Anthem: Efficacy and Crop safety

Study Director: T. L. Trower Investigator: V. M. Davis

Title: Sr. Outreach Specialist

Discipline: H herbicide Initiation Date: May-6-2011

Trial Location

City: Arlington
State/Prov.: WI
Postal Code: 53911
Country: USA

Latitude of LL Corner °: 43.18005 N
Longitude of LL Corner °: 89.20424 W
Altitude of LL Corner, Unit: 1070.00 FT

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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

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: RACOBL Randomized Complete Block (RCB)

Replications: 4

Soil Description

Description Name: Plano Silt Loam

Sand: 6
 Silt: 71
 Clay: 23
 Texture: SIL silt loam
 Soil Name: Plano
 Fert. Level: F fair
 Soil Drainage: E excellent

Application Description

	Α	В	С
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

	Α	В	С
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

rest stage At Each Application						
	Α			3		С
Pest 1 Code, Type, Scale:	SETFA	W	SETF	A W	SETF	A 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	CHEA	L W	CHEA	AL W
Stage Majority, Percent:			2 If			
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	ERBV	I W	ERB\	/I W
Stage Majority, Percent:					4 If	
Height, Unit:					1	IN
Density, Unit:					1	FT2
Pest 4 Code, Type, Scale:	AMBEL	W	AMBE	L W	AMB	EL W
Stage Majority, Percent:			coty		7 If	
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	ABUT	H W	ABUT	H W
Stage Majority, Percent:			coty		4 If	
Height, Unit:			0.25	IN	5	IN
Height Minimum, Maximum:					3	6
Density, Unit:			1	FT2	1	FT2

Application Equipment

		Α		В		С
Operating Pressure, Unit:	30	PSI	30	PSI	40 PSI	
Nozzle Type:	Flat	Fan	Flat	Fan	Turb	0
Nozzle Size:	XR8	8003	XR8	003	TT 1	1015
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:	Wat	er	Wat	er	WA	ΓER
Spray Volume, Unit:	20		20		15	
Spray volume, om.	GAL	_/A	GAL/A		gal/ac	
Mix Size, Unit:	2.2	Liters	2.2	Liters	2	liters
Propellant:	CO2	2	CO2	2	CO ₂	

Pest Name Rating Date Rating Type				Faber's foxtail May-19-2011 CONTROL %	Faber's foxtail Jun-6-2011 CONTROL %	Faber's foxtail Jun-20-2011 CONTROL	Giant foxtail Jul-11-2011 Control %	Giant foxtail Aug-15-2011 Control %
Rating Unit Plant-Eval Interval				15 DP-1	33 DP-1	% 47 DP-1	68 DP-1	103 DP-1
Trt Treatment		Rate	Appl					
No. Name		Unit	Code	97 d	11 06 ah	18 81 de	23	28
 Anthem Roundup PowerMax 		oz/a fl oz/a	A C	97 d	96 ab	81 de	100 a	100 a
•								
AMS 2 Anthem	2.5	oz/a	C A	99 abc	97 ab	79 e	100 a	100 a
Roundup PowerMax	_	oz/a fl oz/a	C	99 abc	97 ab	79 E	100 a	100 a
AMS	2.5		С					
3 Anthem		oz/a	A	97 cd	94 b	79 e	100 a	100 a
atrazine	-	oz/a pt/a	A	97 Cu	94 D	79 E	100 a	100 a
Roundup PowerMax		fl oz/a	C					
AMS	2.5		C					
4 Anthem		oz/a	A	100 a	97 ab	85 b-e	100 a	100 a
atrazine		oz/a pt/a	A	100 a	91 ab	65 b-e	100 a	100 a
Roundup PowerMax		fl oz/a	C					
•								
AMS 5 Verdict	2.5	fl oz/a	C A	99 ab	99 a	94 a	100 a	99 a
Roundup PowerMax	_	fl oz/a	C	99 ab	99 a	94 a	100 a	99 a
AMS	2.5		С					
6 Harness		pt/a	A	98 bcd	95 b	96 a	100 a	99 a
Roundup PowerMax		pı/a fl oz/a	C	96 DCG	95 D	96 a	100 a	99 a
AMS	2.5		С					
7 Harness Xtra		pt/a	A	100 a	99 a	95 a	100 a	100 a
Roundup PowerMax		pı/a fl oz/a	C	100 a	99 a	95 a	100 a	100 a
AMS	2.5		С					
8 Lumax		qt/a	A	98 bcd	96 ab	91 abc	100 a	100 a
Roundup PowerMax		fl oz/a	C	30 DCu	30 ab	91 abc	100 a	100 a
AMS	2.5		С					
9 Anthem		oz/a	A	99 ab	97 ab	84 cde	80 c	76 c
10 Anthem		oz/a	A	97 cd	96 ab	89 a-d	91 b	86 b
atrazine		pt/a	Α		00 0.0	33 3. 3.		
11 Harness Xtra		pt/a	Α	99 abc	97 ab	92 ab	91 b	90 b
12 Anthem		fl oz/a	В	0 e	99 a	91 abc	100 a	100 a
Roundup PowerMax	22	fl oz/a	В					
Activator 90	0.25	% v/v	В					
AMS	2.5	lb/a	В					
13 Anthem	9	fl oz/a	В	0 e	99 a	96 a	100 a	100 a
Roundup PowerMax	22	fl oz/a	В					
Activator 90	0.25	% v/v	В					
AMS	2.5	lb/a	В					
14 Anthem	7	fl oz/a	В	0 e	99 a	92 abc	100 a	100 a
Roundup PowerMax	22	fl oz/a	В					
atrazine	1.75	pt/a	В					
AMS	2.5	lb/a	В					
15 Halex GT	3.6	pt/a	В	0 e	97 ab	95 a	100 a	98 a
Activator 90	0.25		В					
AMS		lb/100 gal	В					
16 Roundup PowerMax		fl oz/a	В	0 e	86 c	15 f	100 a	98 a
AMS	2.5	lb/a	В					
17 Nontreated				0	50	0	0	0
LSD (P=.10)				1.8	3.5	8.4	1.9	5.8

