

University of Wisconsin-Madison

Sequential Herbicide Evaluation: 2,4-D

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

Trial Location

City: Arlington **Latitude of LL Corner °:** 43.17996 N
State/Prov.: WI **Longitude of LL Corner °:** 89.20374 W
Postal Code: 53911 **Altitude of LL Corner, Unit:** 1074.00 FT
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 52-59 **Description:** VT3
BBCH Scale: BCOR **Planting Date:** May-4-2011
Planting Method: SEEDED seeded **Rate, Unit:** 324000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN **Spacing Within Row, Unit:** 3 IN
Seed Bed: SMOOTH smooth
Soil Moisture: MST **Emergence Date:** May-16-2011

Pest Description

Pest 1 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters

Pest 2 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail's foxtail

Pest 3 Type: W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed

Pest 4 Type: W **Code:** PANMI *Panicum miliaceum*
Common Name: Wild proso millet

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
Plot Area, Unit: 250 FT2 **Study Design:** RACOB L Randomized Complete Block (RCB)
Replications: 4

Soil Description

Description Name: Plano Silt Loam
% Sand: 9 **% OM:** 3.6 **Texture:** SIL silt loam
% Silt: 68 **pH:** 6 **Soil Name:** Plano
% Clay: 23 **Fert. Level:** F fair
Soil Drainage: E excellent

Application Description

	A	B	C
Application Date:	May-6-2011	Jun-6-2011	Jun-14-2011
Time of Day:	7:00P	1:30PM	11:00am
Application Method:	Broadcast	Broadcast	Broadcast
Application Timing:	PRE	V2	V4
Application Placement:	Surface	Foliage	Foliage
Applied By:	T. Trower	T. Trower	T. Trower
Air Temperature, Unit:	66 F	96 F	76 F
% Relative Humidity:	37	40	39
Wind Velocity, Unit:	4 MPH	9 MPH	7 MPH
Wind Direction:	NW	SW	ESE
Soil Temperature, Unit:	56 F	98 F	88 F
Soil Moisture:	DRY/ MOIST	DRY	DRY/MST
% Cloud Cover:	50	100	75

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	V3	V4-V5
Height, Unit:		5 IN	9 IN
Height Minimum, Maximum:		4 4	8 9

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent:	Pre		
Stage Minimum, Percent:		2 lvs	5 lvs
Stage Maximum, Percent:		5 lvs	8 lvs
Height, Unit:		2 IN	2 IN
Height Minimum, Maximum:		0.5 3	2 3
Density, Unit:		7 FT2	4 FT2
Pest 2 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	Pre		
Stage Minimum, Percent:		2 lvs	
Stage Maximum, Percent:		4 lvs	
Height, Unit:		4 IN	
Height Minimum, Maximum:		3 7	
Density, Unit:		9 FT2	
Pest 3 Code, Type, Scale:	AMARE W	AMARE W	AMARE W
Stage Majority, Percent:	Pre		
Stage Minimum, Percent:		2 lvs	
Stage Maximum, Percent:		5 lvs	
Height, Unit:		0.5 IN	
Height Minimum, Maximum:		0.5 1	
Density, Unit:		3 FT2	
Pest 4 Code, Type, Scale:	PANMI W	PANMI W	PANMI W
Stage Majority, Percent:	Pre		
Stage Minimum, Percent:		2 lvs	5 lvs
Stage Maximum, Percent:		5 lvs	7 lvs
Height, Unit:		3 IN	6 IN
Height Minimum, Maximum:		1 6	6 9
Density, Unit:		11 FT2	8 FT2
Pest 5 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Minimum, Percent:		2 lvs	3 lvs
Stage Maximum, Percent:		3	4 lvs
Height, Unit:		0.5 IN	2 IN
Height Minimum, Maximum:			2 3
Density, Unit:		2 FT2	1 FT2

Application Equipment

	A	B	C
Operating Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat Fan	Flat Fan	Flat Fan
Nozzle Size:	XR 8003	XR 8003	XR 8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	6	6	6
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/A
Mix Size, Unit:	2.2 Liters	2.2 Liters	2 Liters
Propellant:	CO2	CO2	CO2

