

Purdue University

Roundup Ready Corn Injury

Trial ID: 05-ACRE-CORN-POSTINJ
Location: ACRE

Study Dir.: Vince Davis
Investigator: Dr. William G. Johnson

GENERAL TRIAL INFORMATION

Study Director: Vince Davis **Title:** Research Associate
Affiliation: Purdue University
Postal Code: 47907
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Postal Code: 47907

TRIAL LOCATION

City: West Lafayette
State/Prov.: Indiana
Postal Code: 47906
Country: USA
Directions: Agronomy Center for Research and Education (ACRE) - Field 102

COOPERATOR/LANDOWNER

Cooperator: Agronomy Center for Res. & Educ. **Country:** USA
Phone No: 765-463-2632
Address 1: 4540 U.S. 52 West
City: West Lafayette
State/Prov: IN
Postal Code: 47906

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

Objective: The objective of this experiment is to evaluate varying responses of corn to postemergence applied herbicides.

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	NA		

Crop 1: ZEAMX FIELD CORN **Variety:** Dekalb 64-19 RR
Planting Date: 18/Apr/2005 **Planting Method:** DIRECT DRILLED
Rate: 31000 S/A **Depth:** 2 IN
Row Spacing: 30 IN
Soil Moisture: NORMAL

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 30 FT **Reps:** 4
Site Type: FIELD
Tillage Type: NO-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

	Previous Crops	Previous Pesticides	Year
1.	Soybeans	Glyphosate	2004

MAINTENANCE

Field Prep./Maintenance: Degree Xtra was applied as a preemergence application to maintain a weed free plot area.

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	18/Apr/2005	Degree Xtra	4.04	lbs/gal	SC	2.9	QT/A

SOIL DESCRIPTION

% Sand: 35 **% OM:** 3 **Texture:** FINE SILTY LOAM
% Silt: 65 **pH:** 6.3 **Soil Name:** Raub / mixed, mesic, Aquic Argiudoll
% Clay: 80 **CEC:** 19 **Fert. Level:** GOOD

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit
Phosphorus	44	LBS/ACRE
Potassium	193	LBS/ACRE
Calcium	4343	LBS/ACRE
LBS/ACRE	1079	LBS/ACRE

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.	1/Apr/2005		0.01	IN	RAIN		
2.	2/Apr/2005		0.01	IN	RAIN		
3.	6/Apr/2005		0.04	IN	RAIN		

Purdue University

Closest Weather Station: Located on the farm

Distance: 1

Unit: MI

APPLICATION DESCRIPTION

	A	B
Application Date:	18/Apr/2005	13/Jun/2005
Time of Day:	10:00AM	12:00PM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	20" CORN
Applic. Placement:	BROSOI	BROFOL
Air Temp., Unit:	71 F	88 F
% Relative Humidity:	90.5	60
Wind Velocity, Unit:	5 MPH	3 MPH
Soil Temp., Unit:	58 F	82 F
Soil Moisture:	ADEQUATE	WET
% Cloud Cover:	100	10

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX
Stage Scale:	Pre	V7
Height, Unit:		21 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	NA	NA

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	BACKPACK	BACKPACK
Operating Pressure:	25 psi	25 psi
Nozzle Type:	XR11002VS	XR11002VS
Nozzle Size:	XR11002VS	XR11002VS
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	10 FT	10 FT
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	water	water
Spray Volume, Unit:	15 gpa	15 gpa
Propellant:	CO2	CO2