Pest Name Rating Date Rating Type			Common lambsqu> May-19-2011 CONTROL	Common lambsqu> Jun-6-2011 CONTROL	Common lambsqu> Jun-20-2011 CONTROL	Common lambsqu> Jul-11-2011 Control
Rating Unit Plant-Eval Interval			% 15 DP-1	% 33 DP-1	% 47 DP-1	% 68 DP-1
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	4	12	19	24
1 Anthem	8 oz/a	Α	98 bc	95 a	58 d	100 a
Roundup Power	Max 22 fl oz/a	С				
AMS	2.5 lb/a	С				
2 Anthem	10 oz/a	Α	97 c	93 a	62 d	100 a
Roundup Power		С				
AMS	2.5 lb/a	С				
3 Anthem	8 oz/a	Α	98 bc	93 a	93 ab	100 a
atrazine	2 pt/a	Α				
Roundup Power	Max 22 fl oz/a	С				
AMS	2.5 lb/a	С				
4 Anthem	10 oz/a	Α	100 a	100 a	97 a	100 a
atrazine	2 pt/a	Α				
Roundup Power	Max 22 fl oz/a	С				
AMS	2.5 lb/a	С				
5 Verdict	13 fl oz/a	Α	100 a	100 a	96 a	100 a
Roundup Power	Max 22 fl oz/a	С				
AMS	2.5 lb/a	С				
6 Harness	2 pt/a	Α	98 bc	94 a	94 a	100 a
Roundup Power	•	С				
AMS	2.5 lb/a	С				
7 Harness Xtra	2 pt/a	Α	100 a	100 a	99 a	100 a
Roundup Power		С				
AMS	2.5 lb/a	С				
8 Lumax	2 qt/a	Α	98 abc	99 a	99 a	100 a
Roundup Power	·	С				
AMS	2.5 lb/a	С				
9 Anthem	10 oz/a	А	100 a	96 a	57 d	63 b
10 Anthem	10 oz/a	Α	100 a	100 a	98 a	99 a
atrazine	2 pt/a	Α				
11 Harness Xtra	2 pt/a	Α	99 ab	98 a	97 a	98 a
12 Anthem	7 fl oz/a	В	0 d	98 a	78 c	100 a
Roundup Power	Max 22 fl oz/a	В				
Activator 90	0.25 % v/v	В				
AMS	2.5 lb/a	В				
13 Anthem	9 fl oz/a	В	0 d	97 a	82 bc	100 a
Roundup Power	Max 22 fl oz/a	В				
Activator 90	0.25 % v/v	В				
AMS	2.5 lb/a	В				
14 Anthem	7 fl oz/a	В	0 d	100 a	100 a	100 a
Roundup Power	Max 22 fl oz/a	В				
atrazine	1.75 pt/a	В				
AMS	2.5 lb/a	В				
15 Halex GT	3.6 pt/a	В	0 d	100 a	99 a	100 a
Activator 90	0.25 % v/v	В				-
AMS	8.5 lb/100					
16 Roundup Power		В	0 d	94 a	30 e	100 a
AMS	2.5 lb/a	В		0.4	30 0	100 a
17 Nontreated	2.0 10/4		0	0	0	75
LSD (P=.10)			2.2	6.4	11.9	4.3

