

Ohio State University  
Horticulture and Crop Science

WEED CONTROL IN LIBERTY LINK CORN WITH CORVUS AND BALANCE FLEXX  
HP08NARJJB

Trial ID: 08PRPOC3 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. CHEAL	Common lambsquarters	Chenopodium album
4. POLPY	Pennsylvania smartweed	Polygonum pennsylvanicum
5. ABUTH	Velvetleaf	Abutilon theophrasti

Crop 1: ZEAMX CORN, FIELD Variety: PIONEER 32B83  
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: 2.2 Texture: SILT LOAM  
pH: 6.3 Soil Name: CROSBY  
CEC: 14.1 Fert. Level: GOOD

APPLICATION DESCRIPTION

	A	B
Application Date:	Apr/24/2008	Jun/06/2008
Time of Day:	11:00 A.M	8:30 A.M
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	62 F	81 F
% Relative Humidity:	39	71
Wind Velocity, Unit:	8 E	7 S
Soil Temp., Unit:	54 F	69 F
Soil Moisture:	DRY/MOIST	WET/WET
% Cloud Cover:	1	0

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX V5
Stage Scale:	DESC	
Height, Unit:	12	IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	SETFA	SETFA 2-4"
Stage Scale:		2-3 LVS
Density, Unit:		110 M1
Weed 2 Code, Stage:	AMBTR	AMBTR 2-4"
Stage Scale:		6-8 LVS
Density, Unit:		1 M2
Weed 3 Code, Stage:	CHEAL	CHEAL 2"
Stage Scale:		6-8 LVS
Density, Unit:		26 M2
Weed 4 Code, Stage:	POLPY	POLPY 1-2"
Stage Scale:		3 LVS
Density, Unit:		4 M2
Weed 5 Code, Stage:	ABUTH	ABUTH 1"
Stage Scale:		2 LVS
Density, Unit:		4 M2

**APPLICATION EQUIPMENT**

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

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WEED CONTROL IN LIBERTY LINK CORN WITH CORVUS AND BALANCE FLEXX

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Trial ID: 08PRPOC3

Study Dir.: Anthony F. Dobbels

Location: WESTERN BRANCH F-7

Investigator: Dr. Mark M. Loux

Weed Code					SETFA	AMBTR	CHEAL	POLPY			
Crop Code					ZEAMX	ZEAMX					
Rating Data Type					PHYTO	PHYTO	CONTROL	CONTROL			
Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT			
Rating Date					May/13/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008			
Trt-Eval Interval					10 DAE	39 DA-A	39 DA-A	39 DA-A			
# Subsamples, Dec.					0	0	0	0			
Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	CORVUS	5.6 oz/a		PRE	A	0 a	0 a	97 a	72 ab	100 a	100 a
1	ATRAZINE	1.5 qt/a		PRE							
2	BALANCE FLEXX	6 oz/a		PRE	A	0 a	0 a	91 ab	92 a	100 a	100 a
2	ATRAZINE	1.5 qt/a		PRE							
3	BALANCE FLEXX	4 oz/a		PRE	A	0 a	0 a	99 a	87 a	98 a	100 a
3	HARNESS XTRA 5.6	1.5 qt/a		PRE							
4	LEXAR	3.5 qt/a		PRE	A	0 a	0 a	98 a	93 a	100 a	100 a
5	CORVUS	2.2 oz/a		PRE	A	0 a	0 a	62 c	43 b	100 a	77 b
5	IGNITE	22 oz/a		MPO	B						
5	LAUDIS	2 oz/a		MPO							
5	AMS	2 qt/a		MPO							
6	CORVUS	3 oz/a		PRE	A	0 a	0 a	78 abc	65 ab	97 a	100 a
6	IGNITE	22 oz/a		MPO	B						
6	LAUDIS	2 oz/a		MPO							
6	AMS	2 qt/a		MPO							
7	CORVUS	2.2 oz/a		PRE	A	0 a	0 a	69 bc	43 b	100 a	100 a
7	ROUNDUP POWERMAX	22 oz/a		MPO	B						
7	LAUDIS	2 oz/a		MPO							
7	AMS	2 qt/a		MPO							
8	CORVUS	3 oz/a		PRE	A	0 a	0 a	83 abc	58 ab	100 a	100 a
8	ROUNDUP POWERMAX	22 oz/a		MPO	B						
8	LAUDIS	2 oz/a		MPO							
8	AMS	2 qt/a		MPO							
9	BALANCE FLEXX	3 oz/a		PRE	A	0 a	0 a	81 abc	70 ab	93 a	100 a
9	ATRAZINE	1 qt/a		PRE							
9	IGNITE	22 oz/a		MPO	B						
9	LAUDIS	2 oz/a		MPO							
9	AMS	2 qt/a		MPO							
10	BALANCE FLEXX	4 oz/a		PRE	A	0 a	0 a	81 abc	78 ab	88 a	100 a
10	ATRAZINE	1 qt/a		PRE							
10	IGNITE	22 oz/a		MPO	B						
10	LAUDIS	2 oz/a		MPO							
10	AMS	2 qt/a		MPO							
11	BALANCE FLEXX	3 oz/a		PRE	A	0 a	0 a	79 abc	63 ab	86 a	100 a
11	ATRAZINE	1 qt/a		PRE							
11	IGNITE	22 oz/a		MPO	B						
11	STATUS	2.5 oz/a		MPO							
11	AMS	2 qt/a		MPO							
12	UTC					0 a	0 a	0 d	0 c	0 b	0 c
	LSD (P=.05)					0.0	0.0	14.5	23.9	9.1	12.3
	Standard Deviation					0.0	0.0	8.6	14.1	5.4	7.3
	CV					0.0	0.0	11.21	22.17	6.08	8.1
	Bartlett's X2					0.0	0.0	21.777	8.578	4.42	0.0
	P(Bartlett's X2)					.	.	0.016*	0.573	0.352	.
	Replicate F					0.000	0.000	0.924	7.518	0.672	1.000
	Replicate Prob(F)					1.0000	1.0000	0.4118	0.0033	0.5208	0.3840
	Treatment F					0.000	0.000	28.901	10.132	83.161	47.938
	Treatment Prob(F)					1.0000	1.0000	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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Weed Code	ZEAMX		SETFA	AMBTR	CHEAL	POLPY				
Crop Code	PHYTO	PHYTO	CONTROL	CONTROL	CONTROL	CONTROL				
Rating Data Type	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT				
Rating Unit	May/13/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008				
Rating Date	10 DAE	39 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A				
Trt-Eval Interval	0	0	0	0	0	0				
# Subsamples, Dec.										
Trt No.	Product Rate	Product Rate	Grow Stg	Appl Code	1	2	3	4	5	6