Purdue University

Roundup Ready Corn Injury

Trial ID: 05-ACRE-CORN-POSTINJ
 Location: ACRE

Study Dir.: Vince Davis
 Investigator: Dr. William G. Johnson

Crop Code Part Rated Rating Data Type Rating Unit Rating Date Crop Stage Crop Stage Scale Assessed By Trt-Eval Interval ARM Action Codes # Subsamples, Dec.									ZEAMX PLAQUA C Chlorsis % 18/Jun/2005 V7 24-27" VMD+WGJ 5 DA-B	ZEAMX PLAQUA C Grow Reduc % 24/Jun/2005 V8-V9 36-42" VMD+VAM 11 DA-B	ZEAMX PLAQUA C 50% tassel July__05 tassel VMD 29 DA-B	ZEAMX GRAIN C lbs Yield 2rw*23ft 11/Oct/2005 Mature	ZEAMX GRAIN C Moisture % 11/Oct/2005 Mature
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
1	Untreated Check							101 306 507 701 Mean =	0 0 0 0 0	0 0 0 0 0	10 14 15 13 13	19 21 20 24 21	15 15 16 15 15
2	Degree Xtra Roundup Original Max (ae) AMS	2.93 0.77 2.5	lb ai/a lb ae/a lb ai/a	2.9 22 2.5	qt/a oz/a lb ai/a	PREPRE POSPOS POSPOS	A B B	102 301 503 805 Mean =	0 3 0 5 2	5 0 0 3 2	11 13 14 15 13	17 25 24 14 20	15 15 15 15 15
3	Degree Xtra Steadfast Crop Oil Conc UAN (28%)	2.93 0.035 1 2	lb ai/a lb ai/a % v/v qt/a	2.9 0.75 1 2	qt/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS	A B B B	103 307 506 807 Mean =	10 18 5 10 11	20 20 15 15 18	13 15 14 15 14	18 20 23 13 19	15 15 15 16 15
4	Degree Xtra Accent Crop Oil Conc UAN (28%)	2.93 0.0234 1 2	lb ai/a lb ai/a % v/v qt/a	2.9 0.5 1 2	qt/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS	A B B B	104 405 601 702 Mean =	15 20 10 10 14	10 5 0 0 4	13 13 13 14 13	23 20 22 21 21	15 15 15 15 15
5	Degree Xtra Celebrity Plus NIS UAN (28%)	2.93 0.221 0.25 2	lb ai/a lb ai/a % v/v qt/a	2.9 4.7 0.25 2	qt/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS	A B B B	105 304 604 801 Mean =	10 15 5 5 9	5 8 5 5 6	13 13 14 15 14	19 22 16 16 18	15 15 15 15 15
6	Degree Xtra Steadfast Callisto Crop Oil Conc UAN (28%)	2.93 0.035 0.094 1 2	lb ai/a lb ai/a lb ai/a % v/v qt/a	2.9 0.75 3 1 2	qt/a oz/a fl oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS POSPOS	A B B B B	106 402 607 706 Mean =	10 15 5 10 10	10 5 8 12 9	11 12 14 15 13	19 23 18 17 19	15 15 15 16 15
7	Degree Xtra Hornet WDG Crop Oil Conc UAN (28%)	2.93 0.171 1 2	lb ai/a lb ai/a % v/v qt/a	2.9 4 1 2	qt/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS	A B B B	107 305 501 703 Mean =	15 20 10 10 14	5 5 0 3 3	12 14 13 13 13	23 24 21 22 22	15 15 15 15 15
8	Degree Xtra Equip Methylated Seed Oil UAN (28%)	2.93 0.03 1 2	lb ai/a lb ai/a % v/v qt/a	2.9 1.5 1 2	qt/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS	A B B B	201 404 602 707 Mean =	20 15 10 22 17	15 10 10 10 11	10 13 13 14 13	18 25 24 14 20	15 15 15 16 15

