



MINNESOTA STATE

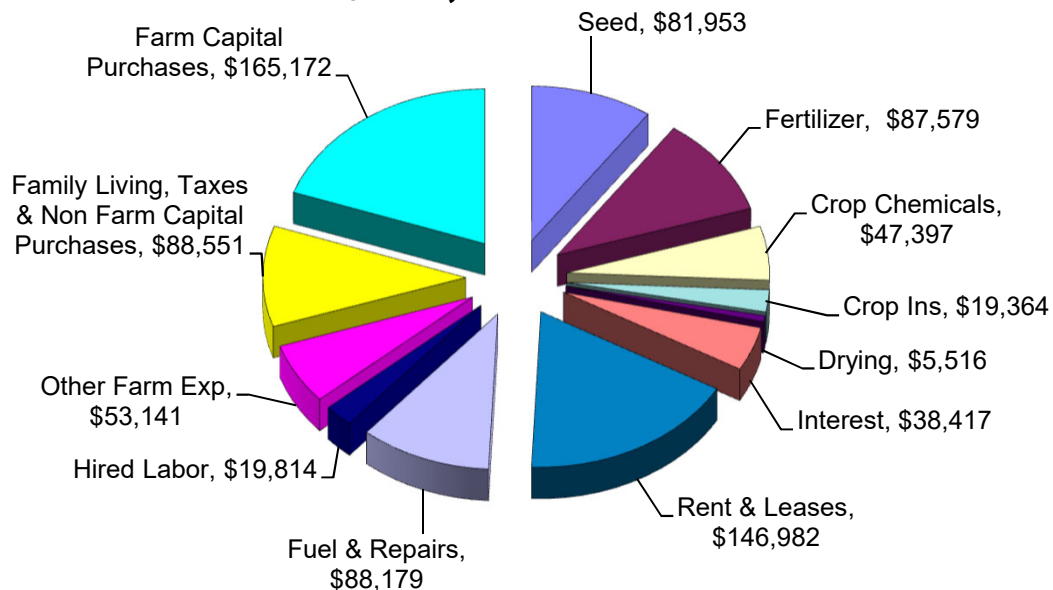
Farm Business Management Program Data

Crop Farm Sort - 2020

*Financial Summary by Gross Farm Income & Crop Acres
Corn & Soybean Enterprise Data
Environmental Practices & Tillage Data*

April, 2021

Average Dollars Spent by a Crop Farm totals \$842,065 in 2020



In cooperation with the Center for Farm Financial Management University of Minnesota
Compiled by Aaron Brudelic

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Farm Business Management Website: agcentric.org or centerofagriculture.org

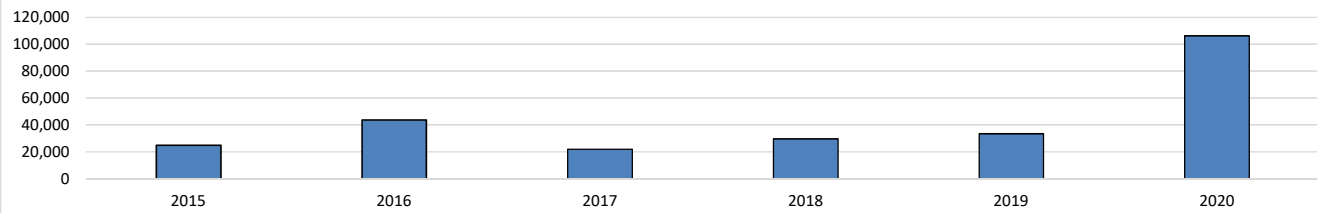
Brief Overview of 2020 Financial Summary

Minnesota State - Farm Business Management

This special sort report for crops provides summary financial information from 1223 crop producers in the Minnesota State Farm Business Management (FBM) Database, which is a little over half of the 2246 total producers in the state FBM database. Selected data also includes 1257 rented corn enterprises and 1168 rented soybean enterprises on rented land. Of the acres for corn and soybeans in FBM database over 75% of them are rented.

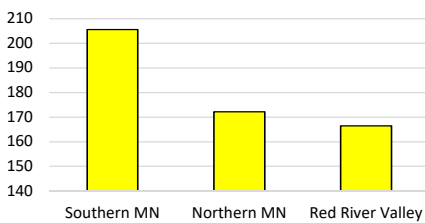
Based on the graphic on the cover, the average crop farm in Minnesota spent \$842,065 in their greater communities in 2020. At this level over a 40 year farming career each farmer would spend \$33,682,600. Collectively in 2020, the farms in this report spent \$1,029,845,495 operating their businesses. The majority of this money is spent locally, including businesses and cooperatives; demonstrating the vital importance of farming on the economy of Minnesota.