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Giant foxtail May-31-2011 Control %	Faber's foxtail Jun-10-2011 CONTROL %	Faber's foxtail Jun-14-2011 CONTROL %	Giant foxtail Jun-27-2011 CONTROL %	Faber's foxtail Jul-21-2011 CONTROL %	Faber's foxtail Aug-10-2011 CONTROL %
				27 DP-1	37 DP-1	41 DP-1	54 DP-1	78 DP-1	98 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code					
1	SureStart	1.75	pt/a	A	3	8	16	23	31
	Durango DMA	24	fl oz/a	C	95 a	98 ab	98 b	99 abc	100 a
	N-Pak	2.5	% v/v	C					98 ab
2	SureStart	1.75	pt/a	A	95 a	98 b	99 ab	100 ab	99 a
	GF-2726	56	fl oz/a	C					98 b
	N-Pak	2.5	% v/v	C					
3	Corvus	5.6	fl oz/a	A	93 a	98 ab	99 ab	100 a	100 a
	Durango DMA	24	fl oz/a	C					100 ab
	N-Pak	2.5	% v/v	C					
4	Verdict	15	fl oz/a	A	93 a	99 a	99 ab	99 ab	100 a
	Durango DMA	24	fl oz/a	C					99 ab
	N-Pak	2.5	% v/v	C					
5	Lumax	2.5	qt/a	A	94 a	99 a	100 a	99 abc	100 a
	Durango DMA	24	fl oz/a	C					100 a
	N-Pak	2.5	% v/v	C					
6	SureStart	1.75	pt/a	A	87 a	99 ab	100 a	99 abc	100 a
	Durango DMA	24	fl oz/a	B					98 ab
	N-Pak	2.5	% v/v	B					
7	SureStart	1.75	pt/a	A	94 a	99 a	100 a	100 a	100 a
	GF-2726	56	fl oz/a	B					99 ab
	N-Pak	2.5	% v/v	B					
8	Corvus	5.6	fl oz/a	A	84 a	99 ab	100 a	99 abc	100 a
	Durango DMA	24	fl oz/a	B					99 ab
	N-Pak	2.5	% v/v	B					
9	Dual II Magnum	1.37	pt/a	B	0 c	0 c	92 d	100 a	100 a
	atrazine	1.5	qt/a	B					99 ab
	Durango DMA	24	fl oz/a	B					
	N-Pak	2.5	% v/v	B					
10	Halex GT	4	pt/a	B	0 c	0 c	96 c	100 a	100 a
	Activator 90	0.25	% v/v	B					99 ab
	N-Pak	2.5	% v/v	B					
11	SureStart	1.75	pt/a	C	0 c	0 c	0 e	96 cd	96 b
	Durango DMA	24	fl oz/a	C					99 ab
	N-Pak	2.5	% v/v	C					
12	SureStart	1.75	pt/a	C	0 c	0 c	0 e	99 abc	95 b
	GF-2726	56	fl oz/a	C					98 ab
	N-Pak	2.5	% v/v	C					
13	Dual II Magnum	1.37	pt/a	C	0 c	0 c	0 e	95 d	99 a
	atrazine	1.5	qt/a	C					99 ab
	Durango DMA	24	fl oz/a	C					
	N-Pak	2.5	% v/v	C					
14	Halex GT	4	pt/a	C	22 b	0 c	0 e	89 e	92 c
	Activator 90	0.25	% v/v	C					93 c
	N-Pak	2.5	% v/v	C					
15	Durango DMA	24	fl oz/a	C	0 c	0 c	0 e	97 bcd	96 b
	N-Pak	2.5	% v/v	C					95 c
16	GF-2726	56	fl oz/a	C	0 c	0 c	0 e	97 a-d	94 bc
	N-Pak	2.5	% v/v	C					95 c
17	Nontreated				0	0	0	0	0

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Pest Name	Giant foxtail	Faber's foxtail	Faber's foxtail	Giant foxtail	Faber's foxtail	Faber's foxtail
Rating Date	May-31-2011	Jun-10-2011	Jun-14-2011	Jun-27-2011	Jul-21-2011	Aug-10-2011
Rating Type	Control	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%
Plant-Eval Interval	27 DP-1	37 DP-1	41 DP-1	54 DP-1	78 DP-1	98 DP-1
Trt Treatment						
No. Name Rate Unit Appl Code	3	8	16	23	31	39
18 Nontreated	0	0	0	0	0	0
LSD (P=.10)	13.8	1.4	1.7	3.0	2.6	2.0

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.

Untreated treatment(s) 18, 17 excluded from analysis.

