Fall Burndown Evaluation

Study Director: T. L. Trower Title: Sr. Outreach Specialist

Investigator: V. M. Davis
Discipline: H herbicide
Initiation Date: Nov-2-2010

Trial Location

City: Arlington State/Prov.: WI Longitude of LL Corner °: 43.18083 N Longitude of LL Corner °: 89.20341 W Postal Code: 53911 Altitude of LL Corner, Unit: 1067.00 FT

Country: USA United States

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn

Variety: DKC 52-59

BBCH Scale: BCOR Planting Date: Jun-14-2011
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

Harvested Width, Unit: 5 FT Harvested Length, Unit: 25 FT

Pest Description

Pest 1 Type: W Code: TAROF Taraxacum officinale

Common Name: Common dandelion

Site and Design

Plot Width, Unit: 10 FT Site Type: FALLOW fallow
Plot Length, Unit: 25 FT Tillage Type: MINTIL minimum-till

Plot Area, Unit: 250 FT2 Study Design: RACOBL Randomized Complete Block (RCB)

Replications: 4

Soil Description

Description Name: Plano Silt Loam

% Sand: 9 % OM: 3.6 Texture: SIL silt loam Soil Name: Plano

% Clay: 23 Fert. Level: F fair Soil Drainage: E excellent

Application Description

	Α
Application Date:	Nov-2-2010
Time of Day:	3:50pm
Application Method:	SPRAY
Applied By:	T. Trower
Air Temperature, Unit:	50.2 F
% Relative Humidity:	40
Wind Velocity, Unit:	3.0 MPH
Wind Direction:	SSW
Dew Presence (Y/N):	N
Soil Temperature, Unit:	46 F
Soil Moisture:	MOIST
% Cloud Cover:	0

Crop Stage At Each Application

Crop 1 Code, BBCH Scale: ZEAMD BCOR

Pest Stage At Each Application

	Α
Pest 1 Code, Type, Scale:	TAROF W
Stage Minimum, Percent:	6 lvs
Stage Maximum, Percent:	7 lvs
Diameter, Unit:	6 IN
IN	
8	
Density, Unit:	5 FT2

Application Equipment

	Α
Operating Pressure, Unit:	30 PSI
Nozzle Type:	Flat Fan
Nozzle Size:	XR8003
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	6
% Coverage:	100.0
Boom Length, Unit:	10 FT
Boom Height, Unit:	19 IN
Ground Speed, Unit:	3 MPH
Carrier:	Water
Spray Volume, Unit:	20
Spray volume, om.	GAL/A
Mix Size, Unit:	2.2 Liters
Propellant:	CO2

