

Pushing Back Preemergence Applications for Better Late Season Control
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EXTENSION

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Grassy Weeds

- Crabgrass*
- Foxtail*
- Goosegrass(*)
- Grassy sandbur*
- Barnyardgrass*
- Quackgrass
- Bromegrass
- Nimblewill

Preemergence control possible; *preferred method

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Broadleaf Weeds

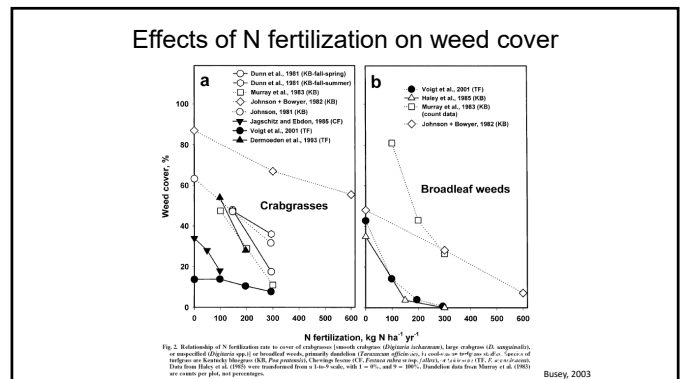
- Prostrate spurge*
- Henbit*
- Prostrate Knotweed*
- Dandelion
- Plantain
- Ground Ivy

Preemergence control possible; *preferred method

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Management First

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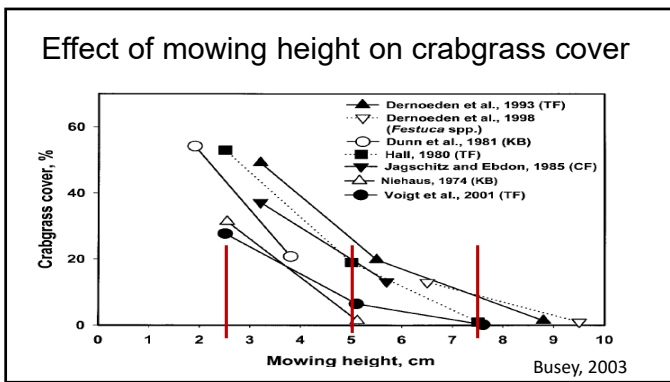
Mowing Height and Rooting Depth

- Shorter mowing heights result in:
 - Decreased rooting
 - Greater management
 - Increased pest problems

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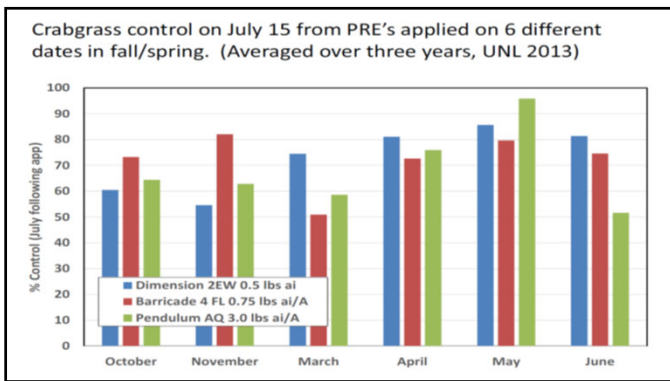


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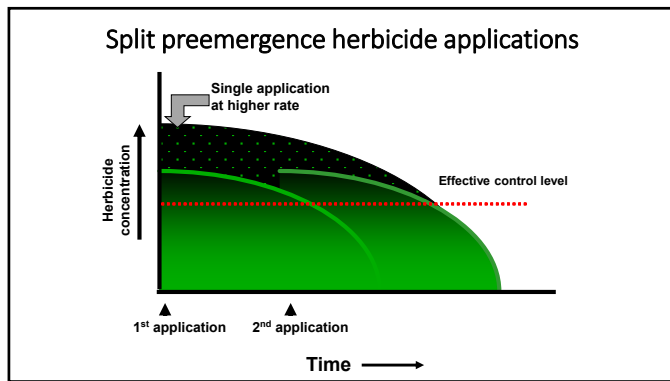
When to apply preemergence herbicides

- Soil temperatures exceed 50 °F
- Occurs first:
 - In landscape beds
 - Thinned turfgrass
 - Near sidewalks
- Better to apply early than late