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Pest I	Name				Common lambsqu>
Rating	g Date				Aug-15-2011
	g Type				Contro
	g Unit				400 55
	-Eval Interval				103 DP-1
Trt	Treatment	_	Rate	Appl	
No.	Name	Rate	Unit	Code	29
1	Anthem		oz/a	A	100 a
	Roundup PowerMax		fl oz/a	С	
	AMS		lb/a	С	
2	Anthem	-	oz/a	A	100 a
	Roundup PowerMax	22	fl oz/a	С	
	AMS	2.5	lb/a	С	
3	Anthem	8	oz/a	Α	100 a
	atrazine	2	pt/a	Α	
	Roundup PowerMax	22	fl oz/a	С	
	AMS	2.5	lb/a	С	
4	Anthem	10	oz/a	Α	100 a
	atrazine	2	pt/a	Α	
	Roundup PowerMax		fl oz/a	С	
	AMS			C	
_	Verdict		lb/a fl oz/a	A	100 0
5					100 a
	Roundup PowerMax		fl oz/a	С	
	AMS		lb/a	С	
6	Harness		pt/a	A	100 a
7	Roundup PowerMax	22	fl oz/a	С	
	AMS	2.5	lb/a	С	
	Harness Xtra	2	pt/a	Α	100 a
	Roundup PowerMax	22	fl oz/a	С	
	AMS	2.5	lb/a	С	
8	Lumax	2	qt/a	Α	100 a
	Roundup PowerMax	22	fl oz/a	С	
	AMS	2.5	lb/a	С	
9	Anthem		oz/a	A	64 b
	Anthem		oz/a	A	99 a
	atrazine	2	pt/a	Α	
11	Harness Xtra		pt/a	Α	99 a
	Anthem		fl oz/a	В	100 a
	Roundup PowerMax	22	fl oz/a	В	
	Activator 90	0.25	% v/v	В	
	AMS		lb/a	В	
12	Anthem		fl oz/a	В	100.0
13				В	100 a
	Roundup PowerMax		fl oz/a		
	Activator 90		% v/v	В	
	AMS		lb/a	В	
14	Anthem		fl oz/a	В	100 a
	Roundup PowerMax	22	fl oz/a	В	
	atrazine	1.75	pt/a	В	
	AMS	2.5	lb/a	В	
15	Halex GT		pt/a	В	100 a
	Activator 90		% v/v	В	
	AMS		lb/100 gal	В	
16	Roundup PowerMax		fl oz/a	В	100 a
10	AMS		lb/a	В	100 a
17		2.0	10/ U		0
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Ratino Ratino	Name g Date g Type			Velvetleaf May-19-2011 CONTROL	Velvetleaf Jun-6-2011 CONTROL	Velvetleaf Jun-20-2011 CONTROL	Velvetleaf Jul-11-2011 Control	Velvetlea Aug-15-201 Contro
Ratino Plant-	g Unit Eval Interval			% 15 DP-1	% 33 DP-1	% 47 DP-1	% 68 DP-1	103 DP
	Treatment	Rate	Appl					
	Name	Rate Unit	Code	5	13	20	25	30
1	Anthem	8 oz/a	Α	87 c	65 e	43 fgh	100 a	100 a
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
2	Anthem	10 oz/a	Α	79 d	35 f	25 hi	100 a	100 a
	Roundup PowerMax	22 fl oz/a						
	AMS	2.5 lb/a	С					
3	Anthem	8 oz/a	Α	99 a	74 cde	51 ef	100 a	100 a
	atrazine	2 pt/a	Α					
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
4	Anthem	10 oz/a	Α	100 a	85 a-d	74 cd	100 a	100 a
	atrazine	2 pt/a	Α					
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
5	Verdict	13 fl oz/a		100 a	91 abc	96 ab	100 a	100 a
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
6	Harness	2 pt/a	Α	98 ab	68 de	28 ghi	100 a	100 a
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
F A	Harness Xtra	2 pt/a	Α	100 a	93 abc	79 bcd	100 a	100 a
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
8	Lumax	2 qt/a	Α	100 a	100 a	99 ab	100 a	100 a
	Roundup PowerMax	22 fl oz/a	С					
	AMS	2.5 lb/a	С					
	Anthem	10 oz/a	Α	93 bc	84 a-d	46 efg	43 d	35 c
10	Anthem	10 oz/a	Α	97 ab	94 ab	83 a-d	71 b	64 b
	atrazine	2 pt/a	Α					
	Harness Xtra	2 pt/a	A	95 ab	81 a-e	67 de	53 c	45 c
12	Anthem	7 fl oz/a 22 fl oz/a	B B	0 e	82 a-e	83 a-d	100 a	100 a
	Roundup PowerMax							
	Activator 90	0.25 % v/v	В					
40	AMS	2.5 lb/a	В			00.1	100	100
13	Anthem	9 fl oz/a	В	0 e	77 b-e	89 abc	100 a	100 a
	Roundup PowerMax	22 fl oz/a	В					
	Activator 90	0.25 % v/v	В					
	AMS	2.5 lb/a	В					
14	Anthem	7 fl oz/a	В	0 e	98 a	93 abc	100 a	100 a
	Roundup PowerMax	22 fl oz/a	В					
	atrazine	1.75 pt/a	В					
	AMS	2.5 lb/a	В					
15	Halex GT	3.6 pt/a	В	0 e	100 a	100 a	100 a	100 a
	Activator 90	0.25 % v/v	В					
	AMS	8.5 lb/100	•					
16	Roundup PowerMax	22 fl oz/a	В	0 e	83 a-e	20 i	100 a	100 a
	AMS	2.5 lb/a	В		_			
17	Nontreated			0	0	0	75	0

