	5.6418*
Replicate F						6.173	2.630	7.907
Replicate Prob(F)						0.0019	0.0664	0.0004
Treatment F						281.333	49.761	63.198
Treatment Prob(F)						0.0001	0.0001	0.0001

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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

	2 W Weed	3 W Weed	4 W Weed
Pest ID Code	2 W Weed	3 W Weed	4 W Weed
Pest Code	AMBTR	CHEAL	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters, comm>	velvetleaf
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jul-8-2020	Jul-8-2020	Jul-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	77 29	77 29	77 29
Trt-Eval Interval	29 DA-B	29 DA-B	29 DA-B
Plant-Eval Interval	77 DP-1	77 DP-1	77 DP-1
Days After Emergence	55 DE-1	55 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	7*	8*	9*
1	UNTREATED CHECK						0 d	0 b	0 c
2	BICEP II MAGNUM	35.3 oz ai/a	1.6 qt/a			A	75 bc	100 a	100 a
2	AMSOL	2.5 % v/v	2.5 % v/v			B			
2	NIS	0.25 % v/v	0.25 % v/v			B			
2	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
3	LEXAR EZ 3.7 ZC	26.7 oz ai/a	1.8 qt/a			A	79 abc	100 a	100 a
3	AMSOL	2.5 % v/v	2.5 % v/v			B			
3	NIS	0.25 % v/v	0.25 % v/v			B			
3	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
4	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a			A	75 bc	100 a	100 a
4	AMSOL	2.5 % v/v	2.5 % v/v			B			
4	NIS	0.25 % v/v	0.25 % v/v			B			
4	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
5	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a			A	78 abc	100 a	100 a
5	AMSOL	2.5 % v/v	2.5 % v/v			B			
5	NIS	0.25 % v/v	0.25 % v/v			B			
5	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
6	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a			A	71 c	100 a	98 ab
6	AMSOL	2.5 % v/v	2.5 % v/v			B			
6	NIS	0.25 % v/v	0.25 % v/v			B			
6	ACURON GT	32.3 oz ai/a	3.75 pt/a			B			
7	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a			A	80 ab	100 a	100 a
7	AMSOL	2.5 % v/v	2.5 % v/v			B			
7	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a			B			
7	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a			B			

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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

	2 W Weed	3 W Weed	4 W Weed
Pest ID Code	2 W Weed	3 W Weed	4 W Weed
Pest Code	AMBTR	CHEAL	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters, comm>	velvetleaf
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jul-8-2020	Jul-8-2020	Jul-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	77 29	77 29	77 29
Trt-Eval Interval	29 DA-B	29 DA-B	29 DA-B
Plant-Eval Interval	77 DP-1	77 DP-1	77 DP-1
Days After Emergence	55 DE-1	55 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other	Other	Appl	7*	8*	9*
		Rate Unit	Rate	Rate Unit	Code			
8	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	80 ab	100 a	96 ab
8	AMSOL	2.5 % v/v	2.5 % v/v		B			
8	LAUDIS 3.5 SC	1.31 oz ai/a	3 fl oz/a		B			
8	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			
8	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
9	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	74 bc	100 a	93 b
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ARMEZON PRO	13.4 oz ai/a	20 fl oz/a		B			
9	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			
10	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	84 a	100 a	95 ab
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	DIFLEXX DUO 1.53 SC	6.1 oz ai/a	32 fl oz/a		B			
10	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			
11	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	74 bc	100 a	96 ab
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
11	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			

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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

