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CORN HYBRID TOLERANCE TO LOW RATES
OF ALS HERBICIDES
Trial ID: CN-01-18 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 4 Plots: 6 by 25 feet
Spray vol: 15 GAL/AC Mix Size: 1.5 L (total for 4 plots; minimum=0.782 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	MYCOGEN 2C797 NO HERBICIDE								101	204	303	402
2	MYCOGEN 2C797 CADRE	2	AS	1.0	oz/a	PRE	A	0.7812 mL/mx	102	203	304	401
3	MYCOGEN 2C797 STRONGARM	84	WG	0.113	oz/a	PRE	A	.08463 g/mx	103	202	301	404
4	MYCOGEN 2C797 STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	0.5859 mL/mx	104	201	302	403
5	DEKALB DKC62-08 NO HERBICIDE								105	207	308	406
6	DEKALB DKC62-08 CADRE	2	AS	1.0	oz/a	PRE	A	0.7812 mL/mx	106	208	307	405
7	DEKALB DKC62-08 STRONGARM	84	WG	0.113	oz/a	PRE	A	.08463 g/mx	107	206	305	408
8	DEKALB DKC62-08 STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	0.5859 mL/mx	108	205	306	407
9	PIONEER 1739YHR NO HERBICIDE								109	212	311	410
10	PIONEER 1739YHR CADRE	2	AS	1.0	oz/a	PRE	A	0.7812 mL/mx	110	211	309	412
11	PIONEER 1739YHR STRONGARM	84	WG	0.113	oz/a	PRE	A	.08463 g/mx	111	210	312	409
12	PIONEER 1739YHR STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	0.5859 mL/mx	112	209	310	411

Sort Order: Treatment

Trial Comments

ALS HERBICIDES APPLIED @ 1/4X RATES

MYCOGEN 2C797 IS NOT ALS-SENSITIVE. DKC 62-08 AND PIONEER 1739YHR ARE ALS-SENSITIVE.

MAINTAINED WEED-FREE

DUAL II - PRE (16 OZS/A) - MARCH 28

ROUNDUP (32 OZ/A)+ ATRAZINE (64 OZ/A) + DUAL MAGNUM (16 OZ/A) - APRIL 26

HARVEST DATE: AUGUST 28

HARVEST MOISTURE:
MYCOGEN 2C797 = 15.4%
DKC 62-08 = 15.1%
PIONEER 1739YHR = 16.1%
YIELDS ADJUSTED TO 15.5%

SUMMARY:

1) GENERALLY, THE CORN HYBRIDS RESPONDED DIFFERENTLY TO 1/4X RATES OF ALS-HERBICIDES.

2) AT 13 DAT, ONLY STAPLE WAS CAUSING OBVIOUS CORN INJURY SYMPTOMS ON ALL 3 HYBRIDS.

3) CADRE CAUSED THE LEAST CORN INJURY ON ALL HYBRIDS BUT 6208 WAS MORE SENSITIVE TO CADRE THAN 1739 AND 2C797.

4) IN 2/6 RATINGS, 6208 WAS ALSO MORE SENSITIVE TO STRONGARM WHEN COMPARED TO 1739 AND 2C797.

5) FOR CORN YIELD, THERE WAS A SIGNIFICANT INTERACTION BETWEEN CORN HYBRID AND HERBICIDE (P=0.0002). THE

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FOLLOWING YIELD OBSERVATIONS WERE MADE:

A) IN THE ABSENCE OF ALS-HERBICIDES, THERE WAS NO SIGNIFICANT DIFFERENCE IN CORN YIELD BETWEEN THE 3 HYBRIDS.

B) CADRE DID NOT SIGNIFICANTLY REDUCE THE YIELDS OF ANY HYBRID.

C) STRONGARM AND STAPLE CAUSED SIGNIFICANT YIELD REDUCTIONS IN ALL 3 HYBRIDS.

D) STRONGARM CAUSED GREATER YIELD LOSSES IN MYCOGEN 2C797 WHEN COMPARED TO PIONEER 1739YHR. YIELD LOSSES FROM STRONGARM BETWEEN 2C797 AND DKC 6208 WERE SIMILAR AS WERE YIELD LOSSES BETWEEN 6208 AND 1739.