Ratin Ratin	Name g Date g Type g Unit				Common dandeli> Nov-29-2010 Control %	Common dandeli> May-2-2011 Control %	Common dandeli> May-2-2011 Control %	Common dandeli> May-17-2011 Control %
Plant- Crop	-Eval Interval Stage Majority		Data	A = = 1	-197 DP-1	-43 DP-1 mature	-43 DP-1 seedling	-28 DP-1 mature
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4
	Nontreated Autumn	0.3	oz/a	Α	0 25 cde	0 99 a	0 70 a-d	0 97 a
	Roundup Original Max		qt/a	A	25 cac	35 a	70 a u	37 d
	COC		% v/v	A				
	AMS		lb/100 gal	Α				
3	Autumn Super		oz/a	Α	15 e	92 c	57 b-g	83 bcd
	2,4-D LVE	1	pt/a	Α				
	COC		% v/v	Α				
	AMS	8.5	lb/100 gal	Α				
4	Autumn Super		oz/a	Α	25 cde	99 a	77 a-d	95 a
	Roundup Original Max		qt/a	Α				
	COC		% v/v	Α				
	AMS		lb/100 gal	A				
5	Autumn Super		oz/a	A	13 e	87 d	64 b-e	78 cde
	Sencor DF COC		oz/a % v/v	A				
	AMS			A				
- 6	Canopy EX	1.85	lb/100 gal	A	28 cde	91 c	98 a	99 a
	2,4-D LVE		pt/a	A	20 cue	91 0	30 a	33 a
	COC		% v/v	A				
7	Basis	0.33		A	15 e	91 c	81 abc	98 a
	Express		oz/a	Α				
	2,4-D LVE	1	pt/a	Α				
	COC	1	% v/v	Α				
8	2,4-D LVE	1	pt/a	Α	28 cde	99 a	30 f-i	86 bc
	Roundup PowerMax		fl oz/a	Α				
9	Distinct		oz/a	A	30 b-e	98 a	8 hi	83 bcd
	2,4-D LVE		pt/a	A				
	Roundup PowerMax		fl oz/a	A				
	Activator 90		% v/v	A				
10	AMS Distinct		lb/100 gal oz/a	Α	40 bc	00.0	2F o b	00 h a
10	2,4-D LVE		fl oz/a	A A	40 DC	98 a	35 e-h	82 b-e
	Roundup PowerMax		fl oz/a	A				
	Activator 90		% v/v	A				
	AMS		lb/100 gal	A				
11	Sharpen		fl oz/a	A	95 a	97 ab	51 c-g	69 f
	2,4-D LVE	1	pt/a	Α				
	Roundup PowerMax	22	fl oz/a	Α				
	MSO	1	% v/v	Α				
	AMS		lb/100 gal	Α				
12	Sharpen		fl oz/a	Α	97 a	98 a	78 abc	81 cde
	2,4-D LVE		fl oz/a	Α				
	Roundup PowerMax		fl oz/a	Α				
	MSO		% v/v	Α				
	AMS		lb/100 gal	A		_		
13	Express	0.25		A	25 cde	99 a	44 d-g	83 bcd
	2,4-D LVE		fl oz/a	A				
	Roundup PowerMax		fl oz/a	A				
	Activator 90		% v/v	A				
	AMS	17	lb/100 gal	Α				

Dast	NI		J 1 1 1 V C 1	<u> </u>	Common dendeli	Common dendel	
	Name a Data				Common dandeli>	Common dandeli> Jun-3-2011	Common dandeli> Jun-3-2011
	g Date g Type				May-17-2011 Control	Control	Control
	g Unit				%	%	% Control
	-Eval Interval				-28 DP-1	-11 DP-1	-11 DP-1
	Stage Majority				seedling	mature	seedling
Trt	Treatment		Rate	Appl			
No.	Name	Rate	Unit	Code	5	6	7
1	Nontreated				0	0	0
2	Autumn		oz/a	Α	65 bcd	93 a	58 bc
	Roundup Original Max	1	qt/a	Α			
	COC	1	% v/v	Α			
	AMS	8.5	lb/100 gal	Α			
3	Autumn Super	0.5	oz/a	Α	73 abc	73 bc	58 bc
	2,4-D LVE	1	pt/a	Α			
	COC	1	% v/v	Α			
	AMS	8.5	lb/100 gal	Α			
4	Autumn Super		oz/a	Α	68 bcd	91 a	43 c
	Roundup Original Max	1	qt/a	Α			
	coc		% v/v	Α			
	AMS		lb/100 gal	Α			
5	Autumn Super		oz/a	A	51 cde	65 cd	50 bc
	Sencor DF		oz/a	A	01 000	00 00	00 00
	COC		% v/v	A			
	AMS						
6	Canopy EX		lb/100 gal oz/a	A	99 a	100 a	100 a
О	2,4-D LVE		oz/a pt/a	A	99 a	100 a	100 a
	•		•				
	COC		% v/v	A	07 -	400 -	00 -
/	Basis		oz/a	A	97 a	100 a	99 a
	Express		oz/a	A			
	2,4-D LVE		pt/a	Α			
	COC		% v/v	Α			
8	2,4-D LVE		pt/a	Α	10 gh	70 bc	0 d
	Roundup PowerMax		fl oz/a	Α			
9	Distinct		oz/a	A	8 gh	64 cd	0 d
	2,4-D LVE		pt/a	Α			
	Roundup PowerMax		fl oz/a	Α			
	Activator 90	0.25	% v/v	Α			
	AMS	17	lb/100 gal	Α			
10	Distinct	3	oz/a	Α	15 gh	65 cd	0 d
	2,4-D LVE	32	fl oz/a	Α			
	Roundup PowerMax	44	fl oz/a	Α			
	Activator 90	0.25	% v/v	Α			
	AMS	17	lb/100 gal	Α			
11	Sharpen		fl oz/a	Α	28 efg	51 de	10 d
	2,4-D LVE	1	pt/a	Α			
	Roundup PowerMax		fl oz/a	Α			
	MSO		% v/v	A			
	AMS		lb/100 gal	A			
12	Sharpen		fl oz/a	A	45 def	58 cde	0 d
12	2,4-D LVE		fl oz/a	A	45 dei	30 cue	o u
	Roundup PowerMax		fl oz/a				
	•			A			
	MSO		% v/v	A			
	AMS		lb/100 gal	A	25.11		
13	Express		oz/a	A	25 fgh	60 cde	8 d
	2,4-D LVE		fl oz/a	A			
	Roundup PowerMax		fl oz/a	Α			
	Activator 90	0.25	% v/v	Α			
	AMS	17	lb/100 gal	Α			

