

FIELD EXPERIMENT HISTORY

Title: 16 Influence of Clipping Timing on Corn Grain Yield
Experiment: 16 Influence of Clipping on Corn **Trial ID:** 2250 **Year:** 2001
Personnel: J.G. Lauer, P.J. Flannery, and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: Hatch

Site Information

Field: ARS 372 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/01/01 **pH** 5.8 **OM (%)** 2.7 **P (ppm)** 38 **K (ppm)** 180

Plot Management

Tillage Operations: Chisel Plow Soil Finisher Cultivated

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325	N/A
Starter :	N/A	N/A	N/A
Post plant :	N/A	N/A	N/A
Manure:	None	N/A	

Herbicide: Harness 2.5 pt/A **Insecticide:** None
Permitt 0.66 oz/A **Hybrid:** Pioneer 35R57

Irrigation: None

Planting Date: 5/6/01 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Kinze Inter-Row Planter
Harvest Date: 10/25/01 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB Factorial **Replications:** 3
Plot Size Seeded: 23' x 10' **Experiment Size:** 0.1 A
Harvest Plot Size: 22' x 5' **Harvest Plant Density:** 30000 plants per acre

Factors/Treatments:

<u>Growth Stage at Time of Clipping:</u>		<u>Date of Clipping:</u>
V2 - 2 plant pattern	V6 - 2 plant pattern	V2 - May 30
V2 - 4 plant pattern	V6 - 4 plant pattern	V4 - June 18
V2 - 8 plant pattern	V6 - 8 plant pattern	V6 - June 26
V4 - 2 plant pattern	Control	
V4 - 4 plant pattern	V4 - Random	
V4 - 8 plant pattern	V4 - Entire Plot	

Results: Table C-50.

**Table C-50. Influence of Clipping on Corn Grain Yield and Quality
Arlington, WI - 2001**

Treatment	Population	Grain yield bu/A	Grain moisture %	Test weight lbs/bu	Lodging %	Grower return \$/A
Control - UTC	30888	205	25.2	49	3	409
V2 - 2 plant	29568	191	27.2	49	2	375
V2 - 4 plant	30624	196	26.6	49	0	387
V2 - 8 plant	31416	193	27.9	48	1	377
V2 - Clip entire plot	31152	168	30.0	47	0	323
V4 - 2 plant	27720	180	26.4	49	4	355
V4 - 4 plant	31944	188	26.9	50	2	370
V4 - 8 plant	29304	196	26.6	49	3	386
V4 - Clip entire plot	24552	138	30.7	48	0	263
V6 - 2 plant	29832	199	25.6	49	5	395
V6 - 4 plant	29832	199	26.3	50	1	393
V6 - 8 plant	30624	206	26.4	49	2	407
Mean	29788	188	27.2	49	2	370
<u>Probability(%)</u>						
Treatment (T)	26.7	0.1	0.0	42.7	30.7	0.0
<u>LSD(0.10)</u>						
Treatment (T)	NS	20	1.5	NS	NS	42
<u>CV(%)</u>						
	10	8	4	3	141	8

FIELD EXPERIMENT HISTORY

Title: 16 Cohorts
Experiment: 16 Cohorts **Trial ID:** 2256 **Year:** 2001
Personnel: J.G. Lauer, P.J. Flannery and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: Hatch

Site Information

Field: ARS372 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/1 /01 **pH** 6.6 **OM (%)** 2.4 **P (ppm)** 46 **K (ppm)** 185

Plot Management

Tillage Operations: Chisel Plow Soil Finisher Cultivated

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325	N/A
Starter :	N/A	N/A	N/A
Post plant :	N/A	N/A	N/A
Manure:	None	None	
Herbicide:	Harness 2.5 pt/A Permitt 0.66 oz/A	Insecticide: None	
Irrigation:	None	Hybrid: Pioneer 35R57	
Planting Date:	5/6/01	Planting Depth: 1.5"	Row Width: 30"
Target Plant Density: 30000 plants per acre		Planting Method: Kinze Inter-Row Planter	
Harvest Date: 10/30/01		Harvest Method: Hand Harvest	

Experimental Design

Design: RCB Factorial **Replications:** 6
Plot Size Seeded: 10' x 125' **Experiment Size:** 0.115 A
Harvest Plot Size: Single Plants
Factors/Treatments:

Treatments:

A = Plant clipped completely at V3 on 6/8
B = Emerged leaves clipped at V3 on 6/8
C = Control - No clipping

Results: Table C-51.

