

## MSU Soil Fertility Research Program

## CORN RESPONSE TO AUTUMN AND SPRING APPLIED FERTILIZER WITH AND WITHOUT BORON.

Trial ID: CEL04-14.15 Location: Campus Trial Year: 14  
 Investigator: Kurt Steinke  
 Project ID: MOFALL

Crop Code							ZEAMX
Crop Name							Corn
Crop Variety							DKC 48-12RIB
Description							bu/ac
Rating Date							Oct-19-2015
Rating Type							YIELD
Rating Unit							BU
Crop Stage Scale							HARVEST
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit Stage
							7
TABLE OF R MEANS							
Replicate 1							
							249
Replicate 2							
							260
Replicate 3							
							250
Replicate 4							
							245
TABLE OF A (Cultural) MEANS							
1 FALL							
1	Urea 46-0-0	46	GR	140 lb ai/a	304 lb/a		SprPPI
							251 a
2 SPRING							
2	Urea 46-0-0	46	GR	140 lb ai/a	304 lb/a		SprPPI
							251 a
LSD P=.05							
Standard Deviation							18.4
CV							21.6
							8.6
TABLE OF B (Fertilizer) MEANS							
1 Nitrogen Only							
1	Urea 46-0-0	46	GR	24 lb ai/a	52 lb/a		FALL
							251 a
2 MAP 11-52-0							
2	Urea 46-0-0	52	GR	80 lb ai/a	154 lb/a		FALL
2	Urea 46-0-0	46	GR	7 lb ai/a	15.2 lb/a		
							253 a
3 MAP 11-52-0							
3	MOP Mosaic	52	GR	80 lb ai/a	154 lb/a		
3	Urea 46-0-0	60	GR	60 lb ai/a	100 lb/a		
3	Urea 46-0-0	46	GR	7 lb ai/a	15.2 lb/a		FALL
							247 a
4 MAP 11-52-0							
4	MOP Mosaic	52	GR	80 lb ai/a	154 lb/a		
4	GRANuBor 2	60	GR	60 lb ai/a	100 lb/a		
4	4	14.3	GR	0.5 lb ai/a	3.5 lb/a		
							251 a
5 MAP 11-52-0							
5	Aspire	52	GR	80 lb ai/a	154 lb/a		
5	Urea 46-0-0	58	GR	60 lb ai/a	103 lb/a		
5	Urea 46-0-0	46	GR	7 lb ai/a	15.2 lb/a		
							257 a
6 MESZ							
6	MOP Mosaic	40	GR	80 lb ai/a	200 lb/a		
6	MOP Mosaic	60	GR	60 lb ai/a	100 lb/a		
							243 a
7 MESZ							
7	Aspire	40	GR	80 lb ai/a	200 lb/a		
7	Aspire	58	GR	60 lb ai/a	103 lb/a		
							256 a
LSD P=.05							
Standard Deviation							14.3
CV							14.2
							5.6
TABLE OF A (Cultural) B (Fertilizer) MEANS							
1 FALL							
1	Urea 46-0-0	46	GR	140 lb ai/a	304 lb/a		SprPPI
1 Nitrogen Only							
1	Urea 46-0-0	46	GR	24 lb ai/a	52 lb/a		FALL
							251 a