Purdue University

Crop Code Part Rated Rating Data Type Rating Unit Rating Date Crop Stage Crop Stage Scale Assessed By Trt-Eval Interval ARM Action Codes # Subsamples, Dec.									ZEAMX PLAQUA C Chlorosis % 18/Jun/2005 V7 24-27" VMD+WGJ 5 DA-B	ZEAMX PLAQUA C Grow Reduc % 24/Jun/2005 V8-V9 36-42" VMD+VAM 11 DA-B	ZEAMX PLAQUA C 50% tassel July__05 tassel VMD 29 DA-B	ZEAMX GRAIN C lbs Yield 2rw*23ft 11/Oct/2005 Mature	ZEAMX GRAIN C Moisture % 11/Oct/2005 Mature
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
9	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	202	15	15	14	25	15
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B	406	13	15	13	18	15
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B	606	8	10	14	14	15
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	806	15	25	15	12	16
								Mean =	13	16	14	17	15
10	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	203	8	15	13	23	15
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	407	10	20	13	18	15
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	502	3	10	13	22	15
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	704	8	10	14	20	15
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B						
								Mean =	7	14	13	21	15
11	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	204	5	8	13	23	15
	Accent	0.0314	lb ai/a	0.67	oz/a	POSPOS	B	303	10	0	14	21	15
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	603	10	3	13	21	15
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	804	5	3	14	16	15
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B						
								Mean =	8	4	14	20	15
12	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	205	20	5	12	18	16
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B	401	8	5	13	23	15
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	504	15	18	15	17	15
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	803	15	12	15	13	15
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B						
								Mean =	15	10	14	18	15
13	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	206	15	8	11	31	15
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B	403	8	12	14	19	15
	Callisto	0.094	lb ai/a	3	oz/a	POSPOS	B	605	13	15	15	18	15
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	802	8	12	15	17	15
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B						
								Mean =	11	12	14	21	15
14	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	207	20	18	12	24	15
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B	302	15	8	12	27	15
	Callisto	0.094	lb ai/a	3	oz/a	POSPOS	B	505	10	15	14	14	15
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	705	12	8	13	17	15
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B						
								Mean =	14	12	13	21	15

Purdue University

Crop Code									ZEAMX
Part Rated									GRAIN C
Rating Data Type									
Rating Unit									
Rating Date									11/Oct/2005
Crop Stage									Mature
Crop Stage Scale									
Assessed By									
Trt-Eval Interval									
ARM Action Codes									TY1
# Subsamples, Dec.									1
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	
1	Untreated Check							101 306 507 701	129.4 138.3 136.5 159.4
Mean =									140.9
2	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	102	117.7
	Roundup Original Max (ae)	0.77	lb ae/a	22	oz/a	POSPOS	B	301	172.2
	AMS	2.5	lb ai/a	2.5	lb ai/a	POSPOS	B	503 805	163.6 97.2
Mean =									137.7
3	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	103	122.8
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	307	138.5
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	506	153.9
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	807	87.1
Mean =									125.6
4	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	104	151.8
	Accent	0.0234	lb ai/a	0.5	oz/a	POSPOS	B	405	136.6
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	601	146.4
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	702	140.4
Mean =									143.8
5	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	105	128.7
	Celebrity Plus	0.221	lb ai/a	4.7	oz/a	POSPOS	B	304	148.5
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	604	111.2
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	801	109.3
Mean =									124.4
6	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	106	130.7
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	402	157.0
	Callisto	0.094	lb ai/a	3	fl oz/a	POSPOS	B	607	123.8
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	706	113.5
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B		
Mean =									131.3
7	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	107	152.2
	Hornet WDG	0.171	lb ai/a	4	oz/a	POSPOS	B	305	165.4
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	501	140.0
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	703	146.6
Mean =									151.1
8	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	201	123.8
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B	404	172.4
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B	602	163.6
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	707	93.8
Mean =									138.4
9	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	202	168.4
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B	406	124.1
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B	606	96.4
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	806	79.3
Mean =									117.1

Purdue University

Crop Code								ZEAMX	
Part Rated								GRAIN C	
Rating Data Type									
Rating Unit									
Rating Date								11/Oct/2005	
Crop Stage								Mature	
Crop Stage Scale									
Assessed By									
Trt-Eval Interval									
ARM Action Codes								TY1	
# Subsamples, Dec.								1	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	
10	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	203	156.6
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	407	124.2
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	502	147.3
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	704	137.1
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B		
								Mean =	141.3
11	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	204	154.7
	Accent	0.0314	lb ai/a	0.67	oz/a	POSPOS	B	303	141.5
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	603	142.5
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	804	110.1
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B		
								Mean =	137.2
12	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	205	118.1
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B	401	156.4
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	504	113.4
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	803	90.2
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B		
								Mean =	119.5
13	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	206	208.0
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B	403	127.6
	Callisto	0.094	lb ai/a	3	oz/a	POSPOS	B	605	123.1
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	802	117.6
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B		
								Mean =	144.1
14	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	207	162.9
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B	302	182.0
	Callisto	0.094	lb ai/a	3	oz/a	POSPOS	B	505	97.3
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	705	113.6
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B		
								Mean =	138.9