**Table C-51. Cohorts
Arlington, WI - 2001**

Treatment	Five Neighboring		Five Neighboring		Yield Components @ 0% Moisture		
	plants east	Plant	plants west		Kernels per ear no./ear	Yield per ear grams	100 Kernel weight grams
1	All leaves clipped	A	All leaves clipped		413	102.4	27.2
2	All leaves clipped	B	All leaves clipped		575	140.6	24.4
3	All leaves clipped	C	All leaves clipped		558	145.5	25.7
4	All leaves clipped	A	Emerged leaves clipped		450	70.5	23.7
5	All leaves clipped	B	Emerged leaves clipped		489	115.5	24.6
6	All leaves clipped	C	Emerged leaves clipped		583	147.5	25.4
7	All leaves clipped	A	Control		270	32.3	27.3
8	All leaves clipped	B	Control		498	124.6	25.3
9	All leaves clipped	C	Control		634	150.2	23.6
10	Emerged leaves clipped	A	Emerged leaves clipped		255	14.7	34.5
11	Emerged leaves clipped	B	Emerged leaves clipped		526	126.5	23.9
12	Emerged leaves clipped	C	Emerged leaves clipped		449	109.5	26.4
13	Emerged leaves clipped	A	Control		284	22.0	23.7
14	Emerged leaves clipped	B	Control		555	112.7	24.4
15	Emerged leaves clipped	C	Control		599	143.2	23.7
16	Control	A	Control		177	24.2	23.1
17	Control	B	Control		457	100.6	22.1
18	Control	C	Control		565	142.9	25.1
Mean					496	101.4	24.9
<u>Probability(%)</u>							
Treatment (T)					0.0	0.0	54.4
<u>LSD(0.10)</u>							
Treatment (T)					123	37	NS
<u>CV(%)</u>							
					37	26	17

A = All leaves clipped
 B = Emerged leaves clipped
 C = Control

FIELD EXPERIMENT HISTORY

Title: 16 Corn Grain Yield and Yield Component Response to Gaps in Corn Stands
Experiment: 16 Gap **Trial ID:** 2255 **Year:** 2001
Personnel: J.G. Lauer, P.J. Flannery and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: Hatch

Site Information

Field: ARS 372 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/1 /01 **pH** 6.6 **OM (%)** 2.4 **P (ppm)** 46 **K (ppm)** 185

Plot Management

Tillage Operations: Chisel Plow Soil Finisher Cultivated

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325	N/A
Starter :	N/A	N/A	N/A
Post plant :	N/A	N/A	N/A
Manure:	None	None	

Herbicide: Harness 2.5 pt/A **Insecticide:** None
Permitt 0.66 oz/A **Hybrid:** Pioneer 35R57

Irrigation: None

Planting Date: 5/6/01 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 30000 plants per acre **Planting Method:** Kinze Inter-Row Planter
Harvest Date: 10/25/01 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB Factorial **Replications:** 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.17 A
Harvest Plot Size: 5' x 22'

Factors/Treatments:

Treatment (gap)

1 row - 2 feet	2 row - 2 feet
1 row - 4 feet	2 row - 4 feet
1 row - 8 feet	2 row - 8 feet
1 row - 12 feet	2 row - 12 feet
1 row - UTC	2 row - UTC

Results: Table C-52.

