

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR

Location:

Trial Year: 2020

Protocol ID: HB1002B4-2020US

Investigator: Dr. Mark M. Loux

Master Protocol ID:

Study Director: Dr. Mark M. Loux

Sponsor Contact: Dain Bruns, Syngenta

Conducted Under GEP: No

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 10:40 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 Charleston **Country:** USA United States

State/Prov.: Ohio

Postal Code: 45368

Latitude of LL Corner °: 39.85935 N

Longitude of LL Corner °: -83.6739 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

Seed Source: Pioneer

% Germination: 95

Planting Rate: 32097 S/A

Planting Date: Apr-22-2020

Depth: 2 IN

Planting Method: PLANTD planted

Rows per Plot: 4

Planting Equipment: FPP finger pickup planter

Row Spacing: 30 IN

Seed Bed: MEDIUM medium

Soil Moisture: NORMAL normal, adequate

Soil Temperature: 54 F

Emergence Date: May-14-2020

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*

Common Name: foxtail, giant

Entry Date: Jun-9-2020

Pest 2 Type: W **Code:** AMBTR *Ambrosia trifida*

Common Name: ragweed, giant

Entry Date: Jun-9-2020

Pest 3 Type: W **Code:** CHEAL *Chenopodium album*

Common Name: lambsquarters, common

Entry Date: Jun-9-2020

Pest 4 Type: W **Code:** POLPE *Polygonum persicaria*

Common Name: ladythumb

Entry Date: Jun-22-2020

Pest 5 Type: W **Code:** AMARE *Amaranthus retroflexus*

Common Name: pigweed, redroot

Entry Date: Jun-22-2020

Pest 6 Type: W **Code:** ABUTH *Abutilon theophrasti*

Common Name: velvetleaf

Entry Date: Jun-22-2020

Pest 7 Type: W **Code:** IPOHE *Ipomoea hederacea*

Common Name: ivy-leaf morning glory

Entry Date: Jun-22-2020

Site and Design

Treated Plot Width: 10 FT

Site Type: FIELD field

Treated Plot Length: 30 FT

Experimental Unit: 1 PLOT plot

Treated Plot Area: 300 FT² **Treatments:** 14

Tillage Type: CONTIL conventional-till

Replications: 4

Study Design: RACOB� Randomized Complete Block (RCB)

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Trial ID: 20ACURONXR	Location:	Trial Year: 2020
Protocol ID: HBI002B4-2020US	Investigator: Dr. Mark M. Loux	Study Director: Dr. Mark M. Loux
Master Protocol ID:	Sponsor Contact: Dain Bruns, Syngenta	Trial Origin:

Conducted Under GEP: No

Pest Stage At Each Application

	A		B	
	SETFA	W BBCH	SETFA	W BBCH
Pest 1 Code, Type, Scale				
Stage Majority, Percent			12	80
Stage Minimum, Percent			11	10
Stage Maximum, Percent			13	10
Height Average			3	IN
Height Minimum, Maximum			1	3
Density Average			76	PLA/m2
Density Min, Max			28	136
Pest 2 Code, Type, Scale	AMBTR	W	AMBTR	W
Stage Majority, Percent			18	80
Stage Minimum, Percent			12	10
Stage Maximum, Percent			21	10
Height Average			6	IN
Height Minimum, Maximum			1	8
Density Average			8	PLA/m2
Density Min, Max			4	12
Pest 3 Code, Type, Scale	CHEAL	W	CHEAL	W
Stage Majority, Percent			14	80
Stage Minimum, Percent			12	20
Stage Maximum, Percent			14	80
Height Average			1.5	IN
Height Minimum, Maximum			1	2
Density Average			113	PLA/m2
Density Min, Max			16	172
Pest 4 Code, Type, Scale	POLPE	W	POLPE	W
Density Average			53	PLA/m2
Density Min, Max			0	192
Pest 5 Code, Type, Scale	AMARE	W	AMARE	W
Density Average			3	PLA/m2
Density Min, Max			0	12
Pest 6 Code, Type, Scale	ABUTH	W	ABUTH	W
Density Average			5	PLA/m2
Density Min, Max			0	20
Pest 7 Code, Type, Scale	IPOHE	W	IPOHE	W
Density Average			1	PLA/m2
Density Min, Max			0	8

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	

Context	Date	By	Notes
STATUS	Mar-26-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Apr-23-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.

