

**Comparison of PRE residual herbicides for length of control**

Trial ID: C09-21 Study Dir.: Burns  
 Conducted: Campus C-27 Investigator: Burns

**Planting Date:** May-11-2021 **Row Spacing:** 30 IN  
**Variety:** P9880 AM **No. of Reps:** 4  
**Population:** 31500 S/A **% OM:** 2.5  
**Soil Type:** SL sandy loam **pH:** 6.1  
**Plot Size:** 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Fall chisel plowed: spring soil finished twice  
**Fertilizer:** 300 lbs/A urea incorporated  
 12 G/A 19-19-19 starter

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grasses
2	CHEAL	Common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	Common ragweed	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	ZEAMX	Corn	

**Application Description**

	A	B
<b>Application Timing:</b>	PRE	POST
<b>Date Treated:</b>	May-12-2021	Jun-22-2021
<b>Time Treated:</b>	3:35 PM	11:45 AM
<b>% Cloud Cover:</b>	35	60
<b>Air Temp., Unit:</b>	73.2 F	61.3 F
<b>% Relative Humidity:</b>	22.5	43.2
<b>Wind Speed/Unit/Dir:</b>	3.5 MPH NW	4.1 MPH NW
<b>Soil Temp, Unit:</b>	65 F	70 F
<b>Leaf Moist/Dew Presence (Y/N):</b>		
<b>Soil Moist:</b>	4	2

**Crop Stage at Each Application**

	A	B
<b>Crop 1 Name:</b>	ZEAMX	ZEAMX
<b>Height:</b>		10.5 IN
<b>Stage:</b>		V6-7

**Weed Stage at Each Application**

	A	B
<b>Weed 1 Name:</b>	ANGR	ANGR
<b>Height:</b>		6 IN
<b>Stage:</b>		14 L
<b>Weed 2 Name:</b>	CHEAL	CHEAL
<b>Height:</b>		5 IN
<b>Stage:</b>		16 L
<b>Weed 3 Name:</b>	AMAPO	AMAPO
<b>Height:</b>		5 IN
<b>Stage:</b>		16 L
<b>Weed 4 Name:</b>	AMBEL	AMBEL
<b>Height:</b>		6 IN
<b>Stage:</b>		24 L
<b>Weed 5 Name:</b>	ABUTH	ABUTH
<b>Height:</b>		5 IN
<b>Stage:</b>		14 L

**Application Equipment**

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	BKPK	3 MPH	AIXR	11003	22.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	32 PSI
B	BKPK	3 MPH	AIXR	11003	26.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	32 PSI

**Comments:**

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Pest Code			ANGR	CHEAL	AMAPO	AMBEL
Pest Name			annual grasses	common lambsquarters	Powell amaranth	Common ragweed
Crop Type, Code	ZEAMX	ZEAMX				
Crop Name	Corn	Corn				
Rating Date	May-26-2021	Jun-4-2021	Jun-4-2021	Jun-4-2021	Jun-4-2021	Jun-4-2021
Rating Type	Injury	Injury	Control	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	14 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A