	6 W Weed	5 W Weed	1 W Weed
Pest ID Code	SIDSP	IPOHE	SETFA
Pest Code	Sida spinosa	Ipomoea hederacea	Setaria faberi
Pest Scientific Name	sida, prickly ivy-leaf morning gl>		foxtail, giant
Pest Name	1 ZEAMD	1 ZEAMD	1 ZEAMD
Crop ID Code	BCOR	BCOR	BCOR
BBCH Scale	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Scientific Name			
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jul-8-2020	Jul-8-2020	Aug-5-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020	Aug-10-2020
Days After First/Last Applic.	77 29	77 29	105 57
Trt-Eval Interval	29 DA-B	29 DA-B	57 DA-B
Plant-Eval Interval	77 DP-1	77 DP-1	105 DP-1
Days After Emergence	55 DE-1	55 DE-1	83 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	10*	11*	12*
1	UNTREATED CHECK					0 c	0 c	0 d
2	BICEP II MAGNUM	35.3 oz ai/a	1.6 qt/a		A	95 ab	85 ab	89 ab
2	AMSOL	2.5 % v/v	2.5 % v/v		B			
2	NIS	0.25 % v/v	0.25 % v/v		B			
2	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
3	LEXAR EZ 3.7 ZC	26.7 oz ai/a	1.8 qt/a		A	98 ab	91 ab	83 abc
3	AMSOL	2.5 % v/v	2.5 % v/v		B			
3	NIS	0.25 % v/v	0.25 % v/v		B			
3	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
4	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a		A	95 ab	94 a	83 abc
4	AMSOL	2.5 % v/v	2.5 % v/v		B			
4	NIS	0.25 % v/v	0.25 % v/v		B			
4	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
5	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	90 b	88 ab	90 a
5	AMSOL	2.5 % v/v	2.5 % v/v		B			
5	NIS	0.25 % v/v	0.25 % v/v		B			
5	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
6	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	99 ab	91 ab	81 abc
6	AMSOL	2.5 % v/v	2.5 % v/v		B			
6	NIS	0.25 % v/v	0.25 % v/v		B			
6	ACURON GT	32.3 oz ai/a	3.75 pt/a		B			
7	SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a		A	100 a	90 ab	86 abc
7	AMSOL	2.5 % v/v	2.5 % v/v		B			
7	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
7	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			

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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

	6 W Weed	5 W Weed	1 W Weed
Pest ID Code	SIDSP	IPOHE	SETFA
Pest Code	Sida spinosa	Ipomoea hederacea	Setaria faberi
Pest Scientific Name	sida, prickly ivy-leaf morning gl>		foxtail, giant
Pest Name	1 ZEAMD	1 ZEAMD	1 ZEAMD
Crop ID Code	BCOR	BCOR	BCOR
BBCH Scale	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Scientific Name	Dent corn	Dent corn	Dent corn
Crop Name	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Crop Variety	Jul-8-2020	Jul-8-2020	Aug-5-2020
Rating Date	ZUSW001	ZUSW001	ZUSW001
SE Name	%CONTROL	%CONTROL	%CONTROL
SE Description	PLANT -	PLANT -	PLANT P
Part Rated	CONTRO	CONTRO	CONTRO
Rating Type	%	%	%
Rating Unit	NC	NC	NC
Calculation	1 PLOT	1 PLOT	1 PLOT
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1	1	1
Number of Subsamples	Jul-9-2020	Jul-9-2020	Aug-10-2020
Data Entry Date	77 29	77 29	105 57
Days After First/Last Applic.	29 DA-B	29 DA-B	57 DA-B
Trt-Eval Interval	77 DP-1	77 DP-1	105 DP-1
Plant-Eval Interval	55 DE-1	55 DE-1	83 DE-1
Days After Emergence	0	0	0
Number of Decimals			

Trt No.	Treatment Name	Rate	Other	Other	Appl	10*	11*	12*
		Rate Unit	Rate	Rate Unit	Code			
8	HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	100 a	94 a	78 bc
8	AMSOL	2.5 % v/v	2.5 % v/v		B			
8	LAUDIS 3.5 SC	1.31 oz ai/a	3 fl oz/a		B			
8	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			
8	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
9	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	94 ab	88 ab	85 abc
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ARMEZON PRO	13.4 oz ai/a	20 fl oz/a		B			
9	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			
10	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	95 ab	89 ab	76 c
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	DIFLEXX DUO 1.53 SC	6.1 oz ai/a	32 fl oz/a		B			
10	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			
11	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	100 a	93 ab	80 abc
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
11	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			

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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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HB1008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