E) STAPLE CAUSED GREATER YIELD REDUCTIONS IN 2C797 THAN 6208 AND 1739. YIELD LOSSES FROM STAPLE WERE SIMILAR BETWEEN 6208 AND 1739.

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OF ALS HERBICIDES
Trial ID: CN-01-18 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: _____ **Title:** _____
Affiliation: _____ **Postal Code:** _____

Investigator: Eric P. Prostko **Title:** _____
Affiliation: _____ **Postal Code:** _____

Trial Status: _____ **Initiation Date:** _____ **Country:** _____
City: _____ **State/Prov.:** _____ **Postal Code:** _____
Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

Objective:

Conclusions:

CROP AND PEST DESCRIPTION

Weed 1. _____ _____ **2.** _____ _____

Crop 1: ZEAMA FIELD CORN **Variety:** SEVERAL **Planting Date:** Mar-27-18
Planting Method: MONOSEM **Rate:** 36300 SEED/A **Depth:** 1.75 IN
Perennial Age: ____ _____ **Row Spacing:** 36 IN **Seed Bed:** _____
Soil Temperature: ____ _ **Soil Moisture:** OPTIMUM **Emergence Date:** _____

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: _____
Tillage Type: CONVENTIONAL **Study Design:** FACTOR
Trial Initiation Comments: _____
_____

Previous:	Crops	Pesticides	Year
1.	PEANUT	2017	____

MAINTENANCE

Field Prep./Maintenance: _____

No.	Date	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	_____	_____	____	___	_____	_____	_____

SOIL DESCRIPTION

Texture: SAND **% OM:** 0.53 **% Sand:** 92 **% Silt:** 6 **% Clay:** 2
pH: 6.0 **CEC:** 2.6 **Soil Name:** DOTHAN **Fertility Level:** GOOD

MOISTURE CONDITIONS

On:	Date	Time	Amount	Unit	Type	Interval	Unit
1.	Mar-29-18	_____	0.4	IN	SPRINKLER - LATERAL MOVE	_____	___
2.	Mar-30-18	_____	1.03	IN	RAINFALL	_____	___
3.	Apr-4-18	_____	0.03	IN	RAINFALL	_____	___
4.	Apr-5-18	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
5.	Apr-7-18	_____	0.36	IN	RAINFALL	_____	___
6.	Apr-12-18	_____	0.5	IN	RAINFALL	_____	___
7.	Apr-15-18	_____	1.0	IN	RAINFALL	_____	___
8.	Apr-22-18	_____	0.33	IN	RAINFALL	_____	___
9.	Apr-23-18	_____	1.18	IN	RAINFALL	_____	___
10.	Apr-27-18	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
11.	_____	_____	_____	__	_____	_____	___
12.	_____	_____	_____	__	_____	_____	___

Overall Moisture Conditions: _____
Closest Weather Station: _____ **Distance:** _____ **Unit:** __

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APPLICATION DESCRIPTION

		A	B	C	D	E	F
Application Date:		Mar-28-18					
Time of Day:		7:30 AM					
Application Method:		BROADCAST					
Application Timing:		PRE					
Applic. Placement:		SOIL					
Air Temp., Unit:		56	F				
% Relative Humidity:		84					
Wind Velocity, Unit:		0	MPH				
Dew Presence (Y/N):		Y					
Water Hardness:							
Soil Temp., Unit:		59	F				
Soil Moisture:		OPTIMUM					
% Cloud Cover:		0					

CROP STAGE AT EACH APPLICATION

		A	B	C	D	E	F
Crop 1	**Stage:**	ZEAMA					
Stage Scale:							
Height, Unit:							

WEED STAGE AT EACH APPLICATION

		A	B	C	D	E	F
Weed 1	**Stage:**						
Stage Scale:							
Density, Unit:							

