

University of Wisconsin-Madison

Anthem: Efficacy and Crop safety

Study Director: T. L. Trower **Title:** Sr. Outreach Specialist
Investigator: V. M. Davis
Discipline: H herbicide
Initiation Date: May-6-2011

Trial Location

City: Arlington **Latitude of LL Corner °:** 43.18005 N
State/Prov.: WI **Longitude of LL Corner °:** 89.20424 W
Postal Code: 53911 **Altitude of LL Corner, Unit:** 1070.00 FT
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 52-59
BBCH Scale: BCOR **Planting Date:** May-4-2011
Planting Method: SEEDED seeded **Rate, Unit:** 32400 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN **Spacing Within Row, Unit:** 7 IN
Seed Bed: SMOOTH smooth
Soil Moisture: NORMAL normal **Emergence Date:** May-17-2011
Harvested Width, Unit: 5 FT **Harvested Length, Unit:** 25 FT

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Faber's foxtail

Pest 2 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters

Pest 3 Type: W **Code:** ERBVI *Eriochloa villosa*
Common Name: Woolly cupgrass

Pest 4 Type: W **Code:** AMBEL *Ambrosia artemisiifolia*
Common Name: Hogweed

Pest 5 Type: W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf

Site and Design

Plot Width, Unit: 10 FT **Site Type:** CROP
Plot Length, Unit: 25 FT **Tillage Type:** CONTIL conventional-till
Plot Area, Unit: 250 FT2 **Study Design:** RACOB L Randomized Complete Block (RCB)
Replications: 4

Soil Description

Description Name: Plano Silt Loam
% Sand: 6 **% OM:** 3.7 **Texture:** SIL silt loam
% Silt: 71 **pH:** 6.7 **Soil Name:** Plano
% Clay: 23 **Fert. Level:** F fair
Soil Drainage: E excellent

Application Description

	A	B	C
Application Date:	May-6-2011	May-20-2011	Jun-24-2011
Time of Day:	7:45 pm	6:00P	11:45P
Application Method:	Broadcast	Broadcast	Broadcast
Application Timing:	PRE	EPOST	POST
Application Placement:	Surface	Foliage	Foliage
Applied By:	T. Trower	T. Trower	T. Trower
Air Temperature, Unit:	66 F	73 F	69 F
% Relative Humidity:	37	60	78
Wind Velocity, Unit:	4 MPH	6 MPH	9 MPH
Wind Direction:	NW	SE	NE
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	56 F	74 F	68 F
Soil Moisture:	DRY/MST	DRY/MST	WET
% Cloud Cover:	50	80	100

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	PRE	SPIKE	V7
Height, Unit:			20 IN
Height Minimum, Maximum:			18 20

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		1 lf	
Stage Minimum, Percent:			3 lv
Stage Maximum, Percent:			5 lv
Height, Unit:		0.25 IN	4 IN
Height Minimum, Maximum:		0.25	3 6
Density, Unit:		5 FT2	4 FT2
Pest 2 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent:		2 lf	
Stage Minimum, Percent:			8 lv
Stage Maximum, Percent:			12 lf
Height, Unit:		0.25 IN	5 IN
Height Minimum, Maximum:			4 6
Density, Unit:		2 FT2	2 FT2
Pest 3 Code, Type, Scale:	ERBVI W	ERBVI W	ERBVI W
Stage Majority, Percent:			4 lf
Height, Unit:			1 IN
Density, Unit:			1 FT2
Pest 4 Code, Type, Scale:	AMBEL W	AMBEL W	AMBEL W
Stage Majority, Percent:		coty	7 lf
Height, Unit:		0.25 IN	10 IN
Height Minimum, Maximum:			8 12
Density, Unit:		1 FT2	2 FT2
Pest 5 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:		coty	4 lf
Height, Unit:		0.25 IN	5 IN
Height Minimum, Maximum:			3 6
Density, Unit:		1 FT2	1 FT2

Application Equipment

	A	B	C
Operating Pressure, Unit:	30 PSI	30 PSI	40 PSI
Nozzle Type:	Flat Fan	Flat Fan	Turbo
Nozzle Size:	XR8003	XR8003	TT 11015
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	6	6	
% Coverage:	100.0	100.0	100.0
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	19 IN	19 IN	19 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	Water	Water	WATER
Spray Volume, Unit:	20 GAL/A	20 GAL/A	15 gal/ac
Mix Size, Unit:	2.2 Liters	2.2 Liters	2 liters
Propellant:	CO2	CO2	CO2

