

# Managing Weeds Along Roadsides

Thomas Peters

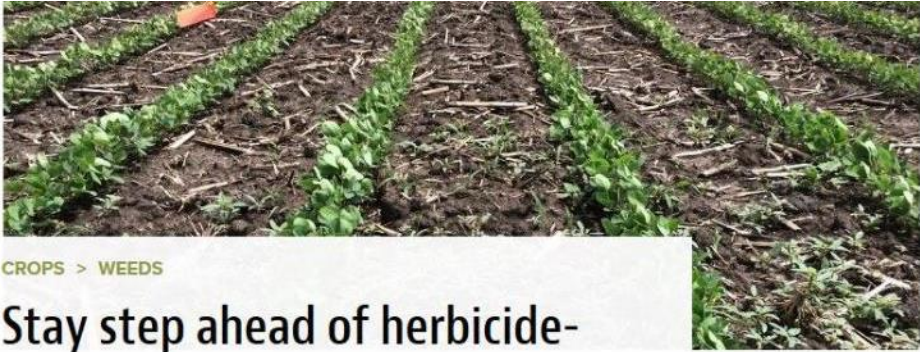
Sugarbeet Agronomist and Weed Control  
Specialist

NDSU and Univ of Minnesota

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CROPS > WEEDS

## Stay step ahead of herbicide-resistant weeds

WATERHEMP: Resistant weeds, once rare, are now

SIINESS



Palmer amaranth in Nebraska in 2017. (Nick Nelson/Agweek)

## More Palmer amaranth suspected in North Dakota

Agweek Wire Reports on Sep 10, 2018 at 1:13 p.m.

## How to Tackle Waterhemp

Print Share 16



The first true leaves of the waterhemp plant appear generally longer and more spear-shaped than other pigweeds.

Home > Crops > Agronomy Insider

## DON'T SLEEP ON WATERHEMP

IGNORING THIS WEED WILL COME BACK TO BITE YOU.

By Bill Spiegel  
11/28/2018

Palmer amaranth is the pigweed species that rightfully earns the most consternation from Midwest farmers. But don't forget that waterhemp can be just as invasive and contains many of the same characteristics as Palmer.

That's the take-home message from Brian Jenks, weed specialist at North Dakota State University, during the annual Ag Horizons Conference in Pierre, South Dakota, on November 26.

"From the Dakotas, through Iowa, Illinois, and Indiana and across the Midwest, waterhemp is becoming a huge problem," warns Jenks.



Gil Collicison

## Waterhemp Develops New Resistance To HPPD Inhibitors

Sonja Begemann  
December 5, 2019 04:06 PM

f t p s in

Print



# Waterhemp jumps to No. 1 weed to watch in Midwest

RESEARCH TRIANGLE PARK, NC, July 9, 2012 -- Glyphosate-resistant waterhemp is making a troublesome mark in the Midwest, so much so that it has become the new No.1 weed to watch for farmers in the region.



432 waterhemp per square meter,  
Herman, MN, 2014



July 2015, Herman, MN

# Herbicides applied lay-by wash from cover crop residue into the soil and provide residual waterhemp control

Herbicide <sup>1</sup>	Timing	Rate (pt or fl oz/A)	AMATA control Jun 16, 2015	AMATA control Jun 30, 2015
S-metolachlor	PRE	0.5	88 cd	13 c
S-metolachlor	Lay-by	1	95 abc	69 b
Outlook	Lay-by	18	97 a	86 ab
S-metolachlor / S-metolachlor	PRE / lay-by	0.5 / 1.25	96 ab	89 ab
S-metolachlor / Outlook	PRE / lay-by	0.5 / 18	98 a	90 a

<sup>1</sup>+ Roundup PowerMax at 28 fl oz/A + Prefer 90 NIS at 0.25% v/v + N-Pak AMS at 2.5% v/v

Terminate cover crops



PRE



PRE fb Lay-by









# Weed management must extend beyond the borders of the field if growers are to be successful long-term in their fight against weeds

## Along roadsides

- Many weeds originating in undisturbed soils have adapted to farmland fields
- Spray ditches with herbicides or regularly mow ditches to stop weed encroachment into fields

## Along field edges

- Greater weeds density along the field edge than in the field
  - Perhaps spray one spray boom width with a soil-applied herbicide
- Especially important on fence lines between neighbors
  - Dicamba field borders



# Weed management is as much a social challenge as is a technical challenge

- Water
- Wind
- Migratory birds
- People; neighbors, service providers



Photo Credit: Dr. Phil Stahlman, KSU



MPR Photo/Ann Arbor Miller

# July 2015, Cass County North Dakota



# Herbicide labels

## Non-Cropland areas

- Roadsides
  - Rights-of way
    - Roads
    - Utility lines
    - Railroad
  - Fence rows
  - Around farm buildings
- 
- Weed control in non-crop areas is different from weed control in pastures
  - Plan ahead if you intend (or wish) to take hay from ditches

# Herbicides for non-cropland

- Select depending on weed target and location
- Residual and non-residual herbicides