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Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code		1 W Weed	2 W Weed
Pest Code		SETFA	AMBTR
Pest Scientific Name		Setaria faberi	Ambrosia trifida
Pest Name		foxtail, giant	ragweed, 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-8-2020	Jun-8-2020
SE Name	ZUSX001	ZUSW001	ZUSW001
SE Description	%PHYTO-GENERAL	%Control	%Control
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	PHYGEN	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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020
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 -	0 f	0 c
2	ACURON XR	42.5 oz ai/a	3 qt/a		A	0 -	100 a	75 a
3	ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	0 -	99 ab	64 ab
4	RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	0 -	85 bcd	66 ab
5	HARNES MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	0 -	85 bcd	69 ab
6	SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	0 -	86 a-d	60 b
7	CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	0 -	91 a-d	73 ab
8	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	0 -	94 abc	71 ab
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		A	0 -	96 abc	66 ab
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	0 -	98 abc	68 ab
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	0 -	65 e	64 ab
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 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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 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	1 W Weed	2 W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	foxtail, giant	ragweed, giant
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	Jun-8-2020	Jun-8-2020
SE Name	ZUSX001	ZUSW001
SE Description	%PHYTO-GENERAL	%Control
Part Rated	PLANT -	PLANT -
Rating Type	PHYGEN	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
Assessed By	Lamb	Lamb
Data Entry Date	Jun-22-2020	Jun-22-2020
Days After First/Last Applic.	47 47	47 47
Trt-Eval Interval	-1 DA-B	-1 DA-B
Plant-Eval Interval	47 DP-1	47 DP-1
Days After Emergence	25 DE-1	25 DE-1
Number of Decimals	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Rate Rate Unit	Other Rate Rate Unit	Appl Unit Code	1*	2*	3*
12 HARNESS MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a	35 fl oz/a	A	0 -	78 de	63 ab
12 AMSOL	2.5 % v/v	2.5 % v/v	2.5 % v/v	B			
12 HARNESS MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a	40 fl oz/a	B			
12 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	22 fl oz/a	B			
13 VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a	15 fl oz/a	A	0 -	90 a-d	68 ab
13 AMSOL	2.5 % v/v	2.5 % v/v	2.5 % v/v	B			
13 STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a	3 oz wt/a	B			
13 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	22 fl oz/a	B			
14 CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a	3.3 fl oz/a	A	0 -	84 cd	65 ab
14 AMSOL	2.5 % v/v	2.5 % v/v	2.5 % v/v	B			
14 CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a	3 fl oz/a	B			
14 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	22 fl oz/a	B			
14 SUPERB HC	0.5 % v/v	0.5 % v/v	0.5 % v/v	B			
LSD P=.05						14.8	13.4
Standard Deviation					0.0	10.4	9.3
CV					0.0	12.64	15.04
Grand Mean					0.0	82.1	62.1
Levene's F					0.00	1.596	1.139
Levene's Prob(F)					.	0.125	0.356
Rank X2					.	.	.
P(Rank X2)					.	.	.
Skewness					.	-2.2294*	-2.3874*
Kurtosis					.	4.665*	5.0307*
Replicate F					0.000	1.012	3.446
Replicate Prob(F)					1.0000	0.3977	0.0257
Treatment F					0.000	24.007	15.383
Treatment Prob(F)					1.0000	0.0001	0.0001

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 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

	3 W Weed	4 W Weed	6 W Weed
Pest ID Code	CHEAL	POLPE	ABUTH
Pest Code	CHEAL	POLPE	ABUTH
Pest Scientific Name	Chenopodium album	Polygonum persicaria	Abutilon theophrasti
Pest Name	lambsquarters, comm>	ladysthumb	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	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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020
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	4*	5*	6*
1	UNTREATED CHECK					0 c	0 c	0 c
2	ACURON XR	42.5 oz ai/a	3 qt/a		A	100 a	100 a	100 a
3	ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	100 a	100 a	100 a
4	RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	100 a	100 a	100 a
5	HARNESSEX MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	100 a	100 a	100 a
6	SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	100 a	100 a	100 a
7	CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	100 a	100 a	95 b
8	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	98 b	100 a	100 a
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		A	100 a	100 a	100 a
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	100 a	100 a	100 a
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	100 a	100 a	100 a
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			