Crop Farm Median Net Farm Income

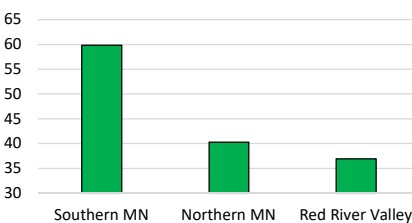


The median net farm income for crop producers the last five years was: \$106,211 (2020), \$33,352 (2019), \$29,712 (2018), \$21,920 (2017), \$43,705 (2016), \$24,294 (2015). Net farm income is the amount of profit made from the operation that must pay for family living expenses, taxes and debt payments. This years higher net farm income is coming off of five years of historically low levels.

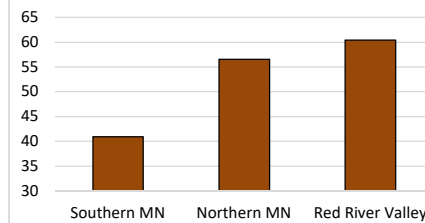
Corn Yield



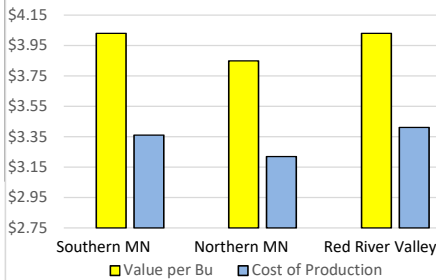
Soybean Yield