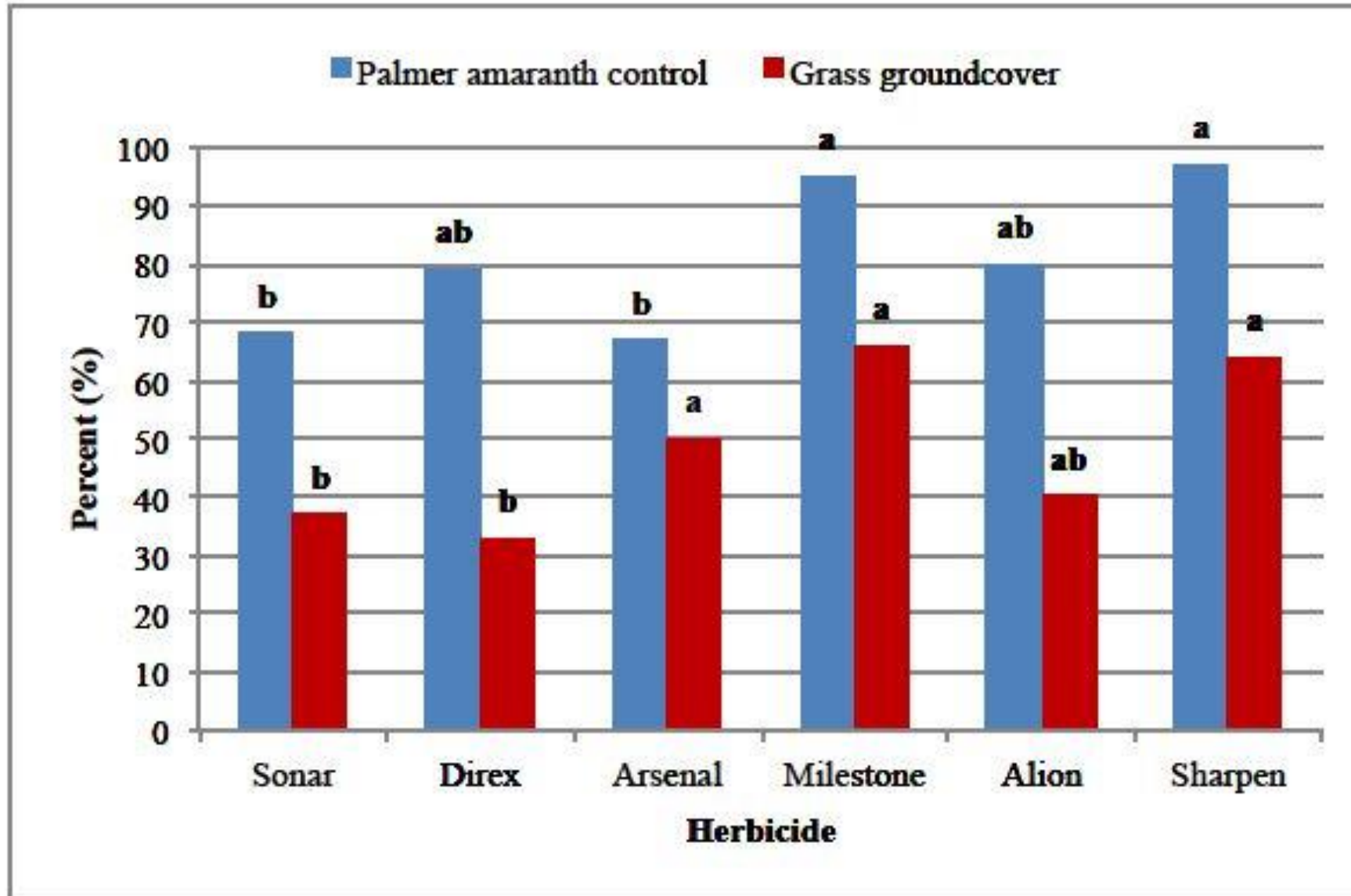
glyphosate (many)	Aminopyralid (Milestone®)	clopyralid (Transline®)	metsulfuron (Escort®)
2,4-D (many)	glufosinate (Rely 280®)	imazapyr (Arsenal®)	picloram (Tordon 22K®)
dicamba (many)	diuron (Karmex/Direx®)	saflufenacil (Sharpen®)	fluroxypyr (Starane Ultra®)
triclopyr (Garlon 4 Ultra®)	quinclorac (Facet® L)	indaziflam (Alion®)	

- Consult your 2019 ND Weed Control Guide, pg. 66-69
- Speak with your County Weed Officer

# Technical challenges

- Producers may unknowingly increase selection pressure for weed resistance when spraying in non-cropland areas
- Many postemergence herbicides, including 2,4-D, Clarity, Garlon and glyphosate provide no residual control
  - Repeat applications over an extended period (May to September) are needed
  - Challenging; a time commitment
  - Likely significant management cost
- Dicamba should not be used along roadsides adjacent to soybean, sunflower and sugarbeet fields
- Haying/grazing restrictions on grass harvested along roadsides

# Pigweed control and grass groundcover in fall following spring application, LSD $\alpha = 0.05$



ZT Hill, JK Norsworthy,  
LT Barber and RC  
Scott, University of  
Arkansas

# Manage weeds in ditches and edges of fields



# Summary

- Preventing the spread of herbicide resistant weeds is paramount to successful weed management
- Includes managing weeds in fields and non-cropped areas
- Non-cropped areas are prime habitat for weeds to produce seed without interference from crops
- Herbicides, especially soil residual herbicides to control problematic weeds along field margins makes sense
- Harvesting ditch hay for livestock needs to be factored into the weed management plan
- There is a need for technical bulletin for control of pigweed/weeds in ditches



# Acknowledgements

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# Thank you for your Support

Tom Peters

- Extension Sugarbeet Agronomist and Weed Control Specialist

- [thomas.j.peters@ndsu.edu](mailto:thomas.j.peters@ndsu.edu)



BeetWeedControl @tompeters8131

- 701-231-8131 (office)

- 218-790-8131 (mobile)

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