Pest ID Code	6 W Weed	5 W Weed	1 W Weed
Pest Code	SIDSP	IPOHE	SETFA
Pest Scientific Name	Sida spinosa	Ipomoea hederacea	Setaria faberi
Pest Name	sida, prickly	ivy-leaf morning gl>	foxtail, giant
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Jul-8-2020	Jul-8-2020	Aug-5-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020	Aug-10-2020
Days After First/Last Applic.	77 29	77 29	105 57
Trt-Eval Interval	29 DA-B	29 DA-B	57 DA-B
Plant-Eval Interval	77 DP-1	77 DP-1	105 DP-1
Days After Emergence	55 DE-1	55 DE-1	83 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other	Other	Appl	10*	11*	12*
		Rate Unit	Rate	Rate	Unit Code			
12	BALANCE FLEXX 2 SC	1 oz ai/a	4 fl oz/a		A	96 ab	84 b	86 abc
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			
LSD	P=.05					9.1	9.9	11.7
	Standard Deviation					6.3	6.9	8.1
	CV					7.18	8.41	10.66
	Grand Mean					88.4	82.0	76.4
	Levene's F					0.512	0.635	1.999
	Levene's Prob(F)					0.882	0.787	0.058
	Rank X2					.	.	.
	P(Rank X2)					.	.	.
	Skewness					-2.7127*	-2.3353*	-2.4495*
	Kurtosis					6.2129*	5.0179*	5.6481*
	Replicate F					12.422	21.911	2.417
	Replicate Prob(F)					0.0001	0.0001	0.0839
	Treatment F					77.898	56.878	35.948
	Treatment Prob(F)					0.0001	0.0001	0.0001

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
 Could not calculate LSD (% mean diff) for columns 8,14 because error mean square = 0.

The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

	2 W Weed	3 W Weed	4 W Weed
Pest ID Code	2 W Weed	3 W Weed	4 W Weed
Pest Code	AMBTR	CHEAL	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters, comm>	velvetleaf
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Aug-5-2020	Aug-5-2020	Aug-5-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Aug-10-2020	Aug-10-2020	Aug-10-2020
Days After First/Last Applic.	105 57	105 57	105 57
Trt-Eval Interval	57 DA-B	57 DA-B	57 DA-B
Plant-Eval Interval	105 DP-1	105 DP-1	105 DP-1
Days After Emergence	83 DE-1	83 DE-1	83 DE-1
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	13*	14*	15*
1 UNTREATED CHECK				0 d	0 b	0 c
2 BICEP II MAGNUM	35.3 oz ai/a	1.6 qt/a	A	74 c	100 a	100 a
2 AMSOL	2.5 % v/v	2.5 % v/v	B			
2 NIS	0.25 % v/v	0.25 % v/v	B			
2 ACURON GT	32.3 oz ai/a	3.75 pt/a	B			
3 LEXAR EZ 3.7 ZC	26.7 oz ai/a	1.8 qt/a	A	80 abc	100 a	100 a
3 AMSOL	2.5 % v/v	2.5 % v/v	B			
3 NIS	0.25 % v/v	0.25 % v/v	B			
3 ACURON GT	32.3 oz ai/a	3.75 pt/a	B			
4 SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a	A	78 bc	100 a	100 a
4 AMSOL	2.5 % v/v	2.5 % v/v	B			
4 NIS	0.25 % v/v	0.25 % v/v	B			
4 ACURON GT	32.3 oz ai/a	3.75 pt/a	B			
5 HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a	A	76 bc	100 a	100 a
5 AMSOL	2.5 % v/v	2.5 % v/v	B			
5 NIS	0.25 % v/v	0.25 % v/v	B			
5 ACURON GT	32.3 oz ai/a	3.75 pt/a	B			
6 VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a	A	74 c	100 a	98 a
6 AMSOL	2.5 % v/v	2.5 % v/v	B			
6 NIS	0.25 % v/v	0.25 % v/v	B			
6 ACURON GT	32.3 oz ai/a	3.75 pt/a	B			
7 SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a	A	88 a	100 a	100 a
7 AMSOL	2.5 % v/v	2.5 % v/v	B			
7 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a	B			
7 ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a	B			

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
 Could not calculate LSD (% mean diff) for columns 8,14 because error mean square = 0.

