FIELD EXPERIMENT HISTORY

Title: Arlington Spray Timing / Zone Tillage Trial - Corn following Sod.
Year: 1996
Personnel: J.G. Lauer, K.D. Hudelson
Location: Arlington Research Station, Arlington, WI

FIELD INFORMATION

Field: 247
Soil Type: Plano Silt Loam
Soil Test Results:
- Date: Nov 95
- pH: 7.3
- P(ppm): 43
- K(ppm): 175
- OM(%): 4.0

Fertilizer Applied: 150 lbs/a of 6-24-24 at planting
Previous Crop: Alfalfa

EXPERIMENTAL PROCEDURE

Exp. Design: Two Factor RCB

Variables:
- Factor A: Two Herbicide applications
  1-Fall Spray
  - w/ spring burndown
  2-Spring Broadcast Spray
  Roundup(2qt/a), Banvel(1pt/a), 2,4-D(1pt/a) on 20-Sep
  Roundup(1qt/a) and 2,4-D(1pt/a) on May 2
  Accent(0.67oz/a), Clarity(1pt/a), and NIS(1qt/a) on June 11

- Factor B: Three Tillage Operations
  NT 1 Flutted + 2 Ripple Coulters
  NT 3 Flutted Coulters + Trash Whippers
  ZT 3 Flutted Coulters + Trash Whippers (Zone Builder in previous fall)

Plot Size:
- Planted: 10' x 40'
- Harvested: 5' x 37'

Planting:
- Date: May 14
- Row Spacing: 30"
- Equipment: John Deere Max-Emerge
- Depth: 2"
- Rate: 32,000/a
- Hybrid: Pioneer 3769

Harvesting:
- Date: 14-Oct
- Equipment: Gleaner Plot Combine

Results: Table E-49.
<table>
<thead>
<tr>
<th>Herbicide Treatment</th>
<th>Tillage</th>
<th>Final Stand</th>
<th>Broken Stalks</th>
<th>Grain Moisture</th>
<th>Grain Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Spray</td>
<td></td>
<td>25612</td>
<td>1.4</td>
<td>29.5</td>
<td>154.0</td>
</tr>
<tr>
<td>Spring Spray</td>
<td></td>
<td>24660</td>
<td>1.5</td>
<td>29.3</td>
<td>142.2</td>
</tr>
<tr>
<td>Fall Spray NT 1 Flutted + 2 Ripple Coulters</td>
<td>25569</td>
<td>1.2</td>
<td>28.3</td>
<td>149.1</td>
<td></td>
</tr>
<tr>
<td>Fall Spray NT 3 Flutted Coulters, + Trash Whippers</td>
<td>24686</td>
<td>1.7</td>
<td>29.8</td>
<td>147.9</td>
<td></td>
</tr>
<tr>
<td>Fall Spray ZT 3 Flutted Coulters + Trash Whippers</td>
<td>25111</td>
<td>1.5</td>
<td>30.1</td>
<td>147.4</td>
<td></td>
</tr>
<tr>
<td>Fall Spray NT 1 Flutted + 2 Ripple Coulters</td>
<td>25550</td>
<td>1.4</td>
<td>28.4</td>
<td>158.1</td>
<td></td>
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<tr>
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<td>1.5</td>
<td>29.6</td>
<td>153.0</td>
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<tr>
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<td>151.0</td>
<td></td>
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<tr>
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<tr>
<td>Spring Spray NT 3 Flutted Coulters, + Trash Whippers</td>
<td>23901</td>
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<td>29.9</td>
<td>142.8</td>
<td></td>
</tr>
<tr>
<td>Spring Spray ZT 3 Flutted Coulters + Trash Whippers</td>
<td>24490</td>
<td>1.6</td>
<td>29.6</td>
<td>143.7</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>25122</td>
<td>1.5</td>
<td>29.4</td>
<td>148.1</td>
</tr>
</tbody>
</table>

**Probability(%)**

<table>
<thead>
<tr>
<th></th>
<th>Herbicide (H)</th>
<th>Tillage (T)</th>
<th>T x H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herbicide (H)</td>
<td>22.8</td>
<td>&gt; 50</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Tillage (T)</td>
<td>26.4</td>
<td>33.4</td>
<td>7.2</td>
</tr>
<tr>
<td>T x H</td>
<td>26.1</td>
<td>41.8</td>
<td>&gt; 50</td>
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</table>

