

Ohio State University
Horticulture and Crop Science

GRAIN QUALITY IN ROUNDUP READY SOYBEAN

Trial ID: 08ANDERSONS Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH E-1 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. ECHCG	Common barnyardgrass	Echinochloa crus-galli
3. ABUTH	Velvetleaf	Abutilon theophrasti
4. AMBTR	Giant ragweed	Ambrosia trifida
5. CYPES	Yellow nutsedge	Cyperus esculentus
6. SIDSP	Prickly sida	Sida spinosa

Crop 1: GLXMA SOYBEAN Variety: SEED CONSULTANTS SC9386
Planting Date: May/22/2008 Planting Method: KINZE 2000
Rate: 175386 SEED/A Depth: 0.5 IN
Row Spacing: 15 IN Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 10 FT Plot Length, Unit: 40 FT Reps: 4
Tillage Type: CONVENTIONAL Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 3.1 Texture: SILTY CLAY LOAM
pH: 6.2 Soil Name: KOKOMO
CEC: 23.5 Fert. Level: EXCELLENT

APPLICATION DESCRIPTION

A

Application Date: Jun/25/2008
Time of Day: 9:00 A.M.
Application Method: SPRAY
Application Timing: POST
Applic. Placement: BROADCAST
Air Temp., Unit: 76 F
% Relative Humidity: 58
Wind Velocity, Unit: 7 NNW
Soil Temp., Unit: 65 F
Soil Moisture: DRY/MOIST
% Cloud Cover: 10

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: GLXMA V4
Stage Scale: DESC
Height, Unit: 8 IN

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: SETFA 4-6"
Stage Scale: 5 LVS
Density, Unit: 236 M2
Weed 2 Code, Stage: ECHCG 3"
Stage Scale: 3 LVS
Density, Unit: 23 M2
Weed 3 Code, Stage: ABUTH 2"
Stage Scale: 6 LVS
Density, Unit: 3 M2
Weed 4 Code, Stage: AMBTR 24"
Stage Scale: 32 LVS
Density, Unit: 6 M2
Weed 5 Code, Stage: CYPES 4-12"
Stage Scale: 6-8 LVS
Density, Unit: 2 M2
Weed 6 Code, Stage: SIDSP 2"
Stage Scale: 8 LVS
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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Weed Code				SETFA		AMBTR		ZEAMX		SETFA	
Crop Code				GLXMA						GLXMA	
Rating Data Type				PHYTO		CONTROL		CONTROL		PHYTO	
Rating Unit				PERCENT		PERCENT		PERCENT		PERCENT	
Rating Date				Jul/02/2008		Jul/02/2008		Jul/02/2008		Jul/07/2008	
Trt-Eval Interval				7 DA-A		7 DA-A		7 DA-A		12 DA-A	
# Subsamples, Dec.				0		0		0		0	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	ROUNDUP WEATHERMAX	22 oz/a		POST	A	0 a	95 a	65 ab	59 b	0 a	100 a
1	AMS	4 qt/a		POST							
2	ROUNDUP WEATHERMAX	22 oz/a		POST	A	0 a	96 a	52 b	58 b	0 a	100 a
2	LBE-01	3.42 oz/a		POST							
2	AMS	4 qt/a		POST							
3	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	0 a	94 a	61 ab	59 b	0 a	100 a
3	LBE-01	3.42 oz/a		POST							
3	AMS	4 qt/a		POST							
4	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	0 a	93 a	60 ab	58 b	0 a	100 a
4	AMS	4 qt/a		POST							
5	ROUNDUP WEATHERMAX	22 oz/a		POST	A	0 a	96 a	66 ab	59 b	0 a	100 a
5	FBS-1030	6 oz/a		POST							
5	AMS	4 qt/a		POST							
6	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	0 a	98 a	59 ab	60 b	0 a	100 a
6	FBS-1030	6 oz/a		POST							
6	AMS	4 qt/a		POST							
7	ROUNDUP WEATHERMAX	42.7 oz/a		POST	A	0 a	96 a	69 a	69 a	0 a	100 a
7	AMS	4 qt/a		POST							
8	UTC					0 a	0 b	0 c	0 c	0 a	0 b
LSD (P=.05)						0.0	4.4	9.8	5.0	0.0	0.0
Standard Deviation						0.0	3.0	6.6	3.4	0.0	0.0
CV						0.0	3.55	12.21	6.39	0.0	0.0
Bartlett's X2						0.0	5.058	1.49	0.213	0.0	0.0
P(Bartlett's X2)						.	0.536	0.96	0.899	.	.
Replicate F						0.000	5.339	13.384	2.817	0.000	0.000
Replicate Prob(F)						1.0000	0.0068	0.0001	0.0685	1.0000	1.0000
Treatment F						0.000	519.000	46.162	164.707	0.000	0.000
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001	1.0000	1.0000

