

Herbicide Update

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areas of turfgrass research, weed science, plant physiology, environmental, soil and water management. Our mission is to provide turfgrass research and education maintain high quality turfgrass while reducing water and other inputs. The goal is to provide pertinent research based information to turfgrass managers throughout the year and address agronomic issues as they come up across Nebraska, the Great Plains region, and the country.

Stay up-to-date with Turf Info

Turf Info is the most recent source for the latest turf research, discussion, recommendations, and grass industry events for professional turf managers and homeowners. Articles are posted on the website or available by email subscription. Subscribers will automatically receive Turf Info updates every few weeks during the growing season.

REAL FERTILIZER RATIO | HELP IMPROVE TURF HEALTH | TOO LATE TO CONTROL WEEDS? | RETURNING FALL FERTILIZATION

VIEW UP FOR TURF INFO

UPCOMING EVENTS

- Nebraska Turf Conference
- University of Nebraska-Lincoln Turfgrass Research Field Day

2014 Winterkill Update

- Golfers FAQ: Golf Course Winterkill - Ice
- Golfers FAQ: Golf Course Winterkill - Desiccation
- Comprehensive Guide to Winterkill in the Northeast US
- Winterkill SURVEY
- Assessing Winterkill

Links and Tools

- Extension Presentations
- Turf Fertilizers & Nuts
- Pre-turf Certification and Recertification
- Plant Growth Regulator GDD Tracker, US - International
- Nebraska Turfgrass

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Great Lakes Turfgrass Short Course

Jan 7 – Mar 25 Wed nights
 Online

UNL Turfgrass Field Day

July 22, 2015
 Mead

2015 Great Lakes School of Turfgrass Science

2015 Great Lakes School of Turfgrass Science Instructors

Register at: <http://z.umn.edu/2015greatlakesurfchool>

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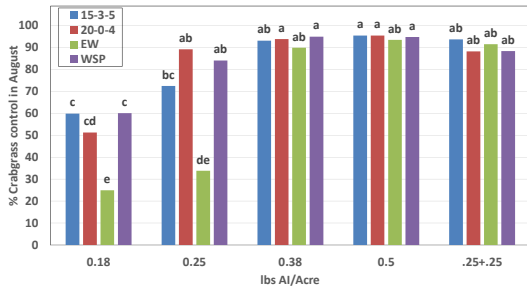
New herbicides

- NuFarm
 - Last Call (fenoxaprop, fluroxpyr, dicamba)
 - ChangeUp (MCPA, fluroxpyr, dicamba)
- Dow
 - Defendor
 - New formulations on the horizon likely

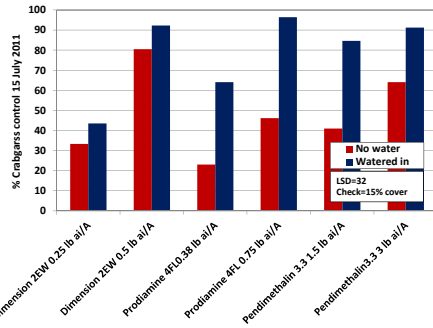
New herbicides

- PRE's plus seeding RLT
- Luqi update

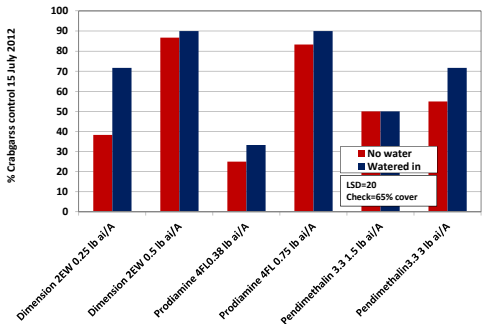
Effect of formulation and rate of Dimension on crabgrass control over two years (UNL, 2014) (apps made late Apr fb late June)



Effect of watering-in PRE's applied very early May in 2011 in Mead, NE (UNL 2011).



Effect of watering-in PRE's applied very early May 2012 in Mead, NE (UNL 2012).



Tough-to-control

- Smooth brome in thinned lawns
- Yellow nutsedge
- Sandbur
- Knotweed

Control of smooth brome with Tenacity applied on two week intervals in June or July and rated in Sept 2013.