**LSD(0.10)**

<table>
<thead>
<tr>
<th></th>
<th>Herbicide (H)</th>
<th>Tillage (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herbicide (H)</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Tillage (T)</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

**CV(%)**

|       | 5.1 | 62.4 | 6.3 | 8.6 |

FIELD EXPERIMENT HISTORY

Title: Lancaster Spray Timing / Zone Tillage Trial - Corn following Sod  
Year: 1996
Location: Lancaster Research Station, Lancaster, WI
Supported by:

FIELD INFORMATION

Field no.: 112W 644  
Soil Type: Rozetta Silt loam  
Soil Test Results: Date: Oct. 1996  
P: 7.0  
P(PPM): 39  
K(PPM): 148  
OM(%): 3.2  
Fertilizer Applied: 150 lbs/a of 6-24-24 at planting  
Previous Crop: Alfalfa

EXPERIMENTAL PROCEDURE

Exp. Design: Two Factor Randomized Complete Block

Variables: Factor A: Two Herbicide applications  
1-Fall Spray  
- w/ spring burndown  
Roundup(2qt/a), Banvel(1pt/a), 2,4-D(1pt/a)  
Roundup Ultra(2qts/a), Dual II(2.5pts/a) on 1-May  
Banvel(1pt/a) on 4-Jun  
2-Spring Broadcast Spray  
Roundup Ultra(2qts/a), Dual II(2.5pts/a) on 1-May  
Banvel(1pt/a) on 4-Jun  
Factor B: Three Tillage Operations  
NT 1 Flutted + 2 Ripple Coulter  
NT 3 Flutted Coulters + Trash Whippers  
ZT 3 Flutted Coulters + Trash Whippers (Zone Builder in previous fall)

Plot Size: Planted: 10' x 40'  
Harvested: 5' x 37'

Planting: Date: 18-May  
Row Spacing: 30"  
Equipment: John Deere Max-Emerge  
Depth: 2"  
Rate: 32,000/a  
Hybrid: Pioneer 3769

Harvesting: Date: 25-Oct  
Equipment: Gleaner Plot Combine

Insecticide: Pounce 0.6 oz/a on 10-Jul for ECB

Results: Table E-50.
Table E-50. 1996 Spray Timing / Zone Tillage Trial Corn Following Sod.  
Lancaster, WI

<table>
<thead>
<tr>
<th>Herbicide Treatment</th>
<th>Tillage</th>
<th>Final Stand plants/a</th>
<th>Broken Stalks %</th>
<th>Grain Moisture %</th>
<th>Grain Yield bu/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>22194</td>
<td>1.2</td>
<td>21.3</td>
<td>109.5</td>
</tr>
<tr>
<td></td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>21546</td>
<td>4.2</td>
<td>21.8</td>
<td>106.7</td>
</tr>
<tr>
<td></td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>20487</td>
<td>4.3</td>
<td>21.4</td>
<td>119.4</td>
</tr>
<tr>
<td>Fall Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>22410</td>
<td>1.8</td>
<td>20.7</td>
<td>119.7</td>
</tr>
<tr>
<td>Fall Spray</td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>22096</td>
<td>5.5</td>
<td>21.1</td>
<td>120.2</td>
</tr>
<tr>
<td>Fall Spray</td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>20644</td>
<td>1.1</td>
<td>21.2</td>
<td>125.7</td>
</tr>
<tr>
<td>Spring Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>21978</td>
<td>0.5</td>
<td>21.9</td>
<td>99.4</td>
</tr>
<tr>
<td>Spring Spray</td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>20997</td>
<td>2.8</td>
<td>22.4</td>
<td>93.2</td>
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<tr>
<td>Spring Spray</td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>20330</td>
<td>7.6</td>
<td>21.6</td>
<td>113.1</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>21409</td>
<td>3.2</td>
<td>21.5</td>
<td>111.9</td>
</tr>
</tbody>
</table>

**Probability(%)**

| Herbicide (H) | 8.8 | 42.1 | 1.5 | 0.7 |
| Tillage (T)   | 0.9 | 38.6 | 0.4 | 2.6 |
| T x H         | > 50| 17.6 | 0.3 | 29.5|