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code					SETFA	AMBTR	CHEAL	ABUTH	POLPY		
Crop Code					ZEAMX						
Rating Data Type					PHYTO	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT		
Rating Date					Jun/07/2008	Jun/07/2008	Jun/07/2008	Jun/07/2008	Jun/07/2008		
Trt-Eval Interval					AT POST	AT POST	AT POST	AT POST	AT POST		
# Subsamples, Dec.					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	CORVUS	5.6	oz/a	PRE	A	0 a	92 a	60 ab	100 a	100 a	100 a
1	ATRAZINE	1.5	qt/a	PRE							
2	BALANCE FLEXX	6	oz/a	PRE	A	0 a	87 ab	90 a	99 a	100 a	99 a
2	ATRAZINE	1.5	qt/a	PRE							
3	BALANCE FLEXX	4	oz/a	PRE	A	0 a	93 a	80 a	100 a	100 a	98 b
3	HARNESS XTRA 5.6	1.5	qt/a	PRE							
4	LEXAR	3.5	qt/a	PRE	A	0 a	95 a	89 a	98 a	100 a	100 a
5	CORVUS	2.2	oz/a	PRE	A	0 a	57 c	43 b	100 a	100 a	100 a
5	IGNITE	22	oz/a	MPO	B						
5	LAUDIS	2	oz/a	MPO							
5	AMS	2	qt/a	MPO							
6	CORVUS	3	oz/a	PRE	A	0 a	77 abc	63 ab	100 a	100 a	100 a
6	IGNITE	22	oz/a	MPO	B						
6	LAUDIS	2	oz/a	MPO							
6	AMS	2	qt/a	MPO							
7	CORVUS	2.2	oz/a	PRE	A	0 a	66 bc	43 b	100 a	100 a	100 a
7	ROUNDUP POWERMAX	22	oz/a	MPO	B						
7	LAUDIS	2	oz/a	MPO							
7	AMS	2	qt/a	MPO							
8	CORVUS	3	oz/a	PRE	A	0 a	87 ab	60 ab	100 a	100 a	100 a
8	ROUNDUP POWERMAX	22	oz/a	MPO	B						
8	LAUDIS	2	oz/a	MPO							
8	AMS	2	qt/a	MPO							
9	BALANCE FLEXX	3	oz/a	PRE	A	0 a	80 abc	70 ab	100 a	100 a	100 a
9	ATRAZINE	1	qt/a	PRE							
9	IGNITE	22	oz/a	MPO	B						
9	LAUDIS	2	oz/a	MPO							
9	AMS	2	qt/a	MPO							
10	BALANCE FLEXX	4	oz/a	PRE	A	0 a	76 abc	78 a	93 a	100 a	100 a
10	ATRAZINE	1	qt/a	PRE							
10	IGNITE	22	oz/a	MPO	B						
10	LAUDIS	2	oz/a	MPO							
10	AMS	2	qt/a	MPO							
11	BALANCE FLEXX	3	oz/a	PRE	A	0 a	79 abc	72 ab	99 a	100 a	100 a
11	ATRAZINE	1	qt/a	PRE							
11	IGNITE	22	oz/a	MPO	B						
11	STATUS	2.5	oz/a	MPO							
11	AMS	2	qt/a	MPO							
12	UTC					0 a	0 d	0 c	0 b	0 b	0 c
LSD (P=.05)						0.0	16.0	21.7	5.6	0.0	0.9
Standard Deviation						0.0	9.4	12.8	3.3	0.0	0.5
CV						0.0	12.77	20.53	3.63	0.0	0.6
Bartlett's X2						0.0	9.936	12.55	14.938	0.0	0.151
P(Bartlett's X2)						.	0.446	0.25	0.002*	.	0.697
Replicate F						0.000	1.732	6.629	1.737	0.000	1.202
Replicate Prob(F)						1.0000	0.2003	0.0056	0.1994	1.0000	0.3197
Treatment F						0.000	22.512	11.327	227.146	0.000	8286.547
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001	1.0000	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)  