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Pest Name			Common dandeli>	Common dandeli>	Common dandeli>	Common dandeli>
Rating Date			Nov-29-2010	May-2-2011	May-2-2011	May-17-2011
Rating Type			Control	Control	Control	Control
Rating Unit			% 407 DD 4	42.00.4	% -43 DP-1	% 20.DD.4
Plant-Eval Interval			-197 DP-1	-43 DP-1 mature	seedling	-28 DP-1 mature
Crop Stage Majority Trt Treatment	Rate	Appl		mature	seeding	mature
	Rate Unit	Appl Code	1	2	3	4
14 Sharpen	1 fl oz/a	A	96 a	99 a	33 e-i	91 ab
Express	0.25 oz/a	A	50 u	33 u	00 01	01 46
2,4-D LVE	16 fl oz/a	Α				
,	22 fl oz/a	A				
Roundup PowerMax						
Activator 90	0.25 % v/v	A				
AMS	17 lb/100 gal	Α				
15 2,4-D LVE	32 fl oz/a	A	46 b	99 a	24 ghi	83 bcd
Roundup PowerMax	44 fl oz/a	Α				
Activator 90	0.25 % v/v	Α				
AMS	17 lb/100 gal	Α				
16 2,4-D LVE	32 fl oz/a	Α	20 de	93 bc	34 e-h	76 def
Roundup PowerMax	22 fl oz/a	Α				
Activator 90	0.25 % v/v	Α				
AMS	17 lb/100 gal	Α				
17 2,4-D LVE	16 fl oz/a	Α	35 bcd	80 e	0 i	73 ef
COC	1 % v/v	Α				
18 Princep	1 qt/a	Α	23 cde	80 e	54 b-g	75 def
2,4-D LVE	16 fl oz/a	Α				
coc	1 % v/v	Α				
19 Princep	1 qt/a	Α	15 e	97 a	87 ab	95 a
2,4-D LVE	16 fl oz/a	Α				
Express	0.1875 oz/a	Α				
coc	1 % v/v					
20 Princep	1 qt/a	Α	15 e	100 a	77 a-d	96 a
2,4-D LVE	16 fl oz/a	Α				
Touchdown Total	24 fl oz/a	Α				
AMS	12 lb/100 gal	A				
21 Princep	12 lb/100 gai	A	23 cde	76 f	63 b-f	73 ef
2,4-D LVE	16 fl oz/a	A	23 Gue	70 1	03 D-I	13 61
COC	1 % v/v	Α	47.0	0.7	20.5	0.0
LSD (P=.10)			17.8	3.7	33.5	9.2

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) 1 excluded from analysis.

