

The Ohio State University

Engenia Prime and Pro Vs. Competitors Early Post Residual

Trial ID: 20ENGENIA
 Protocol ID: MKD H 2020 US DOH A
 Project ID:

Location: Western Branch Big E Trial Year: 2020
 Investigator: Dr. Mark M. Loux
 Study Director: Anthony Dobbels
 Sponsor Contact: Aice Harris, BASF

General Trial Information

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

Trial Status: E established
ARM Trial Created On: Mar-27-2020
Initiation Date: May-7-2020

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 °: 39.85875 N
Longitude of LL Corner °: -83.67125 W
Altitude of LL Corner: 1091.00 FT

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Anthony Dobbels

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C	GLXMA Glycine max	Soybean	BBCH Scale: BSOY
	Entry Date: May-8-2020		Stage Scale: BBCH
	Variety: Asgrow AG37X0		Maturity Group: 3.7
	Attributes: Glyphosate / Dicamba Tolerance		
	Seed Lot No: CE9SH21BP1		Seed Source: Asgrow
	% Germination: 90		
	Planting Date: May-7-2020		Seed Size: 2600 S/LB
	Depth: 1.5 IN		Seed Treatment Products: Acceleron
	Rows per Plot: 8		Planting Rate: 175000 S/A
	Row Spacing: 15 IN		Planting Method: PLANTD planted
			Planting Equipment: FE field equipment
	Soil Temperature: 55 F		Seed Bed: MEDTRA medium/trashy
	Emergence Date: May-25-2020		Soil Moisture: NORMAL normal, adequate

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: foxtail, giant **Entry Date:** May-28-2020

Pest 2 Type: W **Code:** AMBTR *Ambrosia trifida*
Common Name: ragweed, giant **Entry Date:** May-28-2020

Pest 3 Type: W **Code:** POLPY *Polygonum pensylvanicum*
Common Name: smartweed, Pennsylvania **Entry Date:** May-28-2020

Site and Design

Treated Plot Width: 6.67 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 200.1 FT2 **Treatments:** 8 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOB L Randomized Complete Block (RCB)

Previous

No.	Crop	Year
1.	SOYBEAN	2019

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate Unit	Tank Mix	Tank Code	Tank Mix
1.	Apr-24-2020	HERB	Roundup Powermax	4.5	LBAE/GAL	SL	32 oz/a	Y		yes
2.	Apr-24-2020	HERB	Xtendimax	2.9	LBAE/GAL	SL	22 oz/a	N		no

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Soil Description

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

Application Description

A

Application Date May-27-2020
Appl. Start Time 10:00 AM
Appl. Stop Time 10:45 AM
Application Method SPRAY
Application Timing EPO
Application Placement BROSOI
Applied By Dobbels
Appl. Entry Date May-28-2020
Air Temperature Start, Stop 73 75 F
% Relative Humidity Start, Stop 78 78
Wind Velocity+Dir. Start 7 MPH SSE
Wind Velocity+Dir. Stop 7 MPH SSE
Wind Velocity+Dir. Max 7 MPH SSE
Wet Leaves (Y/N) N no
Soil Temperature 72 F
Soil Moisture DRY
Soil Surface Condition NORMAL
% Cloud Cover 15
Next Moisture Occurred On May-28-2020
Time to Next Moisture 16 HR
Moisture 6 Hours after Appl. 0 IN
Moisture 1 Week after Appl. 0.96 IN

Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale GLXMA BSOY
Days after Emergence 2
Stage Majority, Percent 11 100
Height Average 3 IN

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale SETFA W
Stage Majority, Percent 12 100
Height Average 1 IN
Height Minimum, Maximum 0.25 1
Density Average 125 PLA/m2
Density Min, Max 95 220
Pest 2 Code, Type, Scale AMBTR W
Stage Majority, Percent 14 80
Stage Minimum, Percent 12 10
Stage Maximum, Percent 15 10
Height Average 3 IN
Height Minimum, Maximum 1 3
Density Average 5 PLA/m2
Density Min, Max 3 7
Pest 3 Code, Type, Scale POLPY W
Stage Majority, Percent 18 80
Stage Minimum, Percent 17 10
Stage Maximum, Percent 19 10
Height Average 2 IN
Height Minimum, Maximum 0.5 2
Density Average 5 PLA/m2
Density Min, Max 1 6