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						SETFA	AMBTR	CHEAL	ABUTH	POLPY	SETFA
Weed Code	Crop Code					CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Data Type	Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Trt-Eval Interval					Jun/30/2008	Jun/30/2008	Jun/30/2008	Jun/30/2008	Jun/30/2008	Jul/10/2008
# Subsamples, Dec.						56 DAE	56 DAE	56 DAE	56 DAE	56 DAE	34 DA-B
						0	0	0	0	0	0
Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	13	14	15	16	17	18
1	CORVUS	5.6	oz/a	PRE	A	67 ab	53 b	100 a	100 a	100 a	65 a
1	ATRAZINE	1.5	qt/a	PRE							
2	BALANCE FLEXX	6	oz/a	PRE	A	53 b	67 ab	100 a	100 a	90 a	37 b
2	ATRAZINE	1.5	qt/a	PRE							
3	BALANCE FLEXX	4	oz/a	PRE	A	70 ab	67 ab	90 a	100 a	90 a	62 a
3	HARNESS XTRA 5.6	1.5	qt/a	PRE							
4	LEXAR	3.5	qt/a	PRE	A	76 ab	63 ab	90 a	100 a	100 a	72 a
5	CORVUS	2.2	oz/a	PRE	A	77 ab	83 a	100 a	100 a	100 a	73 a
5	IGNITE	22	oz/a	MPO	B						
5	LAUDIS	2	oz/a	MPO							
5	AMS	2	qt/a	MPO							
6	CORVUS	3	oz/a	PRE	A	83 a	85 a	100 a	100 a	100 a	77 a
6	IGNITE	22	oz/a	MPO	B						
6	LAUDIS	2	oz/a	MPO							
6	AMS	2	qt/a	MPO							
7	CORVUS	2.2	oz/a	PRE	A	83 a	84 a	100 a	100 a	100 a	77 a
7	ROUNDUP POWERMAX	22	oz/a	MPO	B						
7	LAUDIS	2	oz/a	MPO							
7	AMS	2	qt/a	MPO							
8	CORVUS	3	oz/a	PRE	A	83 a	83 a	100 a	100 a	100 a	82 a
8	ROUNDUP POWERMAX	22	oz/a	MPO	B						
8	LAUDIS	2	oz/a	MPO							
8	AMS	2	qt/a	MPO							
9	BALANCE FLEXX	3	oz/a	PRE	A	75 ab	73 a	100 a	100 a	100 a	69 a
9	ATRAZINE	1	qt/a	PRE							
9	IGNITE	22	oz/a	MPO	B						
9	LAUDIS	2	oz/a	MPO							
9	AMS	2	qt/a	MPO							
10	BALANCE FLEXX	4	oz/a	PRE	A	73 ab	75 a	100 a	100 a	100 a	74 a
10	ATRAZINE	1	qt/a	PRE							
10	IGNITE	22	oz/a	MPO	B						
10	LAUDIS	2	oz/a	MPO							
10	AMS	2	qt/a	MPO							
11	BALANCE FLEXX	3	oz/a	PRE	A	75 ab	78 a	100 a	100 a	100 a	73 a
11	ATRAZINE	1	qt/a	PRE							
11	IGNITE	22	oz/a	MPO	B						
11	STATUS	2.5	oz/a	MPO							
11	AMS	2	qt/a	MPO							
12	UTC					0 c	0 c	0 b	0 b	0 b	0 c
LSD (P=.05)						15.4	12.8	9.8	0.0	9.4	20.0
Standard Deviation						9.1	7.6	5.8	0.0	5.6	11.8
CV						13.36	11.17	6.42	0.0	6.19	18.62
Bartlett's X2						12.675	6.865	0.564	0.0	0.564	16.422
P(Bartlett's X2)						0.242	0.651	0.453	.	0.453	0.088
Replicate F						3.722	4.428	1.000	0.000	1.878	6.802
Replicate Prob(F)						0.0405	0.0242	0.3840	1.0000	0.1766	0.0050
Treatment F						19.172	28.943	73.636	0.000	79.024	11.457
Treatment Prob(F)						0.0001	0.0001	0.0001	1.0000	0.0001	0.0001

