



# JOLIET JUNIOR COLLEGE

—1901—

## J.F. Richards Land Laboratory Demonstration & Research Guide 2016



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## ACKNOWLEDGMENTS

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There were many who contributed to the J.F. Richards Land Lab Demonstration and Research Farm during the 2016 growing season. Some donations included equipment, seed, expertise and chemicals. On behalf of Joliet Junior College, I would like to thank our contributors and their companies for supporting the JJC Agricultural and Horticultural Sciences Department through their generous donations.

I would also like to give extra thanks to JJC President Dr. Judy Mitchell, Director of Business and Auxiliary Services Janice Reedus, and the Agriculture Department staff for their input and continued support of the research conducted at JJC for the benefit of the students. The knowledge gained from the hands-on experience provided by the research farm is a huge asset to both the college and the community.

— Doug Larson '74 JJC  
Land Laboratories Manager

# INTRODUCTION

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## J.F. Richards Land Lab

The JJC demonstration and research farm began its operations in 1983 thanks to a generous land donation by the Richards family.

The objectives of the farm include: providing an instructional setting for students during their research and classes; demonstrating crop response to various farming practices (giving students a first-hand observation of crop growth and development); and providing unbiased, sound agronomic research information to crop producers and contributors.

Both faculty and students use the land lab for educational purposes. Students experience all aspects of production farming and apply it to what they are learning in the classroom. The students also assist instructors with farm management decisions. All agriculture classes use different parts of the farm to enhance their studies in the classroom. Students enrolled in JJC's soil and fertility class study soil types and fertility levels. Crops classes look at cropping systems, yield calculations and plant growth development. Crop protection classes look at disease, insect and weed pressure. Marketing students use crop yields and prices to market grain. Mechanics students learn how to properly operate and adjust machinery to maximize equipment use and efficiency.

In 2016, the demonstration and research farm consisted of 98 acres on the Main Campus and 14 acres at the Weitendorf Agricultural Education Center, with 69 acres of corn and 43 acres of soybeans. The production from the Main Campus for this year's crop averaged 182.9 bu/ac for corn and 37.37 bu/ac for soybeans over the total acreage. Yields on the Main Campus corn hybrid plot averaged 237.85 bu/ac, and the soybean variety plot averaged 50.99 bu/ac. The corn yield on the Main Campus was impacted by both water and deer damage, with the majority of the loss being too wet on about six acres. The deer population caused a massive amount of damage to the farm (as it did last year), particularly to the soybean crop.

Another \$1,200 in revenue was earned from the acceptance of leaves on the farm. The leaf application continues to benefit the soil in both nutrient value and enhancing the soil structure. The Weitendorf Agriculture Education Center experienced a tremendous growing season with the total corn production averaging 229.9 bu/ac.

## CONTRIBUTORS 2016

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Kurt Schobert, Wayne Walz	DuPont/Pioneer, Corn, Soybeans
Fred Beane	Simplex Seed, Corn, Soybeans
George Blatnik	Cornelius Seed, Corn, Soybeans
Brandon Peters	Great Lakes Hybrids, Corn, Soybeans
John Cronin	Right-Hand Man, Transportation, Advice
Randy Winterland	Pfister Seed, Corn, Soybeans
Justin Engelking	Renk Seed Co., Corn, Soybeans
Matt Kellogg, Mike Shane	NK, Golden Harvest, Corn, Soybeans, Chemicals
Scott Lagger, Ken Funk	Elburn Coop, Fertilizer, Chemicals, Expertise
Justin Laramie	Channel Bio LLC, Corn, Soybeans
Jerry Longman	Agri-Gold, Corn
Bill Verbeten, Jayme Bochmann	Helena Chemical, Chemicals, Seed, Fertilizer
Dennis Mueller	Dairyland Seed, Corn, Soybeans, Alfalfa
Brian Overall	Midwest Tractor & Plow, provided Plot Day tractors
Merrill Orns	Sun Prairie, Corn, Soybeans
Mike Phil	Wyffels Hybrids, Corn
Andy Rousonelos	Trucking and grain cart
Dan Schneider	LG Seed Co., Corn, Soybeans
Greg Seitz	DeKalb/Asgrow, Corn, Soybeans, Chemicals
David Stipp/Jim Muhlstadt	Stroller Implement, Precision Farming
Randy Timm/Jake Ralph	Becks Hybrids Corn, Soybeans, Cover Crops
Tom Walberg	Stone Seed, Corn, Soybeans

# AGRICULTURAL AND HORTICULTURAL SCIENCES

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## **A Complete List of Faculty and Staff JJC Agriculture and Horticulture Sciences Department**

Brad Angus	Animal Science/Business, Department Chair
David Bartz	Landscape Design
Caryn Genens	Greenhouse Manager
Bill Johnson	Agriculture Economics/Marketing/Swine Mgt
Jeff Landers	Agronomy
Patrick Kelly	Agriculture Mechanics/Technology
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## 2016 WEATHER AT JOLIET JUNIOR COLLEGE

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The growing season got off to a good start for most farmers in the Joliet area. Due to the soil type at the J.F. Richards Land Lab, we applied most of the chemicals and some of the nitrogen on April 18 and started planting corn on April 23.

