Managing Weeds Along Roadsides

Thomas Peters
Sugarbeet Agronomist and Weed Control Specialist
NDSU and Univ of Minnesota
How to Tackle Waterhemp

Waterhemp jumps to No. 1 weed to watch in Midwest

More Palmer amaranth suspected in North Dakota

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

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

1+ 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

Photo Credit: 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

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Product Name/Brand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyphosate (many)</td>
<td>Aminopyralid (Milestone®)</td>
</tr>
<tr>
<td></td>
<td>clopyralid (Transline®)</td>
</tr>
<tr>
<td></td>
<td>metsulfuron (Escort®)</td>
</tr>
<tr>
<td>2,4-D (many)</td>
<td>glufosinate (Rely 280®)</td>
</tr>
<tr>
<td></td>
<td>imazapyr (Arsenal®)</td>
</tr>
<tr>
<td></td>
<td>picloram (Tordon 22K®)</td>
</tr>
<tr>
<td>Dicamba (many)</td>
<td>diuron (Karmex/Direx®)</td>
</tr>
<tr>
<td></td>
<td>saflufenacil (Sharpen®)</td>
</tr>
<tr>
<td></td>
<td>fluroxypyr (Starane Ultra®)</td>
</tr>
<tr>
<td>Triclopyr (Garlon 4 Ultra®)</td>
<td>quinclorac (Facet® L)</td>
</tr>
<tr>
<td></td>
<td>indaziflam (Alion®)</td>
</tr>
</tbody>
</table>

- 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

• Mr. Stan Wolf, Cass County Weed Control Director

• Dr. Rod Lym, Professor Emeritus, NDSU

• Mr. Randy Grueneich, Barnes County Extension Agent
Thank you for your Support

Tom Peters
• Extension Sugarbeet Agronomist and Weed Control Specialist
• thomas.j.peters@ndsu.edu
• BeetWeedControl @tompeters8131
• 701-231-8131 (office)
• 218-790-8131 (mobile)