**Table C-52. Corn grain yield and yield component response to field gaps in corn stands.
Arlington, WI - 2001**

Treatment	Harvest population no./A	Grain yield bu/a	Grain moisture %	Test Weight lb/bu	Lodging %	Grower return \$/A	Bordered plants				Plants in-row next to gap				Plants across from gap			
							Ear number	Kernels Ear	Kernel weight g/100kernels	Ear yield g/Ear	Ear number	Kernels Ear	Kernel weight g/100kernels	Ear yield g/Ear	Ear number	Kernels Ear	Kernel weight g/100kernels	Ear yield g/Ear
							no./Plant	no./Ear			no./Plant	no./Ear			no./Plant	no./Ear		
1 row - UTC	31152	216	23.7	51	3	435	1.00	620	28.8	179	-	-	-	-	-	-	-	-
1 row - 2 feet	29964	199	23.7	52	2	402	1.00	597	30.3	181	1.00	646	33.3	215	1.00	633	30.3	191
1 row - 4 feet	28512	191	23.7	51	3	386	1.00	613	31.9	196	1.00	646	36.7	237	1.00	670	32.0	215
1 row - 8 feet	25476	183	23.7	52	2	369	1.00	604	30.0	181	1.00	662	37.2	246	1.00	646	37.0	239
1 row -12 feet	22572	164	24.1	51	1	329	1.00	580	30.1	175	1.08	620	34.6	217	1.00	680	34.0	231
2 row - UTC	31020	214	23.9	51	1	431	1.00	607	31.0	188	-	-	-	-	-	-	-	-
2 row - 2 feet	26004	190	23.7	52	2	383	1.00	570	30.3	173	1.00	638	35.9	229	1.00	656	31.3	205
2 row - 4 feet	26664	194	23.7	52	2	392	1.00	620	30.4	189	1.00	680	35.7	243	1.00	625	32.5	203
2 row - 8 feet	20328	153	23.2	52	3	311	1.00	586	32.3	189	1.00	679	37.0	251	1.00	562	36.5	204
2 row -12 feet	13596	112	24.1	51	1	224	1.00	624	30.5	190	1.00	680	37.9	258	1.00	657	36.1	237
Mean	25529	182	23.7	51	2	366	1.00	602	30.6	184	1.01	657	36.0	237	1.00	641	33.7	216
Probability(%)																		
Treatment	0.0	0.0	20.5	58.9	51.2	0.0	-	94.9	68.9	94.2	-	82.6	28.4	40.6	-	0.8	9.4	3.0
LSD(0.10)																		
Treatment	1828	13	NS	NS	NS	27	-	NS	NS	NS	-	NS	NS	NS	-	43	4.3	25
CV(%)																		
Treatment	5	5	1	1	82	5	-	9	7	12	-	8	6	11	-	5	9	8

FIELD EXPERIMENT HISTORY

Title: 16 Influence of Thinning Timing on Corn Grain Yield
Experiment: 16 Influence of Thinning on Corn **Trial ID:** 2249 **Year:** 2001
Personnel: J.G. Lauer, P.J. Flannery, and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: Hatch

Site Information

Field: ARS 372 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/01/01 **pH:** 7.0 **OM (%)** 2.6 **P (ppm)** 66 **K (ppm)** 187

Plot Management

Tillage Operations: Chisel Plow Soil Finisher Cultivated

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325	N/A
Starter :	N/A	N/A	N/A
Post plant :	N/A	N/A	N/A
Manure:	None	N/A	

Herbicide: Harness 2.5 pt/A **Insecticide:** None
Permitt 0.66 oz/A **Hybrid:** Pioneer 35R57

Irrigation: None

Planting Date: 5/6/01 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Kinze Inter-Row Planter
Harvest Date: 10/25/01 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB Factorial **Replications:** 3
Plot Size Seeded: 23' x 10' **Experiment Size:** 0.1 A
Harvest Plot Size: 22' x 5' **Harvest Plant Density:** 22000 plants per acre

Factors/Treatments:

<u>Stage of Thinning:</u>	<u>Date of Thinning:</u>
V2	May 30
V4	June 18
V6	June 26
V8	July 2
V10	July 11
V12	July 20

Results: Table C-53.

**Table C-53. Influence of Thinning Timing on Corn Grain Yield.
Arlington, WI - 2001**

Treatment	Population	Grain yield	Grain moisture	Test weight	Lodging	Grower return
growth stage	plants/A	bu/A	%	lbs/bu	%	\$/A
V2	21384	200	24.3	50	0	401
V4	21912	196	25.9	50	0	389
V6	21912	200	24.9	51	0	400
V8	23760	192	25.0	51	0	383
V10	22968	190	25.2	51	2	379
V12	21384	182	24.5	51	4	365
Mean	22220	193	25.0	50	1	386
<u>Probability(%)</u>						
Treatment (T)	14.9	59.0	17.1	86.4	9.9	57.0
<u>LSD(0.10)</u>						
Treatment (T)	NS	NS	NS	NS	3	NS
<u>CV(%)</u>						
	5	7	3	3	174	7

FIELD EXPERIMENT HISTORY

Title: Stand Variability Effects on Corn Yield
Experiment: 16Variability **Trial ID** 2251 **Year:** 2001
Personnel: J.G. Lauer, P. J. Flannery, and K. D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: 408 **Previous Crop:** Soybean **Soil Type:** Plano
Soil Test: **Date:** 11/01/01 **pH** 6.6 **OM (%)** 2.6 **P (ppm)** 65 **K (ppm)** 154