A lot of the no-till ground was wet and cold with crop residue from the year before. We had trouble planting and getting the trench to close after the planter. We had plenty of moisture after planting and used the “Pro-Stich” trench closers instead of the standard wheels to close it up and get good stands of both corn and soybeans on the farm.

There were a total of eight days that exceeded a temperature of 90 degrees this year. Although many weeks of high humidity made it uncomfortable to work, the crops were relatively disease-free and the stage was set for good yields at harvest. We received 23 inches of rain during the growing season, with a total of more than 35 inches for the year. The good growing conditions late in the season contributed to low corn moistures at harvest, saving on drying costs.

### Monthly Moisture Recorded for 2016

January	1.1	July	4.5
February	.9	August	6.6
March	3.7	September	3.1
April	2.5	October	2.2
May	2.7	November	1.9
June	3.8	December	4.1[est.]
Normal Year	36”	Total 2015	39.6”
		Total 2016	37.1”



## CONTINUOUS CORN PRODUCTION, SILAGE PLOT

The continuous corn plot received high rates of fall application of leaves. Up to 20 tons of municipal leaves were applied and continued to increase the organic matter of the soil, as well as supplying additional N-P-K. The analysis in a ton of leaves is approximately .5 -.1 -.5. The plot also received 30-80-80 commercial fertilizer in fall 2015. The plot had 100# of nitrogen with Harness applied pre-plant.

The 13 hybrid silage plot was planted on April 23. The plan was to take the corn out as silage and weigh the entries, but we were unable to do so because of some logistic and weather problems during that time period. Dairyland supplied the seed and we will continue with the silage plot work in 2017.

The continuous corn plot was with a 103-day corn variety G03W95 from Golden Harvest at 35,000 seeds/acre. Using the Pro-Stich seed trench closers greatly improves the stands in high residue conditions. There was 40# of nitrogen applied with the planter and 75# applied as a side dress in the first week of June. A total of 215# of nitrogen was applied with the three applications. Organic matter has risen from 2.7% to 3.4% in most areas. The field was harvested on Sept. 30 with most of the corn at 19.5% moisture. The deer population grazed on both headlands and a small portion of the west end of the field.



Silage Plot Entries	Area	Average Moisture	Weight (Wet)	Volume (Dry)	Yield (Dry)	Harvest Date
	Acres	%	lb	bu	bu/ac	9/30/2016
Dairyland x14749	0.107	21.66	1,619.60	26.66	249.67	
Dairyland 9513	0.105	18.73	1,308.90	22.35	212.07	
Dairyland 3510	0.108	19.44	1,489.30	25.21	233.42	
Channel 210-95	0.107	19.30	1,473.10	24.98	234.14	
Dairyland Exp 11111	0.107	23.75	1,393.80	22.33	207.70	
Dairyland 3808	0.107	19.82	1,497.60	25.23	236.25	
Channel 213-59	0.106	19.70	1,564.50	26.39	248.51	
Exp 10707	0.107	22.02	1,469.50	24.07	225.79	
Dairyland 9307	0.107	17.82	1,416.20	24.45	228.71	
Dairyland 3605	0.107	18.28	1,551.10	26.63	249.77	
Channel 211 2Y	0.108	18.84	1,478.10	25.20	233.60	
Dairyland 3808	0.107	20.02	1,526.90	25.66	238.80	
Dairyland 9713	0.107	21.07	1,705.20	28.28	264.38	
		20.04			235.61	
		Average			Average	
		Moisture			Yield	



## CORN HYBRIDS VARIETY PLOTS – 2016 – Main Campus

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We had 67 entries, including checks in the JJC Main Campus demonstration plot in 2016. The corn was planted at the rate of 34,500 seeds per acre with a no-till planter into soybean stubble on April 12 and 13 at a seeding rate of 34,500. Ten tons of leaves were applied in fall 2015. The high was 275 bu/ac and the low was 177 bu/ac. The check used was Wyffels 7888.