Column 6: TY1 = 6.763975*[4]*(100-[5])/85

Purdue University

Roundup Ready Corn Injury

Trial ID: 05-ACRE-CORN-POSTINJ
Location: ACRE

Study Dir.: Vince Davis
Investigator: Dr. William G. Johnson

Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Part Rated							PLAQUA C	PLAQUA C	PLAQUA C	GRAIN C	GRAIN C	
Rating Data Type							Chlorsis	Grow Reduc	50% tassell	lbs Yield	Moisture	
Rating Unit							%	%	July__05	2rw*23ft	%	
Rating Date							18/Jun/2005	24/Jun/2005		11/Oct/2005	11/Oct/2005	
Crop Stage							V7	V8-V9	tassel	Mature	Mature	
Crop Stage Scale							24-27"	36-42"				
Assessed By							VMD+WGJ	VMD+VAM	VMD			
Trt-Eval Interval							5 DA-B	11 DA-B	29 DA-B			
ARM Action Codes												
# Subsamples, Dec.												
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5
1	Untreated Check							0 e	0 g	13 a	21 a	15 a
2	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	2 e	2 fg	13 a	20 a	15 a
	Roundup Original Max (ae)	0.77	lb ae/a	22	oz/a	POSPOS	B					
	AMS	2.5	lb ai/a	2.5	lb ai/a	POSPOS	B					
3	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	11 bcd	18 a	14 a	19 a	15 a
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B					
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
4	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	14 abc	4 efg	13 a	21 a	15 a
	Accent	0.0234	lb ai/a	0.5	oz/a	POSPOS	B					
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
5	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	9 cd	6 def	14 a	18 a	15 a
	Celebrity Plus	0.221	lb ai/a	4.7	oz/a	POSPOS	B					
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
6	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	10 bcd	9 cde	13 a	19 a	15 a
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B					
	Callisto	0.094	lb ai/a	3	fl oz/a	POSPOS	B					
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
7	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	14 abc	3 efg	13 a	22 a	15 a
	Hornet WDG	0.171	lb ai/a	4	oz/a	POSPOS	B					
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
8	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	17 a	11 bcd	13 a	20 a	15 a
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B					
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
9	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	13 abc	16 ab	14 a	17 a	15 a
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B					
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B					
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B					
10	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	7 d	14 abc	13 a	21 a	15 a
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B					
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B					
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B					
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B					

Purdue University

Crop Code Part Rated Rating Data Type Rating Unit Rating Date Crop Stage Crop Stage Scale Assessed By Trt-Eval Interval ARM Action Codes # Subsamples, Dec.							ZEAMX PLAQUA C Chlorosis % 18/Jun/2005 V7 24-27" VMD+WGJ 5 DA-B	ZEAMX PLAQUA C Grow Reduc % 24/Jun/2005 V8-V9 36-42" VMD+VAM 11 DA-B	ZEAMX PLAQUA C 50% tassel July__05 tassel VMD 29 DA-B	ZEAMX GRAIN C lbs Yield 2rw*23ft Mature 11/Oct/2005	ZEAMX GRAIN C Moisture % 11/Oct/2005 Mature	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5
11	Degree Xtra Accent Distinct NIS UAN (28%)	2.93 0.0314 0.175 0.25 3.33	lb ai/a lb ai/a lb ae/a % v/v % v/v	2.9 0.67 4 0.25 2	qt/a oz/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS POSPOS	A B B B B	8 d	4 efg	14 a	20 a	15 a
12	Degree Xtra Equip Distinct NIS UAN (28%)	2.93 0.03 0.175 0.25 3.33	lb ai/a lb ai/a lb ae/a % v/v % v/v	2.9 1.5 4 0.25 2	qt/a oz/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS POSPOS	A B B B B	15 ab	10 cd	14 a	18 a	15 a
13	Degree Xtra Equip Callisto Crop Oil Conc UAN (28%)	2.93 0.03 0.094 1 2	lb ai/a lb ai/a lb ai/a % v/v qt/a	2.9 1.5 3 1 2	qt/a oz/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS POSPOS	A B B B B	11 bcd	12 bc	14 a	21 a	15 a
14	Degree Xtra Option Callisto Crop Oil Conc UAN (28%)	2.93 0.0328 0.094 1 2	lb ai/a lb ai/a lb ai/a % v/v qt/a	2.9 1.5 3 1 2	qt/a oz/a oz/a % v/v qt/a	PREPRE POSPOS POSPOS POSPOS POSPOS	A B B B B	14 ab	12 abc	13 a	21 a	15 a
LSD (P=.05)							5.1	5.5	1.3	4.9	0.5	
Standard Deviation							3.6	3.9	0.9	3.5	0.3	
CV							35.27	45.18	6.84	17.34	2.22	
Grand Mean							10.21	8.55	13.36	19.96	15.0	
Bartlett's X2							3.915	11.287	15.863	17.611	23.499	
P(Bartlett's X2)							0.985	0.504	0.257	0.173	0.036*	
Replicate F							4.979	0.852	16.535	6.129	2.981	
Replicate Prob(F)							0.0051	0.4738	0.0001	0.0016	0.0430	
Treatment F							7.109	8.245	1.184	0.725	0.874	
Treatment Prob(F)							0.0001	0.0001	0.3263	0.7280	0.5855	

