

Corn tolerance of early postemergence (EPOS) tank-mixtures with DiFlexx and Status

Trial ID: C09-17 Study Dir.: Burns, Stiles, Powell
 Conducted: Campus C-28 Investigator: Christy Sprague

Planting Date: 5/15/17 **Row Spacing:** 30 IN
Variety: P9807AM **No. of Reps:** 4
Population: 33500 S/A **% OM:** 2.9
Soil Type: SL sandy loam **pH:** 5.9
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed; spring soil finished twice
Fertilizer: 300lbs/A urea incorporated
 150lbs/A 19-19-19 starter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	AMBEL	ragweed, common	Ambrosia artemisiifolia
3	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	ZEAMX	Corn	

Application Description

Application Timing: A
Date Treated: EPOS
 5/31/17
Time Treated: 9:45 AM
% Cloud Cover: 20
Air Temp., Unit: 63 F
% Relative Humidity: 63
Wind Speed/Unit/Dir: 11 mph W
Soil Temp, Unit: 59 F
Leaf Moist/Dew Presence (Y/N): 5
Soil Moist: 3

Crop Stage at Each Application

A
Crop 1 Name: ZEAMX
Height: 4 "
Stage: V1

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height: 1 "
Stage: 1L
Weed 2 Name: AMBEL
Height: 1 "
Stage: 2L
Weed 3 Name: ABUTH
Height: 1 "
Stage: 2L

Weed Density

	1	2	3
Date:	5/31/17	5/31/17	5/31/17
Weed Name:	ANGR	AMBEL	ABUTH
Density:	1 FT2	2 FT2	1 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	22 "	20 "	100 "	19 GAL/AC	WATER	30 PSI

Comments:

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Pest Code	ANGR CHEAL AMAPO AMBEL ABUTH									
Crop Code	ZEAMX					ZEAMX				
Rating Date	6/8/17	6/8/17	6/8/17	6/8/17	6/8/17	6/8/17	6/15/17	6/15/17	6/15/17	
Rating Type	injury	control	control	control	control	control	injury	control	control	
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent	percent	
Trt-Eval Interval	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	15 DA-A	15 DA-A	15 DA-A	

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*	*	
1	Corvus	2.63 L	L	4.5 fl oz/a	A	A	3	96	100	100	99	100	0	93	100
1	Atrazine	90 WG	L	0.56 lb/a	A	A									
1	Surfactant	L	L	0.25 % v/v	A	A									
2	Acuron	3.44 L	L	64 fl oz/a	A	A	0	97	100	100	100	100	0	93	100
2	Surfactant	L	L	0.25 % v/v	A	A									
3	Capreno	3.45 L	L	3 fl oz/a	A	A	1	98	100	100	99	100	0	95	100
3	Roundup PowerMax	4.5 SL	L	32 fl oz/a	A	A									
3	Atrazine	90 WG	L	0.56 lb/a	A	A									
3	N-Pak AMS Liquid	L	L	2.5 % v/v	A	A									
4	Halex GT	4.389 L	L	57.6 fl oz/a	A	A	0	100	100	100	100	100	0	99	100
4	Atrazine	90 WG	L	0.56 lb/a	A	A									
4	Surfactant	L	L	0.25 % v/v	A	A									
4	N-Pak AMS Liquid	L	L	2.5 % v/v	A	A									
5	Corvus	2.63 L	L	4.5 fl oz/a	A	A	5	96	100	100	100	100	0	93	100
5	DiFlexx	4 SL	L	8 fl oz/a	A	A									
5	Atrazine	90 WG	L	0.56 lb/a	A	A									
5	Surfactant	L	L	0.25 % v/v	A	A									
6	Untreated						0	0	0	0	0	0	0	0	0
7	Acuron	3.44 L	L	64 fl oz/a	A	A	1	93	100	100	100	100	0	86	100
7	DiFlexx	4 SL	L	8 fl oz/a	A	A									
7	Surfactant	L	L	0.25 % v/v	A	A									
8	Capreno	3.45 L	L	3 fl oz/a	A	A	0	99	100	100	100	100	0	95	100
8	Roundup PowerMax	4.5 SL	L	32 fl oz/a	A	A									
8	DiFlexx	4 SL	L	8 fl oz/a	A	A									
8	Artazine	90 WG	L	0.56 lb/a	A	A									
8	N-Pak AMS Liquid	L	L	2.5 % v/v	A	A									
9	Halex GT	4.389 L	L	57.6 fl oz/a	A	A	1	100	100	100	100	100	0	98	100
9	DiFlexx	4 SL	L	8 fl oz/a	A	A									
9	Atrazine	90 WG	L	0.56 lb/a	A	A									
9	Surfactant	L	L	0.25 % v/v	A	A									
10	Corvus	2.63 L	L	4.5 fl oz/a	A	A	1	97	100	100	99	100	0	94	100
10	Status	56 WG	L	3 oz/a	A	A									
10	Atrazine	90 WG	L	0.56 lb/a	A	A									
10	Surfactant	L	L	0.25 % v/v	A	A									