**LSD(0.10)**

| Herbicide (H) | 587 | NS   | 0.5 | 9.2 |
| Tillage (T)   | 853 | NS   | 0.2 | 7.7 |

**CV(%)**

| 5.7 | 192.4 | 1.5 | 9.8 |
FIELD EXPERIMENT HISTORY

Title: Fond du Lac Spray Timing / Zone Tillage Trial - Corn following Sod. Year: 1996
Personnel: J.G. Lauer, M.C. Rankin, K.D. Hudelson
Location: Dave Burlingham Farm - Malone, WI
Supported by:

FIELD INFORMATION

Soil Type: Dodge Silt Loam
Soil Test Results: Date: NA pH: NA P(PPm): NA K(PPm): NA OM(%) : NA
Fertilizer Applied: 150 lbs/a of 6-24-24 at planting
Previous Crop: Alfalfa

EXPERIMENTAL PROCEDURE

Exp. Design: RCB

Variables: Factor A: Two Herbicide applications
          1-Fall Spray Roundup(2qts/a), Banvel(1pt/a), 2,4-D(1pt/a) on 25-Sep
          -w/ spring burndown Roundup(2qts/a), Banvel(1.5pt/a) on 29-May
          Accent(0.67oz/a), Buctril(1.5pts/a) on 4-Jul
          2-Spring Broadcast Spray Roundup(2qts/a), Banvel(1.5pt/a) on 29-May
          Accent(0.67oz/a), Buctril(1.5pts/a) on 4-Jul

Factor B: Three Tillage Operations
          NT 1 Flutted + 2 Ripple Coulter
          NT 3 Flutted Coulters + Trash Whippers
          ZT 3 Flutted Coulters + Trash Whippers (Zone Builder in previous fall)

Plot Size: Planted: 10’ x 40’
           Harvested: 5’ x 36’

Planting: Date: 27-May
          Row Spacing: 30"
          Equipment: John Deere Max-Emerge
          Depth: 2"
          Rate: 32,000/a
          Hybrid: Pioneer 3861

Harvesting: Date: 12-Nov
            Equipment: Gleaner Plot Combine

Results: Table E-51.
Table E-51. 1996 Spray Timing / Zone Tillage Trial - Corn Following Sod.  
Fond du Lac, WI

<table>
<thead>
<tr>
<th>Herbicide Treatment</th>
<th>Tillage</th>
<th>Final Stand plants/a</th>
<th>Broken Stalks %</th>
<th>Moisture %</th>
<th>Grain yield bu/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>27485</td>
<td>1.8</td>
<td>25.1</td>
<td>120.1</td>
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<td></td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>27314</td>
<td>1.5</td>
<td>25.5</td>
<td>114.6</td>
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<td></td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>27321</td>
<td>1.8</td>
<td>25.2</td>
<td>126.3</td>
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<td>Fall Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
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<td>24.4</td>
<td>137.1</td>
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<td>1.7</td>
<td>24.8</td>
<td>131.8</td>
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<tr>
<td>Fall Spray</td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>26860</td>
<td>1.2</td>
<td>24.2</td>
<td>138.3</td>
</tr>
<tr>
<td>Spring Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>27638</td>
<td>1.5</td>
<td>25.8</td>
<td>106.0</td>
</tr>
<tr>
<td>Spring Spray</td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>27115</td>
<td>1.3</td>
<td>26.1</td>
<td>97.4</td>
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<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>27781</td>
<td>2.5</td>
<td>26.2</td>
<td>114.2</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>27373</td>
<td>1.7</td>
<td>25.3</td>
<td>120.3</td>
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</table>

**Probability(%)**

<table>
<thead>
<tr>
<th></th>
<th>Herbicide (H)</th>
<th>Tillage (T)</th>
<th>T x H</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24.1</td>
<td>&gt; 50</td>
<td>&lt; 0.1</td>
</tr>
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<td>&gt; 50</td>
<td>36.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21.0</td>
<td>33.4</td>
</tr>
</tbody>
</table>

**LSD(0.10)**

<table>
<thead>
<tr>
<th></th>
<th>Herbicide (H)</th>
<th>Tillage (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