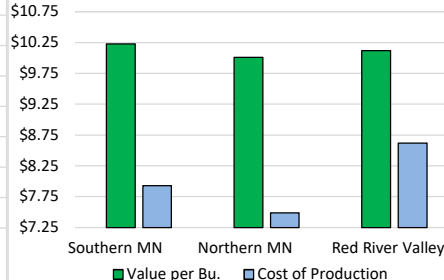
Spring Wheat Yield



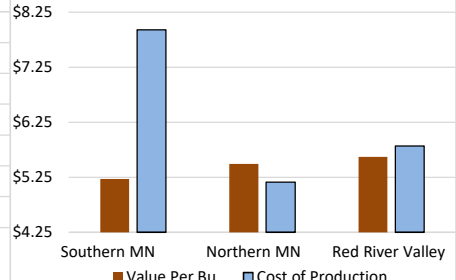
Corn



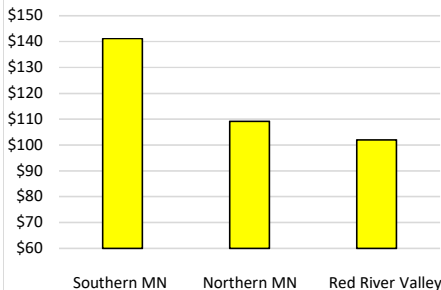
Soybeans



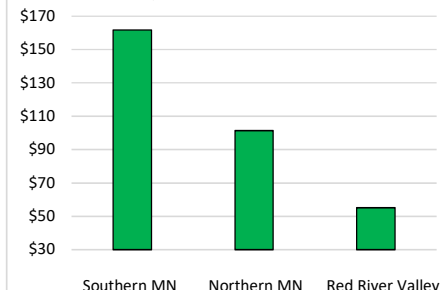
Spring Wheat



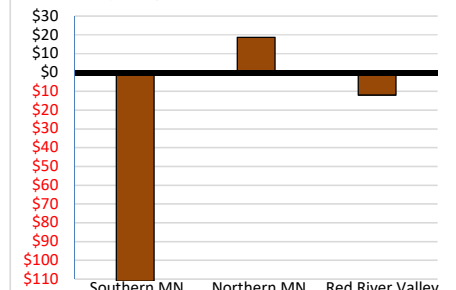
Corn Net Return



Soybean Net Return

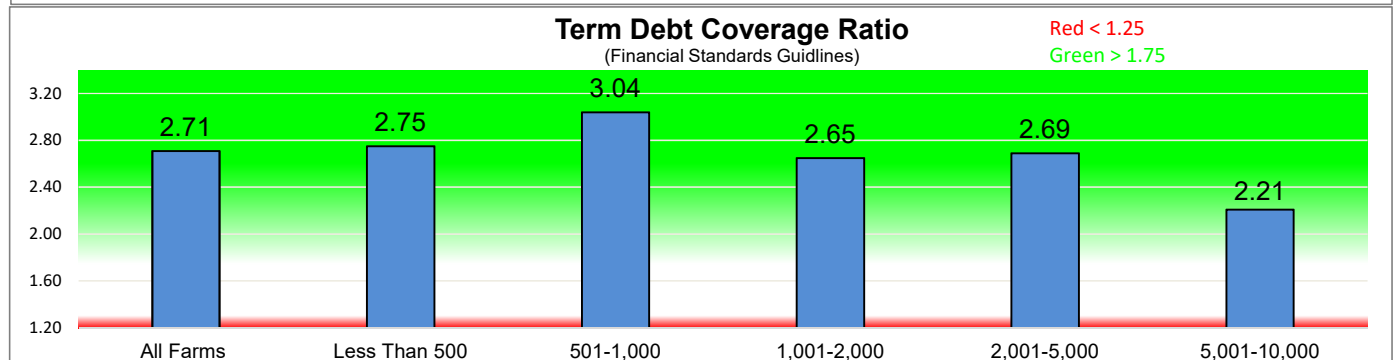
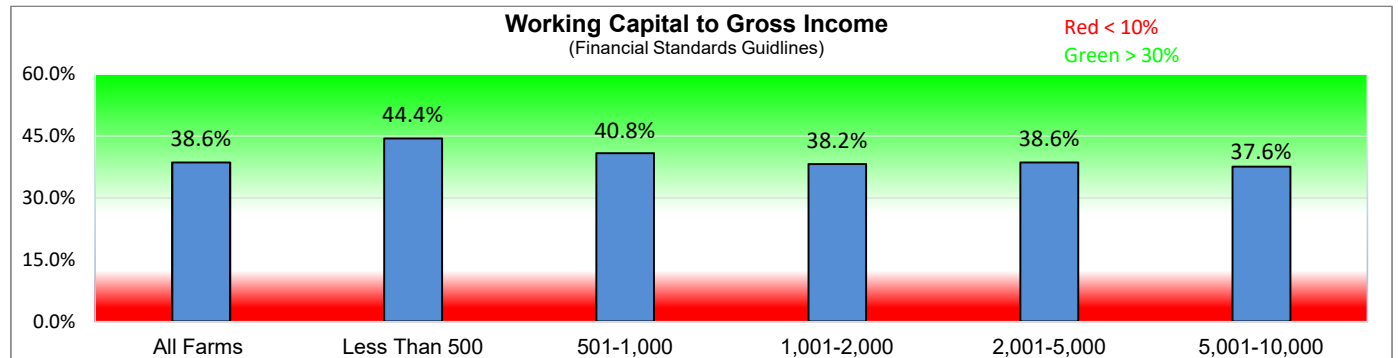


Spring Wheat Net Return



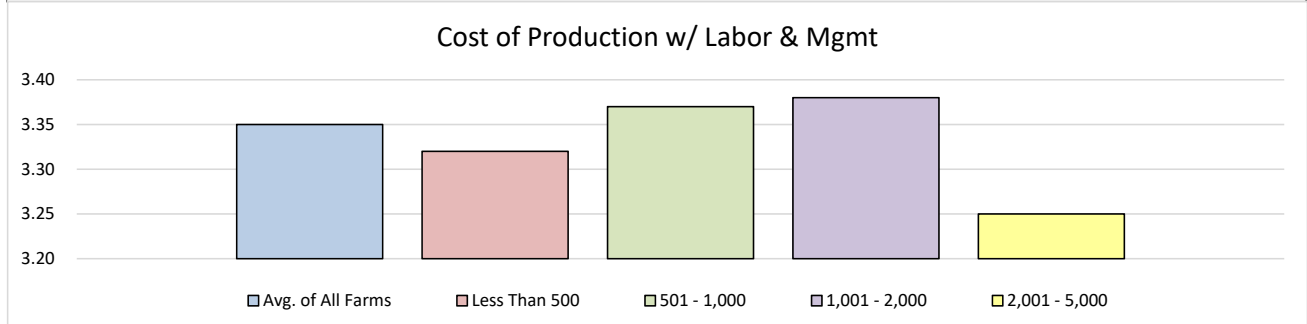
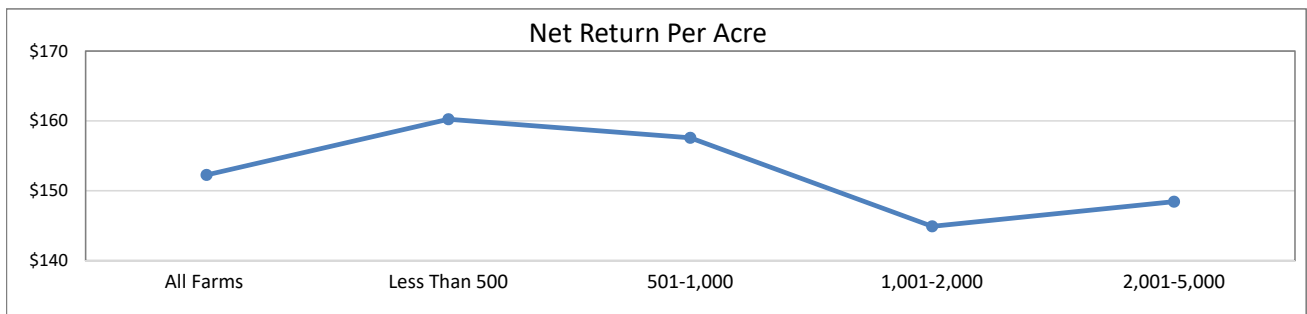
Financial Summary
(Farms Sorted By Total Crop Acres)
Minnesota State - Farm Business Management