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Pest Name			Hogweed	Hogweed	Hogweed	Hogweed	Hogweed
Rating Date			May-19-2011	Jun-6-2011	Jun-20-2011 CONTROL	Jul-11-2011	Aug-15-2011 Control
Rating Type Rating Unit			CONTROL %	CONTROL %	CONTROL %	Control %	Control %
Plant-Eval Interval			15 DP-1	33 DP-1	47 DP-1	68 DP-1	103 DP-1
Trt Treatment	Rate	Appl	-				
No. Name	Rate Unit	Code	6	14	21	26	31
1 Anthem	8 oz/a	Α	100 a	100 a	85 ab	100 a	100 a
Roundup PowerMax	22 fl oz/a	C					
AMS	2.5 lb/a	С					
2 Anthem	10 oz/a	Α	100 a	100 a	85 ab	100 a	100 a
Roundup PowerMax	22 fl oz/a	C					
AMS	2.5 lb/a	С					
3 Anthem	8 oz/a	Α	100 a	100 a	100 a	100 a	100 a
atrazine	2 pt/a	Α					
Roundup PowerMax	22 fl oz/a	С					
AMS	2.5 lb/a	С					
4 Anthem	10 oz/a	Α	100 a	100 a	100 a	100 a	100 a
atrazine	2 pt/a	Α					
Roundup PowerMax	22 fl oz/a	С					
AMS	2.5 lb/a	C					
5 Verdict	13 fl oz/a		100 a	100 a	100 a	100 a	100 a
Roundup PowerMax	22 fl oz/a		.00 a	.00 a	.00 a	.00 a	.00 a
AMS	2.5 lb/a	C					
6 Harness	2 pt/a	A	100 a	100 a	82 b	100 a	100 a
Roundup PowerMax	22 fl oz/a		100 u	100 a	02 5	100 a	100 a
AMS	2.5 lb/a	C					
7 Harness Xtra	2 pt/a	A	100 a	100 a	99 a	100 a	100 a
Roundup PowerMax	22 fl oz/a		100 a	100 a	55 u	100 a	100 a
AMS	2.5 lb/a	C					
8 Lumax	2 qt/a	A	100 a	100 a	100 a	100 a	100 a
Roundup PowerMax	22 fl oz/a		100 u	100 a	100 4	100 a	100 4
AMS	2.5 lb/a	C					
9 Anthem	10 oz/a	A	100 a	100 a	88 ab	98 b	100 a
10 Anthem	10 oz/a	A	100 a	100 a	95 ab	100 a	100 a
atrazine	2 pt/a	Α					
11 Harness Xtra	2 pt/a	Α	100 a	100 a	99 a	100 a	100 a
12 Anthem	7 fl oz/a	В	0 b	100 a	96 ab	100 a	100 a
Roundup PowerMax	22 fl oz/a	в В					
Activator 90	0.25 % v/v	В					
AMS	2.5 lb/a	В					
13 Anthem	9 fl oz/a	В	0 b	100 a	100 a	100 a	100 a
Roundup PowerMax	22 fl oz/a	В					
Activator 90	0.25 % v/v	В					
AMS	2.5 lb/a	В					
14 Anthem	7 fl oz/a		0 b	100 a	100 a	100 a	100 a
Roundup PowerMax	22 fl oz/a		0.0	.00 a	.00 a	.00 a	.00 a
atrazine	1.75 pt/a	В					
AMS	2.5 lb/a	В					
15 Halex GT	3.6 pt/a	В	0 b	100 a	100 a	100 a	100 a
Activator 90	0.25 % v/v		O D	100 a	100 a	100 a	100 a
AMS	8.5 lb/100						
16 Roundup PowerMax	22 fl oz/a		0 b	100 a	35 c	100 a	100 a
AMS	2.5 lb/a	В	0.0	100 a	30 0	100 a	100 a
17 Nontreated	2.0 ID/a	D	0	0	0	75	0
LSD (P=.10)			0.0	0.0	16.9	0.9	0.1