Plot Management

Tillage Operations: Chisel Plow Soil Finisher 1 Cultivation 6/14/01

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325	4 /18/01
Starter :	6-24-24	150	4 /28/01
Post plant :	N/A	N/A	N/A
Manure:	N/A	N/A	

Herbicide: Harness 2.5 pt/A Insecticide: None
Permit 0.66 oz/A

Irrigation: None **Hybrid:** Pioneer 35R57

Planting Date: 4/28/01 **Planting Depth:** 1.5" **Row Width:** 30"
Harvest Date: 10/25/01 **Planting Method:** Kinze Plot Planter
Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23.2' x 10' **Experiment Size:** 0.17 A
Harvest Plot Size: 22.7' x 5'

Factors/Treatments:

Treatments:

2 plant pattern @ 2", 2 plant pattern @ 4",
4 plant pattern @ 2", 4 plant pattern @ 4",
4 plant pattern @ 8", 8 plant pattern @ 2",
8 plant pattern @ 4", 8 plant pattern @ 8",
8 plant pattern @ 12" and Control

Results: Table C-54.

**Table C-54. Plant Spacing Effects on Corn Yield
Arlington, WI - 2001**

Treatment	Plant spacing	Standard deviation	Population	Yield	Moisture	Test weight	Lodging	Grower Return
	inches	inches	plants/A	bu/A	%	lbs/bu	%	\$/A
Control	6.7	1.9	30191	206	21.4	54	3	\$422
2 plant pattern @ 2 inch S.D.	6.9	2.9	29552	201	21.3	53	1	\$413
2 plant pattern @ 4 inch S.D.	6.9	3.7	30319	208	21.7	53	2	\$426
4 plant pattern @ 2 inch S.D.	6.7	2.4	30447	206	21.5	53	2	\$422
4 plant pattern @ 4 inch S.D.	6.6	4.5	30959	203	21.4	54	2	\$417
4 plant pattern @ 8 inch S.D.	6.7	6.6	30703	199	20.9	53	2	\$409
8 plant pattern @ 2 inch S.D.	6.9	2.4	31279	218	21.3	54	1	\$447
8 plant pattern @ 4 inch S.D.	6.8	4.0	30319	195	21.3	53	3	\$399
8 plant pattern @ 8 inch S.D.	6.4	6.8	31087	198	21.3	54	3	\$406
8 plant pattern @ 12 inch S.D.	6.3	10.1	30831	193	21.1	54	3	\$396
Mean	6.7	4.6	30552	202	21.3	53	2	\$415
<u>Probability(%)</u>								
Treatment (T)	0.4	0.0	11.1	80.8	27.9	85.5	88	83.9
<u>LSD(0.10)</u>								
Treatment (T)	0.2	0.4	NS	NS	NS	NS	NS	NS
<u>CV(%)</u>								
	2	6	2	7	1	1	79	7

FIELD EXPERIMENT HISTORY

Title: Stand Variability Effects on Corn Yield
Experiment: 16Variability **Trial ID** 2254 **Year:** 2001
Personnel: J.G. Lauer, P. J. Flannery, and K. D. Kohn
Location: Fond du Lac, WI **County:** Fond du Lac
Supported By: HATCH

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Virgil
Soil Test: **Date:** N/A **pH** 6.9 **OM (%)** 4.0 **P (ppm)** 50 **K (ppm)** 98

Plot Management

Tillage Operations: Moldboard Plow Field Cultivator 1 Cultivation

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	82-0-0	130	N/A
Starter :	6-24-24	150	5 /20/01
Post plant :	46-0-0	150	6 /29/01
Manure:	N/A	N/A	

Herbicide: Dual II Mag 0.75 pt/A
Accent Gold 2.9 oz/A
Atrazine 0.5 lb/A **Insecticide:** None

Irrigation: None **Hybrid:** Cargill 4111

Planting Date: 5/20/01 **Planting Depth:** 1.5" **Row Width:** 30"
Harvest Date: 10/29/01 **Planting Method:** Kinze Plot Planter
Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23.2' x 10' **Experiment Size:** 0.17 A
Harvest Plot Size: 22.7' x 5'

Factors/Treatments:

Treatments:

2 plant pattern @ 2", 2 plant pattern @ 4",
4 plant pattern @ 2", 4 plant pattern @ 4",
4 plant pattern @ 8", 8 plant pattern @ 2",
8 plant pattern @ 4", 8 plant pattern @ 8",
8 plant pattern @ 12" and Control

Results: Table C-55.