	Avg. Of All Farms	Less Than 500	501 - 1,000	1,001 - 2,000	2,001 - 5,000	5,001 - 10,000
Number of farms	1223	469	319	277	140	15
Income Statement						
Gross cash farm income	711,326	198,917	508,968	965,344	1,858,032	3,891,466
Total cash farm expense	588,342	162,385	419,721	792,006	1,546,155	3,332,643
Net cash farm income	122,984	36,532	92,247	173,338	311,877	558,823
Average net farm income	159,023	50,961	128,785	221,044	411,885	604,101
Median net farm income	106,211	38,717	125,386	187,628	381,621	623,596
Profitability (cost)						
Rate of return on assets	6.8%	5.4%	7.0%	7.3%	7.3%	5.9%
Rate of return on equity	9.2%	6.9%	9.2%	10.0%	10.0%	7.7%
Operating profit margin	18.5%	18.6%	19.8%	19.5%	18.5%	14.2%
Asset turnover rate	37.0%	28.9%	35.5%	37.5%	39.4%	41.5%
Liquidity & Repayment						
Current ratio	1.85	2.06	1.94	1.84	1.83	1.80
Working capital	298,686	96,829	232,502	401,273	781,099	1,455,945
Working capital to gross income	38.6%	44.4%	40.8%	38.2%	38.6%	37.6%
Term debt coverage ratio	2.71	2.75	3.04	2.65	2.69	2.21
Replacement coverage ratio	1.89	1.99	2.02	1.86	1.85	1.73
Term debt to EBITDA	2.27	3.30	2.25	2.18	1.93	2.21
Solvency						
Total assets	3,196,454	1,367,744	2,657,506	4,262,728	6,994,190	12,971,735
Total liabilities	1,323,375	536,014	1,000,646	1,805,646	3,056,718	5,520,629
Net worth	1,873,079	831,729	1,656,864	2,457,082	3,937,472	7,451,106
Farm debt to asset ratio	45%	45%	41%	45%	46%	44%
Nonfarm Information						
Net nonfarm income	52,265	62,763	55,688	46,211	26,126	18,208
Farms reporting living expenses	230	89	62	56	23	-
Total family living expense	62,902	51,203	58,843	77,371	83,889	-
Total living, invest, cap. purch	95,750	77,772	9,356	106,660	130,599	-



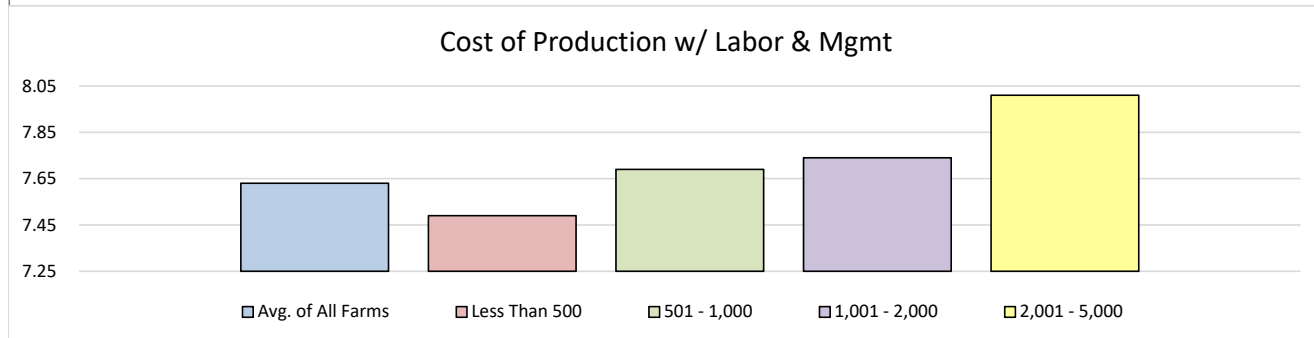
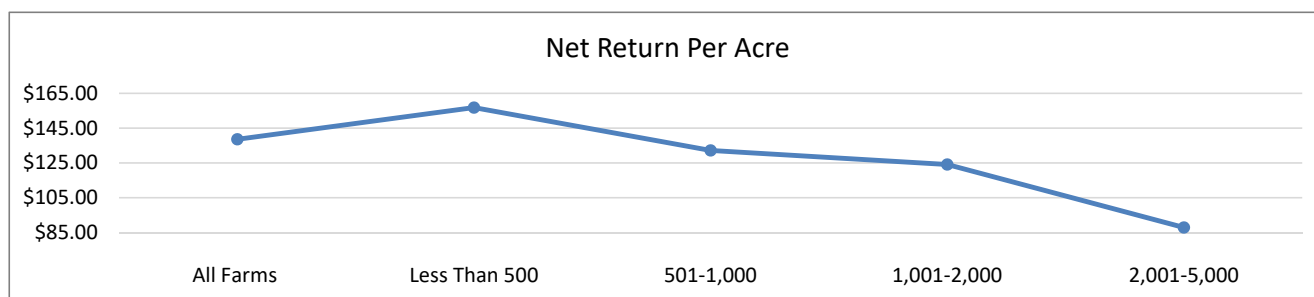
**Crop Enterprise Analysis for Corn on Rented Acres
(Farms Sorted By Total Crop Enterprise Acres)
Farm Business Management Database**