	% Control	
	June Apps	July Apps
Tenacity 8 oz/A X 2 apps	85	60
Tenacity 5.3 oz/A X 3 apps	69	39
Check (% cover)	(24%)	(19%)

Control of smooth brome with Tenacity applied on two week intervals in May, June, or July and rated in Sept 2014.

	% Control		
	May Apps	June Apps	July Apps
Tenacity 8 oz/A X 2 apps	94	99	21
Tenacity 5.3 oz/A X 3 apps	69	90	8
Check (% cover)	(96)		

Control of yellow nutsedge with Sedgehammer or Dismiss applied on 3 June or 15 July, 2013.

	Rate/1000	App date	% Control
			9/17/2013
Sedgehammer	0.03 oz	June 3	90 ab
Sedgehammer	0.03 oz	July 15	93 ab
Sedgehammer	0.03 oz	June 3+July15	97 a
Dismiss	0.12 fl oz	June 3	21 cd
Dismiss	0.12 fl oz	July 15	16 cd
Dismiss	0.12 fl oz	June 3+July15	33 c
Sedgehammer	0.03 oz	June 3	97 a
Dismiss	0.12 fl oz	July 15	
Dismiss	0.12 fl oz	June 3	67 b
Sedgehammer	0.03 oz	July 15	
Untreated Check			0(32%) d

Control of yellow nutsedge with Sedgehammer or Dismiss applied on 3 June or 15 July, 2013.

	Rate/1000	App date	% Control	
			9/17/2013	6/6/2014
Sedgehammer	0.03 oz	June 3	90 ab	97 a
Sedgehammer	0.03 oz	July 15	93 ab	55 bc
Sedgehammer	0.03 oz	June 3+July15	97 a	94 a
Dismiss	0.12 fl oz	June 3	21 cd	36 cd
Dismiss	0.12 fl oz	July 15	16 cd	9 de
Dismiss	0.12 fl oz	June 3+July15	33 c	40 c
Sedgehammer	0.03 oz	June 3	97 a	98 a
Dismiss	0.12 fl oz	July 15		
Dismiss	0.12 fl oz	June 3	67 b	72 ab
Sedgehammer	0.03 oz	July 15		
Untreated Check			0(32%) d	0(37%) e

Control of yellow nutsedge with Sedgehammer or Dismiss applied on 6 June or 17 July, 2014

	Rate/1000	App date	% control
			9/17/2014
Sedgehammer	0.03 oz	June 3	100 a
Sedgehammer	0.03 oz	July 15	17 c
Sedgehammer	0.03 oz	June 3+July15	99 a
Dismiss	0.12 fl oz	June 3	63 b
Dismiss	0.12 fl oz	July 15	11 c
Dismiss	0.12 fl oz	June 3+July15	85 ab
Sedgehammer	0.03 oz	June 3	99 a
Dismiss	0.12 fl oz	July 15	
Dismiss	0.12 fl oz	June 3	75 ab
Sedgehammer	0.03 oz	July 15	
Untreated Check			0(50%) c

Sandbur control in late August from two applications made on 1 and 12 July, 2013

Herbicide	Rate/A	% Sandbur Control	
			8/20/2013
Blindside	6.5 oz		22bc
Dismiss South	14.4 fl oz		84a
Solitaire	20.8 oz		17bc
Dismiss	8 fl oz		10bc
Tenacity	8 fl oz		7c
Speedzone	3 pt		39b
MSMA (Target 6.6)	43.56 fl oz		100a
Untreated Check	-		0c

Plants in check plot =8

Sandbur control in September from two applications made on 10 and 28 Aug, 2014

Herbicide	Rate/A	% sandbur control	
			9/25/14
Blindside	6.5 oz		0a
Dismiss South	14.4 fl oz		0a
Solitaire	20.8 oz		8bc
Dismiss	8 fl oz		0c
Tenacity	8 fl oz		11b
Speedzone	3 pt		0c
MSMA (Target 6.6)	43.56 fl oz		100a
Last Call	4 pt/A		0c
ChangeUp	3 pt/A		0c
Drive XLR8 (+MSO)	64 fl oz		0c
Untreated Check	-		0c

Plants in check plot = 4.3
Last Call (NuFarm) = fenoxaprop, fluroxpyr, dicamba
ChangeUp (NuFarm) = MCPA, fluroxpyr, dicamba

Puncturevine control in September from applications made 24 July 2014

Herbicide	Rate/A	% defoliation	
			9/12/14
Last Call	4 pt/A		67 ac
ChangeUp	3 pt/A		23 bc
Untreated Check	-		0c