The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

	2 W Weed	3 W Weed	4 W Weed
Pest ID Code	AMBTR	CHEAL	ABUTH
Pest Code	AMBTR	CHEAL	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters, comm>	velvetleaf
Crop ID Code	1 ZEAMD	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Aug-5-2020	Aug-5-2020	Aug-5-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Aug-10-2020	Aug-10-2020	Aug-10-2020
Days After First/Last Applic.	105 57	105 57	105 57
Trt-Eval Interval	57 DA-B	57 DA-B	57 DA-B
Plant-Eval Interval	105 DP-1	105 DP-1	105 DP-1
Days After Emergence	83 DE-1	83 DE-1	83 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	13*	14*	15*
8	HARNESX XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	76 bc	100 a	98 a
8	AMSOL	2.5 % v/v	2.5 % v/v		B			
8	LAUDIS 3.5 SC	1.31 oz ai/a	3 fl oz/a		B			
8	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			
8	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
9	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	74 c	100 a	90 b
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ARMEZON PRO	13.4 oz ai/a	20 fl oz/a		B			
9	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B			
10	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	84 ab	100 a	100 a
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	DIFLEXX DUO 1.53 SC	6.1 oz ai/a	32 fl oz/a		B			
10	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			
11	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	74 c	100 a	96 ab
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	HARNESX MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
11	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B			

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
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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

Pest ID Code	6 W Weed	5 W Weed
Pest Code	SIDSP	IPOHE
Pest Scientific Name	Sida spinosa	Ipomoea hederacea
Pest Name	sida, prickly ivy-leaf morning gl>	
Crop ID Code	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Aug-5-2020	Aug-5-2020
SE Name	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Calculation	NC	NC
Sample Size	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Data Entry Date	Aug-10-2020	Aug-10-2020
Days After First/Last Applic.	105 57	105 57
Trt-Eval Interval	57 DA-B	57 DA-B
Plant-Eval Interval	105 DP-1	105 DP-1
Days After Emergence	83 DE-1	83 DE-1
Number of Decimals	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	16*	17*
1 UNTREATED CHECK					0 c	0 c
2 BICEP II MAGNUM	35.3 oz ai/a	1.6 qt/a		A	94 ab	91 ab
2 AMSOL	2.5 % v/v	2.5 % v/v		B		
2 NIS	0.25 % v/v	0.25 % v/v		B		
2 ACURON GT	32.3 oz ai/a	3.75 pt/a		B		
3 LEXAR EZ 3.7 ZC	26.7 oz ai/a	1.8 qt/a		A	96 ab	91 ab
3 AMSOL	2.5 % v/v	2.5 % v/v		B		
3 NIS	0.25 % v/v	0.25 % v/v		B		
3 ACURON GT	32.3 oz ai/a	3.75 pt/a		B		
4 SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a		A	89 b	84 ab
4 AMSOL	2.5 % v/v	2.5 % v/v		B		
4 NIS	0.25 % v/v	0.25 % v/v		B		
4 ACURON GT	32.3 oz ai/a	3.75 pt/a		B		
5 HARNESS XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	89 b	86 ab
5 AMSOL	2.5 % v/v	2.5 % v/v		B		
5 NIS	0.25 % v/v	0.25 % v/v		B		
5 ACURON GT	32.3 oz ai/a	3.75 pt/a		B		
6 VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	96 ab	84 ab
6 AMSOL	2.5 % v/v	2.5 % v/v		B		
6 NIS	0.25 % v/v	0.25 % v/v		B		
6 ACURON GT	32.3 oz ai/a	3.75 pt/a		B		
7 SURESTART II 4.25 SC	14.8 oz ai/a	1.75 pt/a		A	100 a	88 ab
7 AMSOL	2.5 % v/v	2.5 % v/v		B		
7 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B		
7 ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B		

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
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The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