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Common lambsqu> May-31-2011 Control % 27 DP-1	Common lambsqu> Jun-10-2011 CONTROL % 37 DP-1	Common lambsqu> Jun-14-2011 CONTROL % 41 DP-1	Common lambsqu> Jun-27-2011 CONTROL % 54 DP-1
Trt	Treatment	Rate	Unit	Appl Code			
No.	Name	Rate	Unit				
1	SureStart	1.75	pt/a	A	4	11	17
	Durango DMA	24	fl oz/a	C	100 a	99 b	99 a
	N-Pak	2.5	% v/v	C			100 a
2	SureStart	1.75	pt/a	A	100 a	99 b	99 a
	GF-2726	56	fl oz/a	C			100 a
	N-Pak	2.5	% v/v	C			
3	Corvus	5.6	fl oz/a	A	100 a	99 ab	100 a
	Durango DMA	24	fl oz/a	C			100 a
	N-Pak	2.5	% v/v	C			
4	Verdict	15	fl oz/a	A	100 a	99 ab	100 a
	Durango DMA	24	fl oz/a	C			100 a
	N-Pak	2.5	% v/v	C			
5	Lumax	2.5	qt/a	A	100 a	99 ab	100 a
	Durango DMA	24	fl oz/a	C			100 a
	N-Pak	2.5	% v/v	C			
6	SureStart	1.75	pt/a	A	100 a	99 b	100 a
	Durango DMA	24	fl oz/a	B			100 a
	N-Pak	2.5	% v/v	B			
7	SureStart	1.75	pt/a	A	100 a	100 a	100 a
	GF-2726	56	fl oz/a	B			100 a
	N-Pak	2.5	% v/v	B			
8	Corvus	5.6	fl oz/a	A	100 a	100 ab	100 a
	Durango DMA	24	fl oz/a	B			100 a
	N-Pak	2.5	% v/v	B			
9	Dual II Magnum	1.37	pt/a	B	0 b	0 c	94 b
	atrazine	1.5	qt/a	B			100 a
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
10	Halex GT	4	pt/a	B	0 b	0 c	75 c
	Activator 90	0.25	% v/v	B			100 a
	N-Pak	2.5	% v/v	B			
11	SureStart	1.75	pt/a	C	0 b	0 c	0 d
	Durango DMA	24	fl oz/a	C			91 cd
	N-Pak	2.5	% v/v	C			
12	SureStart	1.75	pt/a	C	0 b	0 c	0 d
	GF-2726	56	fl oz/a	C			96 ab
	N-Pak	2.5	% v/v	C			
13	Dual II Magnum	1.37	pt/a	C	0 b	0 c	0 d
	atrazine	1.5	qt/a	C			96 ab
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
14	Halex GT	4	pt/a	C	0 b	0 c	0 d
	Activator 90	0.25	% v/v	C			90 cd
	N-Pak	2.5	% v/v	C			
15	Durango DMA	24	fl oz/a	C	0 b	0 c	0 d
	N-Pak	2.5	% v/v	C			88 d
16	GF-2726	56	fl oz/a	C	0 b	0 c	0 d
	N-Pak	2.5	% v/v	C			93 bc
17	Nontreated				0	0	0

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Pest Name					Common lambsqu>	Common lambsqu>
Rating Date					Jul-21-2011	Aug-10-2011
Rating Type					CONTROL	CONTROL
Rating Unit					%	%
Plant-Eval Interval					78 DP-1	98 DP-1
Trt	Treatment		Rate	Appl		
No.	Name		Unit	Code	33	40
1	SureStart	1.75	pt/a	A	98 a	100 a
	Durango DMA	24	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
2	SureStart	1.75	pt/a	A	98 a	100 a
	GF-2726	56	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
3	Corvus	5.6	fl oz/a	A	100 a	100 a
	Durango DMA	24	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
4	Verdict	15	fl oz/a	A	99 a	100 a
	Durango DMA	24	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
5	Lumax	2.5	qt/a	A	100 a	100 a
	Durango DMA	24	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
6	SureStart	1.75	pt/a	A	100 a	100 a
	Durango DMA	24	fl oz/a	B		
	N-Pak	2.5	% v/v	B		
7	SureStart	1.75	pt/a	A	100 a	100 a
	GF-2726	56	fl oz/a	B		
	N-Pak	2.5	% v/v	B		
8	Corvus	5.6	fl oz/a	A	100 a	100 a
	Durango DMA	24	fl oz/a	B		
	N-Pak	2.5	% v/v	B		
9	Dual II Magnum	1.37	pt/a	B	100 a	100 a
	atrazine	1.5	qt/a	B		
	Durango DMA	24	fl oz/a	B		
	N-Pak	2.5	% v/v	B		
10	Halex GT	4	pt/a	B	96 a	100 a
	Activator 90	0.25	% v/v	B		
	N-Pak	2.5	% v/v	B		
11	SureStart	1.75	pt/a	C	82 b	98 b
	Durango DMA	24	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
12	SureStart	1.75	pt/a	C	96 a	100 a
	GF-2726	56	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
13	Dual II Magnum	1.37	pt/a	C	96 a	100 a
	atrazine	1.5	qt/a	C		
	Durango DMA	24	fl oz/a	C		
	N-Pak	2.5	% v/v	C		
14	Halex GT	4	pt/a	C	96 a	96 c
	Activator 90	0.25	% v/v	C		
	N-Pak	2.5	% v/v	C		
15	Durango DMA	24	fl oz/a	C	86 b	95 c
	N-Pak	2.5	% v/v	C		
16	GF-2726	56	fl oz/a	C	98 a	100 a
	N-Pak	2.5	% v/v	C		
17	Nontreated				0	0

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Pest Name	Common lambsqu>	Common lambsqu>	Common lambsqu>	Common lambsqu>	Common lambsqu>
Rating Date	May-31-2011	Jun-10-2011	Jun-14-2011	Jun-27-2011	Jul-21-2011
Rating Type	Control	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Plant-Eval Interval	27 DP-1	37 DP-1	41 DP-1	54 DP-1	78 DP-1
Trt Treatment					
Rate Appl					
No. Name	4	11	17	26	33
Rate Unit Code					
18 Nontreated	0	0	0	0	0
LSD (P=.10)	0.0	1.4	3.5	4.1	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) 18, 17 excluded from analysis.