University of Wisconsin-Madison

Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Faber's foxtail May-19-2011 CONTROL % 15 DP-1	Faber's foxtail Jun-6-2011 CONTROL % 33 DP-1	Faber's foxtail Jun-20-2011 CONTROL % 47 DP-1	Giant foxtail Jul-11-2011 Control % 68 DP-1	Giant foxtail Aug-15-2011 Control % 103 DP-1	
Trt No.	Treatment Name	Rate	Unit	Appl Code	3	11	18	23	28
1	Anthem	8 oz/a	A		97 d	96 ab	81 de	100 a	100 a
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
2	Anthem	10 oz/a	A		99 abc	97 ab	79 e	100 a	100 a
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
3	Anthem	8 oz/a	A		97 cd	94 b	79 e	100 a	100 a
	atrazine	2 pt/a	A						
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
4	Anthem	10 oz/a	A		100 a	97 ab	85 b-e	100 a	100 a
	atrazine	2 pt/a	A						
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
5	Verdict	13 fl oz/a	A		99 ab	99 a	94 a	100 a	99 a
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
6	Harness	2 pt/a	A		98 bcd	95 b	96 a	100 a	99 a
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
7	Harness Xtra	2 pt/a	A		100 a	99 a	95 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
8	Lumax	2 qt/a	A		98 bcd	96 ab	91 abc	100 a	100 a
	Roundup PowerMax	22 fl oz/a	C						
	AMS	2.5 lb/a	C						
9	Anthem	10 oz/a	A		99 ab	97 ab	84 cde	80 c	76 c
10	Anthem	10 oz/a	A		97 cd	96 ab	89 a-d	91 b	86 b
	atrazine	2 pt/a	A						
11	Harness Xtra	2 pt/a	A		99 abc	97 ab	92 ab	91 b	90 b
12	Anthem	7 fl oz/a	B		0 e	99 a	91 abc	100 a	100 a
	Roundup PowerMax	22 fl oz/a	B						
	Activator 90	0.25 % v/v	B						
	AMS	2.5 lb/a	B						
13	Anthem	9 fl oz/a	B		0 e	99 a	96 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	B						
	Activator 90	0.25 % v/v	B						
	AMS	2.5 lb/a	B						
14	Anthem	7 fl oz/a	B		0 e	99 a	92 abc	100 a	100 a
	Roundup PowerMax	22 fl oz/a	B						
	atrazine	1.75 pt/a	B						
	AMS	2.5 lb/a	B						
15	Halex GT	3.6 pt/a	B		0 e	97 ab	95 a	100 a	98 a
	Activator 90	0.25 % v/v	B						
	AMS	8.5 lb/100 gal	B						
16	Roundup PowerMax	22 fl oz/a	B		0 e	86 c	15 f	100 a	98 a
	AMS	2.5 lb/a	B						
17	Nontreated				0	50	0	0	0
LSD (P=.10)					1.8	3.5	8.4	1.9	5.8

Means followed by same letter do not significantly differ (P=.10, LSD)

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

Untreated treatment(s) 17 excluded from analysis.