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 Trial Origin:

Conducted Under GEP: No

	3 W Weed	4 W Weed	6 W Weed
Pest ID Code	CHEAL	POLPE	ABUTH
Pest Code	CHEAL	POLPE	ABUTH
Pest Scientific Name	Chenopodium album	Polygonum persicaria	Abutilon theophrasti
Pest Name	lambsquarters, comm>	ladysthumb	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	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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020
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	4*	5*	6*
12	HARNESSEX MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a		A	100 a	100 a	100 a
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNESSEX MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
13	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	99 ab	99 b	100 a
13	AMSOL	2.5 % v/v	2.5 % v/v		B			
13	STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a		B			
13	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a		A	100 a	100 a	100 a
14	AMSOL	2.5 % v/v	2.5 % v/v		B			
14	CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a		B			
14	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
LSD	P=.05					1.4	1.0	3.8
	Standard Deviation					1.0	0.7	2.7
	CV					1.08	0.72	2.89
	Grand Mean					92.6	92.8	92.5
	Levene's F					4.692	1.00	1.00
	Levene's Prob(F)					0.001*	0.468	0.468
	Rank X2					.	.	.
	P(Rank X2)					.	.	.
	Skewness					-3.4094*	-3.4167*	-3.3657*
	Kurtosis					10.0082*	10.0408*	9.7832*
	Replicate F					1.644	1.000	1.000
	Replicate Prob(F)					0.1950	0.4031	0.4031
	Treatment F					2854.518	6388.693	397.923
	Treatment Prob(F)					0.0001	0.0001	0.0001

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* Adjusted means

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 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	7 W Weed	1 W Weed	1 W Weed
Pest Code	IPOHE	SETFA	SETFA
Pest Scientific Name	Ipomoea hederacea	Setaria faberi	Setaria faberi
Pest Name	ivy-leaf morning gl>	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	Jun-24-2020
SE Name	ZUSW001	ZUSW001	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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jun-22-2020	Jun-22-2020	Jul-2-2020
Days After First/Last Applic.	47 47	55 7	63 15
Trt-Eval Interval	-1 DA-B	7 DA-B	15 DA-B
Plant-Eval Interval	47 DP-1	55 DP-1	63 DP-1
Days After Emergence	25 DE-1	33 DE-1	41 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 c	0 b	0 e
2	ACURON XR	42.5 oz ai/a	3 qt/a		A	96 a	0 b	93 ab
3	ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	96 a	0 b	78 c
4	RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	95 a	0 b	63 d
5	HARNESS MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	96 a	0 b	58 d
6	SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	94 a	0 b	66 d
7	CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	93 ab	0 b	60 d
8	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	95 a	0 b	66 d
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		A	76 b	2 a	100 a
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	90 ab	1 b	100 a
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	88 ab	1 b	86 bc
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	7 W Weed	1 W Weed	1 W Weed
Pest Code	IPOHE	SETFA	SETFA
Pest Scientific Name	Ipomoea hederacea	Setaria faberi	Setaria faberi
Pest Name	ivy-leaf morning gl>	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	Jun-24-2020
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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jun-22-2020	Jun-22-2020	Jul-2-2020
Days After First/Last Applic.	47 47	55 7	63 15
Trt-Eval Interval	-1 DA-B	7 DA-B	15 DA-B
Plant-Eval Interval	47 DP-1	55 DP-1	63 DP-1
Days After Emergence	25 DE-1	33 DE-1	41 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	7*	8*	9*
12	HARNESSEX MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a		A	88 ab	2 a	100 a
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNESSEX MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
13	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	89 ab	0 b	96 a
13	AMSOL	2.5 % v/v	2.5 % v/v		B			
13	STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a		B			
13	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a		A	100 a	0 b	96 a
14	AMSOL	2.5 % v/v	2.5 % v/v		B			
14	CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a		B			
14	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
LSD P=.05						16.7	1.0	8.9
Standard Deviation						11.7	0.7	6.2
CV						13.72	225.95	8.21
Grand Mean						85.4	0.3	75.8
Levene's F						1.024	4.421	2.325
Levene's Prob(F)						0.448	0.001*	0.02*
Rank X2						.	.	.
P(Rank X2)						.	.	.
Skewness						-2.3782*	3.5448*	-1.4687*
Kurtosis						4.8281*	14.2684*	2.1459*
Replicate F						9.089	1.851	0.719
Replicate Prob(F)						0.0001	0.1540	0.5469
Treatment F						18.598	3.021	76.864
Treatment Prob(F)						0.0001	0.0038	0.0001