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Velvetleaf May-31-2011 Control % 27 DP-1	Velvetleaf Jun-10-2011 CONTROL % 37 DP-1	Velvetleaf Jun-14-2011 CONTROL % 41 DP-1	Velvetleaf Jun-27-2011 CONTROL % 54 DP-1	Velvetleaf Jul-21-2011 CONTROL % 78 DP-1	Velvetleaf Aug-10-2011 CONTROL % 98 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code					
1	SureStart	1.75	pt/a	A	92 c	74 c	30 c	100 a	98 a
	Durango DMA	24	fl oz/a	C					100 a
	N-Pak	2.5	% v/v	C					
2	SureStart	1.75	pt/a	A	92 c	75 c	79 b	100 a	99 a
	GF-2726	56	fl oz/a	C					99 b
	N-Pak	2.5	% v/v	C					
3	Corvus	5.6	fl oz/a	A	95 abc	98 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	C					
	N-Pak	2.5	% v/v	C					
4	Verdict	15	fl oz/a	A	97 ab	97 a	97 a	100 a	100 a
	Durango DMA	24	fl oz/a	C					
	N-Pak	2.5	% v/v	C					
5	Lumax	2.5	qt/a	A	98 a	99 a	99 a	100 a	100 a
	Durango DMA	24	fl oz/a	C					100 ab
	N-Pak	2.5	% v/v	C					
6	SureStart	1.75	pt/a	A	87 d	69 c	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	B					100 ab
	N-Pak	2.5	% v/v	B					
7	SureStart	1.75	pt/a	A	92 c	83 b	100 a	100 a	100 a
	GF-2726	56	fl oz/a	B					
	N-Pak	2.5	% v/v	B					
8	Corvus	5.6	fl oz/a	A	94 bc	99 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	B					
	N-Pak	2.5	% v/v	B					
9	Dual II Magnum	1.37	pt/a	B	0 e	0 d	100 a	100 a	100 a
	atrazine	1.5	qt/a	B					
	Durango DMA	24	fl oz/a	B					
	N-Pak	2.5	% v/v	B					
10	Halex GT	4	pt/a	B	0 e	0 d	100 a	100 a	100 a
	Activator 90	0.25	% v/v	B					
	N-Pak	2.5	% v/v	B					
11	SureStart	1.75	pt/a	C	0 e	0 d	0 d	100 a	77 a
	Durango DMA	24	fl oz/a	C					100 ab
	N-Pak	2.5	% v/v	C					
12	SureStart	1.75	pt/a	C	0 e	0 d	0 d	100 a	97 a
	GF-2726	56	fl oz/a	C					100 a
	N-Pak	2.5	% v/v	C					
13	Dual II Magnum	1.37	pt/a	C	0 e	0 d	0 d	100 a	100 a
	atrazine	1.5	qt/a	C					
	Durango DMA	24	fl oz/a	C					
	N-Pak	2.5	% v/v	C					
14	Halex GT	4	pt/a	C	0 e	0 d	0 d	99 a	100 a
	Activator 90	0.25	% v/v	C					100 ab
	N-Pak	2.5	% v/v	C					
15	Durango DMA	24	fl oz/a	C	0 e	0 d	0 d	100 a	99 a
	N-Pak	2.5	% v/v	C					99 c
16	GF-2726	56	fl oz/a	C	0 e	0 d	0 d	100 a	100 a
	N-Pak	2.5	% v/v	C					
17	Nontreated				0	0	0	0	0

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Pest Name		Velvetleaf	Velvetleaf	Velvetleaf	Velvetleaf	Velvetleaf	Velvetleaf
Rating Date		May-31-2011	Jun-10-2011	Jun-14-2011	Jun-27-2011	Jul-21-2011	Aug-10-2011
Rating Type		Control	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit		%	%	%	%	%	%
Plant-Eval Interval		27 DP-1	37 DP-1	41 DP-1	54 DP-1	78 DP-1	98 DP-1
Trt	Treatment						
No.	Name	Rate	Unit	Code			
	18 Nontreated						
LSD (P=.10)							

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) 18, 17 excluded from analysis.

