

Ohio State University
Horticulture and Crop Science

KIH-485 RESIDUAL WEED CONTROL IN ROUNDUP READY CORN

Trial ID: 08KIHRRRC Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH F-7 Investigator: Dr. Mark M. Loux

GENERAL TRIAL INFORMATION

Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

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

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. SETFA	Giant foxtail	Setaria faberi
2. AMBTR	Giant ragweed	Ambrosia trifida
3. AMBEL	Common ragweed	Ambrosia artemisiifolia
4. CHEAL	Common lambsquarters	Chenopodium album
5. POLPY	Pennsylvania smartweed	Polygonum pensylvanicum
6. AMARE	Redroot pigweed	Amaranthus retroflexus

Crop 1: ZEAMX CORN, FIELD **Variety:** DEKALB DKC 63-42
Planting Date: Apr/24/2008 **Planting Method:** JOHN DEERE 7200
Rate: 32097 SEED/A **Depth:** 1.5 IN
Row Spacing: 30 IN **Seed Bed:** CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 6.67 FT **Plot Length, Unit:** 30 FT **Reps:** 3
Tillage Type: CONVENTIONAL **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 3 **Texture:** SILTY CLAY LOAM
pH: 6.7 **Soil Name:** KOKOMO
CEC: 24.6 **Fert. Level:** GOOD

APPLICATION DESCRIPTION

A

Application Date: Apr/24/2008
Time of Day: 11:00 A.M
Application Method: SPRAY
Application Timing: PRE
Applic. Placement: BROADCAST
Air Temp., Unit: 62 F
% Relative Humidity: 39
Wind Velocity, Unit: 8 E
Soil Temp., Unit: 54 F
Soil Moisture: DRY/MOIST
% Cloud Cover: 1

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: ZEAMX

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: SETFA
Density, Unit: 350 M2
Weed 2 Code, Stage: AMBTR
Density, Unit: 8 M2
Weed 3 Code, Stage: AMBEL
Density, Unit: 17 M2
Weed 4 Code, Stage: CHEAL
Density, Unit: 78 M2
Weed 5 Code, Stage: POLPY
Density, Unit: 8 M2
Weed 6 Code, Stage: AMARE
Density, Unit: 2 M2

APPLICATION EQUIPMENT

A

Appl. Equipment: BACKPACK
Operating Pressure: 53
Nozzle Type: DG
Nozzle Size: 11002
Nozzle Spacing, Unit: 18 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 20 GPA
Propellant: CO2

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Location: WESTERN BRANCH F-7 Investigator: Dr. Mark M. Loux

Weed Code		PHYTO		SETFA		AMBTR		AMBEL		CHEAL		POLPY	
Rating Date		May/27/2008		May/27/2008		May/27/2008		May/27/2008		May/27/2008		May/27/2008	
Trt-Eval Interval		33 DA-A		33 DA-A		33 DA-A		33 DA-A		33 DA-A		33 DA-A	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6		
1	UTC					0.0 a	0.0 b	0.0 a	0.0 b	0.0 d	0.0 a		
2	KIH-485	1.39 oz/a		PRE	A	0.0 a	82.0 a	23.3 a	41.7 ab	50.0 c	55.9 a		
3	KIH-485	2.09 oz/a		PRE	A	0.7 a	84.3 a	43.3 a	46.7 ab	71.7 bc	60.9 a		
4	KIH-485	2.79 oz/a		PRE	A	0.0 a	96.7 a	26.7 a	79.7 a	91.6 ab	83.0 a		
5	KIH-485	3.5 oz/a		PRE	A	0.0 a	87.3 a	30.0 a	87.2 a	102.1 a	75.5 a		
6	DUAL II MAGNUM	1.6 pt/a		PRE	A	0.0 a	99.3 a	33.3 a	53.3 a	70.0 bc	50.0 a		
7	HARNESS	1.5 pt/a		PRE	A	0.7 a	98.7 a	53.3 a	76.7 a	85.0 ab	91.0 a		
8	OUTLOOK	12 oz/a		PRE	A	0.7 a	96.0 a	40.0 a	40.0 ab	46.7 c	66.7 a		
LSD (P=.05)						1.24	12.33	32.46	34.79	20.73	53.12		
Standard Deviation						0.71	7.04	18.53	19.55	11.65	28.76		
CV						282.84	8.74	59.3	36.78	18.03	47.64		
Bartlett's X2						0.0	13.651	2.285	1.249	7.547	5.581		
P(Bartlett's X2)						.	0.034*	0.892	0.974	0.273	0.349		
Replicate F						1.000	1.973	2.220	3.620	1.702	1.068		
Replicate Prob(F)						0.3927	0.1758	0.1454	0.0589	0.2236	0.3834		
Treatment F						0.714	66.856	2.217	6.269	23.140	2.843		
Treatment Prob(F)						0.6619	0.0001	0.0971	0.0029	0.0001	0.0734		