Corn Plot Entries	Area	Average	Weight	Volume	Yield
		Moisture	(Wet)	(Dry)	(Dry)
	Acres	%	lb	Bu	bu/ac
Golden Harvest	0.131	18.02	1,871.20	32.23	246.84
Golden Harvest	0.132	18.83	1,765.20	30.10	228.22
Golden Harvest	0.132	19.48	1,558.50	26.36	200.37
Golden Harvest	0.132	22.95	2,251.50	36.44	275.58
Renk 941	0.134	23.41	1,894.70	30.48	228.09
Renk 815	0.134	21.21	1,938.60	32.09	240.14
Renk 791	0.133	20.85	1,830.30	30.44	228.82
Renk 935	0.135	25.5	2,141.60	33.52	248.10
Wyffels 7888 check	0.137	25.53	2,277.70	35.63	260.67
Pfister 2545	0.135	23.76	2,079.50	33.31	247.03
Pfister 68A1VH	0.135	21.34	1,751.20	28.94	213.69
Pfister 67A1RA	0.137	21.73	2,015.80	33.15	241.49
Pfister 65B1VH	0.134	19.83	2,051.30	34.55	257.99
Wyffels 6946	0.136	21.86	2,122.60	34.85	256.32
Wyffels 7158	0.139	21.5	1,996.10	32.92	236.41
Wyffels 7456	0.139	26.13	2,304.30	35.76	256.40
Wyffels 7108	0.137	22.19	2,148.10	35.11	256.06
Becks 5828	0.140	22.23	2,216.80	36.22	258.25
Wyffels 7888 check	0.142	24.58	2,334.50	36.99	259.73
Becks 6418	0.140	23.98	2,265.10	36.17	257.91
Becks 6076	0.141	21.81	2,062.10	33.87	239.69
Becks 6365	0.141	24.59	2,349.20	37.22	264.73
Becks 6165	0.144	22.77	2,011.10	32.63	225.84
Cornelius 574	0.145	21.15	1,987.80	32.93	226.51
Cornelius 457	0.147	20.55	2,117.70	35.35	239.63
Cornelius 744	0.148	23.83	2,267.90	36.29	245.10
Cornelius 621	0.154	22.03	2,192.00	35.91	233.41
Dairyland 9314	0.148	25.51	2,373.30	37.14	250.93
Wyffels 7888 check	0.151	25.39	2,508.80	39.32	260.46
Dairyland 9409	0.179	21.91	2,207.00	36.21	202.80
Dairyland 9412	0.152	24.79	2,238.00	35.36	231.90
Dairyland 9713	0.161	24.63	2,390.00	37.84	235.31
Mycogen 2Y669	0.191	21.82	2,581.30	42.4	221.42
Mycogen 2T619	0.185	20.36	2,450.90	41.00	221.14
AgriGold 6462	0.186	21.36	2,715.40	44.86	240.76
AgriGold 6441	0.185	22.03	2,958.70	48.46	262.45
AgriGold 6488	0.183	21.65	2,643.40	43.51	238.25
AgriGold 6499	0.180	24.97	2,798.70	44.12	245.23
Pioneer 1311	0.176	24.89	2,889.70	45.60	259.44
Wyffels 7888 check	0.171	25.29	2,672.40	41.94	245.16
Pioneer 0589	0.170	20.3	2,043.40	34.21	200.71
Pioneer 0825	0.170	21.61	2,503.80	41.23	242.25
Pioneer 1197	0.166	23.03	2,607.00	42.16	253.63
Pioneer 0157	0.161	19.91	1,696.40	28.54	177.04
Burrus 4J49	0.152	21.9	2,147.30	35.23	232.16
Burrus 5C17	0.150	22.82	1,675.90	27.18	181.10
Burrus 6P75	0.146	24.75	2,050.20	32.41	221.63
Burrus 3H85	0.146	20.87	1,829.50	30.41	208.79
DeKalb 6154	0.145	22.9	2,139.90	34.66	238.82

Wyffels 7888 check	0.147	24.99	2,307.50	36.36	247.48
DeKalb 5806	0.147	21.66	2,036.60	33.52	228.23
DeKalb 6360	0.144	24.97	2,223.50	35.05	243.97
DeKalb 6487	0.144	24.72	2,268.90	35.88	249.25
Great Lakes 5824	0.140	22.02	1,864.60	30.55	218.73
Great Lakes 5944	0.136	24.17	2,021.10	32.20	237.35
Great Lakes 6185	0.132	23.58	1,941.40	31.17	236.66
Great Lakes 6462	0.132	25.43	2,163.10	33.89	255.94
Sun Prairie 2488	0.131	23.59	1,982.20	31.82	242.44
Wyffels 7888 check	0.130	25.19	1,958.80	30.79	237.18
Sun Prairie 2708	0.251	23.74	3,577.90	57.32	228.62
Sun Prairie 2688	0.238	23.56	3,502.30	56.24	236.40
Sun Prairie 2412	0.228	21.1	3,307.70	54.83	240.11
LG 5548	0.223	22.02	3,315.00	54.31	243.68
LG 5618	0.211	24.4	3,488.90	55.41	262.29
LG 5565	0.203	21.67	2,718.80	44.74	220.14
LG 5591	0.187	22.64	2,773.40	45.07	241.15
		22.79			237.85
		Average			Average
		Moisture			Yield



The combine monitor was calibrated several times during harvest with a weigh wagon provided by Kurt Schobert from CHS Elburn, Pioneer. The combine yield monitor indicated that the yields were less than 2% different from the final scale weights at DeLong, Minooka.

**Nitrogen application:** 100 pounds pre-plant with weed control, 40 pounds applied with the planter, 75 pounds side-dressed on June 8. Fall application of dry fertilizer was at the rate of 30-80-80. The plot consisted of four to eight rows at 30" spacing at 410'-450' long. Harness Xtra, Roundup, 2, 4-D were applied at pre-plant. It was sprayed once in June with Roundup and AMS. The entire plot was weed-free. Minimal lodged stalks and zero dropped ears were observed.

The harvest was on Sept. 28 and 30. Deer did not affect this section of the farm and fortunately left the corn plot alone.