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Common ragweed May-31-2011 Control % 27 DP-1	Common ragweed Jun-10-2011 CONTROL % 37 DP-1	Hogweed Jun-14-2011 CONTROL % 41 DP-1	Common ragweed Jun-27-2011 CONTROL % 54 DP-1	Hogweed Jul-21-2011 CONTROL % 78 DP-1
Trt	Treatment	Rate	Unit	Appl Code				
No.	Name	Rate	Unit	Code	6	12	19	25
1	SureStart	1.75	pt/a	A	100 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	C				99 a
	N-Pak	2.5	% v/v	C				
2	SureStart	1.75	pt/a	A	100 a	100 a	100 a	100 a
	GF-2726	56	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
3	Corvus	5.6	fl oz/a	A	100 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
4	Verdict	15	fl oz/a	A	100 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
5	Lumax	2.5	qt/a	A	100 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
6	SureStart	1.75	pt/a	A	100 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	B				
	N-Pak	2.5	% v/v	B				
7	SureStart	1.75	pt/a	A	100 a	100 a	100 a	100 a
	GF-2726	56	fl oz/a	B				
	N-Pak	2.5	% v/v	B				
8	Corvus	5.6	fl oz/a	A	100 a	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	B				
	N-Pak	2.5	% v/v	B				
9	Dual II Magnum	1.37	pt/a	B	0 b	0 b	100 a	100 a
	atrazine	1.5	qt/a	B				
	Durango DMA	24	fl oz/a	B				
	N-Pak	2.5	% v/v	B				
10	Halex GT	4	pt/a	B	0 b	0 b	100 a	98 a
	Activator 90	0.25	% v/v	B				
	N-Pak	2.5	% v/v	B				
11	SureStart	1.75	pt/a	C	0 b	0 b	0 b	100 a
	Durango DMA	24	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
12	SureStart	1.75	pt/a	C	0 b	0 b	0 b	100 a
	GF-2726	56	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
13	Dual II Magnum	1.37	pt/a	C	0 b	0 b	0 b	100 a
	atrazine	1.5	qt/a	C				
	Durango DMA	24	fl oz/a	C				
	N-Pak	2.5	% v/v	C				
14	Halex GT	4	pt/a	C	0 b	0 b	0 b	100 a
	Activator 90	0.25	% v/v	C				
	N-Pak	2.5	% v/v	C				
15	Durango DMA	24	fl oz/a	C	0 b	0 b	0 b	100 a
	N-Pak	2.5	% v/v	C				
16	GF-2726	56	fl oz/a	C	0 b	0 b	0 b	100 a
	N-Pak	2.5	% v/v	C				
17	Nontreated				0	0	0	0

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval				Common ragweed Aug-10-2011 CONTROL % 98 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code
				44
1	SureStart	1.75	pt/a	A
	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
2	SureStart	1.75	pt/a	A
	GF-2726	56	fl oz/a	C
	N-Pak	2.5	% v/v	C
3	Corvus	5.6	fl oz/a	A
	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
4	Verdict	15	fl oz/a	A
	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
5	Lumax	2.5	qt/a	A
	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
6	SureStart	1.75	pt/a	A
	Durango DMA	24	fl oz/a	B
	N-Pak	2.5	% v/v	B
7	SureStart	1.75	pt/a	A
	GF-2726	56	fl oz/a	B
	N-Pak	2.5	% v/v	B
8	Corvus	5.6	fl oz/a	A
	Durango DMA	24	fl oz/a	B
	N-Pak	2.5	% v/v	B
9	Dual II Magnum	1.37	pt/a	B
	atrazine	1.5	qt/a	B
	Durango DMA	24	fl oz/a	B
	N-Pak	2.5	% v/v	B
10	Halex GT	4	pt/a	B
	Activator 90	0.25	% v/v	B
	N-Pak	2.5	% v/v	B
11	SureStart	1.75	pt/a	C
	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
12	SureStart	1.75	pt/a	C
	GF-2726	56	fl oz/a	C
	N-Pak	2.5	% v/v	C
13	Dual II Magnum	1.37	pt/a	C
	atrazine	1.5	qt/a	C
	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
14	Halex GT	4	pt/a	C
	Activator 90	0.25	% v/v	C
	N-Pak	2.5	% v/v	C
15	Durango DMA	24	fl oz/a	C
	N-Pak	2.5	% v/v	C
16	GF-2726	56	fl oz/a	C
	N-Pak	2.5	% v/v	C
17	Nontreated			0

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Pest Name					Common ragweed	Common ragweed	Hogweed	Common ragweed	Hogweed
Rating Date					May-31-2011	Jun-10-2011	Jun-14-2011	Jun-27-2011	Jul-21-2011
Rating Type					Control	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit					%	%	%	%	%
Plant-Eval Interval					27 DP-1	37 DP-1	41 DP-1	54 DP-1	78 DP-1
Trt	Treatment	Rate	Unit	Appl					
No.	Name	Rate	Unit	Code	6	12	19	25	34
18	Nontreated				0	0	0	0	0
LSD (P=.10)					0.0	0.0	0.0	0.1	2.7

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) 18, 17 excluded from analysis.

