

Ohio State University  
Horticulture and Crop Science

IVYLEAF MORNINGGLORY CONTROL IN CORN

Trial ID: 08ILMG                      Study Dir.: Anthony F. Dobbels  
Location: WESTERN BRANCH C-1 W      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. CHEAL	Common lambsquarters	Chenopodium album
3. ABUTH	Velvetleaf	Abutilon theophrasti
4. IPOHE	Ivyleaf morningglory	Ipomoea hederacea

Crop 1: ZEAMX    CORN, FIELD                      Variety: PIONEER 32B83  
Planting Date: May/02/2008                      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: 2  
Tillage Type: CONVENTIONAL                      Study Design: RANDOMIZED COMPLETE BLOCK

**SOIL DESCRIPTION**

% OM: 3.2                      Texture: SILTY CLAY LOAM  
pH: 5.5                      Soil Name: KOKOMO  
CEC: 23.9                      Fert. Level: GOOD

**APPLICATION DESCRIPTION**

	A	B
Application Date:	May/05/2008	Jun/17/2008
Time of Day:	8:15 A.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	53    F	50    F
% Relative Humidity:	59	50
Wind Velocity, Unit:	2    S	8    WNW
Soil Temp., Unit:	48    F	60    F
Soil Moisture:	DRY/MOIST	DRY/MOIST
% Cloud Cover:	0	35

**CROP STAGE AT EACH APPLICATION**

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX V6
Stage Scale:		DESC
Height, Unit:	28	IN

**WEED STAGE AT EACH APPLICATION**

	A	B
Weed 1 Code, Stage:	SETFA	SETFA 3-5"
Stage Scale:		7 LVS
Density, Unit:	96	M2
Weed 2 Code, Stage:	CHEAL	CHEAL 6-8"
Stage Scale:		>12 LVS
Density, Unit:	3	M2
Weed 3 Code, Stage:	ABUTH	ABUTH 4-6"
Stage Scale:		10 LVS
Density, Unit:	3	M2
Weed 4 Code, Stage:	IPOHE	IPOHE 2-6"
Stage Scale:		8 LVS
Density, Unit:	1	M2

**APPLICATION EQUIPMENT**

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

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Trial ID: 08ILMG Study Dir.: Anthony F. Dobbels  
Location: WESTERN BRANCH C-1 W Investigator: Dr. Mark M. Loux