## WEITENDORF HYBRID CORN PLOT – 2016



Channel Bio LLC used the entire 14 acre farm for corn hybrid trials this year. The plot was planted on April 15. Each trial contained 16 rows, 350' long in 30" spacing. The corn was harvested on Oct. 20 with the following outstanding results recorded:

Corn Plot Entries	Area	Average	Weight	Volume	Yield
		Moisture	(Wet)	(Dry)	(Dry)
	Acres	%	lb	bu	bu/ac
Channel 208 49 east check	0.162	18.31	1,918.30	32.92	203.42
Channel 207 27	0.333	18.79	4,138.90	70.62	212.24
Channel 208 23	0.326	17.47	4,150.20	71.95	220.58
Channel 209 53	0.331	19.10	4,531.30	77.02	232.75
Channel 210 26	0.324	19.27	4,537.00	76.94	237.25
Channel 211 35	0.334	19.35	4,412.90	74.77	223.63
Pioneer 1197	0.331	18.87	4,480.20	76.36	230.97
Channel 213 19	0.328	20.97	4,756.20	78.97	240.61
Channel 208 49 west check	0.327	20.09	4,364.20	73.27	223.74
		19.14			225.02
		Average			Average
		Moisture			Yield

Thank you to Channel Bio LLC and Justin Laramie for their continued support of JJC and the Weitendorf Agricultural Education Center.

Each year, all net proceeds from the Weitendorf land go to the JJC Foundation for agricultural scholarships.



# CORN ROOTWORM CONTROL



Corn rootworms continue to be a pest in the Midwest. Left untreated, they can cause large yield loss and standability issues. For this reason, we continued a study to look at conventional and traited means of control.

Below are the results:

## Treatments and Trials

**Previous Crop:** Corn  
**Hybrid:** Renk791 RR {control}  
 Renk791 SSTX {CRW}  
**Tillage:** No-till, chopped stalks  
**Insecticide:** Treatment Study  
**Herbicide:** Harness/Roundup  
**Planted:** 4/13/16  
**Harvest:** 9/27/16  
**Nitrogen:** 100# pre-plant with Harness/Roundup 75# Side-Dressed  
**Insecticides:** Aztec, Force

Corn Rootworm Plot Entries	Area	Average	Weight	Volume	Yield	Harvest Date
		Moisture	(Wet)	(Dry)	(Dry)	9/27/2016
	Acres	%	lb	bu	bu/ac	
Renk 791 RR no insecticide	0.419	16.27	4,272.00	67.26	<b>160.53</b>	
Renk 791 RR Aztec	0.651	16.46	6,242.90	109.56	<b>168.24</b>	
Renk 791 RR Force	0.630	16.39	5,676.70	99.71	<b>158.16</b>	
Renk 791 RR no insecticide	0.626	16.07	5,438.72	97.12	<b>155.14</b>	
Renk 791 SSTX Aztec	0.625	15.86	6,376.12	112.15	<b>179.44</b>	
Renk 791 SSTX Force	0.622	14.96	6,421.62	114.56	<b>184.18</b>	
Renk 791 SSTX no insecticide	0.311	15.00	3,004.21	53.65	<b>172.50</b>	
<b>Totals</b>	<b>3.886</b>	<b>15.86</b>			<b>168.31</b>	
		Average			Average	
		Moisture			Yield	

## Summary

There was a positive response to the additional insecticide application. Again, there was extensive deer damage to the west half of the plot this year. Results from the east 300 feet of the 700-foot plot were recorded for comparison purposes this year. Thank you to Renk Seed for their seed donation for this study.



*One of JJC's laboratory classes completed root digs and analyzed the performance of the treatments (an annual favorite for the students).*

## SOYBEAN VARIETIES

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Soybeans were planted no-till on May 17 into corn stalks at 140,000 seeds/acre in 30" rows. Four tons of leaves were applied in fall 2015. Authority XL/Roundup, 2,4-D were used pre-plant and Roundup was sprayed twice post-emerge during mid-June and then again in early July. The entire field was walked for escape weeds. As we enter the era of weed resistance and tougher-to-control weeds, we will continue to research the best methods of weed control. The soybeans were harvested on Oct. 14 at between 9.7% and 13.1% moisture. There were a number of soybean variety entries that I elected not to harvest for yield because of extreme deer feeding. Those recorded here were of sufficient stand and growth to offer a representative yield. Fertilizer application was 30-80-80 in fall

2015. Depending on the length of the row, between 8 and 12 rows were used for the plot. The combine monitor was calibrated twice during harvest with a weigh wagon to ensure accuracy.