	Avg. of All Farms	Less Than 500	501 - 1,000	1,001 - 2,000	2,001 - 5,000
Number of farms	1257	1012	176	58	8
Yield per acre (bu.)	198.62	185.15	201.54	205.93	207.76
Value Per Bushel	4.03	4.00	4.07	4.02	4.03
Gross return per acre	859.81	839.57	877.00	877.95	896.62
Seed	103.58	103.11	104.81	106.26	100.10
Fertilizer	125.84	121.96	126.08	129.99	127.52
Crop chemicals	35.39	35.13	36.10	34.51	30.11
Crop insurance	21.23	19.36	21.09	23.41	24.46
Drying expense	11.60	11.07	11.09	13.76	16.12
Storage	2.02	1.63	1.90	1.53	1.75
Fuel & oil	21.16	20.89	22.43	20.28	20.11
Repairs	47.79	48.15	50.34	46.66	49.82
Custom hire	13.90	17.79	11.21	9.92	5.71
Hired labor	3.78	2.01	2.77	6.70	12.68
Land rent	197.27	179.53	201.39	211.56	239.10
Machinery leases	5.07	3.67	5.50	6.44	1.49
Utilities	1.29	1.21	1.20	1.27	3.75
Hauling and trucking	1.79	1.96	1.36	2.96	-
Marketing	1.77	1.72	1.62	2.43	2.09
Operating interest	13.72	11.70	15.27	13.87	13.27
Miscellaneous	2.70	2.77	3.24	2.80	2.79
Total direct expenses per acre	610.39	584.40	617.43	634.35	650.85
Return over direct exp per acre	249.42	255.17	259.57	243.60	245.77
Total overhead expenses per acre	97.15	94.93	101.99	98.69	97.33
Total dir&ovhd expenses per acre	707.55	679.33	719.42	733.04	748.18
Net return per acre	152.27	160.24	157.58	144.91	148.44
Cost of Production					
Total direct expense per bu.	3.07	2.98	3.06	3.08	3.13
Total dir & ovhd exp per bu.	3.56	3.47	3.57	3.56	3.60
Less govt & other income	3.10	3.02	3.13	3.18	3.15
With labor & management	3.35	3.32	3.37	3.38	3.25
Net value per unit	4.01	3.99	4.06	4.01	4.03
Machinery cost per acre	135.92	139.33	140.81	131.52	121.56



**Crop Enterprise Analysis for Soybeans on Rented Acres
(Farms Sorted By Total Crop Enterprise Acres)
Minnesota State - Farm Business Management**

	Avg. of All Farms	Less Than 500	501 - 1,000	1,001 - 2,000	2,001 - 5,000
Number of farms	1168	934	163	61	10
Yield per acre (bu.)	52.50	54.54	53.74	48.25	46.61
Value Per Bushel	10.19	10.19	10.16	10.26	10.01
Gross return per acre	583.98	603.50	591.96	554.18	512.17
Seed	53.52	53.81	53.72	51.89	55.48
Fertilizer	20.02	20.67	20.21	18.23	20.21
Crop chemicals	43.03	44.16	43.32	39.49	44.77
Crop insurance	18.39	18.45	19.17	18.80	13.78
Storage	0.86	0.75	-	0.42	4.44
Fuel & oil	13.21	12.60	13.85	13.63	13.50
Repairs	29.97	29.97	31.22	30.35	23.87
Custom hire	9.42	12.81	7.86	5.36	5.42
Hired labor	2.41	1.28	3.46	2.99	3.86
Land rent	175.89	175.98	183.20	170.43	162.06
Machinery leases	4.22	3.31	5.07	4.95	4.64
Utilities	0.69	0.75	0.75	0.72	-
Hauling and trucking	0.85	1.10	0.71	0.76	-
Marketing	1.22	1.32	1.45	0.94	-
Operating interest	8.12	7.54	8.71	8.05	9.77
Miscellaneous	2.26	2.30	3.41	1.65	1.77
Total direct expenses per acre	384.27	387.17	396.10	368.66	363.57
Return over direct exp per acre	199.71	216.33	195.85	185.52	148.59
Total overhead expenses per acre	61.13	59.52	63.67	61.42	60.70
Total dir & ovhd expenses per acre	445.41	446.69	459.77	430.08	424.27
Net return per acre	138.58	156.81	132.18	124.10	87.89
Cost of Production					
Total direct expense per bu.	7.32	7.10	7.37	7.64	7.80
Total dir & ovhd exp per bu.	8.48	8.19	8.55	8.91	9.10
Less govt & other income	7.02	6.82	7.16	7.15	7.59
With labor & management	7.63	7.49	7.69	7.74	8.01
Net value per unit	10.15	10.18	10.15	10.19	9.83
Machinery cost per acre	87.00	89.75	89.66	82.60	71.34



Environmental Practices Relating to Economic Viability

Minnesota State - Farm Business Management

Farms use a variety of practices to limit environmental impact while trying to maintain economic viability. Below is a sampling of these practices from the farms in the Minnesota State Farm Management Database.