APPLICATION EQUIPMENT

		A	B	C	D	E	F
Appl. Equipment:		BACKPACK					
Operating Pressure:		27					
Nozzle Type:		AIXR					
Nozzle Size:		11002					
Nozzle Spacing, Unit:		15	IN				
Nozzles/Row:		2					
Band Width, Unit:							
Boom Length, Unit:		60	IN				
Boom Height, Unit:		20	IN				
Ground Speed, Unit:		3.5	MPH				
Incorporation Equip.:							
Hours to Incorp.:							
Incorp. Depth, Unit:							
Carrier:		WATER					
Spray Volume, Unit:		15	GPA				
Spray pH:							
Propellant:		CO2					
Tank Mix (Y/N):							

Trt No	Treatment Application Comment

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Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
Weed Code								-----	-----	-----	-----	-----	-----
Crop Code								ZEAMA	ZEAMA	ZEAMA	ZEAMA	ZEAMA	ZEAMA
Part Rated								PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Rating Data Type								STUNTING	STUNTING	STUNTING	STUNTING	STUNTING	STUNTING
Rating Unit								PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date								Apr-10-18	Apr-18-18	Apr-23-18	May-2-18	May-16-18	Jun-5-18
Trt-Eval Interval								13 DA-A	21 DA-A	26 DA-A	35 DA-A	49 DA-A	69 DA-A
PRM Data Type													
# Subsamples, Dec.													
TABLE OF R MEANS													
Replicate 1								5.4	30.0	38.3	49.2	41.3	27.5
Replicate 2								5.4	32.5	41.3	47.9	40.0	25.8
Replicate 3								5.4	34.2	39.2	50.4	44.2	31.7
Replicate 4								5.4	35.8	39.6	45.4	45.8	30.0
TABLE OF A (HYBRID) MEANS													
1	MYCOGEN 2C797							5.0 b	30.3 b	39.1 b	46.3 b	41.3 b	29.4 a
2	DEKALB DKC62-08							5.0 b	39.7 a	43.4 a	52.2 a	46.9 a	31.9 a
3	PIONEER 1739YHR							6.3 a	29.4 b	36.3 b	46.3 b	40.3 b	25.0 b
Tukey's HSD P=.10								.	7.52	3.72	3.90	4.87	3.55
Standard Deviation								0.00	8.47	4.19	4.39	5.48	4.00
CV								0.00	25.56	10.58	9.10	12.80	13.90
TABLE OF B (HERBICIDE) MEANS													
1	NO HERBICIDE							0.0 b	0.0 c	0.0 c	0.0 d	0.0 d	0.0 d
2	CADRE	2	AS	1.0	oz/a	PRE	A	0.0 b	31.7 b	45.4 b	51.3 c	46.3 c	25.8 c
3	STRONGARM	84	WG	0.113	oz/a	PRE	A	0.0 b	49.2 a	55.8 a	75.8 a	67.1 a	49.2 a
4	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	21.7 a	51.7 a	57.1 a	65.8 b	57.9 b	40.0 b
Tukey's HSD P=.10								.	10.25	4.67	5.63	7.21	7.31
Standard Deviation								0.00	9.44	4.30	5.19	6.64	6.74
CV								0.00	28.50	10.87	10.76	15.50	23.43
TABLE OF A (HYBRID) B (HERBICIDE) MEANS													
1	MYCOGEN 2C797							0.0 c	0.0 e	0.0 d	0.0 f	0.0 d	0.0 f
1	NO HERBICIDE												
2	DEKALB DKC62-08							0.0 c	0.0 e	0.0 d	0.0 f	0.0 d	0.0 f
1	NO HERBICIDE												
3	PIONEER 1739YHR							0.0 c	0.0 e	0.0 d	0.0 f	0.0 d	0.0 f
1	NO HERBICIDE												
1	MYCOGEN 2C797							0.0 c	22.5 d	45.0 bc	42.5 e	42.5 c	20.0 e
2	CADRE	2	AS	1.0	oz/a	PRE	A						
2	DEKALB DKC62-08							0.0 c	42.5 c	52.5 ab	61.3 d	53.8 b	35.0 d
2	CADRE	2	AS	1.0	oz/a	PRE	A						
3	PIONEER 1739YHR							0.0 c	30.0 d	38.8 c	50.0 e	42.5 c	22.5 e
2	CADRE	2	AS	1.0	oz/a	PRE	A						
1	MYCOGEN 2C797							0.0 c	42.5 c	50.0 abc	75.0 ab	63.8 b	52.5 ab
3	STRONGARM	84	WG	0.113	oz/a	PRE	A						
2	DEKALB DKC62-08							0.0 c	60.0 a	61.3 a	80.0 a	75.0 a	55.0 a
3	STRONGARM	84	WG	0.113	oz/a	PRE	A						
3	PIONEER 1739YHR							0.0 c	45.0 bc	56.3 ab	72.5 abc	62.5 b	40.0 cd
3	STRONGARM	84	WG	0.113	oz/a	PRE	A						
1	MYCOGEN 2C797							20.0 b	56.3 ab	61.3 a	67.5 bcd	58.8 b	45.0 bc
4	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A						
2	DEKALB DKC62-08							20.0 b	56.3 ab	60.0 a	67.5 bcd	58.8 b	37.5 cd
4	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A						
3	PIONEER 1739YHR							25.0 a	42.5 c	50.0 abc	62.5 cd	56.3 b	37.5 cd
4	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A						
Tukey's HSD P=.10								.	12.28	12.18	10.03	10.99	8.92
Standard Deviation								0.00	5.18	5.13	4.23	4.63	3.76
CV								0.00	15.63	12.96	8.77	10.82	13.07