University of Wisconsin-Madison

Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval					Common lambsqu> May-19-2011 CONTROL % 15 DP-1	Common lambsqu> Jun-6-2011 CONTROL % 33 DP-1	Common lambsqu> Jun-20-2011 CONTROL % 47 DP-1	Common lambsqu> Jul-11-2011 Control % 68 DP-1
Trt	Treatment	Rate	Unit	Appl				
No.	Name	Rate	Unit	Code	4	12	19	24
1	Anthem	8 oz/a	A		98 bc	95 a	58 d	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
2	Anthem	10 oz/a	A		97 c	93 a	62 d	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
3	Anthem	8 oz/a	A		98 bc	93 a	93 ab	100 a
	atrazine	2 pt/a	A					
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
4	Anthem	10 oz/a	A		100 a	100 a	97 a	100 a
	atrazine	2 pt/a	A					
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
5	Verdict	13 fl oz/a	A		100 a	100 a	96 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
6	Harness	2 pt/a	A		98 bc	94 a	94 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
7	Harness Xtra	2 pt/a	A		100 a	100 a	99 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
8	Lumax	2 qt/a	A		98 abc	99 a	99 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
9	Anthem	10 oz/a	A		100 a	96 a	57 d	63 b
10	Anthem	10 oz/a	A		100 a	100 a	98 a	99 a
	atrazine	2 pt/a	A					
11	Harness Xtra	2 pt/a	A		99 ab	98 a	97 a	98 a
12	Anthem	7 fl oz/a	B		0 d	98 a	78 c	100 a
	Roundup PowerMax	22 fl oz/a	B					
	Activator 90	0.25 % v/v	B					
	AMS	2.5 lb/a	B					
13	Anthem	9 fl oz/a	B		0 d	97 a	82 bc	100 a
	Roundup PowerMax	22 fl oz/a	B					
	Activator 90	0.25 % v/v	B					
	AMS	2.5 lb/a	B					
14	Anthem	7 fl oz/a	B		0 d	100 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	B					
	atrazine	1.75 pt/a	B					
	AMS	2.5 lb/a	B					
15	Halex GT	3.6 pt/a	B		0 d	100 a	99 a	100 a
	Activator 90	0.25 % v/v	B					
	AMS	8.5 lb/100 gal	B					
16	Roundup PowerMax	22 fl oz/a	B		0 d	94 a	30 e	100 a
	AMS	2.5 lb/a	B					
17	Nontreated				0	0	0	75
LSD (P=.10)					2.2	6.4	11.9	4.3

University of Wisconsin-Madison

Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Common lambsqu Aug-15-2011 Control % 103 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code
				29
1	Anthem	8 oz/a	A	100 a
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
2	Anthem	10 oz/a	A	100 a
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
3	Anthem	8 oz/a	A	100 a
	atrazine	2 pt/a	A	
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
4	Anthem	10 oz/a	A	100 a
	atrazine	2 pt/a	A	
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
5	Verdict	13 fl oz/a	A	100 a
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
6	Harness	2 pt/a	A	100 a
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
7	Harness Xtra	2 pt/a	A	100 a
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
8	Lumax	2 qt/a	A	100 a
	Roundup PowerMax	22 fl oz/a	C	
	AMS	2.5 lb/a	C	
9	Anthem	10 oz/a	A	64 b
10	Anthem	10 oz/a	A	99 a
	atrazine	2 pt/a	A	
11	Harness Xtra	2 pt/a	A	99 a
12	Anthem	7 fl oz/a	B	100 a
	Roundup PowerMax	22 fl oz/a	B	
	Activator 90	0.25 % v/v	B	
	AMS	2.5 lb/a	B	
13	Anthem	9 fl oz/a	B	100 a
	Roundup PowerMax	22 fl oz/a	B	
	Activator 90	0.25 % v/v	B	
	AMS	2.5 lb/a	B	
14	Anthem	7 fl oz/a	B	100 a
	Roundup PowerMax	22 fl oz/a	B	
	atrazine	1.75 pt/a	B	
	AMS	2.5 lb/a	B	
15	Halex GT	3.6 pt/a	B	100 a
	Activator 90	0.25 % v/v	B	
	AMS	8.5 lb/100 gal	B	
16	Roundup PowerMax	22 fl oz/a	B	100 a
	AMS	2.5 lb/a	B	
17	Nontreated			0
LSD (P=.10)				4.8

Means followed by same letter do not significantly differ (P=.10, LSD)

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

Untreated treatment(s) 17 excluded from analysis.