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Pest Name					Common ragweed
Rating Date					Aug-10-2011
Rating Type					CONTROL
Rating Unit					%
Plant-Eval Interval					98 DP-1
Trt	Treatment		Rate	Appl	44
No.	Name	Rate	Unit	Code	
18 Nontreated					0
LSD (P=.10)					2.6

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval					Wild proso mil> Jun-10-2011 CONTROL %	Wild proso mil> Jul-21-2011 CONTROL %	Proso millet Aug-10-2011 CONTROL %
					37 DP-1	78 DP-1	98 DP-1
Trt No.	Treatment Name	Rate Unit	Rate Unit	Appl Code			
1	SureStart	1.75	pt/a	A	9	32	43
	Durango DMA	24	fl oz/a	C	87 a	100 a	100 a
	N-Pak	2.5	% v/v	C			
2	SureStart	1.75	pt/a	A	83 a	99 ab	99 a
	GF-2726	56	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
3	Corvus	5.6	fl oz/a	A	82 a	99 ab	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
4	Verdict	15	fl oz/a	A	84 a	97 abc	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
5	Lumax	2.5	qt/a	A	79 a	98 ab	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
6	SureStart	1.75	pt/a	A	79 a	100 a	99 a
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
7	SureStart	1.75	pt/a	A	87 a	100 a	98 a
	GF-2726	56	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
8	Corvus	5.6	fl oz/a	A	84 a	100 a	99 a
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
9	Dual II Magnum	1.37	pt/a	B	0 b	100 a	100 a
	atrazine	1.5	qt/a	B			
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
10	Halex GT	4	pt/a	B	0 b	100 a	100 a
	Activator 90	0.25	% v/v	B			
	N-Pak	2.5	% v/v	B			
11	SureStart	1.75	pt/a	C	0 b	90 de	99 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
12	SureStart	1.75	pt/a	C	0 b	90 de	99 a
	GF-2726	56	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
13	Dual II Magnum	1.37	pt/a	C	0 b	96 abc	99 a
	atrazine	1.5	qt/a	C			
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
14	Halex GT	4	pt/a	C	0 b	95 bc	94 a
	Activator 90	0.25	% v/v	C			
	N-Pak	2.5	% v/v	C			
15	Durango DMA	24	fl oz/a	C	0 b	93 cd	96 a
	N-Pak	2.5	% v/v	C			
16	GF-2726	56	fl oz/a	C	0 b	88 e	97 a
	N-Pak	2.5	% v/v	C			
17	Nontreated				0	0	0

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Pest Name	Wild proso mil>	Wild proso mil>	Proso millet
Rating Date	Jun-10-2011	Jul-21-2011	Aug-10-2011
Rating Type	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%
Plant-Eval Interval	37 DP-1	78 DP-1	98 DP-1
Trt Treatment			
No. Name Rate Unit Appl Code	9	32	43
18 Nontreated	0	0	0
LSD (P=.10)	10.7	4.3	3.1

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) 18, 17 excluded from analysis.

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Pest Name Rating Date Rating Type Rating Unit Plant-Eval Interval					Fall panicum Jun-14-2011 CONTROL %	Ladysthumb Jul-21-2011 CONTROL %	Ladysthumb Aug-10-2011 CONTROL %
					41 DP-1	78 DP-1	98 DP-1
Trt No.	Treatment Name	Rate	Unit	Appl Code			
1	SureStart	1.75	pt/a	A	85 bc	98 a	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
2	SureStart	1.75	pt/a	A	77 cd	100 a	100 a
	GF-2726	56	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
3	Corvus	5.6	fl oz/a	A	71 d	100 a	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
4	Verdict	15	fl oz/a	A	72 cd	99 a	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
5	Lumax	2.5	qt/a	A	84 bcd	100 a	100 a
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
6	SureStart	1.75	pt/a	A	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
7	SureStart	1.75	pt/a	A	100 a	100 a	100 a
	GF-2726	56	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
8	Corvus	5.6	fl oz/a	A	100 a	100 a	100 a
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
9	Dual II Magnum	1.37	pt/a	B	95 ab	100 a	100 a
	atrazine	1.5	qt/a	B			
	Durango DMA	24	fl oz/a	B			
	N-Pak	2.5	% v/v	B			
10	Halex GT	4	pt/a	B	98 ab	99 a	100 a
	Activator 90	0.25	% v/v	B			
	N-Pak	2.5	% v/v	B			
11	SureStart	1.75	pt/a	C	0 e	96 ab	100 ab
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
12	SureStart	1.75	pt/a	C	0 e	99 a	100 a
	GF-2726	56	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
13	Dual II Magnum	1.37	pt/a	C	0 e	90 c	100 a
	atrazine	1.5	qt/a	C			
	Durango DMA	24	fl oz/a	C			
	N-Pak	2.5	% v/v	C			
14	Halex GT	4	pt/a	C	0 e	98 a	98 c
	Activator 90	0.25	% v/v	C			
	N-Pak	2.5	% v/v	C			
15	Durango DMA	24	fl oz/a	C	0 e	93 bc	99 bc
	N-Pak	2.5	% v/v	C			
16	GF-2726	56	fl oz/a	C	0 e	97 a	100 a
	N-Pak	2.5	% v/v	C			
17	Nontreated				0	0	0