**Table C-55. Plant Spacing Effects on Corn Yield
Fond du Lac, WI - 2001**

Treatment	Plant spacing	Standard deviation	Population	Yield	Moisture	Test weight	Lodging	Grower Return
	inches	inches	plants/A	bu/A	%	lbs/bu	%	\$/A
Control	6.6	2.1	30575	149	27.4	50	3	\$292
2 plant pattern @ 2 inch S.D.	6.9	2.9	29168	143	27.6	50	1	\$280
2 plant pattern @ 4 inch S.D.	6.7	3.9	30703	147	27.6	50	1	\$288
4 plant pattern @ 2 inch S.D.	6.8	2.9	29808	151	27.9	50	1	\$296
4 plant pattern @ 4 inch S.D.	6.6	4.5	30447	148	27.1	50	2	\$290
4 plant pattern @ 8 inch S.D.	6.6	6.7	31471	150	27.1	50	2	\$295
8 plant pattern @ 2 inch S.D.	6.6	2.8	30959	153	27.2	50	2	\$301
8 plant pattern @ 4 inch S.D.	6.6	4.0	30703	146	26.9	50	2	\$287
8 plant pattern @ 8 inch S.D.	6.7	7.4	30831	144	27.0	51	4	\$283
8 plant pattern @ 12 inch S.D.	6.4	10.1	31087	129	28.0	50	2	\$252
Mean	6.7	4.7	30575	146	27.4	50	2	\$286
<u>Probability(%)</u>								
Treatment (T)	4.6	0.0	2.7	8.5	21.3	26.2	44.9	8.5
<u>LSD(0.10)</u>								
Treatment (T)	0.2	0.4	952	12	NS	NS	NS	23
<u>CV(%)</u>								
	2	6	2	6	2	1	71	6

FIELD EXPERIMENT HISTORY

Title: Stand Variability Effects on Corn Yield
Experiment: 16Variability **Trial ID** 2253 **Year:** 2001
Personnel: J.G. Lauer, P. J. Flannery, and K. D. Kohn
Location: Galesville, WI **County:** Trempealeau
Supported By: HATCH

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Downs
Soil Test: **Date:** N/A **pH** 6.2 **OM (%)** 3.7 **P (ppm)** 60 **K (ppm)** 310

Plot Management

Tillage Operations: Field Cultivator

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	350	N/A
Starter :	6-24-24	150	4 /26/01
Post plant :	N/A	N/A	N/A
Manure:	N/A	N/A	
Herbicide:	Dual II 2.25 pt/A Hornet 5.0 oz/A	Insecticide: None	
Irrigation:	None	Hybrid: Cargill 4111	
Planting Date: 4/26/01	Planting Depth: 1.5"	Row Width: 30"	
Harvest Date: 10/17/01	Planting Method: Kinze Plot Planter	Harvest Method: Kincaid Plot Combine	

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23.2' x 10' **Experiment Size:** 0.17 A
Harvest Plot Size: 22.7' x 5'

Factors/Treatments:

Treatments:

2 plant pattern @ 2", 2 plant pattern @ 4",
4 plant pattern @ 2", 4 plant pattern @ 4",
4 plant pattern @ 8", 8 plant pattern @ 2",
8 plant pattern @ 4", 8 plant pattern @ 8",
8 plant pattern @ 12" and Control

Results: Table C-56.