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	CHEAL	ABUTH	POLPY	
Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	CONTROL PERCENT Jul/10/2008	CONTROL PERCENT Jul/10/2008	CONTROL PERCENT Jul/10/2008	CONTROL PERCENT Jul/10/2008	
Trt-Eval Interval					34 DA-B	34 DA-B	34 DA-B	34 DA-B	
# Subsamples, Dec.					0	0	0	0	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	19	20	21	22
1	CORVUS	5.6	oz/a	PRE	A	58 c	100 a	100 a	100 a
1	ATRAZINE	1.5	qt/a	PRE					
2	BALANCE FLEXX	6	oz/a	PRE	A	63 bc	100 a	100 a	93 a
2	ATRAZINE	1.5	qt/a	PRE					
3	BALANCE FLEXX	4	oz/a	PRE	A	58 c	100 a	100 a	88 a
3	HARNESS XTRA 5.6	1.5	qt/a	PRE					
4	LEXAR	3.5	qt/a	PRE	A	70 abc	97 a	100 a	100 a
5	CORVUS	2.2	oz/a	PRE	A	88 ab	100 a	100 a	93 a
5	IGNITE	22	oz/a	MPO	B				
5	LAUDIS	2	oz/a	MPO					
5	AMS	2	qt/a	MPO					
6	CORVUS	3	oz/a	PRE	A	83 abc	100 a	100 a	100 a
6	IGNITE	22	oz/a	MPO	B				
6	LAUDIS	2	oz/a	MPO					
6	AMS	2	qt/a	MPO					
7	CORVUS	2.2	oz/a	PRE	A	92 a	100 a	100 a	100 a
7	ROUNDUP POWERMAX	22	oz/a	MPO	B				
7	LAUDIS	2	oz/a	MPO					
7	AMS	2	qt/a	MPO					
8	CORVUS	3	oz/a	PRE	A	80 abc	100 a	100 a	100 a
8	ROUNDUP POWERMAX	22	oz/a	MPO	B				
8	LAUDIS	2	oz/a	MPO					
8	AMS	2	qt/a	MPO					
9	BALANCE FLEXX	3	oz/a	PRE	A	77 abc	100 a	100 a	100 a
9	ATRAZINE	1	qt/a	PRE					
9	IGNITE	22	oz/a	MPO	B				
9	LAUDIS	2	oz/a	MPO					
9	AMS	2	qt/a	MPO					
10	BALANCE FLEXX	4	oz/a	PRE	A	80 abc	100 a	100 a	100 a
10	ATRAZINE	1	qt/a	PRE					
10	IGNITE	22	oz/a	MPO	B				
10	LAUDIS	2	oz/a	MPO					
10	AMS	2	qt/a	MPO					
11	BALANCE FLEXX	3	oz/a	PRE	A	87 ab	100 a	100 a	100 a
11	ATRAZINE	1	qt/a	PRE					
11	IGNITE	22	oz/a	MPO	B				
11	STATUS	2.5	oz/a	MPO					
11	AMS	2	qt/a	MPO					
12	UTC					0 d	0 b	0 b	0 b
LSD (P=.05)					15.6	2.8	0.0	10.2	
Standard Deviation					9.2	1.7	0.0	6.0	
CV					13.24	1.82	0.0	6.71	
Bartlett's X2					6.023	0.0	0.0	0.019	
P(Bartlett's X2)					0.645	.	.	0.99	
Replicate F					6.222	1.000	0.000	0.749	
Replicate Prob(F)					0.0072	0.3840	1.0000	0.4847	
Treatment F					21.524	895.546	0.000	67.272	
Treatment Prob(F)					0.0001	0.0001	1.0000	0.0001	

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.