Last Call (NuFarm) = fenoxaprop, fluroxpyr, dicamba
ChangeUp (NuFarm) = MCPA, fluroxpyr, dicamba

Percent control of prostrate knotweed from applications made 20 May 2014 (UNL 2014)

	4 June	18 July
Trimec Classic 3 pt/A <small>24D + MCPA + dicamba</small>	65 a	70 ab
Trimec Classic 4 pt/A <small>24D + MCPA + dicamba</small>	64 a	61 b
Escalade2 2.5 pt/A <small>24D + fluroxpyr + dicamba</small>	80 a	97 a
Untreated (actual cover)	0 b (75)	0 c (97)

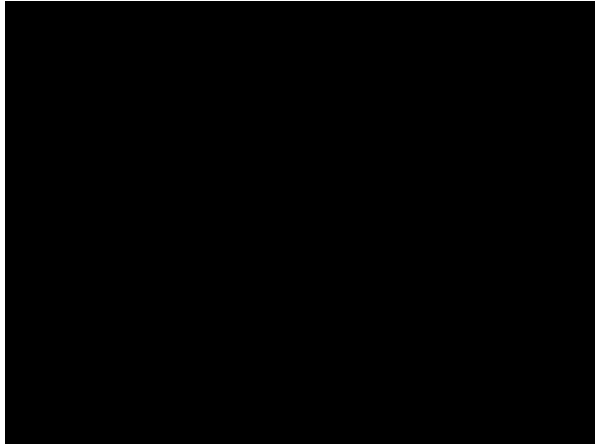
BDLV herbicide effects on buffalograss cover/greenup

- Roundup is best control for cool-season weeds when buffalograss is dormant
- Not very effective on BDLV weeds though
- When can we apply broadleaf herbicides during the buffalograss transition from dormancy to green?
- Lawn height, 'Bowie' buffalograss
- 7 herbicides
 - Quinclorac 64 fl oz/A
 - Quicksilver 2.1 fl oz/A
 - 2,4-D 4 pt/A
 - Trimec 4 pt/A
 - Confront 1.5 pt/A
 - OneTime 64 fl oz/A
 - Speedzone 64 fl oz/A
- 7 Applications dates
 - April 1 and 15
 - May 1 and 15
 - June 1 and 15
 - July 1


BDLV herbicide effects on buffalograss cover/greenup

Preliminary data

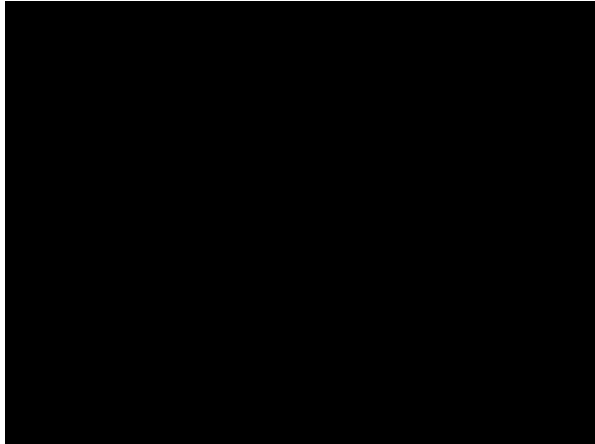
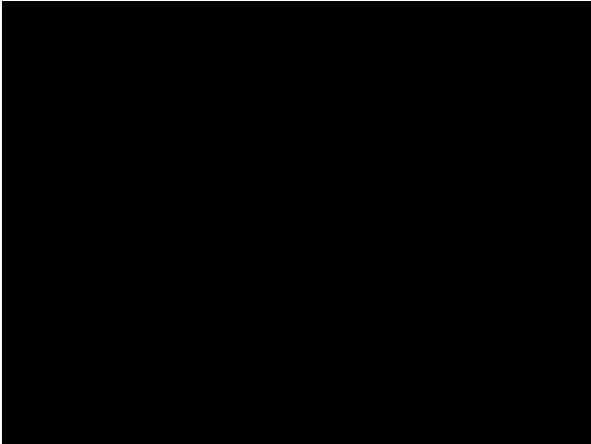
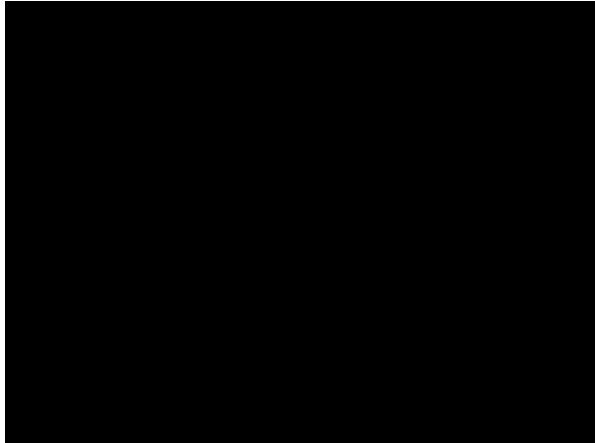
- Surprisingly few instances of damage
- No serious damage
- Damage may show up weeks after application
- Avoid 2,4-D or Speedzone to be extra cautious on buffalograss