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	7	8	9
Weed Code								-----	-----	-----
Crop Code								ZEAMA	ZEAMA	ZEAMA
Part Rated								PLOT -	PLOT -	PLOT -
Rating Data Type								YIELD	MOISTURE	YIELD
Rating Unit								LBS/PLOT	PERCENT	BU/A
Rating Date								Aug-28-18	Aug-28-18	Aug-28-18
Trt-Eval Interval								153 DA-A	153 DA-A	153 DA-A
PRM Data Type										TY1
# Subsamples, Dec.										- 0
TABLE OF R MEANS										
Replicate 1								37.8	15.53	196
Replicate 2								36.7	15.53	190
Replicate 3								34.0	15.53	176
Replicate 4								35.1	15.53	182
TABLE OF A (HYBRID) MEANS										
1	MYCOGEN 2C797							31.1 b	15.40 b	162 b
2	DEKALB DKC62-08							36.9 a	15.10 c	192 a
3	PIONEER 1739YHR							39.6 a	16.10 a	204 a
Tukey's HSD P=.10								3.28	.	16.9
Standard Deviation								3.69	0.000	19.1
CV								10.29	0.000	10.3
TABLE OF B (HERBICIDE) MEANS										
1	NO HERBICIDE							44.5 a	15.53 a	231 a
2	CADRE	2	AS	1.0	oz/a	PRE	A	40.0 a	15.53 a	207 a
3	STRONGARM	84	WG	0.113	oz/a	PRE	A	30.2 b	15.53 a	156 b
4	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	28.8 b	15.53 a	149 b
Tukey's HSD P=.10								5.52	.	28.6
Standard Deviation								5.08	0.000	26.4
CV								14.16	0.000	14.2
TABLE OF A (HYBRID) B (HERBICIDE) MEANS										
1	MYCOGEN 2C797 1 NO HERBICIDE							41.8 abc	15.40 b	217 abc
2	DEKALB DKC62-08 1 NO HERBICIDE							44.3 ab	15.10 c	231 ab
3	PIONEER 1739YHR 1 NO HERBICIDE							47.5 a	16.10 a	245 a
1	MYCOGEN 2C797 2 CADRE	2	AS	1.0	oz/a	PRE	A	39.0 bcd	15.40 b	202 bcd
2	DEKALB DKC62-08 2 CADRE	2	AS	1.0	oz/a	PRE	A	39.0 bcd	15.10 c	203 bcd
3	PIONEER 1739YHR 2 CADRE	2	AS	1.0	oz/a	PRE	A	42.0 ab	16.10 a	216 abc
1	MYCOGEN 2C797 3 STRONGARM	84	WG	0.113	oz/a	PRE	A	26.3 f	15.40 b	136 f
2	DEKALB DKC62-08 3 STRONGARM	84	WG	0.113	oz/a	PRE	A	29.5 ef	15.10 c	154 ef
3	PIONEER 1739YHR 3 STRONGARM	84	WG	0.113	oz/a	PRE	A	34.8 de	16.10 a	179 de
1	MYCOGEN 2C797 4 STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	17.5 g	15.40 b	91 g
2	DEKALB DKC62-08 4 STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	35.0 cde	15.10 c	182 cde
3	PIONEER 1739YHR 4 STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	34.0 de	16.10 a	175 de
Tukey's HSD P=.10								6.91	.	35.9
Standard Deviation								2.91	0.000	15.1
CV								8.12	0.000	8.1

