

Ohio State University
Horticulture and Crop Science

POST GLYPHOSATE TIMING IN ROUNDUP READY CORN

Trial ID: 08RRCTIME2 Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH F-7 Investigator: Dr. Mark M. Loux

GENERAL TRIAL INFORMATION

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

TRIAL LOCATION

State/Prov.: Ohio Trial Status: yield
Country: USA Initiation Date: Apr/01/2007
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. IPOHE	Ivyleaf morningglory	Ipomoea hederacea
3. ABUTH	Velvetleaf	Abutilon theophrasti
4. POLPY	Pennsylvania smartweed	Polygonum pensylvanicum
5. AMBTR	Giant ragweed	Ambrosia trifida
6. CHEAL	Common lambsquarters	Chenopodium album
7. AMBEL	Common ragweed	Ambrosia artemisiifolia elatio
8. AMARE	Redroot pigweed	Amaranthus retroflexus

Crop 1: ZEAMX CORN, FIELD Variety: PIONEER 33N12
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: 10 FT Plot Length, Unit: 40 FT Reps: 4
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

Overall Moisture Conditions: POOR

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	Apr/24/2008	Jun/02/2008	Jun/08/2008	Jun/17/2008
Time of Day:	11:00 A.M	9:30 A.M	7:30 A.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	PRE	POST	LPO
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	62 F	73 F	73 F	60 F
% Relative Humidity:	39	67	81	50
Wind Velocity, Unit:	8 E	5 SE	7 SW	8 WNW
Soil Temp., Unit:	54 F	65 F	69 F	60 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	MOIST/WET	DRY/MOIST
% Cloud Cover:	2	2	7	35

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ZEAMX	ZEAMX V4	ZEAMX V6	ZEAMX V8
Stage Scale:	DESC	DESC	DESC	DESC
Height, Unit:	10 IN	23 IN	40 IN	IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	SETFA	SETFA	SETFA 1-6"	SETFA
Stage Scale:			1-6 LVS	
Weed 2 Code, Stage:	IPOHE	IPOHE	IPOHE 1-6"	IPOHE
Stage Scale:			2-6 LVS	
Weed 3 Code, Stage:	ABUTH	ABUTH	ABUTH 1-6"	ABUTH
Stage Scale:			2-4 LVS	
Weed 4 Code, Stage:	POLPY	POLPY	POLPY 1-6"	POLPY
Stage Scale:			2-4 LVS	
Weed 5 Code, Stage:	AMBTR	AMBTR	AMBTR 1-24"	AMBTR
Stage Scale:			2->12 LVS	
Weed 6 Code, Stage:	CHEAL	CHEAL	CHEAL 1-6"	CHEAL
Stage Scale:			2-10 LVS	
Weed 7 Code, Stage:	AMBEL	AMBEL	AMBEL 1-6"	AMBEL
Stage Scale:			2-4 LVS	
Weed 8 Code, Stage:	AMARE	AMARE	AMARE 1-6"	AMARE
Stage Scale:			2-4 LVS	

APPLICATION EQUIPMENT

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

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Weed Code			
Crop Code		ZEAMX	ZEAMX
Rating Data Type		YIELD	MOISTURE
Rating Unit		LBS	PERCENT
Rating Date		Oct/13/2008	Oct/13/2008
Trt-Eval Interval		HARVEST	HARVEST
ARM Action Codes			TY1
# Subsamples, Dec.		2	2

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	19	20	21
1	ROUNDUP WEATHERMAX	21.3	oz/a	EPO	B	57.44 b	18.12 a	215.3 a
1	AMS	4	qt/a	EPO				
2	ATRAZINE	1	qt/a	PRE	A	57.70 ab	20.72 a	209.4 a
2	ROUNDUP WEATHERMAX	21.3	oz/a	EPO	B			
2	AMS	4	qt/a	EPO				
3	BICEP II MAGNUM	1.2	qt/a	PRE	A	58.17 ab	19.23 a	215.0 a
3	ROUNDUP WEATHERMAX	21.3	oz/a	EPO	B			
3	AMS	4	qt/a	EPO				
4	LEXAR	3	qt/a	PRE	A	60.36 ab	20.37 a	220.0 a
4	ROUNDUP WEATHERMAX	21.3	oz/a	EPO	B			
4	AMS	4	qt/a	EPO				
5	ROUNDUP WEATHERMAX	21.3	oz/a	MPO	C	57.92 ab	19.28 a	213.9 a
5	AMS	4	qt/a	MPO				
6	ATRAZINE	1	qt/a	PRE	A	59.96 ab	21.86 a	214.3 a
6	ROUNDUP WEATHERMAX	21.3	oz/a	MPO	C			
6	AMS	4	qt/a	MPO				
7	BICEP II MAGNUM	1.2	qt/a	PRE	A	57.11 b	19.94 a	209.5 a
7	ROUNDUP WEATHERMAX	21.3	oz/a	MPO	C			
7	AMS	4	qt/a	MPO				
8	LEXAR	3	qt/a	PRE	A	61.12 ab	20.80 a	221.5 a
8	ROUNDUP WEATHERMAX	21.3	oz/a	MPO	C			
8	AMS	4	qt/a	MPO				
9	ROUNDUP WEATHERMAX	21.3	oz/a	LPO	D	52.26 c	19.49 a	192.4 a
9	AMS	4	qt/a	LPO				
10	ATRAZINE	1	qt/a	PRE	A	57.94 ab	20.88 a	209.9 a
10	ROUNDUP WEATHERMAX	21.3	oz/a	LPO	D			
10	AMS	4	qt/a	LPO				
11	BICEP II MAGNUM	1.2	qt/a	PRE	A	59.85 ab	19.24 a	221.1 a
11	ROUNDUP WEATHERMAX	21.3	oz/a	LPO	D			
11	AMS	4	qt/a	LPO				
12	LEXAR	3	qt/a	PRE	A	61.91 a	19.03 a	229.3 a
12	ROUNDUP WEATHERMAX	21.3	oz/a	LPO	D			
12	AMS	4	qt/a	LPO				
LSD (P=.05)						4.240	3.234	18.19
Standard Deviation						2.937	2.240	12.60
CV						5.02	11.25	5.88
Grand Mean						58.48	19.91	214.29
Bartlett's X2						12.897	4.15	11.942
P(Bartlett's X2)						0.30	0.965	0.368
Replicate F						1.813	1.598	1.705
Replicate Prob(F)						0.1640	0.2086	0.1850
Treatment F						2.918	0.859	2.066
Treatment Prob(F)						0.0085	0.5864	0.0531

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

ARM Action Codes

$$TY1 = 3.889286 * [19] * (100 - [20]) / 85$$