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.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	
	Crop Code Crop Name Crop Variety Description Rating Date Rating Type Rating Unit Crop Stage Scale								ZEAMX Corn DKC 48-12RIB bu/ac Oct-19-2015 YIELD BU HARVEST
								7	
	2 SPRING 2 Urea 46-0-0 1 Nitrogen Only 1 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	250 a
		46 GR		24 lb ai/a		52 lb/a		FALL	
	1 FALL 1 Urea 46-0-0 2 MAP 11-52-0 2 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	249 a
		52 GR		80 lb ai/a		154 lb/a		FALL	
		46 GR		7 lb ai/a		15.2 lb/a			
	2 SPRING 2 Urea 46-0-0 2 MAP 11-52-0 2 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	257 a
		52 GR		80 lb ai/a		154 lb/a		FALL	
		46 GR		7 lb ai/a		15.2 lb/a			
	1 FALL 1 Urea 46-0-0 3 MAP 11-52-0 3 MOP Mosaic 3 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	255 a
		52 GR		80 lb ai/a		154 lb/a			
		60 GR		60 lb ai/a		100 lb/a			
		46 GR		7 lb ai/a		15.2 lb/a		FALL	
	2 SPRING 2 Urea 46-0-0 3 MAP 11-52-0 3 MOP Mosaic 3 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	239 a
		52 GR		80 lb ai/a		154 lb/a			
		60 GR		60 lb ai/a		100 lb/a			
		46 GR		7 lb ai/a		15.2 lb/a		FALL	
	1 FALL 1 Urea 46-0-0 4 MAP 11-52-0 4 MOP Mosaic 4 GRANuBor 2 4	46 GR		140 lb ai/a		304 lb/a		SprPPI	254 a
		52 GR		80 lb ai/a		154 lb/a			
		60 GR		60 lb ai/a		100 lb/a			
		14.3 GR		0.5 lb ai/a		3.5 lb/a			
	2 SPRING 2 Urea 46-0-0 4 MAP 11-52-0 4 MOP Mosaic 4 GRANuBor 2 4	46 GR		140 lb ai/a		304 lb/a		SprPPI	247 a
		52 GR		80 lb ai/a		154 lb/a			
		60 GR		60 lb ai/a		100 lb/a			
		14.3 GR		0.5 lb ai/a		3.5 lb/a			
	1 FALL 1 Urea 46-0-0 5 MAP 11-52-0 5 Aspire 5 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	250 a
		52 GR		80 lb ai/a		154 lb/a			
		58 GR		60 lb ai/a		103 lb/a			
		46 GR		7 lb ai/a		15.2 lb/a			
	2 SPRING 2 Urea 46-0-0 5 MAP 11-52-0 5 Aspire 5 Urea 46-0-0	46 GR		140 lb ai/a		304 lb/a		SprPPI	264 a
		52 GR		80 lb ai/a		154 lb/a			
		58 GR		60 lb ai/a		103 lb/a			
		46 GR		7 lb ai/a		15.2 lb/a			

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Crop Code								ZEAMX	
Crop Name								Corn	
Crop Variety								DKC 48-12RIB	
Description								bu/ac	
Rating Date								Oct-19-2015	
Rating Type								YIELD	
Rating Unit								BU	
Crop Stage Scale								HARVEST	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	7
1 FALL									
1	Urea 46-0-0	46	GR	140	lb ai/a	304	lb/a	SprPPI	252 a
6	MESZ	40	GR	80	lb ai/a	200	lb/a		
6	MOP Mosaic	60	GR	60	lb ai/a	100	lb/a		
2 SPRING									
2	Urea 46-0-0	46	GR	140	lb ai/a	304	lb/a	SprPPI	234 a
6	MESZ	40	GR	80	lb ai/a	200	lb/a		
6	MOP Mosaic	60	GR	60	lb ai/a	100	lb/a		
1 FALL									
1	Urea 46-0-0	46	GR	140	lb ai/a	304	lb/a	SprPPI	246 a
7	MESZ	40	GR	80	lb ai/a	200	lb/a		
7	Aspire	58	GR	60	lb ai/a	103	lb/a		
2 SPRING									
2	Urea 46-0-0	46	GR	140	lb ai/a	304	lb/a	SprPPI	266 a
7	MESZ	40	GR	80	lb ai/a	200	lb/a		
7	Aspire	58	GR	60	lb ai/a	103	lb/a		
LSD P=.05								20.3	
Standard Deviation								14.2	
CV								5.6	

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COMPLETE SPLIT-PLOT AOV For ZEAMX Corn DKC 48-12RIB bu/ac Oct-19-2015 YIELD BU HARVEST (Data Column 7)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	LSD (.05)
Total	55	14094.116357				
R	3	1758.706241	586.235414	2.927	0.0467	
A	1	0.006069	0.006069	0.000	0.9973	18
ERROR A	3	1400.438316	466.812772			
B	6	1192.879785	198.813297	0.993	0.4449	14
AB	6	2532.981835	422.163639	2.108	0.0763	20
ERROR B	36	7209.104111	200.252892			

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

YIELD = yield

Rating Unit

BU = bushel

ARM Action Codes

TY1 =  $3.889286 * [C4] * (100 - [C5]) / 84.5$