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)

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COMPLETE FACTORIAL AOV For ----- ZEAMA PLANT STUNTING PERCENT Apr-10-18 13 DA-A (Data Column 1)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	4291.666667				
R	3	0.000000	0.000000	0.000	1.0000	
A	2	16.666667	8.333333	0.000	1.0000	.
RA	6	0.000000	0.000000			
B	3	4225.000000	1408.333333	0.000	1.0000	.
RB	9	0.000000	0.000000			
AB	6	50.000000	8.333333	0.000	1.0000	.
RAB	18	0.000000	0.000000			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLANT STUNTING PERCENT Apr-18-18 21 DA-A (Data Column 2)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	24381.250000				
R	3	222.916667	74.305556	2.773	0.0713	
A	2	1040.625000	520.312500	7.257	0.0250	7.5
RA	6	430.208333	71.701389			
B	3	20406.250000	6802.083333	76.325	0.0001	10.3
RB	9	802.083333	89.120370			
AB	6	996.875000	166.145833	6.201	0.0011	12.3
RAB	18	482.291667	26.793981			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLANT STUNTING PERCENT Apr-23-18 26 DA-A (Data Column 3)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	27791.666667				
R	3	54.166667	18.055556	0.686	0.5724	
A	2	419.791667	209.895833	11.970	0.0080	3.7
RA	6	105.208333	17.534722			
B	3	26054.166667	8684.722222	468.975	0.0001	4.7
RB	9	166.666667	18.518519			
AB	6	517.708333	86.284722	3.277	0.0234	12.2
RAB	18	473.958333	26.331019			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLANT STUNTING PERCENT May-2-18 35 DA-A (Data Column 4)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	42624.479167				
R	3	164.062500	54.687500	3.058	0.0548	
A	2	376.041667	188.020833	9.757	0.0130	3.9
RA	6	115.625000	19.270833			
B	3	40884.895833	13628.298611	506.445	0.0001	5.6
RB	9	242.187500	26.909722			
AB	6	519.791667	86.631944	4.845	0.0042	10.0
RAB	18	321.875000	17.881944			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLANT STUNTING PERCENT May-16-18 49 DA-A (Data Column 5)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	33895.312500				
R	3	255.729167	85.243056	3.970	0.0247	
A	2	403.125000	201.562500	6.711	0.0295	4.9
RA	6	180.208333	30.034722			
B	3	31943.229167	10647.743056	241.778	0.0001	7.2
RB	9	396.354167	44.039352			
AB	6	330.208333	55.034722	2.563	0.0567	11.0
RAB	18	386.458333	21.469907			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLANT STUNTING PERCENT Jun-5-18 69 DA-A (Data Column 6)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	18725.000000				
R	3	241.666667	80.555556	5.705	0.0063	
A	2	387.500000	193.750000	12.130	0.0078	3.6
RA	6	95.833333	15.972222			
B	3	16541.666667	5513.888889	121.531	0.0001	7.3
RB	9	408.333333	45.370370			
AB	6	795.833333	132.638889	9.393	0.0001	8.9
RAB	18	254.166667	14.120370			

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)