Trt No.	Treatment Name	Rate	Unit	Appl Code						
1	Roundup PowerMax	32 fl oz/a		B	0.0	0.0	0.0	0.0	0.0	
	1 Induce	0.25 % v/v		B						
	1 AMS	8.5 lb/100 gal		B						
2	Acuron	3 qt/a		A	0.0	0.0	86.3	97.8	99.5	
	2 Roundup PowerMax	32 fl oz/a		B						
	2 Induce	0.25 % v/v		B						
	2 AMS	8.5 lb/100 gal		B						
3	Bicep II Magnum	2.1 qt/a		A	0.0	0.0	90.0	99.0	100.0	
	3 Roundup PowerMax	32 fl oz/a		B						
	3 Induce	0.25 % v/v		B						
	3 AMS	8.5 lb/100 gal		B						
4	Resicore	88 fl oz/a		A	0.0	0.0	99.0	100.0	100.0	
	4 Roundup PowerMax	32 fl oz/a		B						
	4 Induce	0.25 % v/v		B						
	4 AMS	8.5 lb/100 gal		B						
5	Maverick	1 pt/a		A	0.0	0.0	94.5	99.5	100.0	
	5 Roundup PowerMax	32 fl oz/a		B						
	5 Induce	0.25 % v/v		B						
	5 AMS	8.5 lb/100 gal		B						
6	Maverick	1 pt/a		A	0.0	0.0	94.5	100.0	100.0	
	6 Atrazine	0.825 lb/a		A						
	6 Roundup PowerMax	32 fl oz/a		B						
	6 Induce	0.25 % v/v		B						
	6 AMS	8.5 lb/100 gal		B						
7	Untreated				0.0	0.0	0.0	0.0	0.0	
8	Maverick	1.5 pt/a		A	0.0	0.0	85.0	98.5	100.0	
	8 Roundup PowerMax	32 fl oz/a		B						
	8 Induce	0.25 % v/v		B						
	8 AMS	8.5 lb/100 gal		B						
9	Maverick	1.5 pt/a		A	0.0	0.0	95.0	99.5	100.0	
	9 Atrazine	0.825 lb/a		A						
	9 Roundup PowerMax	32 fl oz/a		B						
	9 Induce	0.25 % v/v		B						
	9 AMS	8.5 lb/100 gal		B						
10	Maverick	1 qt/a		A	0.0	0.0	93.8	100.0	100.0	
	10 Roundup PowerMax	32 fl oz/a		B						
	10 Induce	0.25 % v/v		B						
	10 AMS	8.5 lb/100 gal		B						
11	Maverick	1 qt/a		A	0.0	0.0	95.3	100.0	100.0	
	11 Atrazine	0.825 lb/a		A						
	11 Roundup PowerMax	32 fl oz/a		B						
	11 Induce	0.25 % v/v		B						
	11 AMS	8.5 lb/100 gal		B						
	LSD P=.05						3.69	1.31	0.44	2.67
	Standard Deviation				0.00	0.00	2.55	0.91	0.30	1.85
	CV				0.0	0.0	3.37	1.11	0.37	2.3

Could not calculate LSD (% mean diff) for columns 1,2,8,14,15,16,17,18,19 because error mean square = 0.  
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 Project ID:      Study Director: Burns  
                                  Sponsor Contact:

Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL
Pest Name	velvetleaf	annual grasses	common lambsquarters	Powell amaranth	Common ragweed
Crop Type, Code		ZEAMX			
Crop Name		Corn			
Rating Date	Jun-4-2021	Jun-24-2021	Jun-24-2021	Jun-24-2021	Jun-24-2021
Rating Type	Control	Injury	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	23 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A

Trt No.	Treatment Name	Rate	Unit	Appl Code					
1	Roundup PowerMax	32 fl oz/a		B	0.0	0.0	0.0	0.0	0.0
	1 Induce	0.25 % v/v		B					
	1 AMS	8.5 lb/100 gal		B					
2	Acuron	3 qt/a		A	98.5	0.0	71.3	91.3	99.0
	2 Roundup PowerMax	32 fl oz/a		B					
	2 Induce	0.25 % v/v		B					
	2 AMS	8.5 lb/100 gal		B					
3	Bicep II Magnum	2.1 qt/a		A	99.5	0.0	73.8	95.0	95.8
	3 Roundup PowerMax	32 fl oz/a		B					
	3 Induce	0.25 % v/v		B					
	3 AMS	8.5 lb/100 gal		B					
4	Resicore	88 fl oz/a		A	100.0	0.0	91.3	99.0	98.5
	4 Roundup PowerMax	32 fl oz/a		B					
	4 Induce	0.25 % v/v		B					
	4 AMS	8.5 lb/100 gal		B					
5	Maverick	1 pt/a		A	99.5	0.0	78.8	98.5	98.5
	5 Roundup PowerMax	32 fl oz/a		B					
	5 Induce	0.25 % v/v		B					
	5 AMS	8.5 lb/100 gal		B					
6	Maverick	1 pt/a		A	100.0	0.0	85.0	97.3	98.5
	6 Atrazine	0.825 lb/a		A					
	6 Roundup PowerMax	32 fl oz/a		B					
	6 Induce	0.25 % v/v		B					
	6 AMS	8.5 lb/100 gal		B					
7	Untreated				0.0	0.0	0.0	0.0	0.0
8	Maverick	1.5 pt/a		A	98.5	0.0	91.3	95.8	99.5
	8 Roundup PowerMax	32 fl oz/a		B					
	8 Induce	0.25 % v/v		B					
	8 AMS	8.5 lb/100 gal		B					
9	Maverick	1.5 pt/a		A	99.0	0.0	95.0	99.5	99.5
	9 Atrazine	0.825 lb/a		A					
	9 Roundup PowerMax	32 fl oz/a		B					
	9 Induce	0.25 % v/v		B					
	9 AMS	8.5 lb/100 gal		B					
10	Maverick	1 qt/a		A	100.0	0.0	95.0	99.0	99.5
	10 Roundup PowerMax	32 fl oz/a		B					
	10 Induce	0.25 % v/v		B					
	10 AMS	8.5 lb/100 gal		B					
11	Maverick	1 qt/a		A	100.0	0.0	95.0	99.5	100.0
	11 Atrazine	0.825 lb/a		A					
	11 Roundup PowerMax	32 fl oz/a		B					
	11 Induce	0.25 % v/v		B					
	11 AMS	8.5 lb/100 gal		B					
	LSD P=.05				1.02	.	2.20	1.82	1.23
	Standard Deviation				0.70	0.00	1.52	1.26	0.85
	CV				0.87	0.0	2.15	1.58	1.05