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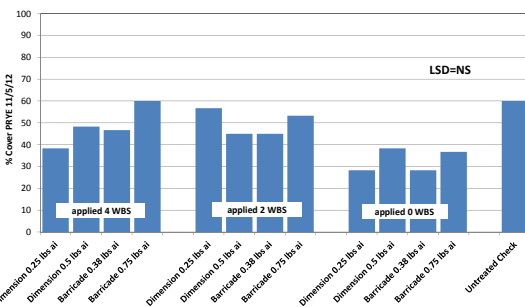


Seeding into PRE's

- Always risk herbicide damage when done intentionally
- What about emergency reseeding when PRE's accidentally applied
- Can we control weeds PRE and seed?



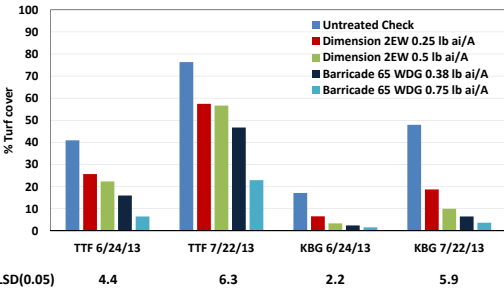
Effect of PRE's applied 4, 2, or 0 weeks before interseeding with Turfco Triwave at Lochland CC in Hastings (UNL 2012).



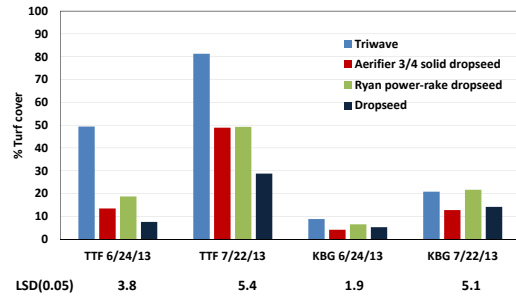
Seeding into PRE's

- Herbicides
 - Dimension 2 EW @ 0.25 and 0.5 lbs ai/A
 - Barricade 65 WDG @ 0.38 and 0.75 lbs ai/A
 - Untreated control
- Application dates (Spring 2013)
 - 4, 2, 0 weeks before seeding (WBS)
 - 2 weeks after seeding (WAS)
- Methods
 - Triwave
 - ¼ inch solid tines and dropseed
 - Ryan power rake and dropseed
 - Dropseed

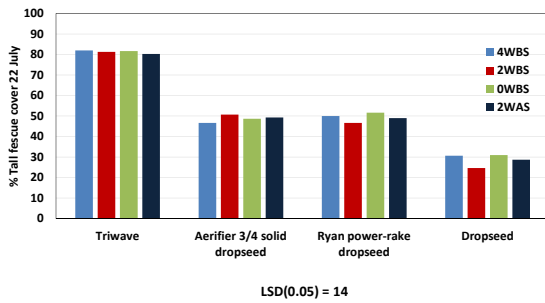
Effect of herbicide on turf cover (averaged over seeding method and application timing , UNL 2013)