Means followed by same letter do not significantly differ (P=.05, LSD)

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

Purdue University

Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Unit	Grow Stg	Appl Code	
Crop Code Part Rated Rating Data Type Rating Unit Rating Date Crop Stage Crop Stage Scale Assessed By Trt-Eval Interval ARM Action Codes # Subsamples, Dec.								ZEAMX GRAIN C 11/Oct/2005 Mature TY1 1
1	Untreated Check							6 140.9 a
2	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	137.7 a
	Roundup Original Max (ae)	0.77	lb ae/a	22	oz/a	POSPOS	B	
	AMS	2.5	lb ai/a	2.5	lb ai/a	POSPOS	B	
3	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	125.6 a
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
4	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	143.8 a
	Accent	0.0234	lb ai/a	0.5	oz/a	POSPOS	B	
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
5	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	124.4 a
	Celebrity Plus	0.221	lb ai/a	4.7	oz/a	POSPOS	B	
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
6	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	131.3 a
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	
	Callisto	0.094	lb ai/a	3	fl oz/a	POSPOS	B	
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
7	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	151.1 a
	Hornet WDG	0.171	lb ai/a	4	oz/a	POSPOS	B	
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
8	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	138.4 a
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B	
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
9	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	117.1 a
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B	
	Methylated Seed Oil	1	% v/v	1	% v/v	POSPOS	B	
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B	
10	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	141.3 a
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B	
11	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A	137.2 a
	Accent	0.0314	lb ai/a	0.67	oz/a	POSPOS	B	
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B	
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B	
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B	

Purdue University

Crop Code							ZEAMX
Part Rated							GRAIN C
Rating Data Type							
Rating Unit							
Rating Date							11/Oct/2005
Crop Stage							Mature
Crop Stage Scale							
Assessed By							
Trt-Eval Interval							
ARM Action Codes							TY1
# Subsamples, Dec.							1
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code
12	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B
	Distinct	0.175	lb ae/a	4	oz/a	POSPOS	B
	NIS	0.25	% v/v	0.25	% v/v	POSPOS	B
	UAN (28%)	3.33	% v/v	2	qt/a	POSPOS	B
13	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A
	Equip	0.03	lb ai/a	1.5	oz/a	POSPOS	B
	Callisto	0.094	lb ai/a	3	oz/a	POSPOS	B
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B
14	Degree Xtra	2.93	lb ai/a	2.9	qt/a	PREPRE	A
	Option	0.0328	lb ai/a	1.5	oz/a	POSPOS	B
	Callisto	0.094	lb ai/a	3	oz/a	POSPOS	B
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B
	UAN (28%)	2	qt/a	2	qt/a	POSPOS	B
LSD (P=.05)							33.82
Standard Deviation							23.66
CV							17.52
Grand Mean							135.09
Bartlett's X2							17.714
P(Bartlett's X2)							0.169
Replicate F							6.130
Replicate Prob(F)							0.0016
Treatment F							0.719
Treatment Prob(F)							0.7338

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Column 6: TY1 = 6.763975*[4]*(100-[5])/85