Roundup PowerMax	Rate Unit B oz/a P fl oz/a D oz/a P fl oz/a	Appl Code A C C A C C A C C	Woolly cupgrass Jun-6-2011 CONTROL % 33 DP-1 15 89 a 78 a	Woolly cupgrass Jun-20-2011 CONTROL % 47 DP-1 22 54 e 56 e	Woolly cupgrass Jul-11-2011 Control % 68 DP-1 27 100 a	Woolly cupgrass Aug-15-2011 Contro % 103 DP-1 32 100 a
Rating Type Rating Unit Plant-Eval Interval Trt Treatment No. Name 1 Anthem Roundup PowerMax 22 AMS 2.5 2 Anthem 10 Roundup PowerMax 22 AMS 2.5 3 Anthem 2 atrazine 2 Roundup PowerMax 2.5 4 Anthem 10 atrazine 2 Roundup PowerMax 2.5 5 Verdict 13 Roundup PowerMax 2.5 AMS 2.5 6 Harness 2 Roundup PowerMax 2.5 7 Harness Xtra 2 Roundup PowerMax 2.5 8 Lumax 2 Roundup PowerMax 2 AMS 2.5	Unit 3 oz/a 2 fl oz/a 5 lb/a 6 lb/a 7 fl oz/a 8 oz/a 8 oz/a 9 pt/a 8 lb/a 9 oz/a 10 lb/a 10 oz/a 10 lb/a 10 oz/a 10 lb/a 10 oz/a 10 pt/a	Code A C C A C C A C C C C C C C C C C C C	CONTROL % 33 DP-1 15 89 a 78 a	CONTROL % 47 DP-1 22 54 e	Control % 68 DP-1 27 100 a	Contro % 103 DP-1 32 100 a
Rating Unit Plant-Eval Interval Trt Treatment No. Name 1 Anthem Roundup PowerMax 22 AMS 2.5 2 Anthem 10 Roundup PowerMax 22 AMS 2.5 3 Anthem 2 atrazine 2 Roundup PowerMax 2.5 4 Anthem 10 atrazine 2 Roundup PowerMax 2.5 5 Verdict 13 Roundup PowerMax 2.5 AMS 2.5 6 Harness 2 Roundup PowerMax 2.5 7 Harness Xtra 2 Roundup PowerMax 2.5 8 Lumax 2 Roundup PowerMax 2 AMS 2.5	Unit 3 oz/a 2 fl oz/a 5 lb/a 6 lb/a 7 fl oz/a 8 oz/a 8 oz/a 9 pt/a 8 lb/a 9 oz/a 10 lb/a 10 oz/a 10 lb/a 10 oz/a 10 lb/a 10 oz/a 10 pt/a	Code A C C A C C A C C C C C C C C C C C C	% 33 DP-1 15 89 a 78 a	% 47 DP-1 22 54 e 56 e	68 DP-1 27 100 a	32 100 a
Plant-Eval Interval Trt Treatment No. Name Rate 1 Anthem 8 Roundup PowerMax 22 AMS 2.5 2 Anthem 2 AMS 2.5 3 Anthem 2 atrazine 2 2 Roundup PowerMax 2.5 4 Anthem 10 atrazine 2 2 Roundup PowerMax 2.5 5 Verdict 13 Roundup PowerMax 2.5 AMS 2.5 6 Harness 2 Roundup PowerMax 2 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 2 AMS 2.5 8 Lumax 2 Roundup PowerMax 2 AMS 2.5	Unit 3 oz/a 2 fl oz/a 5 lb/a 6 lb/a 7 fl oz/a 8 oz/a 8 oz/a 9 pt/a 8 lb/a 9 oz/a 10 lb/a 10 oz/a 10 lb/a 10 oz/a 10 lb/a 10 oz/a 10 pt/a	Code A C C A C C A C C C C C C C C C C C C	15 89 a 78 a	22 54 e 56 e	27 100 a 100 a	32 100 a 100 a
No. Name Rate 1 Anthem 8 Roundup PowerMax 22 AMS 2.5 2 Anthem 22 Roundup PowerMax 2.5 3 Anthem 2 atrazine 2 2 Roundup PowerMax 2.5 4 Anthem 10 atrazine 2 2 Roundup PowerMax 2.5 5 Verdict 13 Roundup PowerMax 2.5 6 Harness 2 Roundup PowerMax 2.5 7 Harness Xtra 2 Roundup PowerMax 2.5 8 Lumax 2 Roundup PowerMax 2 8 Lumax 2 Roundup PowerMax 2	Unit 3 oz/a 2 fl oz/a 5 lb/a 6 lb/a 7 fl oz/a 8 oz/a 8 oz/a 9 pt/a 8 lb/a 9 oz/a 1 lb/a 9 oz/a 9 pt/a 1 lb/a 9 oz/a 9 pt/a	Code A C C A C C A C C C C C C C C C C C C	89 a 78 a	54 e 56 e	100 a	100 a
1 Anthem	3 oz/a 2 fl oz/a 5 lb/a 6 lb/a 7 fl oz/a 7 fl oz/a 8 oz/a 8 oz/a 9 pt/a 6 lb/a 6 lb/a 6 lb/a 7 fl oz/a 6 lb/a 7 oz/a 8 oz/a	A C C A A C C C	89 a 78 a	54 e 56 e	100 a	100 a
Roundup PowerMax 22 AMS 2.5 2 Anthem 10 Roundup PowerMax 22 AMS 2.5 3 Anthem 8 atrazine 2 Roundup PowerMax 25 4 Anthem 10 atrazine 2 Roundup PowerMax 25 5 Verdict 13 Roundup PowerMax 25 6 Harness 2 Roundup PowerMax 25 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 AMS 2.5	2 fl oz/a 5 lb/a 0 oz/a 2 fl oz/a 5 lb/a 8 oz/a 2 pt/a 2 fl oz/a 5 lb/a 0 oz/a 2 pt/a	C C C A A C C C	78 a	56 e	100 a	100 a
AMS 2.5 2 Anthem 10 Roundup PowerMax 22 AMS 2.5 3 Anthem 8 atrazine 22 Roundup PowerMax 22 AMS 2.5 4 Anthem 10 atrazine 22 Roundup PowerMax 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 22 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 22 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5	5 lb/a 0 oz/a 2 fl oz/a 5 lb/a 8 oz/a 2 pt/a 2 fl oz/a 6 lb/a 0 oz/a 2 pt/a	C C C C C C C				