Grown with Cover Crop: Cover crops reduce soil erosion and improve soil health

Variable Rate Fertilizer: Fertilizer applied by grids of the field to apply only where needed and minimize over application.

Variable Rate Seeding: Seed is sown at differing rates across fields to match soil types to minimize over population.

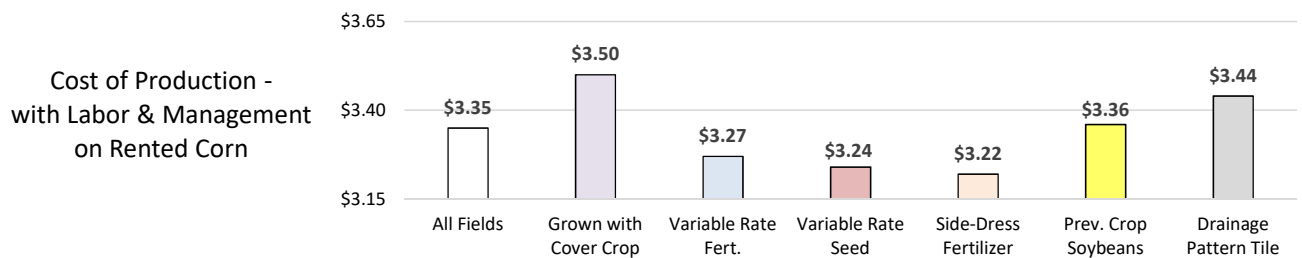
Side-Dress Fertilizer: Fertilizer applied multiple times during the growing season to better align application with crop nutrient needs. This limits unused fertilizer from contaminating the environment.

Crop Rotation: A traditional practice alternating crops planted in a field to minimize fertilizer needs and improve soil quality.

Drainage Tile: Traditional practice promoting plant health through improved water absorption, resulting in reduced water runoff and maximized nutrient usage.

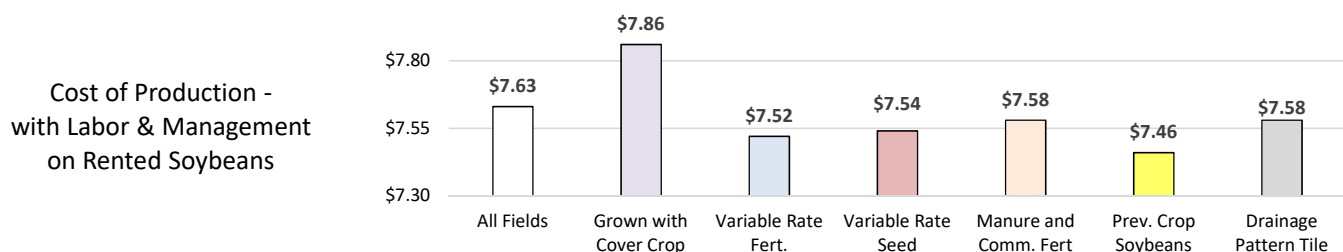
Corn Enterprise

Sort	All Fields	Grown with Cover Crop	Variable Rate Fert.	Variable Rate Seed	Side-Dress Fertilizer	Prev. Crop Soybeans	Drainage Pattern Tile
Number of Farms	1257	18	153	124	77	442	129
Yield	198.62	186.68	208.09	207.41	207.27	202.81	206.87
Seed	\$103.58	\$97.56	\$103.92	\$104.00	\$101.09	\$104.96	\$106.64
Fertilizer	\$125.84	\$135.42	\$128.70	\$126.66	\$128.04	\$128.81	\$128.32
Chemical	\$35.39	\$32.75	\$35.62	\$34.05	\$34.58	\$34.90	\$41.86
Fuel & Oil	\$21.16	\$15.22	\$21.30	\$21.98	\$20.44	\$21.94	\$20.60
Repairs	\$47.79	\$48.98	\$51.86	\$48.53	\$47.46	\$51.41	\$57.04
Rent	\$197.27	\$178.61	\$199.30	\$198.93	\$206.96	\$197.86	\$212.37
Interest	\$19.38	\$19.14	\$19.47	\$19.25	\$19.22	\$19.72	\$22.22
Mach and Bldg Depreciation	\$45.50	\$58.08	\$52.87	\$54.70	\$46.58	\$52.39	\$55.61
Net Return	\$152.27	\$109.08	\$174.24	\$160.60	\$197.37	\$176.46	\$144.83
Cost of Prod - w/ Labor & Mgt	\$3.35	\$3.50	\$3.27	\$3.24	\$3.22	\$3.36	\$3.44
Mach Cost/Ac	\$135.92	\$144.43	\$138.31	\$143.26	\$132.29	\$140.47	\$148.22