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COMPLETE FACTORIAL AOV For ----- ZEAMA PLOT YIELD LBS/PLOT Aug-28-18 153 DA-A (Data Column 7)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	3659.250000				
R	3	99.416667	33.138889	3.908	0.0260	
A	2	596.625000	298.312500	21.906	0.0017	3.3
RA	6	81.708333	13.618056			
B	3	2082.916667	694.305556	26.905	0.0001	5.5
RB	9	232.250000	25.805556			
AB	6	413.708333	68.951389	8.132	0.0002	6.9
RAB	18	152.625000	8.479167			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLOT MOISTURE PERCENT Aug-28-18 153 DA-A (Data Column 8)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	8.426667				
R	3	0.000000	0.000000	0.000	1.0000	
A	2	8.426667	4.213333	0.000	1.0000	.
RA	6	0.000000	0.000000			
B	3	0.000000	0.000000	0.000	1.0000	.
RB	9	0.000000	0.000000			
AB	6	0.000000	0.000000	0.000	1.0000	.
RAB	18	0.000000	0.000000			

COMPLETE FACTORIAL AOV For ----- ZEAMA PLOT YIELD BU/A Aug-28-18 153 DA-A TY1 0 (Data Column 9)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.10)
Total	47	97584.738831				
R	3	2661.115181	887.038394	3.885	0.0265	
A	2	15209.122622	7604.561311	20.936	0.0020	17
RA	6	2179.371003	363.228500			
B	3	55984.436155	18661.478718	26.841	0.0001	29
RB	9	6257.243877	695.249320			
AB	6	11183.710526	1863.951754	8.164	0.0002	36
RAB	18	4109.739467	228.318859			

Part Rated
PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)
PRM Data Type
TY1 = 5.185714*[7]*(100-[8])/84.5

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)