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,7,13,19 because error mean square = 0.

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**Location: Campus C-28
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Study Director: Burns, Stiles, Powell**

Pest Code	ANGR CHEAL AMAPO AMBEL ABUTH						ANGR CHEAL		
Crop Code	ZEAMX						ZEAMX		
Rating Date	6/8/17	6/8/17	6/8/17	6/8/17	6/8/17	6/8/17	6/15/17	6/15/17	6/15/17
Rating Type	injury control		control control		control control control		injury control control		
Rating Unit	percent percent		percent percent		percent percent percent		percent percent percent		
Trt-Eval Interval	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	15 DA-A	15 DA-A	15 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*	*	
11	Acuron	3.44	L	64	fl oz/a	A	0	97	100	100	100	100	0	94	100
11	Status	56	WG	3	oz/a	A									
11	Surfactant		L	0.25	% v/v	A									
12	Capreno	3.45	L	3	fl oz/a	A	2	100	100	100	100	100	0	95	100
12	Roundup PowerMax	4.5	SL	32	fl oz/a	A									
12	Status	56	WG	3	oz/a	A									
12	Atrazine	90	WG	0.56	lb/a	A									
12	N-Pak AMS Liquid		L	2.5	% v/v	A									
13	Halex GT	4.389	L	57.6	fl oz/a	A	0	99	100	100	100	100	0	98	100
13	Status	56	WG	3	oz/a	A									
13	Atrazine	90	WG	0.56	lb/a	A									
13	Surfactant		L	0.25	% v/v	A									
LSD P=.05							1.5	3.5	.	0.6	1.4	0.4	.	5.5	0.4
Standard Deviation							1.1	2.4	0.0	0.4	1.0	0.3	0.0	3.8	0.3
CV							115.72	2.7	0.0	0.43	1.08	0.3	0.0	4.4	0.3