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Pest Name	Fall panicum	Ladysthumb	Ladysthumb
Rating Date	Jun-14-2011	Jul-21-2011	Aug-10-2011
Rating Type	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%
Plant-Eval Interval	41 DP-1	78 DP-1	98 DP-1
Trt Treatment			
No. Name Rate Unit Appl Code	20	36	41
18 Nontreated	0	0	0
LSD (P=.10)	14.3	4.1	1.0

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.

Untreated treatment(s) 18, 17 excluded from analysis.

University of Wisconsin-Madison

Rating Date Rating Type Rating Unit Plant-Eval Interval Crop Name Description				May-31-2011 PHYCHL % 27 DP-1 Dent corn Chlorosis	May-31-2011 PHYLMA % 27 DP-1 Dent corn malformation	Jun-10-2011 PHYCHL % 37 DP-1 Dent corn Chlorosis	Jun-14-2011 PHYDEF % 41 DP-1 Dent corn Epinasty	Jun-14-2011 PHYCHL % 41 DP-1 Dent corn Chlorosis	Jun-14-2011 PHYNEC % 41 DP-1 Dent corn Necrosis	Jun-27-2011 PHYDEF % 54 DP-1 Dent corn Epinasty
Trt	Treatment	Rate	Appl	1	2	7	13	14	15	21
No.	Name	Rate	Unit							
1	SureStart	1.75 pt/a	A	2 ab	0 c	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
2	SureStart	1.75 pt/a	A	2 ab	0 c	0 a	0 b	0 a	0 b	65 a
	GF-2726	56 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
3	Corvus	5.6 fl oz/a	A	1 c	0 b	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
4	Verdict	15 fl oz/a	A	1 bc	0 c	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
5	Lumax	2.5 qt/a	A	1 c	0 c	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
6	SureStart	1.75 pt/a	A	1 c	0 c	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	B							
	N-Pak	2.5 % v/v	B							
7	SureStart	1.75 pt/a	A	1 c	1 a	0 a	8 a	0 a	0 b	0 c
	GF-2726	56 fl oz/a	B							
	N-Pak	2.5 % v/v	B							
8	Corvus	5.6 fl oz/a	A	3 a	0 c	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	B							
	N-Pak	2.5 % v/v	B							
9	Dual II Magnum	1.37 pt/a	B	0 c	0 c	0 a	0 b	0 a	8 a	0 c
	atrazine	1.5 qt/a	B							
	Durango DMA	24 fl oz/a	B							
	N-Pak	2.5 % v/v	B							
10	Halex GT	4 pt/a	B	0 c	0 c	0 a	0 b	0 a	0 b	0 c
	Activator 90	0.25 % v/v	B							
	N-Pak	2.5 % v/v	B							
11	SureStart	1.75 pt/a	C	0 c	0 c	0 a	0 b	0 a	0 b	0 c
	Durango DMA	24 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
12	SureStart	1.75 pt/a	C	0 c	0 c	0 a	0 b	0 a	0 b	55 b
	GF-2726	56 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
13	Dual II Magnum	1.37 pt/a	C	0 c	0 c	0 a	0 b	0 a	0 b	0 c
	atrazine	1.5 qt/a	C							
	Durango DMA	24 fl oz/a	C							
	N-Pak	2.5 % v/v	C							
14	Halex GT	4 pt/a	C	0 c	0 c	0 a	0 b	0 a	0 b	0 c
	Activator 90	0.25 % v/v	C							
	N-Pak	2.5 % v/v	C							
15	Durango DMA	24 fl oz/a	C	0 c	0 c	0 a	0 b	0 a	0 b	0 c
	N-Pak	2.5 % v/v	C							
16	GF-2726	56 fl oz/a	C	0 c	0 c	0 a	0 b	0 a	0 b	50 b
	N-Pak	2.5 % v/v	C							
17	Nontreated			0 c	0 c	0 a	0 b	0 a	0 b	0 c