<b>Soybean Plot Entries</b>	<b>Area</b>	<b>Average</b>	<b>Weight</b>	<b>Volume</b>	<b>Yield</b>	<b>Harvest</b>
		<b>Moisture</b>	<b>(Wet)</b>	<b>(Dry)</b>	<b>(Dry)</b>	<b>10/14/201</b>
	<b>Acres</b>	<b>%</b>	<b>lb</b>	<b>bu</b>	<b>bu/ac</b>	
Cruiser treated	1.13	10.91	3,490.1	58.17	<b>51.32</b>	
Clariva treated	1.15	9.705	3,232.5	53.87	<b>46.66</b>	
Becks 297R4	0.34	13.28	1,098.8	18.25	<b>53.70</b>	
Becks 267R2	0.33	13.29	1,054.2	17.51	<b>52.06</b>	
NK S26P3	0.33	13.02	946.53	15.77	<b>46.95</b>	
NK S25L9	0.33	12.86	891.40	14.86	<b>44.24</b>	
Pfister 28R02	0.19	12.28	566.58	9.443	<b>49.24</b>	
Pfister 26R204	0.19	13.18	584.25	9.717	<b>50.72</b>	
Pfister 30R205	0.11	12.76	583.47	9.724	<b>51.02</b>	
Cornelius 29R69	0.19	12.92	665.50	11.09	<b>58.26</b>	
Cornelius 28R58	0.18	12.75	647.86	10.80	<b>57.25</b>	
Cornelius 31R64	0.18	12.46	627.09	10.45	<b>55.76</b>	
Great Lakes 2959	0.18	12.57	623.79	10.40	<b>55.29</b>	
Great Lakes 3267	0.18	12.43	676.83	11.28	<b>60.06</b>	
Great LakesL 3055	0.19	12.22	590.06	9.834	<b>51.75</b>	
Renk Seed 286	0.18	12.96	518.51	8.642	<b>46.04</b>	
Renk Seed 265	0.19	12.10	520.64	8.677	<b>45.21</b>	
Renk Seed 316	0.19	12.21	563.06	9.384	<b>49.22</b>	
Sun Prairie 28R25	0.19	12.71	600.85	10.01	<b>52.74</b>	
Sun Prairie 29R23	0.18	12.36	572.01	9.534	<b>51.43</b>	
LG C289	0.18	12.28	599.96	9.999	<b>53.38</b>	
LG C252	0.18	12.20	593.75	9.896	<b>52.59</b>	
LG C2441	0.19	12.01	527.02	8.784	<b>46.32</b>	
LG C3070	0.19	11.72	492.74	8.212	<b>42.70</b>	
***						
		<b>12.38</b>			<b>50.99</b>	
		<b>Average</b>			<b>Average</b>	
		<b>Moisture</b>			<b>Yield</b>	
***Remainder of the Soybean plot entries						
unfortunately were severely affected by deer						
feeding and were not evaluated for yield						





*Jeff Landers' class examines the soybean variety plot.*



*Deer grazing in the soybean variety plot.*

## CONTINUOUS SOYBEANS: CYST-NEMATODE STUDY

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### Simplex Seed Company

The cyst-nematode study was conducted to determine if new varieties and new practices can reduce yield loss from the nematode problem and if it's worth it to grow continuous soybeans on the same ground year after year.

**Planting date:** 5/6/16

**Harvest date:** 10/10/16

**Previous crop:** Soybeans

**Herbicide:** AuthorityXL pre-plant, Roundup post-emerge 2X

**Planting type:** 30" Rows

Apparent Glyphosate resistant weeds were present, particularly including Waterhemp and Marestalk. The field was cultivated and hand hoed twice to eliminate the uncontrolled weeds.



Soil samples indicated very high populations of nematodes present in this field. This continuous soybean cyst-nematode study is in its fifth year. The field was sampled and sent to university for testing of nematode numbers on Sept. 21 with the following results:

Susceptible		Resistant	
2015	2016	2015	2016
1800	12560	200	5200

## TILLAGE AND VARIOUS PLANTING DATES PLOT

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On the tillage and planting dates plot, there were three different tillage practices used: chisel-plow, disking and no-till. There were three different planting dates: April 15, May 3 and May 18. Dairyland donated the seed, DSR 9212, for this study.

Tillage / Planting Date Plot Entries	Area	Average	Weight	Volume	Yield	Harvest Date
		Moisture	(Wet)	(Dry)	(Dry)	9/26/2016
	Acres	%	lb	bu	bu/ac	
Early Chisel	0.489	15.61	6,174.30	109.46	<b>223.94</b>	
Early Disk	0.738	16.09	9,550.20	168.34	<b>228.19</b>	
Early No-Till	0.732	15.84	9,525.10	168.41	<b>230.11</b>	
Mid Chisel	0.736	17.45	8,961.80	155.43	<b>211.25</b>	
Mid Disk	0.630	17.47	8,692.22	150.77	<b>204.91</b>	
Mid No-Till	0.317	16.35	3,632.50	63.84	<b>201.48</b>	
Late Chisel	0.767	16.92	8,812.00	153.81	<b>200.65</b>	
Late Disk	0.854	16.87	10,467.00	182.80	<b>214.11</b>	
Late No-Till	0.859	17.09	10,054.00	175.12	<b>203.87</b>	
		<b>16.63</b>			<b>213.16</b>	
		<b>Average</b>			<b>Average</b>	
		<b>Moisture</b>			<b>Yield</b>	



## VARIOUS TRIALS AT JOLIET JUNIOR COLLEGE IN 2016

Maturity Group Soybean Study:



Five groups of soybeans were planted: Maturity Groups 1-5, at 140,000/acre on May 3. This study was beneficial for the students because we were able to harvest groups 1-4. We were unable to harvest group 5 due to lateness of the variety.

**Yields:** 1 = 18.68 BPA; 2 = 29.16 BPA; 3 = 32.23 BPA; 4 = 44.66 BPA.

This plot was utilized during the student land lab classes to examine the various stages of soybean development later in the season.

