

Wisconsin FBPM Annual Financial Highlights 2021



Summary: In 2021, 135 farms completed a farm financial analysis through a Wisconsin Technical College-Farm Business and Production Management program. This is up from 2018, when only 82 were completed. In 2018 there were 15 full-time FBPM instructors at 6 Wisconsin Technical Colleges, as of July 2022 there are 8 full-time instructors at 5 Wisconsin Technical Colleges. This is due to retirements and job position changes, and colleges not replacing instructors. The news reports say there are less farms in the state each year, yet the farms that remain are around are more business focused than ever. There has been an increased demand from farms to complete a farm financial analysis to better understand their farm's financial position and aid them in business decisions. The data in this report is not survey data, but actual income, expense, and farm production numbers that are accrual adjusted for the 2021 fiscal year.

Farms that are served in this report vary in size, age, and type. Eighty-two percent of the farms are identified as Dairy or Crop farmers (70% of their revenue comes from a single source of income), leaving 18% as a beef, hog, poultry, custom operator or they have a combination of farm revenue sources and could not be singled out. Twenty-two percent of the farms represented in the report have been farming for less than 10 years.

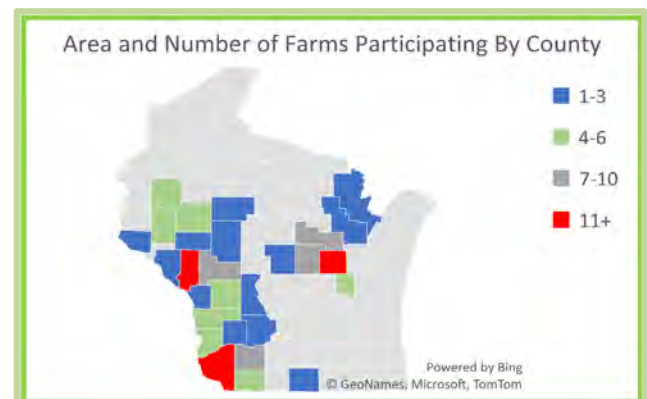
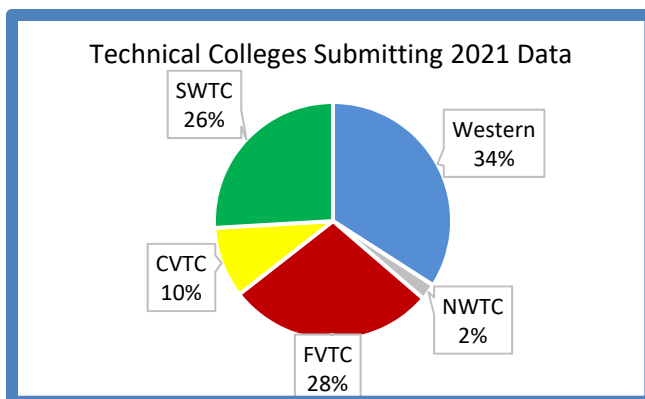
Environmental Report: This is the second year we have taken a whole farm look at farms that identified as implementing an environmental practice such as: no-till, strip-till, and/or planting cover crops. There were 41 farms implementing one or more of those practices, up from 30 in 2020. When looking at the whole farm report, the two common items in both years, is the environmental group had a slightly better owner equity position and a stronger current ratio verses the traditional group; meaning they carried less debt and they had more access to cash. This is only the second year this information has been tracked, so long term trends have yet to be identified.

This year was the first year we were able to run a "Cover Crop Analysis" report. This gave us an enterprise level look at the actual costs and outcomes that occurred when planting after a cover crop. Caution should be used when analyzing the numbers, as it is the first year of the report and there are a limited number of farms with a cover crop analysis.

The following pages are some highlights and charts from the 2021 data. The full financial report and benchmark numbers can be found at <https://wisconsinaged.org/waee/post-secondary-education/> or you can search and query the data at: <https://finbin.umn.edu>.