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CORN HYBRID TOLERANCE TO LOW RATES
OF ALS HERBICIDES
Trial ID: CN-01-18 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
	Weed Code								-----	-----	-----	-----	-----	-----
	Crop Code								ZEAMA	ZEAMA	ZEAMA	ZEAMA	ZEAMA	ZEAMA
	Part Rated								PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
	Rating Data Type								STUNTING	STUNTING	STUNTING	STUNTING	STUNTING	STUNTING
	Rating Unit								PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
	Rating Date								Apr-10-18	Apr-18-18	Apr-23-18	May-2-18	May-16-18	Jun-5-18
	Trt-Eval Interval								13 DA-A	21 DA-A	26 DA-A	35 DA-A	49 DA-A	69 DA-A
	PRM Data Type													
	# Subsamples, Dec.													
1	MYCOGEN 2C797							101	0.0	0.0	0.0	0.0	0.0	0.0
	NO HERBICIDE							204	0.0	0.0	0.0	0.0	0.0	0.0
								303	0.0	0.0	0.0	0.0	0.0	0.0
								402	0.0	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	MYCOGEN 2C797							102	0.0	10.0	40.0	40.0	45.0	20.0
	CADRE	2	AS	1.0	oz/a	PRE	A	203	0.0	30.0	40.0	40.0	30.0	20.0
								304	0.0	30.0	50.0	50.0	40.0	20.0
								401	0.0	20.0	50.0	40.0	55.0	20.0
								Mean =	0.0	22.5	45.0	42.5	42.5	20.0
3	MYCOGEN 2C797							103	0.0	30.0	50.0	80.0	65.0	60.0
	STRONGARM	84	WG	0.113	oz/a	PRE	A	202	0.0	40.0	50.0	80.0	65.0	50.0
								301	0.0	50.0	50.0	75.0	65.0	50.0
								404	0.0	50.0	50.0	65.0	60.0	50.0
								Mean =	0.0	42.5	50.0	75.0	63.8	52.5
4	MYCOGEN 2C797							104	20.0	50.0	60.0	70.0	55.0	40.0
	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	201	20.0	50.0	60.0	70.0	50.0	40.0
								302	20.0	60.0	60.0	65.0	60.0	50.0
								403	20.0	65.0	65.0	65.0	70.0	50.0
								Mean =	20.0	56.3	61.3	67.5	58.8	45.0
5	DEKALB DKC62-08							105	0.0	0.0	0.0	0.0	0.0	0.0
	NO HERBICIDE							207	0.0	0.0	0.0	0.0	0.0	0.0
								308	0.0	0.0	0.0	0.0	0.0	0.0
								406	0.0	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0	0.0
6	DEKALB DKC62-08							106	0.0	50.0	50.0	65.0	50.0	40.0
	CADRE	2	AS	1.0	oz/a	PRE	A	208	0.0	50.0	60.0	60.0	55.0	30.0
								307	0.0	40.0	50.0	60.0	50.0	40.0
								405	0.0	30.0	50.0	60.0	60.0	30.0
								Mean =	0.0	42.5	52.5	61.3	53.8	35.0
7	DEKALB DKC62-08							107	0.0	60.0	60.0	75.0	65.0	50.0
	STRONGARM	84	WG	0.113	oz/a	PRE	A	206	0.0	60.0	65.0	80.0	75.0	50.0
								305	0.0	60.0	60.0	85.0	80.0	60.0
								408	0.0	60.0	60.0	80.0	80.0	60.0
								Mean =	0.0	60.0	61.3	80.0	75.0	55.0
8	DEKALB DKC62-08							108	20.0	60.0	60.0	65.0	55.0	30.0
	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	205	20.0	50.0	60.0	65.0	55.0	30.0
								306	20.0	50.0	60.0	70.0	60.0	50.0
								407	20.0	65.0	60.0	70.0	65.0	40.0
								Mean =	20.0	56.3	60.0	67.5	58.8	37.5
9	PIONEER 1739YHR							109	0.0	0.0	0.0	0.0	0.0	0.0
	NO HERBICIDE							212	0.0	0.0	0.0	0.0	0.0	0.0
								311	0.0	0.0	0.0	0.0	0.0	0.0
								410	0.0	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0	0.0
10	PIONEER 1739YHR							110	0.0	30.0	40.0	60.0	50.0	20.0
	CADRE	2	AS	1.0	oz/a	PRE	A	211	0.0	30.0	35.0	40.0	30.0	20.0
								309	0.0	30.0	30.0	60.0	50.0	30.0
								412	0.0	30.0	50.0	40.0	40.0	20.0
								Mean =	0.0	30.0	38.8	50.0	42.5	22.5
11	PIONEER 1739YHR							111	0.0	40.0	50.0	75.0	60.0	40.0
	STRONGARM	84	WG	0.113	oz/a	PRE	A	210	0.0	50.0	65.0	75.0	65.0	40.0
								312	0.0	40.0	60.0	75.0	65.0	40.0
								409	0.0	50.0	50.0	65.0	60.0	40.0
								Mean =	0.0	45.0	56.3	72.5	62.5	40.0

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
	Weed Code								-----	-----	-----	-----	-----	-----
	Crop Code								ZEAMA	ZEAMA	ZEAMA	ZEAMA	ZEAMA	ZEAMA
	Part Rated								PLANT	PLANT	PLANT	PLANT	PLANT	PLANT
	Rating Data Type								STUNTING	STUNTING	STUNTING	STUNTING	STUNTING	STUNTING
	Rating Unit								PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
	Rating Date								Apr-10-18	Apr-18-18	Apr-23-18	May-2-18	May-16-18	Jun-5-18
	Trt-Eval Interval								13 DA-A	21 DA-A	26 DA-A	35 DA-A	49 DA-A	69 DA-A
	PRM Data Type													
	# Subsamples, Dec.													
12	PIONEER 1739YHR							112	25.0	30.0	50.0	60.0	50.0	30.0
	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	209	25.0	30.0	60.0	65.0	55.0	30.0
								310	25.0	50.0	50.0	65.0	60.0	40.0
								411	25.0	60.0	40.0	60.0	60.0	50.0
								Mean =	25.0	42.5	50.0	62.5	56.3	37.5