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 * Adjusted means
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The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	2 W Weed	3 W Weed	6 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	Jun-24-2020	Jun-24-2020	Jun-24-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%Control	%Control	%Control
Part Rated	PLANT P	PLANT P	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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	63 15	63 15	63 15
Trt-Eval Interval	15 DA-B	15 DA-B	15 DA-B
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	41 DE-1	41 DE-1	41 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 g	0 c	0 c
2	ACURON XR	42.5 oz ai/a	3 qt/a		A	75 ab	100 a	100 a
3	ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	58 cd	96 a	100 a
4	RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	48 def	95 a	100 a
5	HARNES MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	40 ef	100 a	100 a
6	SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	35 f	99 a	100 a
7	CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	53 de	100 a	100 a
8	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	53 de	79 b	95 b
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		A	89 a	100 a	100 a
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	76 ab	100 a	100 a
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	84 ab	100 a	100 a
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			

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The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

	2 W Weed	3 W Weed	6 W Weed
Pest ID Code	2 W Weed	3 W Weed	6 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	Jun-24-2020	Jun-24-2020	Jun-24-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%Control	%Control	%Control
Part Rated	PLANT P	PLANT P	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
Assessed By	Lamb	Lamb	Lamb
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-2-2020
Days After First/Last Applic.	63 15	63 15	63 15
Trt-Eval Interval	15 DA-B	15 DA-B	15 DA-B
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	41 DE-1	41 DE-1	41 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	10*	11*	12*
12	HARNES MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a		A	70 bc	100 a	100 a
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNES MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
13	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	78 ab	100 a	100 a
13	AMSOL	2.5 % v/v	2.5 % v/v		B			
13	STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a		B			
13	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a		A	76 ab	100 a	100 a
14	AMSOL	2.5 % v/v	2.5 % v/v		B			
14	CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a		B			
14	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
LSD P=.05						15.2	7.2	2.7
Standard Deviation						10.6	5.0	1.9
CV						17.9	5.53	2.07
Grand Mean						59.5	90.6	92.5
Levene's F						2.059	1.244	3.825
Levene's Prob(F)						0.039*	0.284	0.001*
Rank X2						.	.	.
P(Rank X2)						-1.0209*	-3.0567*	-3.3845*
Skewness						0.3727	8.2321*	9.8853*
Kurtosis								
Replicate F						1.266	1.676	0.861
Replicate Prob(F)						0.2994	0.1879	0.4696
Treatment F						20.217	113.419	771.866
Treatment Prob(F)						0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
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 * Adjusted means
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The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	4 W Weed	7 W Weed	1 W Weed
Pest Code	POLPE	IPOHE	SETFA
Pest Scientific Name	Polygonum persicaria	Ipomoea hederacea	Setaria faberi
Pest Name	ladysthumb	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	Jun-24-2020	Jun-24-2020	Jul-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%Control	%Control	%Control
Part Rated	PLANT P	PLANT P	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
Assessed By	Lamb	Lamb	
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020
Days After First/Last Applic.	63 15	63 15	77 29
Trt-Eval Interval	15 DA-B	15 DA-B	
Plant-Eval Interval	63 DP-1	63 DP-1	77 DP-1
Days After Emergence	41 DE-1	41 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	13*	14*	15*
1	UNTREATED CHECK					0 b	0 c	0 g
2	ACURON XR	42.5 oz ai/a	3 qt/a		A	100 a	90 a	88 c
3	ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	100 a	89 a	78 de
4	RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	100 a	95 a	68 f
5	HARNES MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	100 a	84 ab	69 f
6	SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	100 a	98 a	71 ef
7	CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	100 a	71 b	73 ef
8	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	100 a	85 ab	73 ef
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		A	100 a	88 a	97 ab
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	100 a	93 a	98 a
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	100 a	94 a	90 bc
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
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The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	4 W Weed	7 W Weed	1 W Weed
Pest Code	POLPE	IPOHE	SETFA
Pest Scientific Name	Polygonum persicaria	Ipomoea hederacea	Setaria faberi
Pest Name	ladysthumb	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	Jun-24-2020	Jun-24-2020	Jul-8-2020
SE Name	ZUSW001	ZUSW001	ZUSW001
SE Description	%Control	%Control	%Control
Part Rated	PLANT P	PLANT P	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
Assessed By	Lamb	Lamb	
Data Entry Date	Jul-2-2020	Jul-2-2020	Jul-9-2020
Days After First/Last Applic.	63 15	63 15	77 29
Trt-Eval Interval	15 DA-B	15 DA-B	
Plant-Eval Interval	63 DP-1	63 DP-1	77 DP-1
Days After Emergence	41 DE-1	41 DE-1	55 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	13*	14*	15*
12	HARNESSEX MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a		A	100 a	84 ab	96 ab
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNESSEX MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
13	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	100 a	94 a	93 abc
13	AMSOL	2.5 % v/v	2.5 % v/v		B			
13	STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a		B			
13	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a		A	100 a	94 a	85 cd
14	AMSOL	2.5 % v/v	2.5 % v/v		B			
14	CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a		B			
14	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
LSD P=.05							14.0	7.5
Standard Deviation						0.0	9.8	5.3
CV						0.0	11.89	6.85
Grand Mean						92.9	82.6	76.8
Levene's F						0.00	1.139	1.315
Levene's Prob(F)						.	0.356	0.243
Rank X2						.	.	.
P(Rank X2)						.	.	.
Skewness						-3.4205*	-2.317*	-2.1498*
Kurtosis						10.0581*	5.2302*	4.9009*
Replicate F						0.000	5.872	1.758
Replicate Prob(F)						1.0000	0.0021	0.1712
Treatment F						0.000	25.297	88.146
Treatment Prob(F)						1.0000	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
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The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