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Application Equipment

A
Appl. Equipment 6' TTI
Equipment Type BACCAI
Operation Pressure 44 PSI
Nozzle Type TTI
Nozzle Size 1110015
Nozzle Spacing 18 IN
Boom Length 6.67 FT
Boom Height 20 IN
Ground Speed 3 MPH
Carrier WATER
Application Amount 15 GAL/AC
Mix Size 1 L
Propellant COMCO2

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

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	AMBTR	ERICA	AMBEL
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Conyza canadensis	Ambrosia artemisiifolia
Pest Name	foxtail, giant ragweed, giant		horseweed ragweed, common	
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-3-2020	Jun-3-2020	Jun-3-2020	Jun-3-2020
Rating Type	PHYNEC	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-8-2020	Jun-8-2020	Jun-8-2020	Jun-8-2020
Days After First/Last Applic.	7 7	7 7	7 7	7 7
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A
Plant-Eval Interval	27 DP-1	27 DP-1	27 DP-1	27 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
1	UTC				A	0 c	0 b	0 c	0 b	0 b
2	Engenia Prime	730 g ai/ha	16 oz/a		A	4 b	100 a	99 a	99 a	100 a
	2 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	2 Induce	0.25 % v/v	0.25 % v/v		A					
3	Engenia PRO	636 g ai/ha	16 oz/a		A	3 b	100 a	99 a	100 a	100 a
	3 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	3 Induce	0.25 % v/v	0.25 % v/v		A					
4	Xtendimax	560 g ai/ha	22 oz/a		A	2 bc	100 a	99 a	100 a	100 a
	4 Warrant	1260 g ai/ha	48 oz/a		A					
	4 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	4 Induce	0.25 % v/v	0.25 % v/v		A					
5	Tavium	1670 g ai/ha	56.5 oz/a		A	3 b	100 a	99 a	100 a	100 a
	5 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	5 Induce	0.25 % v/v	0.25 % v/v		A					
6	Prefix	1490 g ai/ha	32 oz/a		A	12 a	100 a	96 b	100 a	100 a
	6 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	6 COC	1 % v/v	1 % v/v		A					
7	Anthem Maxx	122 g ai/ha	3.25 oz/a		A	4 b	100 a	98 a	99 a	100 a
	7 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	7 COC	1 % v/v	1 % v/v		A					