2 Anthem 10 Roundup PowerMax 22 AMS 2.5 3 Anthem 2 atrazine 2 Roundup PowerMax 2.5 4 Anthem 10 atrazine 2 Roundup PowerMax 2.5 5 Verdict 13 Roundup PowerMax 2.5 6 Harness 2 Roundup PowerMax 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 AMS 2.5	0 oz/a 2 fl oz/a 5 lb/a 8 oz/a 2 pt/a 2 fl oz/a 5 lb/a 0 oz/a 2 pt/a	A C C A A C C				
Roundup PowerMax	2 fl oz/a 5 lb/a 8 oz/a 2 pt/a 2 fl oz/a 5 lb/a 0 oz/a 2 pt/a	C C A A C C				
AMS 2.5 3 Anthem 8 atrazine 22 AMS 2.5 4 Anthem 10 atrazine 22 AMS 2.5 4 Anthem 10 atrazine 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 22 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 22 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5	5 lb/a 8 oz/a 2 pt/a 2 fl oz/a 5 lb/a 0 oz/a 2 pt/a	C A A C C	80 a	53 e	100 a	
3 Anthem atrazine 22 AMS 2.5 4 Anthem atrazine 22 AMS 2.5 4 Anthem 10 atrazine 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5	3 oz/a 2 pt/a 2 fl oz/a 5 lb/a 0 oz/a 2 pt/a	A A C C	80 a	53 e	100 a	400
atrazine 22 Roundup PowerMax 22 AMS 2.5 4 Anthem 10 atrazine 22 Roundup PowerMax 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5	2 pt/a 2 fl oz/a 5 lb/a 0 oz/a 2 pt/a	A C C	80 a	53 e	100 a	400
Roundup PowerMax	. fl oz/a 5 lb/a 0 oz/a 2 pt/a	C C				100 a
AMS 2.5 4 Anthem 10 atrazine 2 Roundup PowerMax 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5	b lb/a oz/a pt/a	С				
AMS 2.5 4 Anthem 10 atrazine 2 Roundup PowerMax 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 AMS 2.5	b lb/a oz/a pt/a	С				
4 Anthem 10 atrazine 2 Roundup PowerMax 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 Roundup PowerMax 22 AMS 2.5	oz/a 2 pt/a					
atrazine 22 Roundup PowerMax 22 AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 Roundup PowerMax 22 AMS 2.5	2 pt/a	Α	88 a	82 a-d	100 a	100 a
Roundup PowerMax	•	A	00 d	02 4 4	100 a	100 a
AMS 2.5 5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 22 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 22 Roundup PowerMax 22 AMS 2.5 8 Lumax 22 Roundup PowerMax 22 Roundup PowerMax 22 AMS 2.5		C				
5 Verdict 13 Roundup PowerMax 22 AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 Roundup PowerMax 22 Roundup PowerMax 22	5 lb/a	C				
Roundup PowerMax 22	s floz/a		00 -	00 5 -	400 -	400 -
AMS 2.5 6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 Roundup PowerMax 22	s ii oz/a 2 fl oz/a	A	89 a	69 b-e	100 a	100 a
6 Harness 2 Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 Roundup PowerMax 22		С				
Roundup PowerMax 22 AMS 2.5 7 Harness Xtra 22 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22 Roundup PowerMax 22	lb/a	С				
AMS 2.5 7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22	2 pt/a	A	80 a	77 a-d	100 a	100 a
7 Harness Xtra 2 Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22	2 fl oz/a	С				
Roundup PowerMax 22 AMS 2.5 8 Lumax 2 Roundup PowerMax 22	i lb/a	С				
AMS 2.5 8 Lumax 2 Roundup PowerMax 22	2 pt/a	Α	91 a	87 abc	100 a	100 a
8 Lumax 2 Roundup PowerMax 22	2 fl oz/a	С				
Roundup PowerMax 22	b lb/a	С				
·	2 qt/a	Α	90 a	69 cde	100 a	100 a
	fl oz/a	С				
AMS 2.5	i lb/a	С				
9 Anthem 10	oz/a	Α	92 a	65 de	78 b	73 c
10 Anthem 10	oz/a	Α	92 a	80 a-d	78 b	81 b
	2 pt/a	Α				
	2 pt/a	Α	87 a	79 a-d	77 b	83 b
	′ fl oz/a	В	97 a	83 a-d	100 a	100 a
Roundup PowerMax 22	2 fl oz/a	В				
Activator 90 0.25	5 % v/v	В				
AMS 2.5	b lb/a	В				
13 Anthem 9	fl oz/a	В	93 a	88 ab	100 a	100 a
Roundup PowerMax 22	fl oz/a	В				
Activator 90 0.25	5 % v/v	В				
AMS 2.5	i lb/a	В				
	' fl oz/a	В	95 a	90 a	100 a	99 a
	? fl oz/a	В				
	5 pt/a	В				
	b lb/a	В				
	6 pt/a	В	92 a	93 a	100 a	100 a
	5 % v/v	В	32 d	33 a	100 a	100 a
	b/100 gal	В	7-	2.	400	
•	? fl oz/a	В	75 a	0 f	100 a	98 a
	i lb/a	В	10		7.5	
17 Nontreated LSD (P=.10)	,		49 12.5	0 18.5	75 3.4	3.4