Soybean Maturity Group Plot	Area	Average	Weight	Volume	Yield	Harvest Date
		Moisture	(Wet)	(Dry)	(Dry)	
	Acres	%	Lb	bu	bu/ac	
Group 1 Asgrow 1435	0.285	8.285	318.95	5.316	<b>18.68</b>	10/5/2016
Group 2 Asgrow 2535	0.322	14.48	573.54	9.40	<b>29.16</b>	10/5/2016
Group 3 Asgrow 3533	0.322	11.93	622.71	10.38	<b>32.23</b>	10/14/2016
Group 4 Asgrow 4433	0.116	16.35	321.92	5.159	<b>44.66</b>	10/14/2016
Group 5 Asgrow 5535						
(not harvested)						



## VARIOUS TRIALS AT JOLIET JUNIOR COLLEGE IN 2016

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### 16x16 Corn/Soybean Plot with Results from the Corn

The plot was planted on April 12 with 34,500 seeds/acre. The corn was planted in the areas where there had been soybeans the previous year and received 80# of nitrogen pre-plant, 40# of nitrogen with the planted and an additional 80# of nitrogen as side-dress the first week of June. An additional 35-80-80 was applied in fall 2015 as well. The land was chisel-plowed in fall 2015 after an application of leaves (15 tons/acre). No pre-plant herbicides were applied, but it received applications of Roundup post, applied in June. The land was field cultivated prior to planting. This test was performed to see if there was any difference in “sun competition” in the final yield. The north four rows did suffer from reduced sunlight, while the south rows in the plot were improved from receiving more sun.

#### Results:

16 x 16 Corn Plot	Area	Average	Weight	Volume	Yield	Harvest Date
		Moisture	(Wet)	(Dry)	(Dry)	10/17/2016
	Acres	%	lb	bu	bu/ac	
South 4 rows	0.831	18.32	11,697	200.70	241.61	
Middle 8 rows	0.410	18.14	5,756.6	99.00	241.58	
North 4 rows	0.595	18.55	7,139.2	122.16	205.47	
Whole plot average	2.457	18.17	33,410	574.54	233.82	
		Average			Average	
		Moisture			Yield	

# VARIOUS TRIALS AT JOLIET JUNIOR COLLEGE IN 2016 (CONTINUED)

## 16x16 Corn/Soybean Plot with Results from the Soybeans

The plot was planted on April 26 with 140,000 seeds/acre. The soybeans were planted in the areas where there had been corn the previous year. The land was chisel-plowed in fall 2015 after an application of leaves (15 tons/acre). No preplant weed control was applied, with only one application of Roundup during the first week of June. An additional 35-80-80 was applied in fall 2014 as well. The land was field cultivated prior to planting. This test was performed to see if there was any difference in "sun competition" in the final yield. Simplex Seed donated Variety 1329 CTB and Northrup King supplied S28-D3. The plot did have a number of weed escapes that were hand-hoed out of the plot several times throughout the growing season.

16 x 16 Soybean Results	Area	Average	Weight	Volume	Yield	Harvest Date
		Moisture	(Wet)	(Dry)	(Dry)	10/10/2016
	Acres	%	lb	bu	bu/ac	
Headlands Simplex GT	1.044	13.59	3,817.4	63.19	60.53	
N end edge Simplex 3138 B	0.394	11.24	1,138.1	18.97	48.09	
N end Middle Simplex 3138	0.104	11.88	271.51	4.53	43.35	
South NK S28-D3 center	0.743	11.01	2,709.90	45.17	60.76	
South NK S28-D3 edge	0.201	10.97	783.81	13.06	65.09	
Strip 1 Simplex 3138 B	0.313	10.76	863.06	14.38	45.98	
Strip 1 center rows	0.104	10.59	233.98	3.90	37.33	
Strip 2 Simplex 3138 B	0.312	11.00	984.81	16.41	52.60	
Strip 2 center rows	0.104	10.21	287.57	4.79	46.29	
Strip 3 Simplex 3138 B	0.312	10.70	945.22	15.75	50.44	
Strip 3 center rows	0.104	10.65	330.83	5.51	53.27	
Strip 4 Simplex 3138 B	0.312	10.78	936.26	15.60	50.09	
Strip 4 center rows	0.104	10.83	280.80	4.68	44.96	
Strip 5 Simplex 3138 B	0.300	10.53	847.65	14.13	47.04	
Strip 5 center rows	0.102	11.49	290.19	4.84	47.56	
		11.08			50.22	
		Average			Average	
		Moisture			Yield	



## NITROGEN RATE STUDY

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A plot examining nitrogen rates applied to corn to judge response and look for an optimum usage rate was also included in this year's study. The hybrid used in this study provided by Channel Seed was 208-49STXRIB, planted at the rate of 34,500 per acre. The base rate applied with the herbicides at planting was 100# per acre. At the time of side-dress, various rates were applied in 25# per acre increments. With this year's growing conditions, the lower rate of 125# per acre yielded just as well as the higher more common nitrogen rates.