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Rating Date Rating Type Rating Unit Plant-Eval Interval Crop Name Description					Jun-27-2011 PHYDEF % 54 DP-1 Dent corn Leaf Rolling	Jul-21-2011 PHYNEC % 78 DP-1 Dent corn Necrosis	Jul-21-2011 PHYDEF % 78 DP-1 Dent corn Epinasty	Jul-21-2011 PHYSTU % 78 DP-1 Dent corn stunting	Jul-21-2011 PHYCHL % 78 DP-1 Dent corn chlorosis	Aug-10-2011 PHYSTU % 98 DP-1 Dent corn Stunting
Trt No.	Treatment Name	Rate	Unit	Appl Code	22	27	28	29	30	38
1	SureStart	1.75	pt/a	A	0 b	0 d	0 c	0 d	0 a	0 d
	Durango DMA	24	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
2	SureStart	1.75	pt/a	A	0 b	1 d	50 a	0 d	0 a	3 a
	GF-2726	56	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
3	Corvus	5.6	fl oz/a	A	0 b	1 d	0 c	0 d	0 a	0 d
	Durango DMA	24	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
4	Verdict	15	fl oz/a	A	0 b	1 d	0 c	0 d	1 a	0 d
	Durango DMA	24	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
5	Lumax	2.5	qt/a	A	0 b	1 d	0 c	0 d	0 a	0 d
	Durango DMA	24	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
6	SureStart	1.75	pt/a	A	0 b	1 d	0 c	0 d	1 a	0 d
	Durango DMA	24	fl oz/a	B						
	N-Pak	2.5	% v/v	B						
7	SureStart	1.75	pt/a	A	81 a	1 d	25 b	0 d	2 a	0 d
	GF-2726	56	fl oz/a	B						
	N-Pak	2.5	% v/v	B						
8	Corvus	5.6	fl oz/a	A	0 b	0 d	0 c	0 cd	1 a	0 d
	Durango DMA	24	fl oz/a	B						
	N-Pak	2.5	% v/v	B						
9	Dual II Magnum	1.37	pt/a	B	0 b	5 b	0 c	4 ab	0 a	0 d
	atrazine	1.5	qt/a	B						
	Durango DMA	24	fl oz/a	B						
	N-Pak	2.5	% v/v	B						
10	Halex GT	4	pt/a	B	0 b	3 c	0 c	2 bcd	1 a	0 d
	Activator 90	0.25	% v/v	B						
	N-Pak	2.5	% v/v	B						
11	SureStart	1.75	pt/a	C	0 b	1 d	0 c	2 bcd	1 a	0 d
	Durango DMA	24	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
12	SureStart	1.75	pt/a	C	0 b	4 bc	28 b	3 ab	3 a	2 b
	GF-2726	56	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
13	Dual II Magnum	1.37	pt/a	C	0 b	6 a	1 c	3 bc	1 a	0 d
	atrazine	1.5	qt/a	C						
	Durango DMA	24	fl oz/a	C						
	N-Pak	2.5	% v/v	C						
14	Halex GT	4	pt/a	C	0 b	4 bc	0 c	2 bcd	3 a	0 d
	Activator 90	0.25	% v/v	C						
	N-Pak	2.5	% v/v	C						
15	Durango DMA	24	fl oz/a	C	0 b	0 d	1 c	2 bcd	1 a	0 d
	N-Pak	2.5	% v/v	C						
16	GF-2726	56	fl oz/a	C	0 b	1 d	25 b	5 a	1 a	1 c
	N-Pak	2.5	% v/v	C						
17	Nontreated				0 b	0 d	0 c	0 d	0 a	0 d

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Rating Date	May-31-2011	May-31-2011	Jun-10-2011	Jun-14-2011	Jun-14-2011	Jun-14-2011	Jun-27-2011
Rating Type	PHYCHL	PHYLMA	PHYCHL	PHYDEF	PHYCHL	PHYNEC	PHYDEF
Rating Unit	%	%	%	%	%	%	%
Plant-Eval Interval	27 DP-1	27 DP-1	37 DP-1	41 DP-1	41 DP-1	41 DP-1	54 DP-1
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Description	Chlorosis	malformation	Chlorosis	Epinasty	Chlorosis	Necrosis	Epinasty
Trt Treatment	Rate Appl						
No. Name	Rate Unit Code						
18 Nontreated	0 c	0 c	0 a	0 b	0 a	0 b	0 c
LSD (P=.10)	1.4	0.2	0.0	2.5	0.0	0.8	9.5

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.

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Rating Date		Jun-27-2011	Jul-21-2011	Jul-21-2011	Jul-21-2011	Jul-21-2011	Aug-10-2011
Rating Type		PHYDEF	PHYNEC	PHYDEF	PHYSTU	PHYCHL	PHYSTU
Rating Unit		%	%	%	%	%	%
Plant-Eval Interval		54 DP-1	78 DP-1	78 DP-1	78 DP-1	78 DP-1	98 DP-1
Crop Name		Dent corn	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Description		Leaf Rolling	Necrosis	Epinasty	stunting	chlorosis	Stunting
Trt	Treatment	Rate	Appl				
No.	Name	Rate	Unit	Code			
	18 Nontreated						
		0 b	0 d	0 c	0 d	0 a	0 d
	LSD (P=.10)	3.2	1.4	9.6	2.5	1.6	0.7