Weed Code	SETFA	CHEAL	ABUTH	IPOSS	ZEAMX
Crop Code	ZEAMX				ZEAMX
Rating Data Type	PHYTO	CONTROL	CONTROL	CONTROL	PHYTO
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jun/17/2008	Jun/17/2008	Jun/17/2008	Jun/17/2008	Jul/02/2008
Trt-Eval Interval	AT POST	AT POST	AT POST	AT POST	15 DA-B
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	BICEP II MAGNUM	1.5	qt/a	PRE	A	0 a	98 a	65 b	100 a	100 a	0 a
1	TOUCHDOWN TOTAL	24	oz/a	POST	B						
1	NORTHSTAR	2.5	oz/a	POST							
1	AMS	2	qt/a	POST							
2	BICEP II MAGNUM	1.5	qt/a	PRE	A	0 a	93 a	60 b	95 a	68 a	0 a
2	TOUCHDOWN TOTAL	24	oz/a	POST	B						
2	NORTHSTAR	2.5	oz/a	POST							
2	ATRAZINE	8	oz/a	POST							
2	AMS	2	qt/a	POST							
3	BICEP II MAGNUM	1.5	qt/a	PRE	A	0 a	93 a	73 b	75 a	65 a	0 a
3	TOUCHDOWN TOTAL	24	oz/a	POST	B						
3	NORTHSTAR	5	oz/a	POST							
3	AMS	2	qt/a	POST							
4	BICEP II MAGNUM	1.5	qt/a	PRE	A	0 a	95 a	55 b	70 a	40 a	0 a
4	TOUCHDOWN TOTAL	24	oz/a	POST	B						
4	CALLISTO	3	oz/a	POST							
4	ATRAZINE	8	oz/a	POST							
4	AMS	2	qt/a	POST							
5	BICEP II MAGNUM	1.5	qt/a	PRE	A	0 a	90 a	60 b	73 a	65 a	0 a
5	TOUCHDOWN TOTAL	24	oz/a	POST	B						
5	STATUS	2.5	oz/a	POST							
5	AMS	2	qt/a	POST							
6	BICEP II MAGNUM	1.5	qt/a	PRE	A	0 a	90 a	70 b	55 a	40 a	0 a
6	IGNITE	22	oz/a	POST	B						
6	ATRAZINE	1	pt/a	POST							
6	AMS	4	qt/a	POST							
7	LEXAR	2.25	qt/a	PRE	A	0 a	97 a	100 a	100 a	60 a	0 a
7	TOUCHDOWN TOTAL	24	oz/a	POST	B						
7	NORTHSTAR	2.5	oz/a	POST							
7	AMS	2	qt/a	POST							
8	LEXAR	2.25	qt/a	PRE	A	0 a	98 a	100 a	100 a	55 a	0 a
8	HALEX GT	3.6	pt/a	POST	B						
8	AMS	2	qt/a	POST							
LSD (P=.05)						0.0	8.3	21.2	34.7	66.5	0.0
Standard Deviation						0.0	3.5	9.0	14.7	24.0	0.0
CV						0.0	3.74	12.29	17.61	38.94	0.0
Bartlett's X2						0.0	1.308	0.927	3.003	5.084	0.0
P(Bartlett's X2)						.	0.934	0.819	0.557	0.279	.
Replicate F						0.000	1.463	5.635	1.629	0.982	0.000
Replicate Prob(F)						1.0000	0.2657	0.0493	0.2426	0.3779	1.0000
Treatment F						0.000	1.578	7.819	2.828	1.249	0.000
Treatment Prob(F)						1.0000	0.2809	0.0073	0.0968	0.4386	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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Weed Code	SETFA	CHEAL	ABUTH	IPOSS	SETFA	CHEAL	ABUTH
Crop Code							
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jul/02/2008	Jul/02/2008	Jul/02/2008	Jul/02/2008	Jul/17/2008	Jul/17/2008	Jul/17/2008
Trt-Eval Interval	15 DA-B	15 DA-B	15 DA-B	15 DA-B	30 DA-B	30 DA-B	30 DA-B
# Subsamples, Dec.	0	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	13
1	BICEP II MAGNUM	1.5	qt/a	PRE	A	100 a	90 a	100 a	100 a	100 a	93 a	100 a
1	TOUCHDOWN TOTAL	24	oz/a	POST	B							
1	NORTHSTAR	2.5	oz/a	POST								
1	AMS	2	qt/a	POST								
2	BICEP II MAGNUM	1.5	qt/a	PRE	A	100 a	95 a	100 a	80 a	100 a	95 a	100 a
2	TOUCHDOWN TOTAL	24	oz/a	POST	B							
2	NORTHSTAR	2.5	oz/a	POST								
2	ATRAZINE	8	oz/a	POST								
2	AMS	2	qt/a	POST								
3	BICEP II MAGNUM	1.5	qt/a	PRE	A	100 a	90 a	88 b	95 a	99 a	90 a	88 ab
3	TOUCHDOWN TOTAL	24	oz/a	POST	B							
3	NORTHSTAR	5	oz/a	POST								
3	AMS	2	qt/a	POST								
4	BICEP II MAGNUM	1.5	qt/a	PRE	A	100 a	99 a	100 a	99 a	100 a	100 a	100 a
4	TOUCHDOWN TOTAL	24	oz/a	POST	B							
4	CALLISTO	3	oz/a	POST								
4	ATRAZINE	8	oz/a	POST								
4	AMS	2	qt/a	POST								
5	BICEP II MAGNUM	1.5	qt/a	PRE	A	100 a	98 a	100 a	58 a	99 a	100 a	98 a
5	TOUCHDOWN TOTAL	24	oz/a	POST	B							
5	STATUS	2.5	oz/a	POST								
5	AMS	2	qt/a	POST								
6	BICEP II MAGNUM	1.5	qt/a	PRE	A	88 b	70 b	80 c	45 a	85 b	75 a	73 b
6	IGNITE	22	oz/a	POST	B							
6	ATRAZINE	1	pt/a	POST								
6	AMS	4	qt/a	POST								
7	LEXAR	2.25	qt/a	PRE	A	100 a	100 a	100 a	85 a	100 a	100 a	100 a
7	TOUCHDOWN TOTAL	24	oz/a	POST	B							
7	NORTHSTAR	2.5	oz/a	POST								
7	AMS	2	qt/a	POST								
8	LEXAR	2.25	qt/a	PRE	A	100 a	100 a	100 a	90 a	100 a	100 a	100 a
8	HALEX GT	3.6	pt/a	POST	B							
8	AMS	2	qt/a	POST								
LSD (P=.05)						3.0	12.2	3.0	43.7	1.9	16.4	15.4
Standard Deviation						1.3	5.1	1.3	18.5	0.8	6.9	6.5
CV						1.27	5.56	1.3	22.7	0.84	7.36	6.9
Bartlett's X2						0.0	4.753	0.0	6.74	0.772	0.604	3.036
P(Bartlett's X2)						.	0.314	.	0.241	0.856	0.896	0.219
Replicate F						1.000	5.212	1.000	1.385	0.368	1.595	0.916
Replicate Prob(F)						0.3506	0.0564	0.3506	0.2778	0.5630	0.2470	0.3703
Treatment F						25.000	7.563	77.571	2.363	78.737	3.121	4.644
Treatment Prob(F)						0.0002	0.0080	0.0001	0.1396	0.0001	0.0781	0.0302