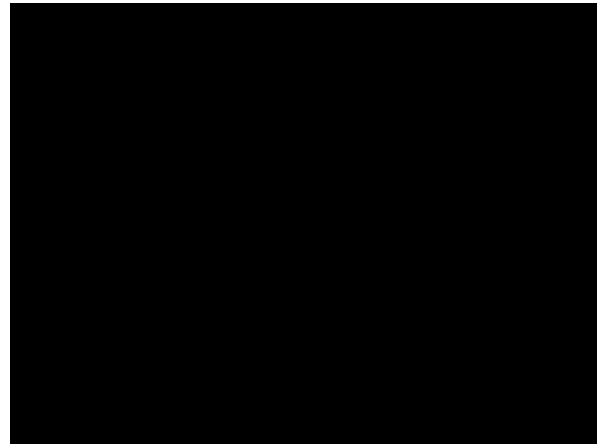
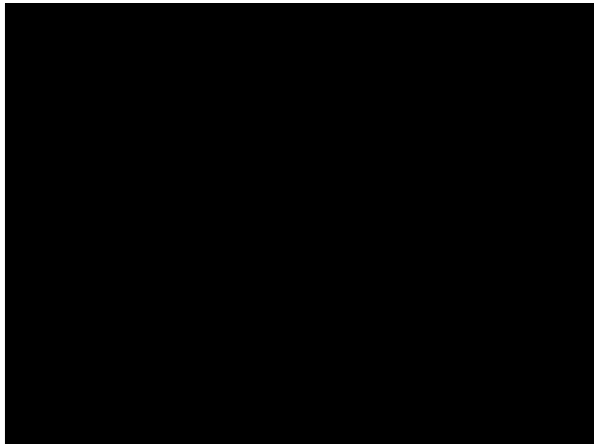
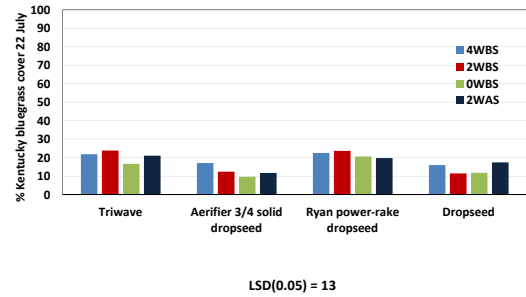
Effect of seeding method on turf cover (averaged over herbicide and application timing , UNL 2013)



Effect of seeding method and application timing on turf cover (averaged over herbicide , UNL 2013)



Effect of seeding method and application timing on turf cover (averaged over herbicide , UNL 2013)



Preemergence costs/A (dithiopyr)

	0.18	0.25	0.38	0.5	0.25+0.25
On 15-3-5					
On 20-0-4					
2EW	\$21.24	\$29.50	44.84	\$59.00	\$59.00
WSP					
Labor					
\$10/hour	\$16.67	\$16.67	\$16.67	\$16.67	\$33.33
\$20/hour	\$33.33	\$33.33	\$33.33	\$33.33	\$66.66

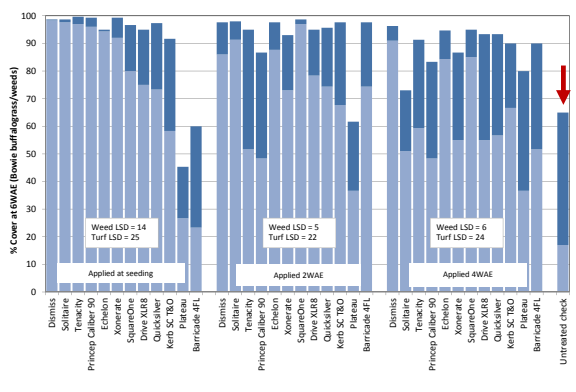
Assumptions to keep the math easy

- Average 8-9000 ft² per lawn, so 5 lawns/A
- 20 mins/lawn so 3 lawns/hour
- 0.6 A/hour
- \$10/hour = \$16.67/A
- \$20/hour = \$33.33/A

Buffalograss

- Low maintenance (AFTER ESTABLISHMENT!)
- Requires irrigation, fertilization, and aggressive weed control in first year of establishment like any other turfgrass
- Most overlook this part and stand failures quickly occur
- Herbicides during establishment?
- Better to apply earlier than later
- Depends on weed spectrum
 - Drive – Annual grasses and some broadleaves
 - Dismiss – Yellow nutsedge and some grasses and BDLVS
 - Tenacity – PRE/POST Crab and BDLVS
 - SquareOne – Post for crab and BDLVS

2012 – Effect of single applications of herbicides over seedling buffalograss (UNL 2012) (primary weed was redroot pigweed)



2013 - Effect of single applications of herbicides over seedling buffalograss (UNL 2013) (primary weed was yellow foxtail)