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Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL
Pest Name	velvetleaf	annual grasses	common lambsquarters	Powell amaranth	Common ragweed
Crop Type, Code		ZEAMX			
Crop Name		Corn			
Rating Date	Jun-24-2021	Jul-7-2021	Jul-7-2021	Jul-7-2021	Jul-7-2021
Rating Type	Control	Injury	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	43 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A

Trt No.	Treatment Name	Rate	Unit	Appl Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL
1	Roundup PowerMax	32 fl oz/a		B	0.0	0.0	100.0	100.0	100.0
	1 Induce	0.25 % v/v		B					
	1 AMS	8.5 lb/100 gal		B					
2	Acuron	3 qt/a		A	93.8	0.0	100.0	100.0	100.0
	2 Roundup PowerMax	32 fl oz/a		B					
	2 Induce	0.25 % v/v		B					
	2 AMS	8.5 lb/100 gal		B					
3	Bicep II Magnum	2.1 qt/a		A	95.0	0.0	100.0	100.0	100.0
	3 Roundup PowerMax	32 fl oz/a		B					
	3 Induce	0.25 % v/v		B					
	3 AMS	8.5 lb/100 gal		B					
4	Resicore	88 fl oz/a		A	98.5	0.0	100.0	100.0	100.0
	4 Roundup PowerMax	32 fl oz/a		B					
	4 Induce	0.25 % v/v		B					
	4 AMS	8.5 lb/100 gal		B					
5	Maverick	1 pt/a		A	97.8	0.0	100.0	100.0	100.0
	5 Roundup PowerMax	32 fl oz/a		B					
	5 Induce	0.25 % v/v		B					
	5 AMS	8.5 lb/100 gal		B					
6	Maverick	1 pt/a		A	99.0	0.0	100.0	100.0	100.0
	6 Atrazine	0.825 lb/a		A					
	6 Roundup PowerMax	32 fl oz/a		B					
	6 Induce	0.25 % v/v		B					
	6 AMS	8.5 lb/100 gal		B					
7	Untreated				0.0	0.0	0.0	0.0	0.0
8	Maverick	1.5 pt/a		A	97.8	0.0	100.0	100.0	100.0
	8 Roundup PowerMax	32 fl oz/a		B					
	8 Induce	0.25 % v/v		B					
	8 AMS	8.5 lb/100 gal		B					
9	Maverick	1.5 pt/a		A	100.0	0.0	100.0	100.0	100.0
	9 Atrazine	0.825 lb/a		A					
	9 Roundup PowerMax	32 fl oz/a		B					
	9 Induce	0.25 % v/v		B					
	9 AMS	8.5 lb/100 gal		B					
10	Maverick	1 qt/a		A	99.5	0.0	100.0	100.0	100.0
	10 Roundup PowerMax	32 fl oz/a		B					
	10 Induce	0.25 % v/v		B					
	10 AMS	8.5 lb/100 gal		B					
11	Maverick	1 qt/a		A	100.0	0.0	100.0	100.0	100.0
	11 Atrazine	0.825 lb/a		A					
	11 Roundup PowerMax	32 fl oz/a		B					
	11 Induce	0.25 % v/v		B					
	11 AMS	8.5 lb/100 gal		B					
	LSD P=.05				1.82	.	.	.	.
	Standard Deviation				1.26	0.00	0.00	0.00	0.00
	CV				1.57	0.0	0.0	0.0	0.0