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Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	ERICA	AMBEL
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Conyza canadens>	Ambrosia artem>
Pest Name		foxtail, giant ragweed, giant		horseweed ragweed, common	
Crop Type, Code	C GLXMA				
BBCH Scale	BSOY				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	Jun-3-2020	Jun-3-2020	Jun-3-2020	Jun-3-2020	Jun-3-2020
Rating Type	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-8-2020	Jun-8-2020	Jun-8-2020	Jun-8-2020	Jun-8-2020
Days After First/Last Applic.	7 7	7 7	7 7	7 7	7 7
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
Plant-Eval Interval	27 DP-1	27 DP-1	27 DP-1	27 DP-1	27 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	9 DE-1
Number of Decimals	0	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	1*	2*	3*	4*	5*
8 Warrnat Ultra	1450 g ai/ha	48 oz/a		A	10 a	100 a	98 a	100 a	100 a
8 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
8 COC	1 % v/v	1 % v/v		A					
LSD P=.05					2.4	0.4	1.9	1.0	.
Standard Deviation					1.4	0.2	1.1	0.6	0.0
CV					28.3	0.23	1.25	0.66	0.0
Grand Mean					4.8	87.5	86.0	87.3	87.5
Levene's F					1.319	1.00	0.677	1.371	0.00
Levene's Prob(F)					0.304	0.466	0.689	0.283	.
Rank X2					.	.	.	.	.
P(Rank X2)					.	.	.	.	.
Skewness					0.9531*	-2.4217*	-2.4138*	-2.4204*	-2.4219*
Kurtosis					0.0962	4.2097*	4.1863*	4.206*	4.2103*
Replicate F					2.061	1.000	4.774	0.127	0.000
Replicate Prob(F)					0.1642	0.3927	0.0262	0.8815	1.0000
Treatment F					28.476	89915.295	3125.862	11401.438	0.000
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	POLPY	SETFA	AMBTR	ERICA
Pest Scientific Name	Polygonum pens>	Setaria faberi	Ambrosia trifi>	Conyza canad>
Pest Name	smartweed, Pen>	foxtail, giant ragweed, giant		horseweed
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-3-2020	Jun-10-2020	Jun-10-2020	Jun-10-2020
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-8-2020	Jun-22-2020	Jun-22-2020	Jun-22-2020
Days After First/Last Applic.	7 7	14 14	14 14	14 14
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	27 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
1	UTC				A	0 b	0 c	0 c	0 b	0 c
2	Engenia Prime	730 g ai/ha	16 oz/a		A	100 a	3 b	98 ab	97 a	99 ab
	2 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	2 Induce	0.25 % v/v	0.25 % v/v		A					
3	Engenia PRO	636 g ai/ha	16 oz/a		A	100 a	3 b	96 b	97 a	100 a
	3 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	3 Induce	0.25 % v/v	0.25 % v/v		A					
4	Xtendimax	560 g ai/ha	22 oz/a		A	100 a	2 bc	97 ab	98 a	100 a
	4 Warrant	1260 g ai/ha	48 oz/a		A					
	4 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	4 Induce	0.25 % v/v	0.25 % v/v		A					
5	Tavium	1670 g ai/ha	56.5 oz/a		A	100 a	3 b	99 a	97 a	100 a
	5 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	5 Induce	0.25 % v/v	0.25 % v/v		A					
6	Prefix	1490 g ai/ha	32 oz/a		A	100 a	10 a	97 ab	94 a	100 a
	6 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	6 COC	1 % v/v	1 % v/v		A					
7	Anthem Maxx	122 g ai/ha	3.25 oz/a		A	100 a	3 b	96 b	96 a	97 b
	7 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
	7 COC	1 % v/v	1 % v/v		A					