			J	J. Oity		0		0 : 10 0011		
	ng Date				Jun-20-2011					Jun-6-2011
	ng Type			PHYSTU	PHYCHL	Moisture	Yield	YIELD	STUNT %	PHYCHL
	ng Unit nt-Eval Interval			% 47 DP-1	% 47 DP-1	% 168 DP-1	lb/plot 168 DP-1	BU 168 DP-1	33 DP-1	% 33 DP-1
	n-Evarimervar o Name			Dent corn	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn	Dent corr
	Treatment	Rate	Appl	Dent com	DCIII COIII	Dent com	DCIII COIII	DCIII COIII	Dent com	DCIII COII
	Name	Rate Unit	Code	16	17	33	34	35	10	9
_	Anthem	8 oz/a	A	0 a	0 a	15 a	38 abc	236.5 a-d	0 a	0 a
	Roundup PowerMax		C	o a	o a	10 4	00 000	200.0 4 4	o a	υu
	AMS	2.5 lb/a	C							
_				0.5	0 -	45 -	20	2444 -	0 -	0 -
2	Anthem	10 oz/a	A	0 a	0 a	15 a	39 ab	244.1 a	0 a	0 a
	Roundup PowerMax		С							
	AMS	2.5 lb/a	С							
3	Anthem	8 oz/a	Α	0 a	0 a	16 a	38 abc	235.9 a-e	0 a	0 a
	atrazine	2 pt/a	Α							
	Roundup PowerMax	22 fl oz/a	С							
	AMS	2.5 lb/a	С							
4	Anthem	10 oz/a	Α	0 a	0 a	15 a	38 abc	239.0 abc	0 a	0 a
	atrazine	2 pt/a	Α							
	Roundup PowerMax	•	С							
	AMS	2.5 lb/a	C							
-	Verdict	13 fl oz/a	A	0 a	0 a	15 a	37 a-e	231.2 a-f	0 a	0 a
5		22 fl oz/a		U a	U a	io a	31 a-e	231.2 a-i	U a	0 a
	Roundup PowerMax		С							
	AMS	2.5 lb/a	С	_	_				_	
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	С							
	AMS	2.5 lb/a	С							
7	Harness Xtra	2 pt/a	Α	0 a	0 a	15 a	37 a-e	229.6 a-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	С							
	AMS	2.5 lb/a	С							
8	Lumax	2 qt/a	Α	0 a	0 a	15 a	36 b-e	226.7 c-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	С							
	AMS	2.5 lb/a	С							
9	Anthem	10 oz/a	A	0 a	0 a	15 a	35 e	218.6 f	0 a	0 a
	Anthem	10 oz/a	A	0 a	0 a	15 a	35 de	221.7 def	0 a	0 a
	atrazine	2 pt/a	Α							
11	Harness Xtra	2 pt/a	Α	0 a	0 a	15 a	35 e	220.8 ef	0 a	0 a
	Anthem	7 fl oz/a	В	0 a	0 a	15 a	36 cde	225.6 c-f	0 a	0 a
	Roundup PowerMax		В							
	Activator 90	0.25 % v/v	В							
	AMS	2.5 lb/a	В							
40		2.5 lb/a 9 fl oz/a	В	0.5	0.0	45 -	25 ^	220 4 4	0.5	0 -
13	Anthem Roundup RowerMax			0 a	0 a	15 a	35 e	220.1 f	0 a	0 a
	Roundup PowerMax		В							
	Activator 90	0.25 % v/v	В							
	AMS	2.5 lb/a	В							
14	Anthem	7 fl oz/a	В	0 a	0 a	15 a	36 b-e	228.4 b-f	0 a	0 a
	Roundup PowerMax	22 fl oz/a	В							
	atrazine	1.75 pt/a	В							
	AMS	2.5 lb/a	В							
15	Halex GT	3.6 pt/a	В	0 a	0 a	15 a	37 a-e	231.6 a-f	0 a	0 a
	Activator 90	0.25 % v/v	В							
	AMS	8.5 lb/100 g								
16	Roundup PowerMax	22 fl oz/a	В	0 a	0 a	15 a	39 a	243.6 ab	0 a	0 a
10	AMS	2.5 lb/a	В	Ua	Ua	io a	Ja a	273.U dD	υa	υa
17	Nontreated	2.J IU/d	U	0.0	0.0	15 ^	24 f	140 1 ~	0.0	0.0
	P (P=.10)			0 a 0.0	0 a 0.0	15 a 0.8	24 f 2.5	149.1 g 15.49	0 a 0.0	0 a 0.0
LUL	/ (1 10 <i>)</i>			0.0	0.0	0.0	2.3	15.49	0.0	0.