University of Wisconsin-Madison

Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Velvetleaf May-19-2011 CONTROL %	Velvetleaf Jun-6-2011 CONTROL %	Velvetleaf Jun-20-2011 CONTROL %	Velvetleaf Jul-11-2011 Control %	Velvetleaf Aug-15-2011 Control %
				15 DP-1	33 DP-1	47 DP-1	68 DP-1	103 DP-1
Trt No.	Treatment Name	Rate	Appl Unit	Code				
1	Anthem	8 oz/a	A		5	13	20	25
	Roundup PowerMax	22 fl oz/a	C		87 c	65 e	43 fgh	100 a
	AMS	2.5 lb/a	C					
2	Anthem	10 oz/a	A		79 d	35 f	25 hi	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
3	Anthem	8 oz/a	A		99 a	74 cde	51 ef	100 a
	atrazine	2 pt/a	A					
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
4	Anthem	10 oz/a	A		100 a	85 a-d	74 cd	100 a
	atrazine	2 pt/a	A					
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
5	Verdict	13 fl oz/a	A		100 a	91 abc	96 ab	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
6	Harness	2 pt/a	A		98 ab	68 de	28 ghi	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
7	Harness Xtra	2 pt/a	A		100 a	93 abc	79 bcd	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
8	Lumax	2 qt/a	A		100 a	100 a	99 ab	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
9	Anthem	10 oz/a	A		93 bc	84 a-d	46 efg	43 d
10	Anthem	10 oz/a	A		97 ab	94 ab	83 a-d	71 b
	atrazine	2 pt/a	A					64 b
11	Harness Xtra	2 pt/a	A		95 ab	81 a-e	67 de	53 c
12	Anthem	7 fl oz/a	B		0 e	82 a-e	83 a-d	45 c
	Roundup PowerMax	22 fl oz/a	B					100 a
	Activator 90	0.25 % v/v	B					
	AMS	2.5 lb/a	B					
13	Anthem	9 fl oz/a	B		0 e	77 b-e	89 abc	100 a
	Roundup PowerMax	22 fl oz/a	B					
	Activator 90	0.25 % v/v	B					
	AMS	2.5 lb/a	B					
14	Anthem	7 fl oz/a	B		0 e	98 a	93 abc	100 a
	Roundup PowerMax	22 fl oz/a	B					
	atrazine	1.75 pt/a	B					
	AMS	2.5 lb/a	B					
15	Halex GT	3.6 pt/a	B		0 e	100 a	100 a	100 a
	Activator 90	0.25 % v/v	B					
	AMS	8.5 lb/100 gal	B					
16	Roundup PowerMax	22 fl oz/a	B		0 e	83 a-e	20 i	100 a
	AMS	2.5 lb/a	B					
17	Nontreated				0	0	0	75
LSD (P=.10)				6.1	18.8	20.9	5.3	6.9

Means followed by same letter do not significantly differ (P=.10, LSD)

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

Untreated treatment(s) 17 excluded from analysis.

University of Wisconsin-Madison

Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Hogweed May-19-2011 CONTROL % 15 DP-1	Hogweed Jun-6-2011 CONTROL % 33 DP-1	Hogweed Jun-20-2011 CONTROL % 47 DP-1	Hogweed Jul-11-2011 Control % 68 DP-1	Hogweed Aug-15-2011 Control % 103 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code				
1	Anthem	8 oz/a	A		6 100 a	14 100 a	21 85 ab	26 100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
2	Anthem	10 oz/a	A		100 a	100 a	85 ab	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
3	Anthem	8 oz/a	A		100 a	100 a	100 a	100 a
	atrazine	2 pt/a	A					
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
4	Anthem	10 oz/a	A		100 a	100 a	100 a	100 a
	atrazine	2 pt/a	A					
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
5	Verdict	13 fl oz/a	A		100 a	100 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
6	Harness	2 pt/a	A		100 a	100 a	82 b	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
7	Harness Xtra	2 pt/a	A		100 a	100 a	99 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
8	Lumax	2 qt/a	A		100 a	100 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	C					
	AMS	2.5 lb/a	C					
9	Anthem	10 oz/a	A		100 a	100 a	88 ab	98 b
10	Anthem	10 oz/a	A		100 a	100 a	95 ab	100 a
	atrazine	2 pt/a	A					
11	Harness Xtra	2 pt/a	A		100 a	100 a	99 a	100 a
12	Anthem	7 fl oz/a	B		0 b	100 a	96 ab	100 a
	Roundup PowerMax	22 fl oz/a	B					
	Activator 90	0.25 % v/v	B					
	AMS	2.5 lb/a	B					
13	Anthem	9 fl oz/a	B		0 b	100 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	B					
	Activator 90	0.25 % v/v	B					
	AMS	2.5 lb/a	B					
14	Anthem	7 fl oz/a	B		0 b	100 a	100 a	100 a
	Roundup PowerMax	22 fl oz/a	B					
	atrazine	1.75 pt/a	B					
	AMS	2.5 lb/a	B					
15	Halex GT	3.6 pt/a	B		0 b	100 a	100 a	100 a
	Activator 90	0.25 % v/v	B					
	AMS	8.5 lb/100 gal	B					
16	Roundup PowerMax	22 fl oz/a	B		0 b	100 a	35 c	100 a
	AMS	2.5 lb/a	B					
17	Nontreated				0	0	0	75
LSD (P=.10)					0.0	0.0	16.9	0.9
								0.1

Means followed by same letter do not significantly differ (P=.10, LSD)

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

Untreated treatment(s) 17 excluded from analysis.