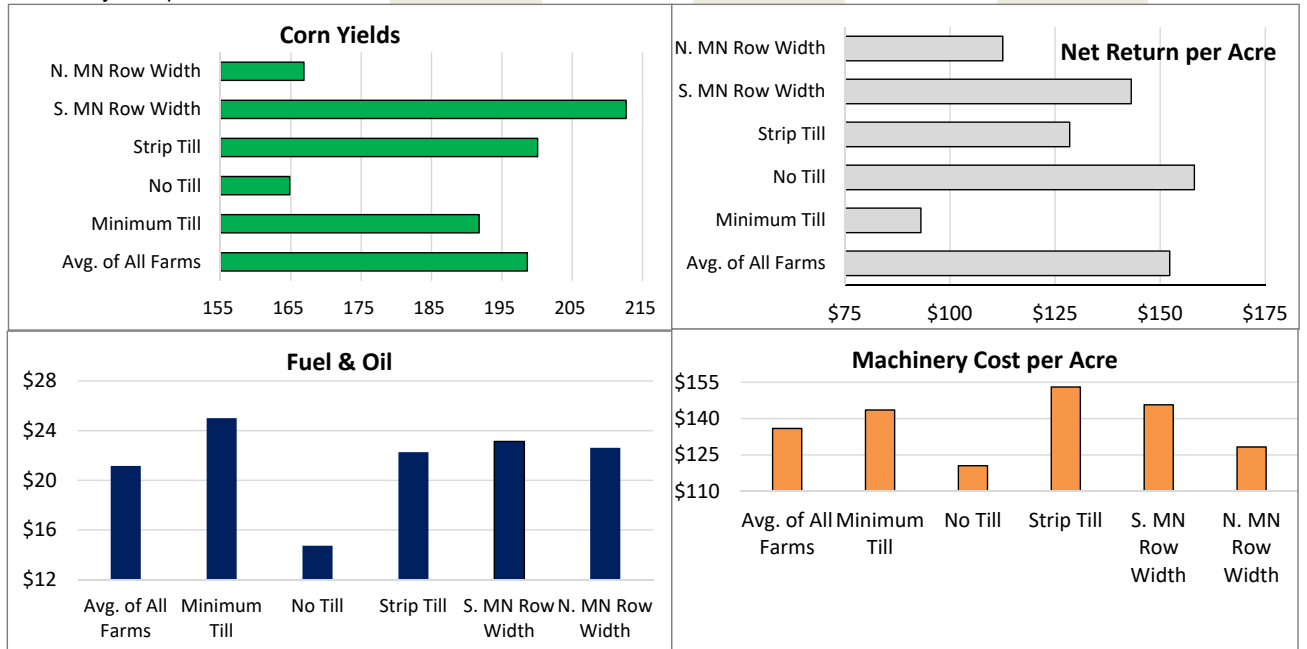
Soybean Enterprise

Sort	All Fields	Grown with Cover Crop	Variable Rate Fert.	Variable Rate Seed	Manure and Comm. Fert.	Prev. Crop Soybeans	Drainage Pattern Tile
Number of Farms	1168	13	86	74	213	91	105
Yield	52.50	51.33	56.85	56.07	58.93	53.32	60.60
Seed	\$53.52	\$51.18	\$52.42	\$52.08	\$51.86	\$52.99	\$53.16
Fertilizer	\$20.02	\$27.13	\$26.31	\$20.57	\$23.41	\$19.31	\$18.53
Chemical	\$43.03	\$36.85	\$46.66	\$44.69	\$47.34	\$44.10	\$51.21
Fuel & Oil	\$13.21	\$10.44	\$11.72	\$13.91	\$12.86	\$11.80	\$12.20
Repairs	\$29.97	\$36.39	\$29.83	\$28.91	\$31.25	\$27.11	\$33.18
Rent	\$175.89	\$177.61	\$193.55	\$185.58	\$200.62	\$179.38	\$212.40
Interest	\$11.97	\$12.66	\$12.07	\$16.56	\$11.91	\$10.01	\$12.96
Mach and Bldg Depreciation	\$27.91	\$27.42	\$29.76	\$29.93	\$30.30	\$27.17	\$35.03
Net Return	\$138.58	\$103.05	\$143.55	\$138.23	\$157.81	\$158.89	\$168.02
Cost of Prod - w/ Labor & Mgt	\$7.63	\$7.86	\$7.52	\$7.54	\$7.58	\$7.46	\$7.58
Mach Cost/Ac	\$87.00	\$83.34	\$84.48	\$91.23	\$92.25	\$77.93	\$95.22