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Location: Campus C-28
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Pest Code	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL
Crop Code				ZEAMX				
Rating Date	6/15/17	6/15/17	6/15/17	6/27/17	6/27/17	6/27/17	6/27/17	6/27/17
Rating Type	control	control	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*
1	Corvus	2.63 L		4.5 fl oz/a	A		100	97	100	0	88	100	100
1	Atrazine	90 WG		0.56 lb/a	A								
1	Surfactant	L		0.25 % v/v	A								
2	Acuron	3.44 L		64 fl oz/a	A		100	97	100	0	88	99	100
2	Surfactant	L		0.25 % v/v	A								
3	Capreno	3.45 L		3 fl oz/a	A		100	97	100	0	95	100	100
3	Roundup PowerMax	4.5 SL		32 fl oz/a	A								
3	Atrazine	90 WG		0.56 lb/a	A								
3	N-Pak AMS Liquid	L		2.5 % v/v	A								
4	Halex GT	4.389 L		57.6 fl oz/a	A		100	99	99	0	98	99	98
4	Atrazine	90 WG		0.56 lb/a	A								
4	Surfactant	L		0.25 % v/v	A								
4	N-Pak AMS Liquid	L		2.5 % v/v	A								
5	Corvus	2.63 L		4.5 fl oz/a	A		100	100	100	0	89	100	99
5	DiFlexx	4 SL		8 fl oz/a	A								
5	Atrazine	90 WG		0.56 lb/a	A								
5	Surfactant	L		0.25 % v/v	A								
6	Untreated						0	0	0	0	0	0	0
7	Acuron	3.44 L		64 fl oz/a	A		100	98	100	0	78	100	100
7	DiFlexx	4 SL		8 fl oz/a	A								
7	Surfactant	L		0.25 % v/v	A								
8	Capreno	3.45 L		3 fl oz/a	A		100	99	100	0	93	100	99
8	Roundup PowerMax	4.5 SL		32 fl oz/a	A								
8	DiFlexx	4 SL		8 fl oz/a	A								
8	Artazine	90 WG		0.56 lb/a	A								
8	N-Pak AMS Liquid	L		2.5 % v/v	A								
9	Halex GT	4.389 L		57.6 fl oz/a	A		100	100	100	0	97	100	100
9	DiFlexx	4 SL		8 fl oz/a	A								
9	Atrazine	90 WG		0.56 lb/a	A								
9	Surfactant	L		0.25 % v/v	A								
10	Corvus	2.63 L		4.5 fl oz/a	A		100	97	100	0	90	100	100
10	Status	56 WG		3 oz/a	A								
10	Atrazine	90 WG		0.56 lb/a	A								
10	Surfactant	L		0.25 % v/v	A								

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Pest Code	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL
Crop Code				ZEAMX				
Rating Date	6/15/17	6/15/17	6/15/17	6/27/17	6/27/17	6/27/17	6/27/17	6/27/17
Rating Type	control	control	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*
11	Acuron	3.44	L	64	fl oz/a	A	100	99	100	0	89	100	100
11	Status	56	WG	3	oz/a	A							
11	Surfactant		L	0.25	% v/v	A							
12	Capreno	3.45	L	3	fl oz/a	A	100	97	99	0	95	99	100
12	Roundup PowerMax	4.5	SL	32	fl oz/a	A							
12	Status	56	WG	3	oz/a	A							
12	Atrazine	90	WG	0.56	lb/a	A							
12	N-Pak AMS Liquid		L	2.5	% v/v	A							
13	Halex GT	4.389	L	57.6	fl oz/a	A	100	98	100	0	99	100	100
13	Status	56	WG	3	oz/a	A							
13	Atrazine	90	WG	0.56	lb/a	A							
13	Surfactant		L	0.25	% v/v	A							
	LSD P=.05						0.7	3.0	1.2	.	8.8	1.5	2.7
	Standard Deviation						0.5	2.1	0.9	0.0	6.2	1.1	1.9
	CV						0.52	2.29	0.93	0.0	7.31	1.16	2.06

