

## 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  
**Supported by:**

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### 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

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### 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-Sep  
-w/ spring burndown Roundup(1qt/a) and 2,4-D(1pt/a) on May 2  
2-Spring Broadcast Spray 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 Fluted + 2 Ripple Coulters  
NT 3 Fluted Coulters + Trash Whippers  
ZT 3 Fluted 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

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Results: Table E-49.

**Table E-49. 1996 Spray Timing / Zone Tillage Trial - Corn Following Sod.  
Arlington, WI**

Herbicide Treatment	Tillage	Final Stand plants/a	Broken Stalks %	Grain	
				Moisture %	Yield bu/a
Fall Spray		25612	1.4	29.5	154.0
Spring Spray		24660	1.5	29.3	142.2
	NT 1 Fluted + 2 Ripple Coulters	25569	1.2	28.3	149.1
	NT 3 Fluted Coulters, + Trash Whippers	24686	1.7	29.8	147.9
	ZT 3 Fluted Coulters + Trash Whippers	25111	1.5	30.1	147.4
Fall Spray	NT 1 Fluted + 2 Ripple Coulters	25550	1.4	28.4	158.1
Fall Spray	NT 3 Fluted Coulters, + Trash Whippers	25471	1.5	29.6	153.0
Fall Spray	ZT 3 Fluted Coulters + Trash Whippers	25856	1.3	30.5	151.0
Spring Spray	NT 1 Fluted + 2 Ripple Coulters	25589	0.9	28.3	140.2
Spring Spray	NT 3 Fluted Coulters, + Trash Whippers	23901	1.9	29.9	142.8
Spring Spray	ZT 3 Fluted Coulters + Trash Whippers	24490	1.6	29.6	143.7
Mean		25122	1.5	29.4	148.1
<b><u>Probability(%)</u></b>					
Herbicide (H)		22.8	> 50	> 50	4.3
Tillage (T)		26.4	33.4	7.2	> 50
T x H		26.1	41.8	> 50	> 50
<b><u>LSD(0.10)</u></b>					
Herbicide (H)		NS	NS	NS	8.8
Tillage (T)		NS	NS	1.3	NS
<b><u>CV(%)</u></b>					
		5.1	62.4	6.3	8.6

## FIELD EXPERIMENT HISTORY

**Title:** Lancaster Spray Timing / Zone Tillage Trial - Corn following Sod      **Year:** 1996  
**Personnel:** J.G. Lauer, T.M. Wood, K.D. Hudelson  
**Location:** Lancaster Research Station, Lancaster, WI  
**Supported by:**

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### FIELD INFORMATION

Field no.: 112W      644  
Soil Type: Rozetta Silt loam  
Soil Test Results: Date: Oct. 1996      pH: 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

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### EXPERIMENTAL PROCEDURE

**Exp. Design:** Two Factor Randomized Complete Block

**Variables:** Factor A: Two Herbicide applications

1-Fall Spray	Roundup(2qt/a), Banvel(1pt/a), 2,4-D(1pt/a)
-w/ spring burndown	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 Fluted + 2 Ripple Coulter
- NT 3 Fluted Coulters + Trash Whippers
- ZT 3 Fluted 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

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Results: Table E-50.

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

Herbicide Treatment	Tillage	Final Stand plants/a	Broken Stalks %	Grain	
				Moisture %	Yield bu/a
Fall Spray		21716	2.8	21.0	121.8
Spring Spray		21102	3.7	22.0	101.9
	NT 1 Fluted + 2 Ripple Coulters	22194	1.2	21.3	109.5
	NT 3 Fluted Coulters, + Trash Whippers	21546	4.2	21.8	106.7
	ZT 3 Fluted Coulters + Trash Whippers	20487	4.3	21.4	119.4
Fall Spray	NT 1 Fluted + 2 Ripple Coulters	22410	1.8	20.7	119.7
Fall Spray	NT 3 Fluted Coulters, + Trash Whippers	22096	5.5	21.1	120.2
Fall Spray	ZT 3 Fluted Coulters + Trash Whippers	20644	1.1	21.2	125.7
Spring Spray	NT 1 Fluted + 2 Ripple Coulters	21978	0.5	21.9	99.4
Spring Spray	NT 3 Fluted Coulters, + Trash Whippers	20997	2.8	22.4	93.2
Spring Spray	ZT 3 Fluted Coulters + Trash Whippers	20330	7.6	21.6	113.1
Mean		21409	3.2	21.5	111.9
<b><u>Probability(%)</u></b>					
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
<b><u>LSD(0.10)</u></b>					
Herbicide (H)		587	NS	0.5	9.2
Tillage (T)		853	NS	0.2	7.7
<b><u>CV(%)</u></b>					
		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:**

