

Evaluation of KIH-485 as a Foundation in Sequential Programs.

Trial ID: 08-2A-MW40 Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Belleville IL 62221 USA
 Trial Status: FINAL Initiation Date: 06-16-08

Objectives: To determine the optimum rate of KIH-485 as a foundation in a sequential program in glyphosate-resistant corn.

Crop 1: ZEAMD Dent corn Variety: DKC 61-73 RR2/YGCB
 Planting Method: SEEDED Planting Date: 06-16-08
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W	Code: GGGAN		grasses, annual
Pest 2 Type: W	Code: AMBTR	Ambrosia trifida L.	ragweed, giant
Pest 3 Type: W	Code: ABUTH	Abutilon theophrasti Medicus	velvetleaf
Pest 4 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common
Pest 5 Type: W	Code: POLPY	Polygonum pensylvanicum L.	smartweed, Pennsylvania
Pest 6 Type: W	Code: XANST	Xanthium strumarium L.	cocklebur, common
Pest 7 Type: W	Code: AMBEL	Ambrosia artemisiifolia L.	ragweed, common

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 28 FT Tillage Type: REDUCED-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year

1. GLXMA 2007

Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 100 LB/A

% OM:	1.6	Texture:	SILT LOAM
pH:	6.2	Soil Name:	PIERRON
CEC:	7	Fert. Level:	P1:93 LB/A, K:448 LB/A

Application Description

A

Application Date: 06-16-08
 Time of Day: 20:00
 Application Method: Spray
 Application Timing: PRE
 Application Placement: BROSOI
 Applied By: NRJ
 Air Temperature, Unit: 84 F
 % Relative Humidity: 42
 Wind Velocity, Unit: 4 MPH
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 80 F
 Soil Moisture: NORMAL
 % Cloud Cover: 0

06-16-08
 Crop stage at application: NA

Pest Stage At Each Application

Application Date: 06-16-08
 Weed Code: GGGAN
 Stage Majority (leaves): NA
 Weed Code: AMBTR
 Stage Majority (leaves): NA
 Weed Code: ABUTH
 Stage Majority (leaves): NA
 Weed Code: AMATA
 Stage Majority (leaves): NA
 Weed Code: POLPY
 Stage Majority (leaves): NA
 Weed Code: XANST
 Stage Majority (leaves): NA
 Weed Code: AMBEL
 Stage Majority (leaves): NA

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 15 GPA

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								GGGAN	GGGAN	AMBTR	AMBTR	ABUTH	ABUTH				
								ZEAMD	ZEAMD								
								07-16-08	07-30-08	07-16-08	07-30-08	07-16-08	07-30-08				
								Injury	Injury	Control	Control	Control	Control				
								Percent	Percent	Percent	Percent	Percent	Percent				
								30 DA-A	44 DA-A	30 DA-A	44 DA-A	30 DA-A	44 DA-A				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Other Unit	Growth Stage	Appl Code								
1	NONTREATED									0 a	0 a	0 d	0 c	0 b	0 a	0 b	0 a
2	KIH-485	85	WG	0.074	lb ai/a	1.39	oz/a	PRE	A	0 a	0 a	93 c	86 b	25 ab	0 a	20 ab	3 a
3	KIH-485	85	WG	0.111	lb ai/a	2.09	oz/a	PRE	A	0 a	0 a	94 bc	87 b	25 ab	5 a	27 a	17 a
4	KIH-485	85	WG	0.148	lb ai/a	2.79	oz/a	PRE	A	0 a	0 a	96 ab	94 a	53 a	37 a	30 a	20 a
5	KIH-485	85	WG	0.186	lb ai/a	3.5	oz/a	PRE	A	0 a	0 a	98 a	96 a	45 a	0 a	37 a	20 a
6	DUAL II MAG	7.64	EC	1.27	lb ai/a	1.33	pt/a	PRE	A	0 a	0 a	92 c	91 ab	3 b	0 a	0 b	0 a
7	HARNES	7	EC	1.31	lb ai/a	1.5	pt/a	PRE	A	0 a	0 a	97 ab	90 ab	45 a	33 a	20 ab	13 a
LSD (P=.05)										0.0	0.0	3.6	6.9	33.1	37.3	22.0	29.3
Replicate F										0.000	0.000	0.891	0.351	0.432	1.018	1.617	1.390
Replicate Prob(F)										1.0000	1.0000	0.4359	0.7110	0.6632	0.4038	0.2390	0.2864
Treatment F										0.000	0.000	952.820	235.534	4.265	2.094	3.969	0.921
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0317	0.1643	0.0202	0.5132

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

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		AMATA		POLPY		XANST		AMBEL								
Pest Code		AMATA	AMATA	POLPY	POLPY	XANST	XANST	AMBEL	AMBEL							
Crop Code																
Rating Date		07-16-08	07-30-08	07-16-08	07-30-08	07-16-08	07-30-08	07-16-08	07-30-08							
Rating Data Type		Control	Control	Control	Control	Control	Control	Control	Control							
Rating Unit		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent							
Rating Timing																
Trt-Eval Interval		30 DA-A	44 DA-A	30 DA-A	44 DA-A	30 DA-A	44 DA-A	30 DA-A	44 DA-A							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	NONTREATED								0 c	0 c	0 b	0 b	0 a	0 a	0 d	0 e
2	KIH-485	85	WG	0.074	lb ai/a	1.39 oz/a	PRE	A	83 b	80 b	0 b	0 b	0 a	0 a	17 cd	7 de
3	KIH-485	85	WG	0.111	lb ai/a	2.09 oz/a	PRE	A	93 a	92 a	0 b	0 b	0 a	0 a	27 bc	17 d
4	KIH-485	85	WG	0.148	lb ai/a	2.79 oz/a	PRE	A	95 a	92 a	0 b	0 b	0 a	0 a	40 b	37 c
5	KIH-485	85	WG	0.186	lb ai/a	3.5 oz/a	PRE	A	96 a	96 a	50 ab	50 ab	15 a	10 a	86 a	85 a
6	DUAL II MAG	7.64	EC	1.27	lb ai/a	1.33 pt/a	PRE	A	80 b	80 b	33 ab	33 ab	0 a	0 a	0 d	0 e
7	HARNESS	7	EC	1.31	lb ai/a	1.5 pt/a	PRE	A	99 a	99 a	83 a	79 a	15 a	15 a	40 b	50 b
LSD (P=.05)				7.0		8.6			52.3		53.7		21.9		18.5	18.9
Replicate F				0.886		1.204			2.200		2.193		0.000		0.039	0.115
Replicate Prob(F)				0.4375		0.3338			0.1571		0.1579		1.0000		0.9621	0.8925
Treatment F				236.145		155.090			3.825		3.407		1.250		1.283	23.865
Treatment Prob(F)				0.0001		0.0001			0.0262		0.0376		0.3844		0.3721	0.0001

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

Trial Comments

1. Protocol: K-I Chemical USA.
2. Ratings: CI/WC at 30, 45 + 60 DAT.
3. DA-A = Days after PRE application.
4. GGGAN = Annual grasses including SETFA and PANDI.
5. At the Belleville Research Center the above normal rainfall in spring 2008 (no more than four consecutive rain-free days between March 22 and June 15) delayed corn and soybean planting until mid-June.
6. Following the PRE application on June 16, rainfall was 0.29 inch 4 days later and 0.35 inch 11 days later.
7. Not possible to make the planned 60 DAT rating due to field conditions.
8. Not harvested.