University of Wisconsin-Madison

Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Woolly cupgrass Jun-6-2011 CONTROL %	Woolly cupgrass Jun-20-2011 CONTROL %	Woolly cupgrass Jul-11-2011 Control %	Woolly cupgrass Aug-15-2011 Control %
				33 DP-1	47 DP-1	68 DP-1	103 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code			
1	Anthem	8 oz/a	A		15	22	27
	Roundup PowerMax	22 fl oz/a	C		89 a	54 e	100 a
	AMS	2.5 lb/a	C				
2	Anthem	10 oz/a	A		78 a	56 e	100 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
3	Anthem	8 oz/a	A		80 a	53 e	100 a
	atrazine	2 pt/a	A				
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
4	Anthem	10 oz/a	A		88 a	82 a-d	100 a
	atrazine	2 pt/a	A				
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
5	Verdict	13 fl oz/a	A		89 a	69 b-e	100 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
6	Harness	2 pt/a	A		80 a	77 a-d	100 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
7	Harness Xtra	2 pt/a	A		91 a	87 abc	100 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
8	Lumax	2 qt/a	A		90 a	69 cde	100 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
9	Anthem	10 oz/a	A		92 a	65 de	78 b
10	Anthem	10 oz/a	A		92 a	80 a-d	78 b
	atrazine	2 pt/a	A				
11	Harness Xtra	2 pt/a	A		87 a	79 a-d	77 b
12	Anthem	7 fl oz/a	B		97 a	83 a-d	100 a
	Roundup PowerMax	22 fl oz/a	B				
	Activator 90	0.25 % v/v	B				
	AMS	2.5 lb/a	B				
13	Anthem	9 fl oz/a	B		93 a	88 ab	100 a
	Roundup PowerMax	22 fl oz/a	B				
	Activator 90	0.25 % v/v	B				
	AMS	2.5 lb/a	B				
14	Anthem	7 fl oz/a	B		95 a	90 a	100 a
	Roundup PowerMax	22 fl oz/a	B				
	atrazine	1.75 pt/a	B				
	AMS	2.5 lb/a	B				
15	Halex GT	3.6 pt/a	B		92 a	93 a	100 a
	Activator 90	0.25 % v/v	B				
	AMS	8.5 lb/100 gal	B				
16	Roundup PowerMax	22 fl oz/a	B		75 a	0 f	100 a
	AMS	2.5 lb/a	B				
17	Nontreated				49	0	75
LSD (P=.10)					12.5	18.5	3.4

Means followed by same letter do not significantly differ (P=.10, LSD)

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

Untreated treatment(s) 17 excluded from analysis.