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	7	8	9
	Weed Code								-----	-----	-----
	Crop Code								ZEAMA	ZEAMA	ZEAMA
	Part Rated								PLOT -	PLOT -	PLOT -
	Rating Data Type								YIELD	MOISTURE	YIELD
	Rating Unit								LBS/PLOT	PERCENT	BU/A
	Rating Date								Aug-28-18	Aug-28-18	Aug-28-18
	Trt-Eval Interval								153 DA-A	153 DA-A	153 DA-A
	PRM Data Type										TY1
	# Subsamples, Dec.										- 0
1	MYCOGEN 2C797							101	40.0	15.40	208
	NO HERBICIDE							204	38.0	15.40	197
								303	45.0	15.40	234
								402	44.0	15.40	228
								Mean =	41.8	15.40	217
2	MYCOGEN 2C797							102	38.0	15.40	197
	CADRE	2	AS	1.0	oz/a	PRE	A	203	41.0	15.40	213
								304	38.0	15.40	197
								401	39.0	15.40	202
								Mean =	39.0	15.40	202
3	MYCOGEN 2C797							103	28.0	15.40	145
	STRONGARM	84	WG	0.113	oz/a	PRE	A	202	27.0	15.40	140
								301	25.0	15.40	130
								404	25.0	15.40	130
								Mean =	26.3	15.40	136
4	MYCOGEN 2C797							104	27.0	15.40	140
	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	201	14.0	15.40	73
								302	19.0	15.40	99
								403	10.0	15.40	52
								Mean =	17.5	15.40	91
5	DEKALB DKC62-08							105	40.0	15.10	208
	NO HERBICIDE							207	46.0	15.10	240
								308	46.0	15.10	240
								406	45.0	15.10	234
								Mean =	44.3	15.10	231
6	DEKALB DKC62-08							106	37.0	15.10	193
	CADRE	2	AS	1.0	oz/a	PRE	A	208	40.0	15.10	208
								307	38.0	15.10	198
								405	41.0	15.10	214
								Mean =	39.0	15.10	203
7	DEKALB DKC62-08							107	36.0	15.10	188
	STRONGARM	84	WG	0.113	oz/a	PRE	A	206	33.0	15.10	172
								305	23.0	15.10	120
								408	26.0	15.10	135
								Mean =	29.5	15.10	154
8	DEKALB DKC62-08							108	39.0	15.10	203
	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	205	36.0	15.10	188
								306	33.0	15.10	172
								407	32.0	15.10	167
								Mean =	35.0	15.10	182
9	PIONEER 1739YHR							109	49.0	16.10	252
	NO HERBICIDE							212	49.0	16.10	252
								311	46.0	16.10	237
								410	46.0	16.10	237
								Mean =	47.5	16.10	245
10	PIONEER 1739YHR							110	43.0	16.10	221
	CADRE	2	AS	1.0	oz/a	PRE	A	211	44.0	16.10	227
								309	34.0	16.10	175
								412	47.0	16.10	242
								Mean =	42.0	16.10	216
11	PIONEER 1739YHR							111	40.0	16.10	206
	STRONGARM	84	WG	0.113	oz/a	PRE	A	210	37.0	16.10	191
								312	31.0	16.10	160
								409	31.0	16.10	160
								Mean =	34.8	16.10	179

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	7	8	9
	Weed Code								-----	-----	-----
	Crop Code								ZEAMA	ZEAMA	ZEAMA
	Part Rated								PLOT -	PLOT -	PLOT -
	Rating Data Type								YIELD	MOISTURE	YIELD
	Rating Unit								LBS/PLOT	PERCENT	BU/A
	Rating Date								Aug-28-18	Aug-28-18	Aug-28-18
	Trt-Eval Interval								153 DA-A	153 DA-A	153 DA-A
	PRM Data Type										TY1
	# Subsamples, Dec.										- 0
12	PIONEER 1739YHR							112	36.0	16.10	185
	STAPLE LX	3.2	SL	0.75	oz/a	PRE	A	209	35.0	16.10	180
								310	30.0	16.10	154
								411	35.0	16.10	180
								Mean =	34.0	16.10	175

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CORN HYBRID TOLERANCE TO LOW RATES
OF ALS HERBICIDES
Trial ID: CN-01-18 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Part Rated
PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)
PRM Data Type
TY1 = 5.185714*[7]*(100-[8])/84.5