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Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL	ABUTH		
Crop Code	ZEAMX							ZEAMX
Rating Date	6/27/17	7/14/17	7/14/17	7/14/17	7/14/17	7/14/17	7/14/17	10/17/17
Rating Type	control	injury	control	control	control	control	control	test wieght
Rating Unit	percent	percent	percent	percent	percent	percent	percent	lbs/bu
Trt-Eval Interval	27 DA-A	44 DA-A	44 DA-A	44 DA-A	44 DA-A	44 DA-A	44 DA-A	139 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*
1	Corvus	2.63 L	L	4.5 fl oz/a	A	A	98	0	88	100	100	100	99
1	Atrazine	90 WG	WG	0.56 lb/a	A	A							
1	Surfactant	L	L	0.25 % v/v	A	A							
2	Acuron	3.44 L	L	64 fl oz/a	A	A	100	0	83	100	100	98	98
2	Surfactant	L	L	0.25 % v/v	A	A							
3	Capreno	3.45 L	L	3 fl oz/a	A	A	100	0	90	99	100	97	98
3	Roundup PowerMax	4.5 SL	SL	32 fl oz/a	A	A							
3	Atrazine	90 WG	WG	0.56 lb/a	A	A							
3	N-Pak AMS Liquid	L	L	2.5 % v/v	A	A							
4	Halex GT	4.389 L	L	57.6 fl oz/a	A	A	98	0	95	100	100	100	99
4	Atrazine	90 WG	WG	0.56 lb/a	A	A							
4	Surfactant	L	L	0.25 % v/v	A	A							
4	N-Pak AMS Liquid	L	L	2.5 % v/v	A	A							
5	Corvus	2.63 L	L	4.5 fl oz/a	A	A	100	0	88	100	100	100	100
5	DiFlexx	4 SL	SL	8 fl oz/a	A	A							
5	Atrazine	90 WG	WG	0.56 lb/a	A	A							
5	Surfactant	L	L	0.25 % v/v	A	A							
6	Untreated						0	0	0	0	0	0	0
7	Acuron	3.44 L	L	64 fl oz/a	A	A	100	0	78	100	98	100	100
7	DiFlexx	4 SL	SL	8 fl oz/a	A	A							
7	Surfactant	L	L	0.25 % v/v	A	A							
8	Capreno	3.45 L	L	3 fl oz/a	A	A	100	0	89	100	100	99	100
8	Roundup PowerMax	4.5 SL	SL	32 fl oz/a	A	A							
8	DiFlexx	4 SL	SL	8 fl oz/a	A	A							
8	Artazine	90 WG	WG	0.56 lb/a	A	A							
8	N-Pak AMS Liquid	L	L	2.5 % v/v	A	A							
9	Halex GT	4.389 L	L	57.6 fl oz/a	A	A	100	0	96	100	100	100	99
9	DiFlexx	4 SL	SL	8 fl oz/a	A	A							
9	Atrazine	90 WG	WG	0.56 lb/a	A	A							
9	Surfactant	L	L	0.25 % v/v	A	A							
10	Corvus	2.63 L	L	4.5 fl oz/a	A	A	100	0	85	100	100	100	100
10	Status	56 WG	WG	3 oz/a	A	A							
10	Atrazine	90 WG	WG	0.56 lb/a	A	A							
10	Surfactant	L	L	0.25 % v/v	A	A							

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Study Director: Burns, Stiles, Powell

Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	
Crop Code	ZEAMX						ZEAMX
Rating Date	6/27/17	7/14/17	7/14/17	7/14/17	7/14/17	7/14/17	10/17/17
Rating Type	control	injury	control	control	control	control	test wieght
Rating Unit	percent	percent	percent	percent	percent	percent	lbs/bu
Trt-Eval Interval	27 DA-A	44 DA-A	44 DA-A	44 DA-A	44 DA-A	44 DA-A	139 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*
11	Acuron	3.44	L	64	fl oz/a	A	100	0	85	100	100	100	55.1
11	Status	56	WG	3	oz/a	A							
11	Surfactant		L	0.25	% v/v	A							
12	Capreno	3.45	L	3	fl oz/a	A	100	0	89	100	100	96	55.1
12	Roundup PowerMax	4.5	SL	32	fl oz/a	A							
12	Status	56	WG	3	oz/a	A							
12	Atrazine	90	WG	0.56	lb/a	A							
12	N-Pak AMS Liquid		L	2.5	% v/v	A							
13	Halex GT	4.389	L	57.6	fl oz/a	A	100	0	96	100	98	98	54.1
13	Status	56	WG	3	oz/a	A							
13	Atrazine	90	WG	0.56	lb/a	A							
13	Surfactant		L	0.25	% v/v	A							
	LSD P=.05						1.5	.	10.6	1.0	2.7	4.1	3.0
	Standard Deviation						1.1	0.0	7.4	0.7	1.9	2.9	2.1
	CV						1.16	0.0	9.04	0.75	2.08	3.16	2.29