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Pest Code	ABUTH			
Pest Name	velvetleaf			
Crop Type, Code		ZEAMX	ZEAMX	ZEAMX
Crop Name		Corn	Corn	Corn
Rating Date	Jul-7-2021	Oct-20-2021	Oct-20-2021	Oct-20-2021
Rating Type	Control	Test weight	Moisture	YIELD
Rating Unit/Min/Max	%, 0, 100	lbs/bu, -, -	%, 0, 100	BU, -, -
Trt-Eval Interval	56 DA-A	161 DA-A	161 DA-A	at 15% M

Trt No.	Treatment Name	Rate	Unit	Appl Code				
1	Roundup PowerMax	32 fl oz/a		B	100.0	56.25	17.65	171.8
1	Induce	0.25 % v/v		B				
1	AMS	8.5 lb/100 gal		B				
2	Acuron	3 qt/a		A	100.0	55.83	18.83	181.8
2	Roundup PowerMax	32 fl oz/a		B				
2	Induce	0.25 % v/v		B				
2	AMS	8.5 lb/100 gal		B				
3	Bicep II Magnum	2.1 qt/a		A	100.0	56.35	18.55	189.5
3	Roundup PowerMax	32 fl oz/a		B				
3	Induce	0.25 % v/v		B				
3	AMS	8.5 lb/100 gal		B				
4	Resicore	88 fl oz/a		A	100.0	56.20	18.40	188.7
4	Roundup PowerMax	32 fl oz/a		B				
4	Induce	0.25 % v/v		B				
4	AMS	8.5 lb/100 gal		B				
5	Maverick	1 pt/a		A	100.0	56.25	18.38	179.7
5	Roundup PowerMax	32 fl oz/a		B				
5	Induce	0.25 % v/v		B				
5	AMS	8.5 lb/100 gal		B				
6	Maverick	1 pt/a		A	100.0	56.40	18.08	175.0
6	Atrazine	0.825 lb/a		A				
6	Roundup PowerMax	32 fl oz/a		B				
6	Induce	0.25 % v/v		B				
6	AMS	8.5 lb/100 gal		B				
7	Untreated				0.0	55.90	17.88	141.1
8	Maverick	1.5 pt/a		A	100.0	56.58	18.48	199.0
8	Roundup PowerMax	32 fl oz/a		B				
8	Induce	0.25 % v/v		B				
8	AMS	8.5 lb/100 gal		B				
9	Maverick	1.5 pt/a		A	100.0	56.25	18.75	182.4
9	Atrazine	0.825 lb/a		A				
9	Roundup PowerMax	32 fl oz/a		B				
9	Induce	0.25 % v/v		B				
9	AMS	8.5 lb/100 gal		B				
10	Maverick	1 qt/a		A	100.0	55.78	18.05	174.1
10	Roundup PowerMax	32 fl oz/a		B				
10	Induce	0.25 % v/v		B				
10	AMS	8.5 lb/100 gal		B				
11	Maverick	1 qt/a		A	100.0	56.05	18.20	176.9
11	Atrazine	0.825 lb/a		A				
11	Roundup PowerMax	32 fl oz/a		B				
11	Induce	0.25 % v/v		B				
11	AMS	8.5 lb/100 gal		B				
LSD P=.05						0.817	0.866	22.69
Standard Deviation					0.00	0.566	0.599	15.71
CV					0.0	1.01	3.28	8.82

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