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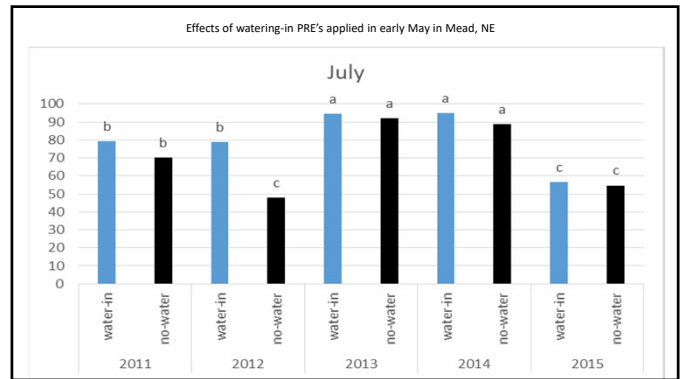
Preemergence Herbicide "efficacy"



- Less than adequate control
- Timing and application rates are correct, so...?

- Reasons for "failure"
 - Poor turf conditions
 - Tough weeds/lots of them
 - High rainfall/irrigation
 - Non-Uniform application
 - Insufficient early irrigation/rainfall

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Effective Use of Preemergence Herbicides

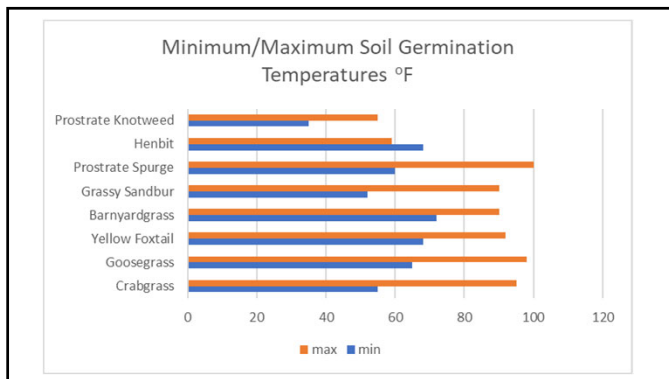
- Start with heathy turf
- Better to apply too early
- App timing is flexible within reason (earlier/split apps)
- Water in
- Uniform application is essential
- Label rates
- Split applications can provide extended season control

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Weed Seed Germination Soil Temperatures

- Crabgrass >55° to 60°F for 7 to 10 days up to 95°F
- Goosegrass >65°F for several weeks
- Yellow Foxtail 68° to 92°F
- Barnyardgrass 72° to 90°F
- Grassy Sandbur 52 F to 75 F
- Prostrate Spurge 60°F to 100°F
- Henbit 68 and 59
- Prostrate Knotweed 35-40 cease at 50° F

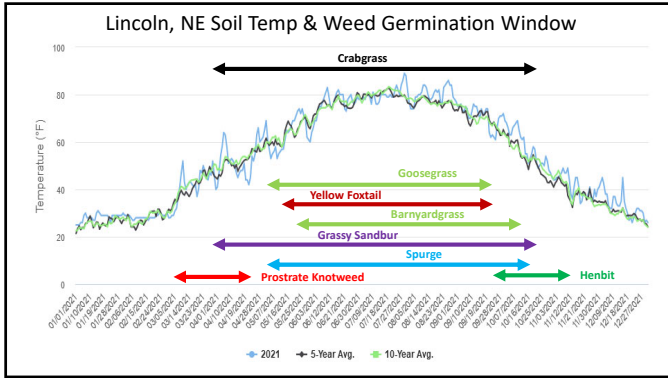
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Show me the data!

- Barricade (prodiamine), Dimension (dithiopyr) and Pendulum (pendimethalin) applied at full rate on May 1 or June 1, 2022
- Same applied at 1/2 rate on May 1 FB same on June 15
- Drive XLR8 (quinclorac) applied at full rate on June 1
- Drive XLR8 applied with each pre on June 1
- 2 locations in proximity, one with heavy crabgrass and one with heavy yellow foxtail
- Data collected on cover and converted to % control based on untreated