	2 W Weed	3 W Weed	6 W Weed
Pest ID Code	2 W Weed	3 W Weed	6 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
Assessed By			
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			
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	16*	17*	18*
1	UNTREATED CHECK					0 g	0 d	0 c
2	ACURON XR	42.5 oz ai/a	3 qt/a		A	76 bc	100 a	100 a
3	ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	68 d	100 a	100 a
4	RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	59 ef	100 a	100 a
5	HARNES MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	59 ef	100 a	100 a
6	SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	53 f	98 ab	100 a
7	CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	63 de	100 a	100 a
8	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	56 ef	86 c	100 a
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		A	84 a	100 a	100 a
9	AMSOL	2.5 % v/v	2.5 % v/v		B			
9	ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	80 abc	100 a	100 a
10	AMSOL	2.5 % v/v	2.5 % v/v		B			
10	ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	83 ab	100 a	100 a
11	AMSOL	2.5 % v/v	2.5 % v/v		B			
11	RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

	2 W Weed	3 W Weed	6 W Weed
Pest ID Code	2 W Weed	3 W Weed	6 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
Assessed By			
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			
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	16*	17*	18*
12	HARNES MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a		A	75 c	100 a	100 a
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNES MAX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
13	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	86 a	95 b	100 a
13	AMSOL	2.5 % v/v	2.5 % v/v		B			
13	STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a		B			
13	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a		A	81 abc	100 a	100 b
14	AMSOL	2.5 % v/v	2.5 % v/v		B			
14	CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a		B			
14	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
LSD	P=.05					7.3	4.5	0.4
Standard Deviation						5.1	3.1	0.3
CV						7.74	3.41	0.29
Grand Mean						65.8	91.3	92.8
Levene's F						1.006	3.012	1.00
Levene's Prob(F)						0.463	0.003*	0.468
Rank X2						.	.	.
P(Rank X2)						.	.	.
Skewness						-1.8526*	-3.2486*	-3.4199*
Kurtosis						3.6553*	9.2337*	10.0553*
Replicate F						0.247	2.256	1.000
Replicate Prob(F)						0.8633	0.0971	0.4031
Treatment F						75.463	291.021	39970.235
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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	4 W Weed	7 W Weed	1 W Weed
Pest Code	POLPE	IPOHE	SETFA
Pest Scientific Name	Polygonum persicaria	Ipomoea hederacea	Setaria faberi
Pest Name	ladysthumb	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	Jul-22-2020
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
Assessed By			
Data Entry Date	Jul-9-2020	Jul-9-2020	Jul-27-2020
Days After First/Last Applic.	77 29	77 29	91 43
Trt-Eval Interval			
Plant-Eval Interval	77 DP-1	77 DP-1	91 DP-1
Days After Emergence	55 DE-1	55 DE-1	69 DE-1
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate	Appl Unit Code	19*	20*	21*
1 UNTREATED CHECK					0 b	0 c	0 f
2 ACURON XR	42.5 oz ai/a	3 qt/a		A	100 a	88 ab	84 cd
3 ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a		A	100 a	89 ab	74 de
4 RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a		A	100 a	93 a	66 e
5 HARNESS MAX 3.85 SC	36 oz ai/a	75 fl oz/a		A	100 a	90 ab	73 e
6 SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a		A	100 a	88 ab	69 e
7 CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a		A	100 a	79 b	64 e
8 VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	100 a	89 ab	71 e
9 ACURON XR	21.3 oz ai/a	1.5 qt/a		A	100 a	81 ab	95 ab
9 AMSOL	2.5 % v/v	2.5 % v/v		B			
9 ACURON XR	21.3 oz ai/a	1.5 qt/a		B			
9 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
10 ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		A	100 a	85 ab	98 a
10 AMSOL	2.5 % v/v	2.5 % v/v		B			
10 ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a		B			
10 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
11 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		A	100 a	85 ab	90 abc
11 AMSOL	2.5 % v/v	2.5 % v/v		B			
11 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a		B			
11 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	4 W Weed	7 W Weed	1 W Weed
Pest Code	POLPE	IPOHE	SETFA
Pest Scientific Name	Polygonum persicaria	Ipomoea hederacea	Setaria faberi
Pest Name	ladysthumb	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	Jul-22-2020
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
Assessed By			
Data Entry Date	Jul-9-2020	Jul-9-2020	Jul-27-2020
Days After First/Last Applic.	77 29	77 29	91 43
Trt-Eval Interval			
Plant-Eval Interval	77 DP-1	77 DP-1	91 DP-1
Days After Emergence	55 DE-1	55 DE-1	69 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	19*	20*	21*
12	HARNESSEX 3.85 SC	16.8 oz ai/a	35 fl oz/a		A	100 a	93 a	97 a
12	AMSOL	2.5 % v/v	2.5 % v/v		B			
12	HARNESSEX 3.85 SC	19.3 oz ai/a	40 fl oz/a		B			
12	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
13	VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a		A	100 a	83 ab	94 abc
13	AMSOL	2.5 % v/v	2.5 % v/v		B			
13	STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a		B			
13	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a		A	100 a	89 ab	85 bc
14	AMSOL	2.5 % v/v	2.5 % v/v		B			
14	CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a		B			
14	ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a		B			
14	SUPERB HC	0.5 % v/v	0.5 % v/v		B			
LSD P=.05							11.8	10.1
Standard Deviation						0.0	8.3	7.1
CV						0.0	10.26	9.37
Grand Mean						92.9	80.6	75.6
Levene's F						0.00	2.792	1.008
Levene's Prob(F)						.	0.006*	0.461
Rank X2						.	.	.
P(Rank X2)						.	.	.
Skewness						-3.4205*	-2.365*	-1.8905*
Kurtosis						10.0581*	5.715*	3.9166*
Replicate F						0.000	14.384	1.727
Replicate Prob(F)						1.0000	0.0001	0.1772
Treatment F						0.000	32.430	49.243
Treatment Prob(F)						1.0000	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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