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	POLPY	SETFA	AMBTR	ERICA
Pest Scientific Name	Polygonum pens>	Setaria faberi	Ambrosia trifi>	Conyza canaden>
Pest Name	smartweed, Pen>	foxtail, giant ragweed, giant		horseweed
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-3-2020	Jun-10-2020	Jun-10-2020	Jun-10-2020
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-8-2020	Jun-22-2020	Jun-22-2020	Jun-22-2020
Days After First/Last Applic.	7 7	14 14	14 14	14 14
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	27 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	6*	7*	8*	9*	10*
8 Warrnat Ultra	1450 g ai/ha	48 oz/a		A	100 a	8 a	96 b	97 a	99 ab
8 Roundup Powermax	1260 g ai/ha	32 oz/a		A					
8 COC	1 % v/v	1 % v/v		A					
LSD P=.05					0.4	2.6	2.3	3.7	2.2
Standard Deviation					0.2	1.5	1.3	2.1	1.3
CV					0.23	37.43	1.55	2.53	1.44
Grand Mean					87.5	3.9	85.0	84.5	86.9
Levene's F					1.00	1.238	0.363	0.672	1.143
Levene's Prob(F)					0.466	0.339	0.911	0.693	0.386
Rank X2					.	.	.	.	.
P(Rank X2)					.	.	.	.	.
Skewness					-2.4217*	1.1274*	-2.4101*	-2.4006*	-2.4148*
Kurtosis					4.2097*	0.4674	4.1756*	4.1469*	4.1891*
Replicate F					1.000	0.136	5.232	2.248	0.240
Replicate Prob(F)					0.3927	0.8742	0.0201	0.1423	0.7901
Treatment F					89915.295	14.837	2030.526	764.046	2362.764
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	AMBEL	POLPY	SETFA	AMBTR	ERICA			
Pest Scientific Name	Ambrosia artem>	Polygonum pens>	Setaria faberi	Ambrosia trifi>	Erigeron canad>			
Pest Name	ragweed, common	smartweed, Pen>	foxtail, giant	Giant ragweed	Canada horsewe>			
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date	Jun-10-2020	Jun-10-2020	Jul-8-2020	Jul-8-2020	Jul-8-2020			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Data Entry Date	Jun-22-2020	Jun-22-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020			
Days After First/Last Applic.	14 14	14 14	42 42	42 42	42 42			
Trt-Eval Interval	14 DA-A	14 DA-A	42 DA-A	42 DA-A	42 DA-A			
Plant-Eval Interval	34 DP-1	34 DP-1	62 DP-1	62 DP-1	62 DP-1			
Days After Emergence	16 DE-1	16 DE-1	44 DE-1	44 DE-1	44 DE-1			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate Rate Unit	Other Other Rate Rate Unit	Appl Unit Code	11*	12*	13*	14*	15*
1 UTC				0 b	0 b	0 b	0 c	0 c
2 Engenia Prime	730 g ai/ha	16 oz/a	A	100 a	100 a	75 a	75 a	100 a
2 Roundup Powermax	1260 g ai/ha	32 oz/a	A					
2 Induce	0.25 % v/v	0.25 % v/v	A					
3 Engenia PRO	636 g ai/ha	16 oz/a	A	100 a	100 a	70 a	77 a	100 a
3 Roundup Powermax	1260 g ai/ha	32 oz/a	A					
3 Induce	0.25 % v/v	0.25 % v/v	A					
4 Xtendimax	560 g ai/ha	22 oz/a	A	100 a	100 a	70 a	73 a	100 a
4 Warrant	1260 g ai/ha	48 oz/a	A					
4 Roundup Powermax	1260 g ai/ha	32 oz/a	A					
4 Induce	0.25 % v/v	0.25 % v/v	A					
5 Tavium	1670 g ai/ha	56.5 oz/a	A	100 a	100 a	68 a	67 ab	100 a
5 Roundup Powermax	1260 g ai/ha	32 oz/a	A					
5 Induce	0.25 % v/v	0.25 % v/v	A					
6 Prefix	1490 g ai/ha	32 oz/a	A	100 a	100 a	70 a	43 b	80 b
6 Roundup Powermax	1260 g ai/ha	32 oz/a	A					
6 COC	1 % v/v	1 % v/v	A					
7 Anthem Maxx	122 g ai/ha	3.25 oz/a	A	100 a	100 a	70 a	43 b	80 b
7 Roundup Powermax	1260 g ai/ha	32 oz/a	A					
7 COC	1 % v/v	1 % v/v	A					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBEL	POLPY	SETFA	AMBTR	ERICA
Pest Scientific Name	Ambrosia artem>	Polygonum pens>	Setaria faberi	Ambrosia trifi>	Erigeron canad>
Pest Name	ragweed, common	smartweed, Pen>	foxtail, giant	Giant ragweed	Canada horsewe>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-10-2020	Jun-10-2020	Jul-8-2020	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-22-2020	Jun-22-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	14 14	14 14	42 42	42 42	42 42
Trt-Eval Interval	14 DA-A	14 DA-A	42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval	34 DP-1	34 DP-1	62 DP-1	62 DP-1	62 DP-1
Days After Emergence	16 DE-1	16 DE-1	44 DE-1	44 DE-1	44 DE-1
Number of Decimals	0	0	0	0	0

Trt No. Name	Treatment	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	11*	12*	13*	14*	15*
8 Warrnat Ultra		1450 g ai/ha	48 oz/a		A	100 a	100 a	68 a	67 ab	87 b
8 Roundup Powermax		1260 g ai/ha	32 oz/a		A					
8 COC		1 % v/v	1 % v/v		A					
LSD P=.05							0.4	9.6	29.8	8.9
Standard Deviation						0.0	0.2	5.5	17.0	5.1
CV						0.0	0.23	8.9	30.6	6.26
Grand Mean						87.5	87.5	61.5	55.6	80.8
Levene's F						0.00	1.00	1.316	0.914	1.371
Levene's Prob(F)						.	0.466	0.305	0.521	0.283
Rank X2					
P(Rank X2)					
Skewness						-2.4219*	-2.4217*	-2.1946*	-0.662	-2.0272*
Kurtosis						4.2103*	4.2097*	3.5173*	-0.3232	2.9832*
Replicate F						0.000	1.000	2.751	1.888	2.116
Replicate Prob(F)						1.0000	0.3927	0.0982	0.1880	0.1574
Treatment F						0.000	89915.295	62.284	7.059	134.605
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0010	0.0001