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						IPOSS	SETFA	CHEAL	ABUTH	IPOSS
Weed Code	Crop Code					CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Data Type	Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Trt-Eval Interval					Jul/17/2008	Aug/14/2008	Aug/14/2008	Aug/14/2008	Aug/14/2008
# Subsamples, Dec.						30 DA-B	58 DA-B	58 DA-B	58 DA-B	58 DA-B
						0	0	0	0	0
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	14	15	16	17	18
1	BICEP II MAGNUM	1.5	qt/a	PRE	A	98 a	100 a	97 a	100 a	95 a
1	TOUCHDOWN TOTAL	24	oz/a	POST	B					
1	NORTHSTAR	2.5	oz/a	POST						
1	AMS	2	qt/a	POST						
2	BICEP II MAGNUM	1.5	qt/a	PRE	A	95 a	100 a	99 a	100 a	99 a
2	TOUCHDOWN TOTAL	24	oz/a	POST	B					
2	NORTHSTAR	2.5	oz/a	POST						
2	ATRAZINE	8	oz/a	POST						
2	AMS	2	qt/a	POST						
3	BICEP II MAGNUM	1.5	qt/a	PRE	A	94 a	100 a	94 a	100 a	100 a
3	TOUCHDOWN TOTAL	24	oz/a	POST	B					
3	NORTHSTAR	5	oz/a	POST						
3	AMS	2	qt/a	POST						
4	BICEP II MAGNUM	1.5	qt/a	PRE	A	83 a	100 a	100 a	100 a	98 a
4	TOUCHDOWN TOTAL	24	oz/a	POST	B					
4	CALLISTO	3	oz/a	POST						
4	ATRAZINE	8	oz/a	POST						
4	AMS	2	qt/a	POST						
5	BICEP II MAGNUM	1.5	qt/a	PRE	A	85 a	100 a	99 a	100 a	99 a
5	TOUCHDOWN TOTAL	24	oz/a	POST	B					
5	STATUS	2.5	oz/a	POST						
5	AMS	2	qt/a	POST						
6	BICEP II MAGNUM	1.5	qt/a	PRE	A	68 b	88 b	65 b	90 a	83 a
6	IGNITE	22	oz/a	POST	B					
6	ATRAZINE	1	pt/a	POST						
6	AMS	4	qt/a	POST						
7	LEXAR	2.25	qt/a	PRE	A	88 a	100 a	100 a	100 a	92 a
7	TOUCHDOWN TOTAL	24	oz/a	POST	B					
7	NORTHSTAR	2.5	oz/a	POST						
7	AMS	2	qt/a	POST						
8	LEXAR	2.25	qt/a	PRE	A	93 a	100 a	100 a	100 a	98 a
8	HALEX GT	3.6	pt/a	POST	B					
8	AMS	2	qt/a	POST						
LSD (P=.05)						13.0	2.9	10.1	11.9	11.4
Standard Deviation						5.5	1.2	4.3	5.0	4.8
CV						6.27	1.26	4.53	5.11	5.06
Bartlett's X2						2.076	1.799	4.607	4.339	6.123
P(Bartlett's X2)						0.913	0.18	0.33	0.037*	0.525
Replicate F						1.095	1.465	0.882	0.888	0.606
Replicate Prob(F)						0.3302	0.2654	0.3789	0.3775	0.4618
Treatment F						6.191	25.186	15.833	0.972	2.868
Treatment Prob(F)						0.0141	0.0002	0.0008	0.5145	0.0939

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