Pest ID Code	6 W Weed	5 W Weed
Pest Code	SIDSP	IPOHE
Pest Scientific Name	Sida spinosa	Ipomoea hederacea
Pest Name	sida, prickly ivy-leaf morning gl>	
Crop ID Code	1 ZEAMD	1 ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indentata	Zea mays indentata
Crop Name	Dent corn	Dent corn
Crop Variety	Pioneer P1197AM	Pioneer P1197AM
Rating Date	Aug-5-2020	Aug-5-2020
SE Name	ZUSW001	ZUSW001
SE Description	%CONTROL	%CONTROL
Part Rated	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Calculation	NC	NC
Sample Size	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Data Entry Date	Aug-10-2020	Aug-10-2020
Days After First/Last Applic.	105 57	105 57
Trt-Eval Interval	57 DA-B	57 DA-B
Plant-Eval Interval	105 DP-1	105 DP-1
Days After Emergence	83 DE-1	83 DE-1
Number of Decimals	0	0

Trt No.	Treatment Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	16*	17*
8	HARNESX XTRA 5.6L	40.4 oz ai/a	1.8 qt/a		A	91 ab	80 b
8	AMSOL	2.5 % v/v	2.5 % v/v		B		
8	LAUDIS 3.5 SC	1.31 oz ai/a	3 fl oz/a		B		
8	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B		
8	SUPERB HC	0.5 % v/v	0.5 % v/v		B		
9	VERDICT 5.57 EC	9.7 oz ai/a	14 fl oz/a		A	88 b	85 ab
9	AMSOL	2.5 % v/v	2.5 % v/v		B		
9	ARMEZON PRO	13.4 oz ai/a	20 fl oz/a		B		
9	ROUNDUP POWERMAX 5.5 SL	18.3 oz ai/a	26.6 fl oz/a		B		
10	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	93 ab	90 ab
10	AMSOL	2.5 % v/v	2.5 % v/v		B		
10	DIFLEXX DUO 1.53 SC	6.1 oz ai/a	32 fl oz/a		B		
10	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B		
11	CORVUS 2.63 SC	1.1 oz ai/a	3.33 fl oz/a		A	93 ab	94 a
11	AMSOL	2.5 % v/v	2.5 % v/v		B		
11	HARNESX MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B		
11	ROUNDUP POWERMAX 5.5 SL	18.3 oz ae/a	26.6 fl oz/a		B		

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
 Could not calculate LSD (% mean diff) for columns 8,14 because error mean square = 0.

The Ohio State University

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: 20ACURONGT Location: Trial Year: 2020
 Protocol ID: HBI008A4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director:
 Conducted Under GEP: No Sponsor Contact:
 Trial Origin:

Pest ID Code

1, W, Weed, SETFA, Setaria faberi, foxtail, giant, = 1, W, Weed, SETFA, Setaria faberi, foxtail, giant,
 2, W, Weed, AMBTR, Ambrosia trifida, ragweed, giant, = 2, W, Weed, AMBTR, Ambrosia trifida, ragweed, giant,
 3, W, Weed, CHEAL, Chenopodium album, lambsquarters, common, = 3, W, Weed, CHEAL, Chenopodium album, lambsquarters, common,
 4, W, Weed, ABUTH, Abutilon theophrasti, velvetleaf, = 4, W, Weed, ABUTH, Abutilon theophrasti, velvetleaf,
 6, W, Weed, SIDSP, Sida spinosa, sida, prickly, = 6, W, Weed, SIDSP, Sida spinosa, sida, prickly,
 5, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory, = 5, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory,

Crop ID Code

1, ZEAMD, BCOR, Zea mays indentata, Dent corn, Pioneer P1197AM = Glyphosate and Glufosinate Resistant

Part Rated

PLANT = plant
 P = Pest is Part Rated

Rating Type

CONTRO = control / burndown or knockdown
 PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Calculation

NC = no calculation

PLOT = total plot

PLOT = total plot

PLOT = total plot

Plant-Eval Interval

47 DP-1 = 1 ZEAMD Apr-22-2020
 55 DP-1 = 1 ZEAMD Apr-22-2020
 77 DP-1 = 1 ZEAMD Apr-22-2020
 105 DP-1 = 1 ZEAMD Apr-22-2020