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### 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

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### 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 Fluted + 2 Ripple Coulters
- NT 3 Fluted Coulters + Trash Whippers
- ZT 3 Fluted 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

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Results: Table E-51.

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

Herbicide Treatment	Tillage	Final Stand plants/a	Broken Stalks %	Grain	
				Moisture %	Yield bu/a
Fall Spray		27235	1.7	24.5	135.6
Spring Spray		27511	1.8	26.0	105.9
	NT 1 Fluted + 2 Ripple Coulters	27485	1.8	25.1	120.1
	NT 3 Fluted Coulters, + Trash Whippers	27314	1.5	25.5	114.6
	ZT 3 Fluted Coulters + Trash Whippers	27321	1.8	25.2	126.3
Fall Spray	NT 1 Fluted + 2 Ripple Coulters	27332	2.1	24.4	137.1
Fall Spray	NT 3 Fluted Coulters, + Trash Whippers	27513	1.7	24.8	131.8
Fall Spray	ZT 3 Fluted Coulters + Trash Whippers	26860	1.2	24.2	138.3
Spring Spray	NT 1 Fluted + 2 Ripple Coulters	27638	1.5	25.8	106.0
Spring Spray	NT 3 Fluted Coulters, + Trash Whippers	27115	1.3	26.1	97.4
Spring Spray	ZT 3 Fluted Coulters + Trash Whippers	27781	2.5	26.2	114.2
Mean		27373	1.7	25.3	120.3
<b><u>Probability(%)</u></b>					
Herbicide (H)		24.1	> 50	< 0.1	< 0.1
Tillage (T)		> 50	> 50	36.1	15.2
T x H		21.0	8.6	33.4	> 50
<b><u>LSD(0.10)</u></b>					
Herbicide (H)		NS	NS	.3	5.6
Tillage (T)		NS	NS	NS	NS
<b><u>CV(%)</u></b>					
		3.2	62.4	2.5	11.7

## 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:**

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### 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

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### 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-Sep  
                                    -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 Fluted + 2 Ripple Coulters  
                            NT 3 Fluted Coulters + Trash Whippers  
                            ZT 3 Fluted 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

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Results: Table E-52.

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

Herbicide Treatment	Tillage	Final Stand plants/a	Broken Stalks %	Grain	
				Moisture %	Yield bu/a
Fall Spray		28022	0.1	25.3	176.0
Spring Spray		27224	0.2	27.0	159.0
	NT 1 Fluted + 2 Ripple Coulters	26962	0.0	26.1	161.4
	NT 3 Fluted Coulters, + Trash Whippers	27826	0.4	27.0	164.4
	ZT 3 Fluted Coulters + Trash Whippers	28081	0.1	25.6	174.7
Fall Spray	NT 1 Fluted + 2 Ripple Coulters	27159	0.0	24.9	172.4
Fall Spray	NT 3 Fluted Coulters, + Trash Whippers	28846	0.3	25.8	180.5
Fall Spray	ZT 3 Fluted Coulters + Trash Whippers	28061	0.1	25.3	175.2
Spring Spray	NT 1 Fluted + 2 Ripple Coulters	26766	0.0	27.2	150.4
Spring Spray	NT 3 Fluted Coulters, + Trash Whippers	26805	0.5	28.0	151.1
Spring Spray	ZT 3 Fluted Coulters + Trash Whippers	28101	0.0	25.9	174.1
Mean		27623	0.2	26.2	167.2
<b><u>Probability(%)</u></b>					
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
<b><u>LSD(0.10)</u></b>					
Herbicide (H)		NS	NS	1.0	11.5
Tillage (T)		NS	NS	1.0	NS
<b><u>CV(%)</u></b>					
		8.3	351.3	5.1	10.7