	2 W Weed	3 W Weed	4 W Weed
Pest ID Code	AMBTR	CHEAL	POLPE
Pest Code	AMBTR	CHEAL	POLPE
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Polygonum persicaria
Pest Name	ragweed, giant	lambsquarters, comm>	ladysthumb
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-22-2020	Jul-22-2020	Jul-22-2020
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
Assessed By			
Data Entry Date	Jul-27-2020	Jul-27-2020	Jul-30-2020
Days After First/Last Applic.	91 43	91 43	91 43
Trt-Eval Interval			
Plant-Eval Interval	91 DP-1	91 DP-1	91 DP-1
Days After Emergence	69 DE-1	69 DE-1	69 DE-1
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	22*	23*	24*
1 UNTREATED CHECK				0 g	0 c	0 b
2 ACURON XR	42.5 oz ai/a	3 qt/a	A	71 cd	100 a	100 a
3 ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a	A	69 cd	100 a	100 a
4 RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a	A	55 ef	100 a	100 a
5 HARNESS MAX 3.85 SC	36 oz ai/a	75 fl oz/a	A	58 ef	100 a	100 a
6 SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a	A	50 f	100 a	100 a
7 CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a	A	63 de	100 a	100 a
8 VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a	A	58 ef	99 a	100 a
9 ACURON XR	21.3 oz ai/a	1.5 qt/a	A	79 abc	100 a	100 a
9 AMSOL	2.5 % v/v	2.5 % v/v	B			
9 ACURON XR	21.3 oz ai/a	1.5 qt/a	B			
9 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B			
10 ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a	A	79 abc	100 a	100 a
10 AMSOL	2.5 % v/v	2.5 % v/v	B			
10 ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a	B			
10 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B			
11 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a	A	88 a	100 a	100 a
11 AMSOL	2.5 % v/v	2.5 % v/v	B			
11 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a	B			
11 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Conducted Under GEP: No Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Pest ID Code	2 W Weed	3 W Weed	4 W Weed
Pest Code	AMBTR	CHEAL	POLPE
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Polygonum persicaria
Pest Name	ragweed, giant	lambsquarters, comm>	ladysthumb
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-22-2020	Jul-22-2020	Jul-22-2020
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
Assessed By			
Data Entry Date	Jul-27-2020	Jul-27-2020	Jul-30-2020
Days After First/Last Applic.	91 43	91 43	91 43
Trt-Eval Interval			
Plant-Eval Interval	91 DP-1	91 DP-1	91 DP-1
Days After Emergence	69 DE-1	69 DE-1	69 DE-1
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	22*	23*	24*
12 HARNESS MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a	A	74 bc	100 a	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 4.5 SL	12.4 oz ae/a	22 fl oz/a	B			
13 VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a	A	83 ab	94 b	100 a