**CV(%)**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.2</td>
<td>62.4</td>
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<tr>
<td></td>
<td>11.7</td>
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<td></td>
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</table>
FIELD EXPERIMENT HISTORY

Title: Chippewa Spray Timing / Zone Tillage Trial - Corn following Sod
Year: 1996
Personnel: J.G. Lauer, F.D. Thompson, K.D. Hudelson
Location: Chippewa County Farm, Chippewa Falls, WI
Supported by:

FIELD INFORMATION

Soil Type: Sattre Loam
Soil Test Results: Date: October 1993  pH: 6.2   P(ppm): 18   K(ppm): 90   OM(%): 2.2
Fertilizer Applied: Fertilizer Applied: 150 lbs/a of 6-24-24 at planting
Previous Crop: Alfalfa

EXPERIMENTAL PROCEDURE

Exp. Design: Two Factor RCB
Variables:
   Factor A: Two Herbicide applications
   - 1-Fall Spray  Roundup(2qt/a), Banvel(1pt/a), 2,4-D(1pt/a) on 20-Se
     -w/ spring burndown  Beacon(0.16oz/a) and Buctril(1pt/a) on May 31
   - 2-Spring Broadcast Spray  Roundup(1qt/a) and 2,4-D(1pt/a) on May 5
     Beacon(0.16oz/a) and Buctril(1pt/a) on May 31
   Factor B: Three Tillage Operations
       NT 1 Flutted + 2 Ripple Coulter
       NT 3 Flutted Coulters + Trash Whippers
       ZT 3 Flutted Coulters + Trash Whippers (Zone Builder in previous fall)

Plot Size: Planted: 10' x 40'
Harvested: 5' x 37'

Planting:
   Date: 2-May
   Row Spacing: 30"
   Equipment: John Deere Max-Emerge
   Depth: 2"
   Rate: 32,000/a
   Hybrid: Pioneer 3861

Harvesting:
   Date: 16-Oct
   Equipment: Gleaner Plot Combine

Results: Table E-52.
# Table E-52. 1996 Spray Timing / Zone Tillage Trial - Corn Following Sod.  
Chippewa Falls, WI

<table>
<thead>
<tr>
<th>Herbicide Treatment</th>
<th>Tillage</th>
<th>Final Stand</th>
<th>Broken Stalks</th>
<th>Grain Moisture</th>
<th>Grain Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Spray</td>
<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>26962</td>
<td>0.0</td>
<td>26.1</td>
<td>161.4</td>
</tr>
<tr>
<td>Fall Spray</td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>27826</td>
<td>0.4</td>
<td>27.0</td>
<td>164.4</td>
</tr>
<tr>
<td>Fall Spray</td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>28081</td>
<td>0.1</td>
<td>25.6</td>
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<tr>
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<td>NT 1 Flutted + 2 Ripple Coulters</td>
<td>27159</td>
<td>0.0</td>
<td>24.9</td>
<td>172.4</td>
</tr>
<tr>
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<td>0.3</td>
<td>25.8</td>
<td>180.5</td>
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<tr>
<td>Fall Spray</td>
<td>ZT 3 Flutted Coulters + Trash Whippers</td>
<td>28061</td>
<td>0.1</td>
<td>25.3</td>
<td>175.2</td>
</tr>
<tr>
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<td>0.0</td>
<td>27.2</td>
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</tr>
<tr>
<td>Spring Spray</td>
<td>NT 3 Flutted Coulters, + Trash Whippers</td>
<td>26805</td>
<td>0.5</td>
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<td>151.1</td>
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<tr>
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<td>28101</td>
<td>0.0</td>
<td>25.9</td>
<td>174.1</td>
</tr>
</tbody>
</table>

| Mean                | 27623 | 0.2 | 26.2 | 167.2 |

## Probability(%)

**Herbicide (H)**  
44.4 > 50 2.3 1.9

**Tillage (T)**  
46.6 20.2 8.8 42.3

**T x H**  
> 50 > 50 21.4 10.8

## LSD(0.10)

**Herbicide (H)**  
NS NS 1.0 11.5

**Tillage (T)**  
NS NS 1.0 NS

## CV(%)  
8.3 351.3 5.1 10.7