			. 0			
	Name			Common dandeli>	Common dandeli>	Common dandelix
	g Date			May-17-2011	Jun-3-2011	Jun-3-201
	g Type			Control %	Control %	Contro
	g Unit -Eval Interval			-28 DP-1	-11 DP-1	-11 DP-1
	Stage Majority			seedling	mature	seedling
Trt	Treatment	Rate	Appl	occug		
No.	Name	Rate Unit	Code	5	6	7
14	Sharpen	1 fl oz/a	Α	8 gh	73 bc	0 d
	Express	0.25 oz/a	Α			
	2,4-D LVE	16 fl oz/a	Α			
	Roundup PowerMax	22 fl oz/a	Α			
	Activator 90	0.25 % v/v	Α			
	AMS	17 lb/100 gal	Α			
15	2,4-D LVE	32 fl oz/a	Α	0 h	61 cde	0 d
	Roundup PowerMax	44 fl oz/a	Α			
	Activator 90	0.25 % v/v	Α			
	AMS	17 lb/100 gal	Α			
16	2,4-D LVE	32 fl oz/a	Α	13 gh	45 e	0 d
	Roundup PowerMax	22 fl oz/a	Α			
	Activator 90	0.25 % v/v	Α			
	AMS	17 lb/100 gal	Α			
17	2,4-D LVE	16 fl oz/a	Α	0 h	48 de	0 d
	COC	1 % v/v	Α			
18	Princep	1 qt/a	Α	15 gh	56 cde	0 d
	2,4-D LVE	16 fl oz/a	Α			
	COC	1 % v/v	Α			
19	Princep	1 qt/a	Α	76 abc	92 a	61 bc
	2,4-D LVE	16 fl oz/a	Α			
	Express	0.1875 oz/a	Α			
	COC	1 % v/v				
20	Princep	1 qt/a	Α	82 ab	87 ab	76 ab
	2,4-D LVE	16 fl oz/a	Α			
	Touchdown Total	24 fl oz/a	Α			
	AMS	12 lb/100 gal	Α			
21	Princep	1 qt/a	Α	68 bcd	63 cd	54 bc
	2,4-D LVE	16 fl oz/a	Α			
	COC	1 % v/v	Α			
LSD	(P=.10)			25.9	17.5	27.5

Rating Rating	Name g Date g Type g Unit				Faber's foxtail Jun-3-2011 Control %	Velvetleaf Jun-3-2011 Control %	Common lambsqu> Jun-3-2011 Control %	Pink shepherd'> Jun-3-2011 Control
Plant	-Eval Interval				-11 DP-1	-11 DP-1	-11 DP-1	-11 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	8	9	10	11
1	Nontreated				0	0	0	0
2	Autumn		oz/a	Α	5 g	0 b	0 b	40 cde
	Roundup Original Max		qt/a	Α				
	COC		% v/v	A				
	AMS		lb/100 gal	A	70 1	70	75	50.1.1
3	Autumn Super		oz/a	A	73 ab	73 a	75 a	50 bcd
	2,4-D LVE COC		pt/a % v/v	A				
	AMS		% v/v lb/100 gal	A				
	Autumn Super		oz/a	A A	60 bc	75 a	72 a	30 c-f
4	Roundup Original Max		qt/a	A	00 DC	75 a	72 d	30 C-I
	COC		% v/v	A				
	AMS		lb/100 gal	A				
	Autumn Super		oz/a	A	53 cd	70 a	90 a	58 bc
Ū	Sencor DF		oz/a	A	00 00	70 4	30 u	00 00
	COC		% v/v	Α				
	AMS		lb/100 gal	Α				
6	Canopy EX	1.85		A	83 a	100 a	100 a	100 a
Ū	2,4-D LVE		pt/a	Α	30 4	.00 a	.00 a	.00 a
	COC		% v/v	Α				
7	Basis	0.33	oz/a	Α	79 ab	98 a	100 a	100 a
	Express	0.2	oz/a	Α				
	2,4-D LVE	1	pt/a	Α				
	COC	1	% v/v	Α				
8	2,4-D LVE	1	pt/a	Α	0 g	0 b	0 b	0 f
	Roundup PowerMax	28	fl oz/a	Α				
9	Distinct		oz/a	Α	0 g	0 b	0 b	0 f
	2,4-D LVE		pt/a	Α				
	Roundup PowerMax		fl oz/a	Α				
	Activator 90		% v/v	Α				
	AMS		lb/100 gal	Α				
10	Distinct		oz/a	A	0 g	0 b	0 b	10 ef
	2,4-D LVE		fl oz/a	A				
	Roundup PowerMax		fl oz/a	Α				
	Activator 90		% v/v	Α				
	AMS		lb/100 gal	A		0.1	0.1	0.1
11	Sharpen 2,4-D LVE		fl oz/a	A	0 g	0 b	0 b	0 f
	,		pt/a	A				
	Roundup PowerMax		fl oz/a % v/v	A				
	MSO			A				
10	AMS		lb/100 gal fl oz/a	A	0 ~	0 b	0 h	0 f
12	Sharpen 2,4-D LVE		fl oz/a	A A	0 g	U D	0 b	υı
	Roundup PowerMax		fl oz/a	A				
	MSO		% v/v	A				
	AMS		% v/v lb/100 gal	A				
12	Express	0.25		A	15 fg	25 b	25 b	21 def
13	2,4-D LVE		fl oz/a	A	13 19	23 0	25 5	Zi uei
	Roundup PowerMax		fl oz/a	A				
	Activator 90		% v/v	A				
	AMS		lb/100 gal	A				