13 AMSOL	2.5 % v/v	2.5 % v/v	B			
13 STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a	B			
13 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B			
14 CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a	A	78 abc	100 a	100 a
14 AMSOL	2.5 % v/v	2.5 % v/v	B			
14 CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a	B			
14 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B			
14 SUPERB HC	0.5 % v/v	0.5 % v/v	B			
LSD P=.05				11.0	3.1	.
Standard Deviation				7.7	2.1	0.0
CV				11.98	2.32	0.0
Grand Mean				64.4	92.3	92.9
Levene's F				0.662	12.615	0.00
Levene's Prob(F)				0.787	0.001*	.
Rank X2				.	.	.
P(Rank X2)				.	.	.
Skewness				-1.7921*	-3.3711*	-3.4205*
Kurtosis				3.1991*	9.8234*	10.0581*
Replicate F				0.688	0.650	0.000
Replicate Prob(F)				0.5651	0.5877	1.0000
Treatment F				31.744	619.260	0.000
Treatment Prob(F)				0.0001	0.0001	1.0000

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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	6 W Weed	7 W Weed
Pest Code	ABUTH	IPOHE
Pest Scientific Name	Abutilon theophrasti	Ipomoea hederacea
Pest Name	velvetleaf	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	Jul-22-2020	Jul-22-2020
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
Assessed By		
Data Entry Date	Jul-27-2020	Jul-27-2020
Days After First/Last Applic.	91 43	91 43
Trt-Eval Interval		
Plant-Eval Interval	91 DP-1	91 DP-1
Days After Emergence	69 DE-1	69 DE-1
Number of Decimals	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	25*	26*
1 UNTREATED CHECK				0 b	0 c
2 ACURON XR	42.5 oz ai/a	3 qt/a	A	100 a	83 ab
3 ACURON FLEXI XR	31.4 oz ai/a	2.5 qt/a	A	100 a	85 ab
4 RESICORE 3.29 SC	33 oz ai/a	2.5 qt/a	A	100 a	95 a
5 HARNESS MAX 3.85 SC	36 oz ai/a	75 fl oz/a	A	100 a	90 ab
6 SURESTART II 4.25 SC	21.3 oz ai/a	2.5 pt/a	A	100 a	78 b
7 CORVUS 2.63 SC	1.84 oz ai/a	5.6 fl oz/a	A	100 a	89 ab
8 VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a	A	100 a	90 ab
9 ACURON XR	21.3 oz ai/a	1.5 qt/a	A	100 a	81 ab
9 AMSOL	2.5 % v/v	2.5 % v/v	B		
9 ACURON XR	21.3 oz ai/a	1.5 qt/a	B		
9 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B		
10 ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a	A	100 a	83 ab
10 AMSOL	2.5 % v/v	2.5 % v/v	B		
10 ACURON FLEXI XR	15.7 oz ai/a	1.25 qt/a	B		
10 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B		
11 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a	A	100 a	89 ab
11 AMSOL	2.5 % v/v	2.5 % v/v	B		
11 RESICORE 3.29 SC	16.4 oz ai/a	1.25 qt/a	B		
11 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR Location: Trial Year: 2020
 Protocol ID: HB1002B4-2020US Investigator: Dr. Mark M. Loux
 Master Protocol ID: Study Director: Dr. Mark M. Loux
 Sponsor Contact: Dain Bruns, Syngenta
 Trial Origin:

Conducted Under GEP: No

Pest ID Code	6 W Weed	7 W Weed
Pest Code	ABUTH	IPOHE
Pest Scientific Name	Abutilon theophrasti	Ipomoea hederacea
Pest Name	velvetleaf	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	Jul-22-2020	Jul-22-2020
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
Assessed By		
Data Entry Date	Jul-27-2020	Jul-27-2020
Days After First/Last Applic.	91 43	91 43
Trt-Eval Interval		
Plant-Eval Interval	91 DP-1	91 DP-1
Days After Emergence	69 DE-1	69 DE-1
Number of Decimals	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Code	25*	26*
12 HARNESS MAX 3.85 SC	16.8 oz ai/a	35 fl oz/a	A	100 a	88 ab
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 4.5 SL	12.4 oz ae/a	22 fl oz/a	B		
13 VERDICT 5.57 EC	10.4 oz ai/a	15 fl oz/a	A	100 a	89 ab
13 AMSOL	2.5 % v/v	2.5 % v/v	B		
13 STATUS 61.1 WG	1.83 oz ai/a	3 oz wt/a	B		
13 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B		
14 CORVUS 2.63 SC	1.08 oz ai/a	3.3 fl oz/a	A	100 a	88 ab
14 AMSOL	2.5 % v/v	2.5 % v/v	B		
14 CAPRENO 3.45 SC	1.29 oz ai/a	3 fl oz/a	B		
14 ROUNDUP POWERMAX 4.5 SL	12.4 oz ae/a	22 fl oz/a	B		
14 SUPERB HC	0.5 % v/v	0.5 % v/v	B		
LSD P=.05				.	14.2
Standard Deviation				0.0	10.0
CV				0.0	12.39
Grand Mean				92.9	80.4
Levene's F				0.00	0.868
Levene's Prob(F)				.	0.591
Rank X2				.	.
P(Rank X2)				.	.
Skewness				-3.4205*	-2.1876*
Kurtosis				10.0581*	4.9684*
Replicate F				0.000	10.527
Replicate Prob(F)				1.0000	0.0001
Treatment F				0.000	22.371
Treatment Prob(F)				1.0000	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 1,13,19,24,25 because error mean square = 0.

The Ohio State University

Acuron XR and Acuron Flexi XR: Evaluation of weed control, crop tolerance, and yield - Medium/Fine soils <3% OM

Trial ID: 20ACURONXR

Location:

Trial Year: 2020

Protocol ID: HBI002B4-2020US

Investigator: Dr. Mark M. Loux

Study Director: Dr. Mark M. Loux

Master Protocol ID:

Sponsor Contact: Dain Bruns, Syngenta

Conducted Under GEP: No

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, POLPE, Polygonum persicaria, ladythumb, = 4, W, Weed, POLPE, Polygonum persicaria, ladythumb,
 6, W, Weed, ABUTH, Abutilon theophrasti, velvetleaf, = 6, W, Weed, ABUTH, Abutilon theophrasti, velvetleaf,
 7, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory, = 7, 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

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

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

63 DP-1 = 1 ZEAMD Apr-22-2020

77 DP-1 = 1 ZEAMD Apr-22-2020

91 DP-1 = 1 ZEAMD Apr-22-2020