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Pest Code		
Crop Code	ZEAMX	ZEAMX
Rating Date	10/17/17	10/17/17
Rating Type	moisture	YIELD
Rating Unit	percent	BU
Trt-Eval Interval	139 DA-A at 15% M	

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Code	*	*
1	Corvus	2.63	L	4.5	fl oz/a	A	19.7	227
1	Atrazine	90	WG	0.56	lb/a	A		
1	Surfactant		L	0.25	% v/v	A		
2	Acuron	3.44	L	64	fl oz/a	A	18.7	229
2	Surfactant		L	0.25	% v/v	A		
3	Capreno	3.45	L	3	fl oz/a	A	19.5	230
3	Roundup PowerMax	4.5	SL	32	fl oz/a	A		
3	Atrazine	90	WG	0.56	lb/a	A		
3	N-Pak AMS Liquid		L	2.5	% v/v	A		
4	Halex GT	4.389	L	57.6	fl oz/a	A	19.2	236
4	Atrazine	90	WG	0.56	lb/a	A		
4	Surfactant		L	0.25	% v/v	A		
4	N-Pak AMS Liquid		L	2.5	% v/v	A		
5	Corvus	2.63	L	4.5	fl oz/a	A	19.3	228
5	DiFlexx	4	SL	8	fl oz/a	A		
5	Atrazine	90	WG	0.56	lb/a	A		
5	Surfactant		L	0.25	% v/v	A		
6	Untreated						17.3	186
7	Acuron	3.44	L	64	fl oz/a	A	19.0	213
7	DiFlexx	4	SL	8	fl oz/a	A		
7	Surfactant		L	0.25	% v/v	A		
8	Capreno	3.45	L	3	fl oz/a	A	19.0	222
8	Roundup PowerMax	4.5	SL	32	fl oz/a	A		
8	DiFlexx	4	SL	8	fl oz/a	A		
8	Artazine	90	WG	0.56	lb/a	A		
8	N-Pak AMS Liquid		L	2.5	% v/v	A		
9	Halex GT	4.389	L	57.6	fl oz/a	A	19.1	235
9	DiFlexx	4	SL	8	fl oz/a	A		
9	Atrazine	90	WG	0.56	lb/a	A		
9	Surfactant		L	0.25	% v/v	A		
10	Corvus	2.63	L	4.5	fl oz/a	A	19.5	225
10	Status	56	WG	3	oz/a	A		
10	Atrazine	90	WG	0.56	lb/a	A		
10	Surfactant		L	0.25	% v/v	A		

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Pest Code		
Crop Code	ZEAMX	ZEAMX
Rating Date	10/17/17	10/17/17
Rating Type	moisture	YIELD
Rating Unit	percent	BU
Trt-Eval Interval	139 DA-A at 15% M	

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Code	*	*
11	Acuron	3.44	L	64	fl oz/a	A	18.0	214
11	Status	56	WG	3	oz/a	A		
11	Surfactant		L	0.25	% v/v	A		
12	Capreno	3.45	L	3	fl oz/a	A	18.6	228
12	Roundup PowerMax	4.5	SL	32	fl oz/a	A		
12	Status	56	WG	3	oz/a	A		
12	Atrazine	90	WG	0.56	lb/a	A		
12	N-Pak AMS Liquid		L	2.5	% v/v	A		
13	Halex GT	4.389	L	57.6	fl oz/a	A	20.0	222
13	Status	56	WG	3	oz/a	A		
13	Atrazine	90	WG	0.56	lb/a	A		
13	Surfactant		L	0.25	% v/v	A		
LSD P=.05							1.61	15.9
Standard Deviation							1.12	11.1
CV							5.9	4.98

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,7,13,19 because error mean square = 0.