		<u> </u>	0.0.	ty of wis			
	g Date			May-30-2011	May-30-2011	May-19-2011	May-19-2011
	g Type			STUNT	PHYCHL	STUNT	PHYCHL
Rating	g Unit -Eval Interval			% 26 DP-1	% 26 DP-1	% 15 DP-1	% 15 DP-1
	Name			Dent corn	Dent corn	Dent corn	Dent corn
Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code	8	7	2	1
	Anthem	8 oz/a	Α	0 a	0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	С				
	AMS	2.5 lb/a	С				
2	Anthem	10 oz/a	Α	0 a	0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	С				
	AMS	2.5 lb/a	С				
3	Anthem	8 oz/a	Α	0 a	0 a	0 a	0 a
	atrazine	2 pt/a	Α				
	Roundup PowerMax	22 fl oz/a	С				
	AMS	2.5 lb/a	С				
4	Anthem	10 oz/a	A	0 a	0 a	0 a	0 a
	atrazine	2 pt/a	A	0 0	0 4	~ ~	0 4
	Roundup PowerMax	22 fl oz/a	С				
	AMS	2.5 lb/a	C				
5	Verdict	13 fl oz/a	A	0 a	0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	C	o u	0 4	o u	0 4
	AMS	2.5 lb/a	C				
6	Harness	2.5 lb/a 2 pt/a	A	0 a	0 a	0 a	0 a
0	Roundup PowerMax	22 fl oz/a	Ĉ	U a	0 a	0 a	υa
	AMS	2.5 lb/a	C				
7	Harness Xtra	2.5 lb/a 2 pt/a	A	0 a	0 a	0 a	0 a
,	Roundup PowerMax	22 fl oz/a	Ĉ	U a	0 a	0 a	υa
	AMS	2.5 lb/a	C				
0	Lumax	2.5 lb/a 2 qt/a	A	0 a	0 a	0 a	0 a
0	Roundup PowerMax	2 qt/a 22 fl oz/a	C	U a	0 a	0 a	U a
	AMS	2.5 lb/a	С				
0	Anthem	2.5 lb/a 10 oz/a	A	0 a	0 a	0 a	0.0
	Anthem	10 02/a 10 oz/a	A	0 a	0 a	0 a	0 a 0 a
10	atrazine	2 pt/a	A	o a	σα	σα	σα
11	Harness Xtra	2 pt/a	A	0 a	0 a	0 a	0 a
	Anthem	7 fl oz/a	В	0 a	0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	В				
	Activator 90	0.25 % v/v	В				
	AMS	2.5 lb/a	В				
13	Anthem	9 fl oz/a	В	0 a	0 a	0 a	0 a
	Roundup PowerMax	22 fl oz/a	В	0 4	0 4	o u	0 4
	Activator 90	0.25 % v/v	В				
	AMS	2.5 lb/a	В				
14	Anthem	7 fl oz/a	В	0 a	0 a	0 a	0 a
17	Roundup PowerMax	22 fl oz/a	В	o a	σα	σα	σα
	atrazine	1.75 pt/a	В				
	AMS						
4.5	Halex GT	2.5 lb/a	В	0.5	0.0	0.0	0.5
15		3.6 pt/a 0.25 % v/v	B R	0 a	0 a	0 a	0 a
	Activator 90		В				
10	AMS	8.5 lb/100 gal	В	0 -	0 -	0 -	
16	Roundup PowerMax	22 fl oz/a	В	0 a	0 a	0 a	0 a
L	AMS Nontreated	2.5 lb/a	В	0 -	0 -	0 -	0 -
	nontreated			0 a	0 a	0 a	0 a

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.