PROBLEM PERENNIAL WEEDS IN ROW CROPS

Jerry Doll
UW-Agronomy
<table>
<thead>
<tr>
<th>Weeds in Proceedings</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Wirestem muhly</td>
</tr>
<tr>
<td>• Hemp Dogbane</td>
</tr>
<tr>
<td>• White cockle</td>
</tr>
<tr>
<td>• Pokeweed</td>
</tr>
<tr>
<td>• Wild Four O’clock</td>
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<tr>
<td>• Comfrey</td>
</tr>
<tr>
<td>• Dandelion</td>
</tr>
</tbody>
</table>
Wild 4 O’clock

- Native tap-rooted, pretty perennial
- Found in no-till and reduced till systems
- Usually in shallow soils, including roadsides and railroad beds
Wild Four O’clock
you’ll know if you have some
Wild Four O’clock ID
Wild Four O’clock ID
Wild Four O’clock Biology
Wild Four O’Clock Management

- Glyphosate is the most effective
- In conventional corn, dicamba achieves suppression
- In conventional soybean, consider Classic
2000 Soybean Site in 2001

Pursuit “Check”

Roundup Ultra, 1 qt
flower

Rdup/Rdup 1 pt/1 pt
A Three-Step System to Control Perennial Broadleaf Weeds in Glyphosate Resistant Soybeans and Corn

1. Use a no-tillage production system.
2. Apply a reduced rate (perhaps 50%) of the recommended rate of a soil-active herbicide before or at planting.
3. Apply glyphosate when the first flowers appear or when the weed is 24 to 30 inches tall.
Does This Work for Comfrey?

- Russian native introduced for medicinal and forage uses
- Field infestations usually come from former garden
- Easy to ID
- Tough to control
**Comfrey ID**

- Branched tap roots; dark brown; deep
- Stems: many and fuzzy
- Leaves large, fuzzy
Comfrey ID

Flowers purplish; on curved stalk; rarely set seed
2001 Comfrey Trial

- Sauk Co. dairy farm
- Plowed/planted a glyphosate resistant corn hybrid May 26-28
- “Vegetative” treatments on July 6
- “Early flower” treatments on July 11
- All MOAs of post herbicides tested
Typical Situation: Garden Now Part of a Field

May 26
2001 Observations

- Moldboard plowing in late May =
  - Major setback to comfrey
  - Big help to corn
  - Major disaster for effectiveness of post applications
Sauk Co. Site - 2001

June 21

July 6
Sauk Co. Site - 2001

July 6
## Comfrey 2001 Results

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Rate Pt/a</th>
<th>Date applied</th>
<th>% Cont 8/7</th>
<th>% Press 9/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rdup Ultra</td>
<td>2</td>
<td>7/6</td>
<td>61</td>
<td>39</td>
</tr>
<tr>
<td>Rdup Ultra</td>
<td>2</td>
<td>7/11</td>
<td>73</td>
<td>45</td>
</tr>
<tr>
<td>Rdup Ultra</td>
<td>1.5 &amp; 1.5</td>
<td>7/6 &amp; 11</td>
<td>78</td>
<td>50</td>
</tr>
<tr>
<td>Rdup Ultra</td>
<td>2 &amp; 2</td>
<td>7/6 &amp; 11</td>
<td>68</td>
<td>30</td>
</tr>
<tr>
<td>Touchdown</td>
<td>2</td>
<td>7/6</td>
<td>67</td>
<td>50</td>
</tr>
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* *Control of treated plants*
## Comfrey 2001 Results

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<tbody>
<tr>
<td>Clarity</td>
<td>1 pt</td>
<td>7/6</td>
<td>84</td>
<td>16</td>
</tr>
<tr>
<td>Distinct</td>
<td>6 oz</td>
<td>7/6</td>
<td>86</td>
<td>15</td>
</tr>
<tr>
<td>Permit</td>
<td>1.33 oz</td>
<td>7/6</td>
<td>77</td>
<td>22</td>
</tr>
<tr>
<td>Lightning</td>
<td>1.28 oz</td>
<td>7/6</td>
<td>73</td>
<td>35</td>
</tr>
<tr>
<td>NorthStar</td>
<td>5 oz</td>
<td>7/6</td>
<td>69</td>
<td>29</td>
</tr>
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<tr>
<td>Distinct + Rdup Ultra/Rd</td>
<td>4 oz + 2pt/2pt</td>
<td>7/6</td>
<td>92</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinct + Rdup Ultra/</td>
<td>4 oz + 2pt/ 3 oz</td>
<td>7/6</td>
<td>95</td>
<td>13</td>
</tr>
<tr>
<td>Distinct</td>
<td></td>
<td>7/11</td>
<td></td>
<td></td>
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<tr>
<td>Callisto</td>
<td>3 oz</td>
<td>7/6</td>
<td>41</td>
<td>53</td>
</tr>
<tr>
<td>Callisto + Distinct</td>
<td>3 oz + 4 oz</td>
<td>7/6</td>
<td>78</td>
<td>21</td>
</tr>
<tr>
<td>Stinger</td>
<td>8 oz</td>
<td>7/6</td>
<td>3</td>
<td>48</td>
</tr>
</tbody>
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* Control of treated plants
Comfrey 2001 Summary

- Dicamba + glyphosate > 
dicamba = Distinct > 
glyphosate = Permit = Lightning = NorthStar
- Callisto has a temporary effect
- Stinger has no effect
- Does dicamba have soil activity on comfrey?
- Do you have a research site for 2002?
White Cockle

- Behaving as winter annual in corn/beans
- Dicamba & atrazine effective
  - Few concerns in corn
- No labels claim control in soybeans
- 2,4-D + glyphosate as burndown not adequate
- Glyphosate as post treatment in soybean can be effective
Dandelion Suppression

• See 1999 Proceedings (223-227) for summary of dandelion trials

• Not much has changed for in-crop treatments

• Renewed interest in fall applications
Results From 3 Years of Testing Show That:

- Dandelion growth stage and air temp best indicators:
  - Treat when temperatures > 60F and dandelions in early to mid bloom

- Not necessary to monitor soil temperature
Dandelion Take Home Message

• Fall treatments best by far
  – Even glyphosate looks reasonable then
  – IS this the way to tackle white cockle?

• Numerous options in corn

• In soybeans, start clean if possible
  – glyphosate + 2,4-D followed by more glyphosate
  – Synchrony lists dandelions as suppressed
Fall/Spring Preplant Dandelion Trial

• Testing glyphosate, 2,4-D, dicamba and several SUs as fall and spring treatments

• Applied to dandelions among corn stalks

• Will no-till plant soybeans in May
Thanks for Your Attention

Questions?

Comments?