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code		PHYTO		SETFA		AMBTR		AMBEL		CHEAL		POLPY		AMARE	
Rating Date		Jun/08/2008		Jun/08/2008		Jun/08/2008		Jun/08/2008		Jun/08/2008		Jun/08/2008		Jun/08/2008	
Trt-Eval Interval		45 DA-A		45 DA-A		45 DA-A		45 DA-A		45 DA-A		45 DA-A		45 DA-A	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10	11	12	13			
1	UTC					0.0 a	0.0 d	0.0 a	0.0 b	0.0 d	0.0 b	0.0 b			
2	KIH-485	1.39 oz/a		PRE	A	0.0 a	66.7 c	13.3 a	30.0 ab	58.3 bc	43.3 a	100.0 a			
3	KIH-485	2.09 oz/a		PRE	A	0.0 a	82.7 ab	36.7 a	40.0 ab	72.3 b	86.7 a	100.0 a			
4	KIH-485	2.79 oz/a		PRE	A	0.0 a	96.7 a	23.3 a	82.3 a	90.0 a	80.0 a	100.0 a			
5	KIH-485	3.5 oz/a		PRE	A	0.0 a	92.3 a	23.3 a	76.7 a	90.0 a	79.3 a	100.0 a			
6	DUAL II MAGNUM	1.6 pt/a		PRE	A	0.0 a	86.7 a	26.7 a	40.0 ab	60.0 bc	53.3 a	96.7 a			
7	HARNESS	1.5 pt/a		PRE	A	0.0 a	84.0 ab	40.0 a	51.7 ab	70.0 b	96.7 a	100.0 a			
8	OUTLOOK	12 oz/a		PRE	A	0.0 a	70.0 bc	30.0 a	43.3 ab	46.7 c	61.7 a	100.0 a			
LSD (P=.05)						0.00	12.02	25.10	37.76	12.58	35.03	3.58			
Standard Deviation						0.00	6.86	14.33	21.56	7.18	20.00	2.04			
CV						0.0	9.48	59.3	47.39	11.79	31.94	2.34			
Bartlett's X2						0.0	5.652	3.25	1.159	2.248	7.471	0.0			
P(Bartlett's X2)						.	0.342	0.777	0.979	0.814	0.279	.			
Replicate F						0.000	3.699	2.577	3.025	9.639	1.182	1.000			
Replicate Prob(F)						1.0000	0.0513	0.1115	0.0809	0.0023	0.3354	0.3927			
Treatment F						0.000	61.086	2.400	4.371	48.421	7.177	892.429			
Treatment Prob(F)						1.0000	0.0001	0.0774	0.0091	0.0001	0.0009	0.0001			

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Weed Code						SETFA	AMBTR	AMBEL	CHEAL	POLPY	AMARE
Rating Date						Jun/23/2008	Jun/23/2008	Jun/23/2008	Jun/23/2008	Jun/23/2008	Jun/23/2008
Trt-Eval Interval						60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	14	15	16	17	18	19
1	UTC					0.0 c	0.0 a	0.0 b	0.0 e	0.0 b	0.0 b
2	KIH-485	1.39 oz/a		PRE	A	60.0 b	6.7 a	16.7 ab	56.7 bc	36.7 ab	96.7 a
3	KIH-485	2.09 oz/a		PRE	A	63.3 b	16.7 a	33.3 ab	63.3 bc	56.7 a	100.0 a
4	KIH-485	2.79 oz/a		PRE	A	88.3 a	6.7 a	63.3 a	76.7 ab	83.3 a	100.0 a
5	KIH-485	3.5 oz/a		PRE	A	87.7 a	23.3 a	63.3 a	88.3 a	83.3 a	100.0 a
6	DUAL II MAGNUM	1.6 pt/a		PRE	A	70.0 ab	10.0 a	23.3 ab	50.0 cd	43.3 a	93.3 a
7	HARNESS	1.5 pt/a		PRE	A	60.0 b	16.7 a	26.7 ab	46.7 cd	66.7 a	100.0 a
8	OUTLOOK	12 oz/a		PRE	A	46.7 b	13.3 a	26.7 ab	30.0 d	36.7 ab	100.0 a
LSD (P=.05)						16.71	22.65	36.06	16.59	31.17	7.52
Standard Deviation						9.54	12.93	20.59	9.47	17.80	4.30
CV						16.04	110.85	65.01	18.41	35.01	4.98
Bartlett's X2						5.091	2.127	0.985	3.168	4.51	0.866
P(Bartlett's X2)						0.532	0.908	0.986	0.674	0.608	0.352
Replicate F						1.913	0.174	4.876	1.823	0.684	2.032
Replicate Prob(F)						0.1843	0.8418	0.0247	0.1979	0.5206	0.1679
Treatment F						25.683	0.968	3.393	25.299	7.361	198.419
Treatment Prob(F)						0.0001	0.4899	0.0246	0.0001	0.0008	0.0001

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