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Rating Date Rating Type Rating Unit Plant-Eval Interval Crop Name				Jun-20-2011 PHYSTU % 47 DP-1 Dent corn	Jun-20-2011 PHYCHL % 47 DP-1 Dent corn	Oct-19-2011 Moisture % 168 DP-1 Dent corn	Oct-19-2011 Yield lb/plot 168 DP-1 Dent corn	Oct-19-2011 YIELD BU 168 DP-1 Dent corn	Jun-6-2011 STUNT % 33 DP-1 Dent corn	Jun-6-2011 PHYCHL % 33 DP-1 Dent corn
Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code	16	17	33	34	35	10	9
1	Anthem	8 oz/a	A	0 a	0 a	15 a	38 abc	236.5 a-d	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
2	Anthem	10 oz/a	A	0 a	0 a	15 a	39 ab	244.1 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
3	Anthem	8 oz/a	A	0 a	0 a	16 a	38 abc	235.9 a-e	0 a	0 a
	atrazine	2 pt/a	A							
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
4	Anthem	10 oz/a	A	0 a	0 a	15 a	38 abc	239.0 abc	0 a	0 a
	atrazine	2 pt/a	A							
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
5	Verdict	13 fl oz/a	A	0 a	0 a	15 a	37 a-e	231.2 a-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
6	Harness	2 pt/a	A	0 a	0 a	15 a	38 a-d	236.7 a-d	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
7	Harness Xtra	2 pt/a	A	0 a	0 a	15 a	37 a-e	229.6 a-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
8	Lumax	2 qt/a	A	0 a	0 a	15 a	36 b-e	226.7 c-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C							
	AMS	2.5 lb/a	C							
9	Anthem	10 oz/a	A	0 a	0 a	15 a	35 e	218.6 f	0 a	0 a
10	Anthem	10 oz/a	A	0 a	0 a	15 a	35 de	221.7 def	0 a	0 a
	atrazine	2 pt/a	A							
11	Harness Xtra	2 pt/a	A	0 a	0 a	15 a	35 e	220.8 ef	0 a	0 a
12	Anthem	7 fl oz/a	B	0 a	0 a	15 a	36 cde	225.6 c-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	B							
	Activator 90	0.25 % v/v	B							
	AMS	2.5 lb/a	B							
13	Anthem	9 fl oz/a	B	0 a	0 a	15 a	35 e	220.1 f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	B							
	Activator 90	0.25 % v/v	B							
	AMS	2.5 lb/a	B							
14	Anthem	7 fl oz/a	B	0 a	0 a	15 a	36 b-e	228.4 b-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	B							
	atrazine	1.75 pt/a	B							
	AMS	2.5 lb/a	B							
15	Halex GT	3.6 pt/a	B	0 a	0 a	15 a	37 a-e	231.6 a-f	0 a	0 a
	Activator 90	0.25 % v/v	B							
	AMS	8.5 lb/100 gal	B							
16	Roundup PowerMax	22 fl oz/a	B	0 a	0 a	15 a	39 a	243.6 ab	0 a	0 a
	AMS	2.5 lb/a	B							
17	Nontreated			0 a	0 a	15 a	24 f	149.1 g	0 a	0 a
LSD (P=.10)				0.0	0.0	0.8	2.5	15.49	0.0	0.0

University of Wisconsin-Madison

Rating Date Rating Type Rating Unit Plant-Eval Interval Crop Name				May-30-2011 STUNT % 26 DP-1 Dent corn	May-30-2011 PHYCHL % 26 DP-1 Dent corn	May-19-2011 STUNT % 15 DP-1 Dent corn	May-19-2011 PHYCHL % 15 DP-1 Dent corn
Trt No.	Treatment Name	Rate	Unit	Appl Code			
					8	7	2
1	Anthem	8 oz/a	A		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
2	Anthem	10 oz/a	A		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
3	Anthem	8 oz/a	A		0 a	0 a	0 a
	atrazine	2 pt/a	A				
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
4	Anthem	10 oz/a	A		0 a	0 a	0 a
	atrazine	2 pt/a	A				
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
5	Verdict	13 fl oz/a	A		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
6	Harness	2 pt/a	A		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
7	Harness Xtra	2 pt/a	A		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
8	Lumax	2 qt/a	A		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C				
	AMS	2.5 lb/a	C				
9	Anthem	10 oz/a	A		0 a	0 a	0 a
10	Anthem	10 oz/a	A		0 a	0 a	0 a
	atrazine	2 pt/a	A				
11	Harness Xtra	2 pt/a	A		0 a	0 a	0 a
12	Anthem	7 fl oz/a	B		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	B				
	Activator 90	0.25 % v/v	B				
	AMS	2.5 lb/a	B				
13	Anthem	9 fl oz/a	B		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	B				
	Activator 90	0.25 % v/v	B				
	AMS	2.5 lb/a	B				
14	Anthem	7 fl oz/a	B		0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	B				
	atrazine	1.75 pt/a	B				
	AMS	2.5 lb/a	B				
15	Halex GT	3.6 pt/a	B		0 a	0 a	0 a
	Activator 90	0.25 % v/v	B				
	AMS	8.5 lb/100 gal	B				
16	Roundup PowerMax	22 fl oz/a	B		0 a	0 a	0 a
	AMS	2.5 lb/a	B				
17	Nontreated				0 a	0 a	0 a
LSD (P=.10)					0.0	0.0	0.0

Means followed by same letter do not significantly differ (P=.10, LSD)

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