**Table C-56. Plant Spacing Effects on Corn Yield
Galesville, WI - 2001**

Treatment	Plant spacing	Standard deviation	Population	Yield	Moisture	Test weight	Lodging	Grower Return
	inches	inches	plants/A	bu/A	%	lbs/bu	%	\$/A
Control	6.8	1.9	30575	188	22.4	54	1	\$383
2 plant pattern @ 2 inch S.D.	6.9	2.4	30703	193	22.3	54	1	\$393
2 plant pattern @ 4 inch S.D.	6.9	3.5	30063	187	21.9	55	3	\$381
4 plant pattern @ 2 inch S.D.	6.8	2.4	30191	184	21.6	55	3	\$376
4 plant pattern @ 4 inch S.D.	6.7	4.1	31343	181	22.4	55	3	\$368
4 plant pattern @ 8 inch S.D.	6.7	6.8	30831	186	22.3	54	2	\$378
8 plant pattern @ 2 inch S.D.	6.6	2.5	31215	195	22.5	55	2	\$396
8 plant pattern @ 4 inch S.D.	6.6	3.4	31215	190	22.2	54	2	\$387
8 plant pattern @ 8 inch S.D.	6.4	7.3	31215	174	22.5	55	1	\$354
8 plant pattern @ 12 inch S.D.	6.5	10.6	30447	164	22.6	56	2	\$334
Mean	6.7	4.5	30780	184	22.3	55	2	\$375
<u>Probability(%)</u>								
Treatment (T)	0.0	0.0	23.8	0.2	72.4	5.2	80.7	0.2
<u>LSD(0.10)</u>								
Treatment (T)	0.1	0.3	NS	10	NS	1	NS	21
<u>CV(%)</u>								
	2	5	2	4	3	1	84	4

FIELD EXPERIMENT HISTORY

Title: Stand Variability Effects on Corn Yield
Experiment: 16Variability **Trial ID** 2252 **Year:** 2001
Personnel: J.G. Lauer, P. J. Flannery, and K. D. Kohn
Location: Janesville, WI **County:** Rock
Supported By: HATCH

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Plano
Soil Test: **Date:** N/A **pH** 6.9 **OM (%)** 3.4 **P (ppm)** 69 **K (ppm)** 195

Plot Management

Tillage Operations: Chisel Plow Field Cultivator 1 Cultivation

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	28-0-0	350	N/A
Starter :	6-24-24	150	4 /30/01
Post plant :	N/A	N/A	N/A
Manure:	N/A	N/A	

Herbicide: Harness 2.75 pt/A Insecticide: None
Hornet 4.5 oz/A

Irrigation: None **Hybrid:** Pioneer 35R57

Planting Date: 4/30/01 **Planting Depth:** 1.5" **Row Width:** 30"
Harvest Date: 10/11/01 **Planting Method:** Kinze Plot Planter
Harvest Method: Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23.2' x 10' **Experiment Size:** 0.17 A
Harvest Plot Size: 22.7' x 5'

Factors/Treatments:

Treatments:

2 plant pattern @ 2", 2 plant pattern @ 4",
4 plant pattern @ 2", 4 plant pattern @ 4",
4 plant pattern @ 8", 8 plant pattern @ 2",
8 plant pattern @ 4", 8 plant pattern @ 8",
8 plant pattern @ 12" and Control

Results: Table C-57.

**Table C-57. Plant Spacing Effects on Corn Yield
Janesville, WI - 2001**

Treatment	Plant spacing	Standard deviation	Population	Yield	Moisture	Test weight	Lodging	Grower Return
	inches	inches	plants/A	bu/A	%	lbs/bu	%	\$/A
Control	6.9	1.6	30703	234	21.3	56	2	\$479
2 plant pattern @ 2 inch S.D.	6.8	2.6	30831	238	21.6	56	2	\$487
2 plant pattern @ 4 inch S.D.	6.9	3.7	30191	237	21.2	56	2	\$486
4 plant pattern @ 2 inch S.D.	6.9	2.9	29744	231	21.0	55	6	\$475
4 plant pattern @ 4 inch S.D.	6.8	4.4	30447	239	21.7	56	3	\$490
4 plant pattern @ 8 inch S.D.	6.6	6.6	30959	236	21.5	56	1	\$484
8 plant pattern @ 2 inch S.D.	6.8	2.7	30703	234	21.6	56	3	\$479
8 plant pattern @ 4 inch S.D.	6.6	3.9	30959	235	21.7	56	3	\$481
8 plant pattern @ 8 inch S.D.	6.4	7.2	30703	214	21.4	55	2	\$438
8 plant pattern @ 12 inch S.D.	6.1	9.0	32622	194	21.6	56	5	\$398
Mean	6.7	4.4	30826	230	21.5	56	3	\$471
<u>Probability(%)</u>								
Treatment (T)	0.2	0.0	1.9	0.1	60.2	38.7	39.8	0.0
<u>LSD(0.10)</u>								
Treatment (T)	0.3	0.6	980	13	NS	NS	NS	26
<u>CV(%)</u>								
	3	10	2	4	2	1	74	4