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Pest Name			Faber's foxtail	Velvetleaf	Common lambsqu>	Pink shepherd'>
Rating Date			Jun-3-2011	Jun-3-2011	Jun-3-2011	Jun-3-2011
Rating Type			Control	Control	Control	Control
Rating Unit Plant-Eval Interval			% -11 DP-1	% -11 DP-1	% -11 DP-1	% -11 DP-1
Trt Treatment	Rate	Appl	-11 DF-1	-11 DF-1	-11 DF-1	-11 DF-1
No. Name	Rate Unit	Appl Code	8	9	10	11
14 Sharpen	1 fl oz/a	A	0 g	25 b	25 b	0 f
Express	0.25 oz/a	A	o g	20 5	20 0	0 1
2.4-D LVE	16 fl oz/a	Α				
Roundup PowerMax	22 fl oz/a	A				
Activator 90	0.25 % v/v	A				
AMS	17 lb/100 gal	A	0	0.1	0.1	0.1
15 2,4-D LVE	32 fl oz/a	A	0 g	0 b	0 b	0 f
Roundup PowerMax	44 fl oz/a	A				
Activator 90	0.25 % v/v	Α				
AMS	17 lb/100 gal	Α				
16 2,4-D LVE	32 fl oz/a	Α	0 g	0 b	0 b	0 f
Roundup PowerMax	22 fl oz/a	Α				
Activator 90	0.25 % v/v	Α				
AMS	17 lb/100 gal	Α				
17 2,4-D LVE	16 fl oz/a	Α	0 g	0 b	0 b	0 f
COC	1 % v/v	Α				
18 Princep	1 qt/a	Α	5 g	0 b	0 b	24 c-f
2,4-D LVE	16 fl oz/a	Α				
COC	1 % v/v	Α				
19 Princep	1 qt/a	Α	50 cd	25 b	25 b	48 bcd
2,4-D LVE	16 fl oz/a	Α				
Express	0.1875 oz/a	Α				
COC	1 % v/v					
20 Princep	1 qt/a	Α	28 ef	70 a	75 a	78 ab
2,4-D LVE	16 fl oz/a	Α				
Touchdown Total	24 fl oz/a	Α				
AMS	12 lb/100 gal	Α				
21 Princep	1 qt/a	Α	40 de	24 b	25 b	45 bcd
2,4-D LVE	16 fl oz/a	Α				
COC	1 % v/v	Α				
LSD (P=.10)			19.1	36.3	33.7	33.9

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) 1 excluded from analysis.