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-----% Control-----

	July 9, 2022		August 29, 2022	
	Crabgrass	Foxtail	Crabgrass	Foxtail
Untreated Check	0h	0g	0f	0g
Dimension 2EW	2 pt/a 1-May	100a	45cde	94a
Dimension 2EW	1 pt/a May 1-June 15	92ab	13fg	68a-d
Barricade 4FL	30 fl oz/a May 1	90ab	18efg	76abc
Barricade 4FL	15 fl oz/a May 1-June 15	44efg	25efg	37de
Pendulum Aquacap	4.2 pt/a May 1	95ab	24efg	89a
Pendulum Aquacap	2.1 pt/a May 1-June 15	89ab	21efg	78ab
Dimension 2EW	2 pt/a June 1	84abc	32def	69a-d
Barricade 4FL	30 fl oz/a June 1	31fg	23efg	20ef
Pendulum Aquacap	4.2 pt/a June 1	27g	15fg	17ef
Drive XLR8; Dimension	64; 2 oz/a; pt/a June 1	90ab	98a	45b-e
Drive XLR8; Barricade	64; 30 oz/ac June 1	85abc	88a	88a
Drive XLR8; Pendulum	64; 4.2 oz/a; pt/ac June 1	83ab	93a	63abc
Drive XLR8 + MSO	64 fl oz/a June 1	73bcd	78ab	66ab

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-----% Control-----

	July 9, 2022		August 29, 2022	
	Crabgrass	Foxtail	Crabgrass	Foxtail
Untreated Check	0h	0g	0f	0g
Dimension 2EW	100a	45cde	94a	51bcd
Dimension 2EW	92ab	13fg	68a-d	13fg
Barricade 4FL	90ab	18efg	76abc	42b-f
Barricade 4FL	44efg	25efg	37de	48b-e
Pendulum Aquacap	95ab	24efg	89a	43b-f

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-----% Control-----

	July 9, 2022		August 29, 2022	
	Crabgrass	Foxtail	Crabgrass	Foxtail
Untreated Check	0h	0g	0f	0g
Dimension 2EW	100a	45cde	94a	51bcd
Dimension 2EW	92ab	13fg	68a-d	13fg
Barricade 4FL	90ab	18efg	76abc	42b-f
Barricade 4FL	44efg	25efg	37de	48b-e
Pendulum Aquacap	95ab	24efg	89a	43b-f
Pendulum Aquacap	89ab	21efg	78ab	30d-g
Dimension 2EW	84abc	32def	69a-d	43b-f
Barricade 4FL	31fg	23efg	20ef	35c-f
Pendulum Aquacap	27g	15fg	17ef	17efg

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-----% Control-----

	July 9, 2022				August 29, 2022			
	Crabgrass		Foxtail		Crabgrass		Foxtail	
Untreated Check	0h	0g	0f	0g	0f	0g	0f	
Dimension ZEW	100a	95cd	95a	91bc	91bc	91bc	91bc	
Dimension ZEM	92ab	82ab	82ab	68cd	68cd	68cd	68cd	
Barricade 4F	90ab	88ab	88ab	76abc	76abc	76abc	76abc	
Barricade 4F+	88ab	88ab	88ab	76abc	76abc	76abc	76abc	
Pendulum Aquacap	85ab	85ab	85ab	74efg	74efg	74efg	74efg	
Pendulum Aquascept	82ab	82ab	82ab	72efg	72efg	72efg	72efg	
Drive XLR8; Dimension	64; 2 oz/a, pt/a	June 1	90ab	98a	88a	45b-e		
Drive XLR8; Barricade	64; 30 oz/ac	June 1	85abc	88a	63abc	43cde		
Drive XLR8; Pendulum	64; 4.2 oz/a, pt/ac	June 1	83ab	93a	66ab	46b-e		
Drive XLR8 + MSO	64 fl oz/a	June 1	73bcd	78ab	66ab	34ef		

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Summary

- Apply early rather than later
- Split apps with lower rates were problematic
- Foxtail populations were near 100% resulting in poor control and questionable data for objective
- Use of post emergence annual grass herbicides (quinclorac (Drive); mesotrione (Tenacity); topramezone (Pylex) provides added benefit in timing flexibility and broadleaf activity

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Turfgrass Weed Control for Professionals



https://mdc.itap.purdue.edu/item.asp?item_Number=TURF-100



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Format: Book

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Other resources:

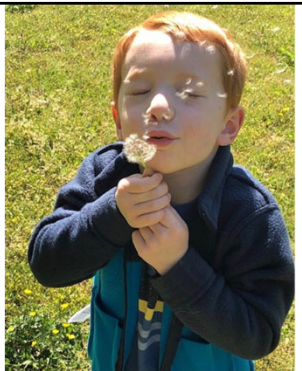
- <http://www.mobileweedmanual.com/> Jim Brosnan, Ph.D.



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Thank you!

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