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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				AMBTR	ZEAMX	GLXMA	SETFA	AMBTR	ZEAMX		
Weed Code	Crop Code			CONTROL	CONTROL	PHYTO	CONTROL	CONTROL	CONTROL		
Rating Data Type	Rating Unit			PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT		
Rating Date	Rating Date			Jul/07/2008	Jul/07/2008	Jul/16/2008	Jul/16/2008	Jul/16/2008	Jul/16/2008		
Trt-Eval Interval	# Subsamples, Dec.			12 DA-A	12 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A		
				0	0	0	0	0	0		
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10	11	12
1	ROUNDUP WEATHERMAX	22 oz/a		POST	A	81 a	91 a	0 a	100 a	86 a	96 a
1	AMS	4 qt/a		POST							
2	ROUNDUP WEATHERMAX	22 oz/a		POST	A	83 a	85 a	0 a	100 a	93 a	96 a
2	LBE-01	3.42 oz/a		POST							
2	AMS	4 qt/a		POST							
3	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	81 a	83 a	0 a	100 a	91 a	81 a
3	LBE-01	3.42 oz/a		POST							
3	AMS	4 qt/a		POST							
4	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	80 a	73 a	0 a	100 a	90 a	78 a
4	AMS	4 qt/a		POST							
5	ROUNDUP WEATHERMAX	22 oz/a		POST	A	81 a	83 a	0 a	100 a	94 a	86 a
5	FBS-1030	6 oz/a		POST							
5	AMS	4 qt/a		POST							
6	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	77 a	81 a	0 a	100 a	85 a	94 a
6	FBS-1030	6 oz/a		POST							
6	AMS	4 qt/a		POST							
7	ROUNDUP WEATHERMAX	42.7 oz/a		POST	A	86 a	87 a	0 a	100 a	93 a	93 a
7	AMS	4 qt/a		POST							
8	UTC					0 b	0 b	0 a	0 b	0 b	0 b
LSD (P=.05)						11.4	14.8	0.0	0.5	9.2	16.0
Standard Deviation						7.7	10.0	0.0	0.4	6.2	10.8
CV						10.8	13.68	0.0	0.4	7.87	13.82
Bartlett's X2						3.931	2.902	0.0	0.0	1.212	4.436
P(Bartlett's X2)						0.686	0.821	.	.	0.976	0.618
Replicate F						11.997	6.275	0.000	1.000	10.817	2.946
Replicate Prob(F)						0.0001	0.0042	1.0000	0.4123	0.0002	0.0607
Treatment F						56.418	35.977	0.000	39943.859	106.413	35.898
Treatment Prob(F)						0.0001	0.0001	1.0000	0.0001	0.0001	0.0001

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Weed Code		SETFA	AMBTR	ZEAMX
Crop Code	GLXMA			
Rating Data Type	PHYTO	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Aug/19/2008	Aug/19/2008	Aug/19/2008	Aug/19/2008
Trt-Eval Interval	55 DA-A	55 DA-A	55 DA-A	55 DA-A
# Subsamples, Dec.	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	13	14	15	16
1	ROUNDUP WEATHERMAX	22 oz/a		POST	A	0 a	100 a	94 a	100 a
1	AMS	4 qt/a		POST					
2	ROUNDUP WEATHERMAX	22 oz/a		POST	A	0 a	100 a	90 a	100 a
2	LBE-01	3.42 oz/a		POST					
2	AMS	4 qt/a		POST					
3	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	0 a	98 a	93 a	100 a
3	LBE-01	3.42 oz/a		POST					
3	AMS	4 qt/a		POST					
4	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	0 a	100 a	94 a	95 a
4	AMS	4 qt/a		POST					
5	ROUNDUP WEATHERMAX	22 oz/a		POST	A	0 a	100 a	94 a	100 a
5	FBS-1030	6 oz/a		POST					
5	AMS	4 qt/a		POST					
6	ROUNDUP WEATHERMAX	15.4 oz/a		POST	A	0 a	100 a	90 a	100 a
6	FBS-1030	6 oz/a		POST					
6	AMS	4 qt/a		POST					
7	ROUNDUP WEATHERMAX	42.7 oz/a		POST	A	0 a	100 a	99 a	95 a
7	AMS	4 qt/a		POST					
8	UTC					0 a	0 b	0 b	0 b
LSD (P=.05)						0.0	1.3	10.5	6.1
Standard Deviation						0.0	0.9	7.1	4.1
CV						0.0	1.04	8.71	4.76
Bartlett's X2						0.0	1.948	4.77	13.379
P(Bartlett's X2)						.	0.163	0.574	0.001*
Replicate F						0.000	1.058	3.502	2.252
Replicate Prob(F)						1.0000	0.3878	0.0356	0.1136
Treatment F						0.000	6082.749	86.615	289.020
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001

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