The following chart lists the results:

Nitrogen Rate Plot Entries	Area	Average	Weight	Volume	Yield	Harvest Date
		Moisture	(Wet)	(Dry)	(Dry)	9/29/2016
	Acres	%	lb	bu	bu/ac	
100 #/ ac base rate	0.742	17.13	7,853.50	136.81	184.36	
125# N	0.304	18.65	4,147.70	70.89	232.87	
150# N	0.273	19.03	3,598.93	61.50	224.95	
175# N	0.255	18.39	3,416.90	58.07	231.70	
200# N	0.203	18.60	2,632.30	45.01	222.16	
225# N	0.148	18.53	1,773.90	30.36	205.42	
		18.39			216.91	
Additional N applied		Average			Average	
at side-dress		Moisture			Yield	



## ALFALFA PLOT PROVIDED BY DAIRYLAND SEED

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For many years, JJC has conducted alfalfa research. The current plot had been in alfalfa since 2009. With the age of the stand, it was decided to discontinue this plot location and re-establish with a new seeding in spring 2017. Fertilization and chisel-plowing was completed fall 2016.



# WEITENDORF AGRICULTURAL EDUCATION CENTER 10<sup>TH</sup> ANNIVERSARY

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After opening its doors for the first time in June 2007, the Weitendorf Agricultural Education Center will celebrate its 10-year anniversary this spring. Throughout the years, the center has had its fair share of memories: from the intrigued faces of agriculture students after learning to care for piglets, to the laughs of local children and community members during 4-H competitions. But more importantly, students and alumni have gained personal, specialized experiences at the Weitendorf Center that have led them to be successful in their careers today.

As a 30,500 square foot facility with more than 30 acres of farmland on its property, the Weitendorf Center provides hands-on learning opportunities to students studying agriculture, horticulture, veterinary medical technology, and students taking continuing education and career training classes. The building is also a meeting ground for countless community organizations, such as the Will County Beekeepers Association, local police departments, community dog obedience classes, and more.

“Over the past ten years, the Weitendorf Center has been a wonderful facility for our students and our community members to step outside the box a little bit, and take advantage of the large space,” said Mary Cwikla, coordinator of Weitendorf Center. “It’s definitely worth it for them to get the hands-on experience that the Weitendorf Center offers.”

The center was named after John H. Weitendorf, Sr., a 1942 JJC alum who donated \$2.2 million and the 32-acre site to build the facility. Weitendorf, Sr. was awarded the JJC Distinguished Alumni Achievement Award for his generosity in 2003. In 2010, his son, John H. Weitendorf, Jr., traveled to Washington, D.C. to receive the national Community College Benefactors Award from the Council for Resource Development (CRD) on behalf of the Weitendorf family. Weitendorf, Sr., who worked in Joliet as a realtor for most of his life, passed away in September 2011.

“My father was very supportive of JJC and since we’ve had farmers in our family, he loved the local agricultural community,” said Weitendorf, Jr. “I think because he went to school at JJC, and because of the strength of the JJC Foundation – he was a member for more than 20 years – he was honored to make the donation. He was also very impressed with JJC’s ag program, and was acquainted with many students as well as professors Bill Johnson and Brad Angus. It was after meeting with them, that the vision of the building really started to take shape. He would be happy that the building continues to be used today to not only help enrich students’ lives, but also the community.”

In honor of the Weitendorf Center’s 10-year anniversary, the community is invited to a celebratory event and pig roast on March 4, 2017.

For more information about the Weitendorf Center and its upcoming celebration, please visit [\*\*www.jjc.edu/weitendorf\*\*](http://www.jjc.edu/weitendorf).

# WEITENDORF

AGRICULTURAL EDUCATION CENTER

*Save the Date!*

**SATURDAY MARCH 4, 2017 at 5:30 P.M.**

*10th Anniversary Celebration*

**PIG ROAST**  
*with the live band*  
**HILLBILLY ROCKSTARZ**

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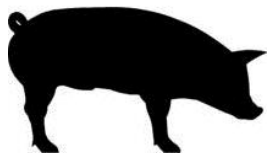
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10<sup>TH</sup> ANNIVERSARY EVENT

## WEITENDORF AGRICULTURAL EDUCATION CENTER

<b>RAINMAKER</b> <b>\$10,000</b> <b>SOLD</b> <i>Weitendorf Enterprises, Inc.</i>	<b>CULTIVATOR</b> <b>\$1,000</b> <ul style="list-style-type: none"><li>• 4 tickets to attend the 10<sup>th</sup> anniversary event.</li><li>• Logo/name in event program.</li><li>• Recognition in the <i>Connections</i> Magazine, JJC Foundation website, and <i>eConnections</i> newsletter.</li></ul>
<b>BARNRAISER</b> <b>\$5,000</b> <ul style="list-style-type: none"><li>• 8 tickets to attend the 10<sup>th</sup> anniversary event.</li><li>• Logo and special message opportunity on video projection at event.</li><li>• Logo/name in event program.</li><li>• Recognition in the <i>Connections</i> Magazine, JJC Foundation website, and <i>eConnections</i> newsletter.</li></ul>	<b>SEED SOWER</b> <b>\$500</b> <ul style="list-style-type: none"><li>• 2 tickets to attend the 10<sup>th</sup> anniversary event.</li><li>• Logo/name in event program</li><li>• Recognition in the <i>Connections</i> Magazine, JJC Foundation website, and <i>eConnections</i> newsletter.</li></ul>
<b>HARVESTER</b> <b>\$2,500</b> <ul style="list-style-type: none"><li>• 6 tickets to attend the 10<sup>th</sup> anniversary event.</li><li>• Logo on video projection at event.</li><li>• Logo/name in event program.</li><li>• Recognition in the <i>Connections</i> Magazine, JJC Foundation website, and <i>eConnections</i> newsletter.</li></ul>	<b>GROWER</b> <b>\$250</b> <ul style="list-style-type: none"><li>• Logo/name in event program.</li><li>• Recognition in the <i>Connections</i> Magazine, JJC Foundation website, and <i>eConnections</i> newsletter.</li></ul>