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Pest Type	W Weed	W Weed
Pest Code	AMBEL	POLPY
Pest Scientific Name	Ambrosia artem>	Persicaria pen>
Pest Name	Common ragweed	annual smartwe>
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	62 DP-1	62 DP-1
Days After Emergence	44 DE-1	44 DE-1
Number of Decimals	0	0

Trt No.	Treatment Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	16*	17*
1	UTC					0 b	0 b
2	Engenia Prime	730 g ai/ha	16 oz/a		A	100 a	100 a
2	Roundup Powermax	1260 g ai/ha	32 oz/a		A		
2	Induce	0.25 % v/v	0.25 % v/v		A		
3	Engenia PRO	636 g ai/ha	16 oz/a		A	100 a	100 a
3	Roundup Powermax	1260 g ai/ha	32 oz/a		A		
3	Induce	0.25 % v/v	0.25 % v/v		A		
4	Xtendimax	560 g ai/ha	22 oz/a		A	100 a	100 a
4	Warrant	1260 g ai/ha	48 oz/a		A		
4	Roundup Powermax	1260 g ai/ha	32 oz/a		A		
4	Induce	0.25 % v/v	0.25 % v/v		A		
5	Tavium	1670 g ai/ha	56.5 oz/a		A	100 a	100 a
5	Roundup Powermax	1260 g ai/ha	32 oz/a		A		
5	Induce	0.25 % v/v	0.25 % v/v		A		
6	Prefix	1490 g ai/ha	32 oz/a		A	90 a	100 a
6	Roundup Powermax	1260 g ai/ha	32 oz/a		A		
6	COC	1 % v/v	1 % v/v		A		
7	Anthem Maxx	122 g ai/ha	3.25 oz/a		A	100 a	100 a
7	Roundup Powermax	1260 g ai/ha	32 oz/a		A		
7	COC	1 % v/v	1 % v/v		A		

The Ohio State University

Engenia Prime and Pro Vs. Competitors Early Post Residual

Trial ID: 20ENGENIA
 Protocol ID: MKD H 2020 US DOH A
 Project ID:

Location: Western Branch Big E Trial Year: 2020
 Investigator: Dr. Mark M. Loux
 Study Director: Anthony Dobbels
 Sponsor Contact: Aice Harris, BASF

Pest Type	W Weed	W Weed
Pest Code	AMBEL	POLPY
Pest Scientific Name	Ambrosia artem>	Persicaria pen>
Pest Name	Common ragweed	annual smartwe>
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jul-8-2020	Jul-8-2020
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Data Entry Date	Jul-9-2020	Jul-9-2020
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	62 DP-1	62 DP-1
Days After Emergence	44 DE-1	44 DE-1
Number of Decimals	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	16*	17*
8	Warrnat Ultra	1450 g ai/ha	48 oz/a		A		93 a	100 a
8	Roundup Powermax	1260 g ai/ha	32 oz/a		A			
8	COC	1 % v/v	1 % v/v		A			

LSD P=.05	13.3	.
Standard Deviation	7.6	0.0
CV	8.9	0.0
Grand Mean	85.4	87.5
Levene's F	0.868	0.00
Levene's Prob(F)	0.551	.
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-2.239*	-2.4219*
Kurtosis	3.5561*	4.2103*
Replicate F	0.505	0.000
Replicate Prob(F)	0.6140	1.0000
Treatment F	62.670	0.000
Treatment Prob(F)	0.0001	1.0000

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Trial ID: 20ENGENIA
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Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, foxtail, giant = US
AMBTR, Ambrosia trifida, ragweed, giant = US
ERICA, Conyza canadensis, horseweed = US
AMBEL, Ambrosia artemisiifolia, ragweed, common = US
POLPY, Polygonum pensylvanicum, smartweed, Pennsylvania = US
AMBTR, Ambrosia trifida, Giant ragweed = US
ERICA, Erigeron canadensis, Canada horseweed = US
AMBEL, Ambrosia artemisiifolia, Common ragweed = US
POLPY, Persicaria pensylvanica, annual smartweed = US

Crop Type Code

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

Rating Type

PHYNEC = phytotoxicity - necrosis /burn
CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

27 DP-1 = 1 GLXMA May-7-2020
34 DP-1 = 1 GLXMA May-7-2020
62 DP-1 = 1 GLXMA May-7-2020