**Environmental Practices - Tillage Alternatives
Corn on Rented Acres
Minnesota State - Farm Business Management**

	Avg. of All Farms	Minimum Till	No Till	Strip Till	Southern MN Row Width 19 - 25"	Northern MN Row Width 19 - 25"
Number of farms	1257	28	25	25	78	57
Yield per acre (bu.)	198.62	191.76	164.85	200.08	212.65	166.87
Value per bu.	4.03	3.97	4.21	4.04	3.96	3.98
Gross return per acre	859.81	809.58	760.29	866.19	908.29	714.57
Seed	103.58	102.12	92.90	106.40	107.96	87.32
Fertilizer	125.84	116.75	116.79	122.68	131.82	121.77
Crop chemicals	35.39	30.61	28.15	38.62	34.70	29.60
Crop insurance	21.23	21.97	15.42	18.13	25.07	24.53
Drying expense	11.60	12.03	9.91	13.55	14.26	9.96
Storage	2.02	1.34	1.91	1.57	2.71	1.29
Fuel & oil	21.16	25.01	14.73	22.27	23.13	22.62
Repairs	47.79	45.60	35.65	56.60	51.18	47.42
Custom hire	13.90	11.42	31.97	17.08	9.22	10.09
Hired labor	3.78	18.05	2.56	3.77	3.95	0.83
Land rent	197.27	201.22	148.46	193.01	224.19	123.68
Machinery leases	5.07	15.27	1.54	4.21	4.20	2.80
Utilities	1.29	4.68	2.09	1.97	-	0.60
Hauling and trucking	1.79	1.80	5.91	1.15	3.36	0.15
Marketing	1.77	1.69	0.35	1.80	1.49	2.60
Operating interest	13.72	8.67	15.63	15.32	12.82	15.77
Miscellaneous	2.70	3.70	1.87	4.87	2.92	4.13
Total direct expenses per acre	610.39	621.95	535.20	626.32	652.97	505.18
Return over direct exp per acre	249.42	187.63	225.09	239.87	255.32	209.38
Total overhead expenses per acre	97.15	94.54	66.95	111.39	112.20	96.82
Total dir & ovhd expenses per acre	707.55	716.48	602.15	737.71	765.17	602.00
Net return per acre	152.27	93.09	158.14	128.48	143.12	112.56
Cost of Production						
Total direct expense per bu.	3.07	3.24	3.25	3.13	3.07	3.03
Total dir & ovhd exp per bu.	3.56	3.74	3.65	3.69	3.60	3.61
Less govt & other income	3.10	3.34	3.06	3.18	3.14	3.14
With labor & management	3.35	3.59	3.40	3.45	3.34	3.45
Net value per unit	4.01	3.92	4.21	4.05	3.95	3.98
Machinery cost per acre	135.92	143.54	120.55	153.02	145.67	128.27



**Environmental Practices - Tillage Alternatives
Soybeans on Rented Acres
Minnesota State - Farm Business Management**

	Avg. of All Farms	Minimum Till	No Till	Strip Till	Southern MN Row Width 19 - 25"	Northern MN Row Width 19 - 25"
Number of farms	1168	33	46	11	67	58
Yield per acre (bu.)	52.50	52.80	49.30	53.51	60.05	36.60
Value per bu.	10.19	9.60	9.97	10.22	10.00	9.87
Gross return per acre	583.98	547.45	559.97	603.51	653.52	407.83
Seed	53.52	57.17	47.43	41.09	52.70	54.02
Fertilizer	20.02	30.18	22.42	24.68	19.17	13.01
Crop chemicals	43.03	44.56	38.32	45.33	48.38	33.63
Crop insurance	18.39	16.49	18.51	18.74	23.61	17.48
Storage	0.86	0.12	0.78	0.34	0.39	0.86
Fuel & oil	13.21	15.52	11.04	18.01	13.80	12.77
Repairs	29.97	29.20	24.63	47.11	31.92	26.32
Custom hire	9.42	6.76	20.29	10.87	8.77	2.91
Hired labor	2.41	9.72	0.74	-	5.29	0.52
Land rent	175.89	173.20	170.46	185.61	202.51	122.59
Machinery leases	4.22	8.92	2.59	0.83	4.22	3.14
Utilities	0.69	1.04	0.22	1.67	0.31	-
Hauling and trucking	0.85	2.31	0.30	0.77	2.47	0.29
Marketing	1.22	1.91	1.22	1.98	1.10	0.78
Operating interest	8.12	7.60	9.43	11.66	10.24	6.84
Miscellaneous	2.26	3.19	2.94	2.17	2.73	2.21
Total direct expenses per acre	384.27	408.19	375.87	410.99	427.62	297.37
Return over direct exp per acre	199.71	139.26	184.10	192.52	225.91	110.46
Total overhead expenses per acre	61.13	62.54	63.88	69.07	69.87	58.67
Total dir & ovhd expenses per acre	445.41	470.73	439.75	480.05	497.48	356.04
Net return per acre	138.58	76.72	120.22	123.45	156.04	51.79
Cost of Production						
Total direct expense per bu.	7.73	7.73	7.62	7.68	7.12	8.13
Total dir & ovhd exp per bu.	8.48	8.92	8.92	8.97	8.28	9.73
Less govt & other income	7.02	7.63	6.91	7.24	6.94	7.73
With labor & management	7.63	8.24	7.61	8.01	7.43	8.54
Net value per unit	10.15	9.58	9.98	10.31	9.99	9.88
Machinery cost per acre	87.00	92.02	91.92	109.43	93.50	75.04