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**FIRST GRADUATING CLASS OF AGRICULTURE PROGRAM – 50<sup>TH</sup> ANNIVERSARY**

The JJC Agriculture Class of 1966 held its 50th class reunion on Aug. 27, 2016 at Merichka's Restaurant near Joliet. They are the first graduating class of the state's first agriculture program, which started at JJC in 1964.





# SUMMARY CROP YEAR: 2016

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## J.F. Richards Lad Lab

As the new Land Laboratories Manager, I want to thank the former manager, Steve Brockman, for his expertise in planting and caring for the plots during the first part of the growing season. I also wish Steve an enjoyable, well-deserved retirement.

As a graduate of the JJC ag program, it's an honor to contribute to the learning experiences of the students through our demonstration and research plots. Having this on-campus lab provides a unique opportunity for students and it contributes to their educational progress. Over the years in this business, I have met and worked with many JJC ag graduates. As a community college, I consider JJC's ag program to be the best in the state because students are well-prepared for their future careers once they graduate.

JJC's land lab gives ag students high quality, hands-on experience, which complements and supports what they are learning in the classroom. My thanks to the ag staff, especially Jeff Landers, Tammy Miller and Patrick Kelly for their efforts in accomplishing this.

One of the most interesting studies of the year (besides current experiments in progress) was the weekly corn planting that started on July 8 and continued for seven weeks. This allowed the fall semester students to stage the corn and examine development throughout the growth stages of the corn plant. This small plot has been a great example of the teaching tools in the land lab.

Thank you to all the cooperators who contribute seed, crop protection products, time and expertise to make our demonstration and research plots at the college possible. As we make our plans and prepare for next year, I want to continue to build our relationships by developing quality, unbiased third party research data for the students and our farming community.

The 2016 corn hybrid plot yielded from a high of 275.6 bu/ac to a low of 177.04 bu/ac. This area of the farm had little effect from the deer. The farm average was a respectable 182.9 bu/ac, despite significant deer and water damage in other areas of the farm. This year there was more than 23 inches of rain during the growing season and more than 35 inches of total moisture for the entire year. We had a total of eight days at or above 90 degrees in addition to the plentiful moisture. Without a planned split-applied nitrogen management program, I am sure that we would have suffered from nitrogen loss and yield reductions.

The soybean yields went from about 60 bu/ac to a low of zero. The soybean variety plot was most affected by deer damage and we were not able to harvest about half of the entries for yield comparison. There were a total of five groups of soybeans planted for maturity group demonstration purposes and we were able to harvest four out of the five maturity groups.

Glyphosate resistant weeds, in particular Waterhemp and Marestalk, showed up in the summer of 2016 in the continuous soybean plot. This year, a combination of Authority XL/Roundup/2,4-D prior to planting was applied on all the soybean acres. I cultivated the continuous soybean plot for weed escapes. This plot has the highest weed pressure. This three-way program still would not have been enough had it not been for hand-weeding the plot (Thanks Sergio).

I want to thank Emerson Nafziger, University of Illinois, Russ Higgins, University of Illinois and Matt Boucher of Potential Ag, who all made this year's annual Fall Field Day successful by giving individual talks. We had a lot of positive feedback about all of the speakers. Also, I want to thank the JJC culinary team for preparing a wonderful meal after the tour ended. Thank you to Friestad Farms for supplying two large hay racks to assist in farm transportation to the demonstration sites. Brian Overall of Midwest Tractor and Plow provided the perfectly restored tractors, a Farmall H and a John Deere 4440 to pull the racks. We had more than 140 students, staff and area farmers attend this event on a day that started with rain, but the sky cleared up just in time for loading up the hayracks for the tour.

As 2016 comes to a close, we look forward to the 2017 crop year. I will try and meet the expectations of the college, the students and the farming community as a whole in providing unbiased results with the many different experiments going on at JJC for the crop year 2017.

Thank you again to all the students, the ag staff for all of their input throughout the year, and all the contributors that have been so kind to make 2016 another success for JJC.

— Doug Larson, '74  
JJC Land Laboratories Manager

# ANNUAL PLOT FIELD DAY 2016

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# LAND LABORATORY CLASSES 2016

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Printed by JJC Print Services Center, J-1009 PrintServices@jjc.edu 815-280-2679