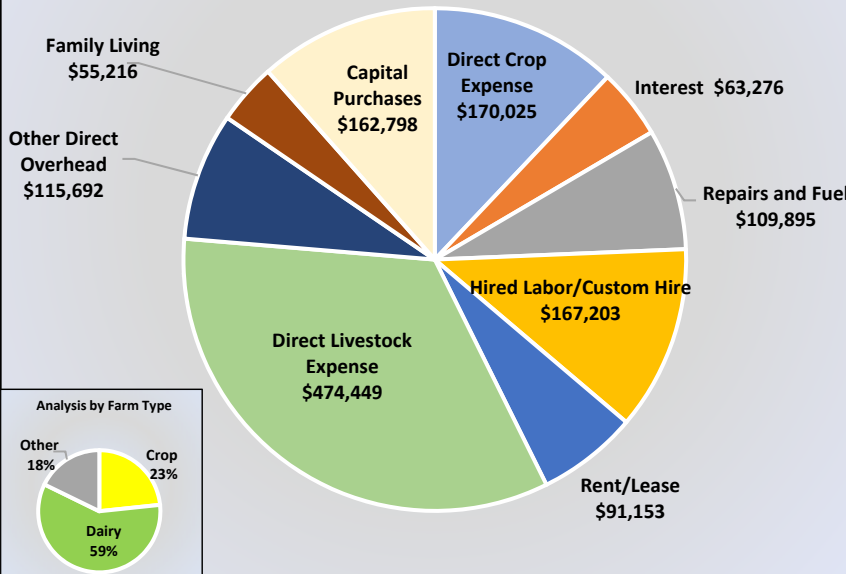
The Farm Business and Production Management program has been offered for more than 70 years, and offers one-on-one personalized farm business education. On average each instructor serves 60-70 farms each year, with not all farms completing a farm financial analysis. Our goal is to continue to increase the number of farms completing a farm analysis, as well as, grow the cover crop analysis and environmental reports; but this will be difficult if instructor positions continue to not be filled.

We believe farms that understand their farm financial position are better apt to make better business decisions and be more resilient.

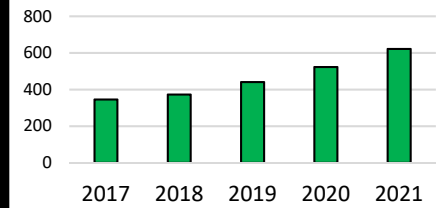


Average of 135 farms completing a farm financial analysis in 2021.

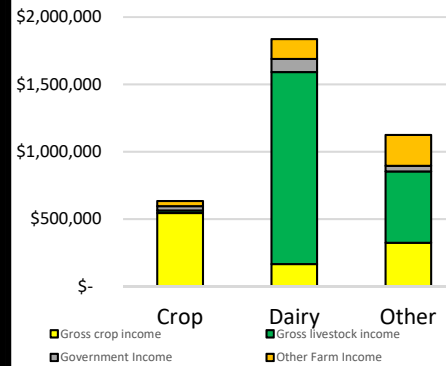
Average Money Spent By Each Farm in 2021
\$1,409,707



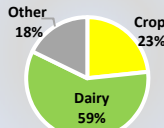
Average Crop Acres



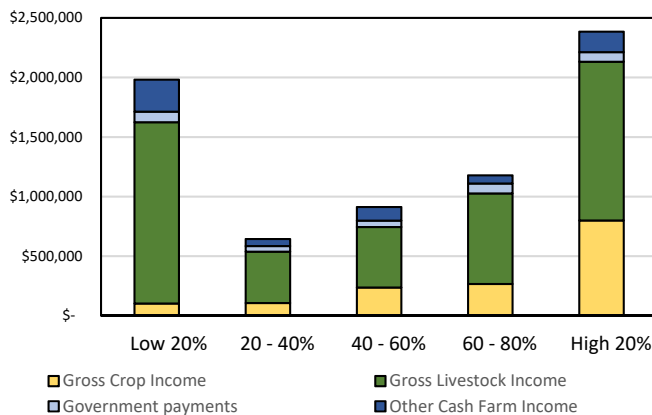
Income by Farm Type



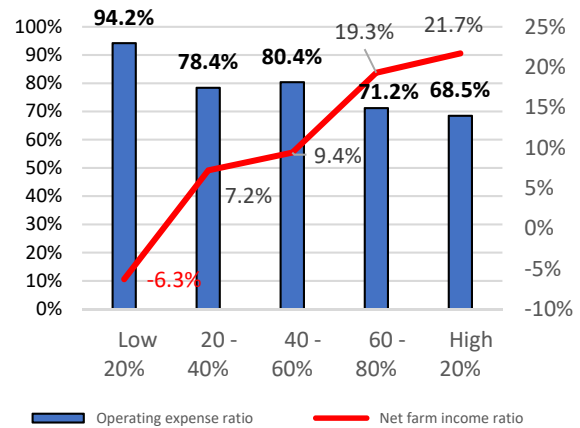
Analysis by Farm Type



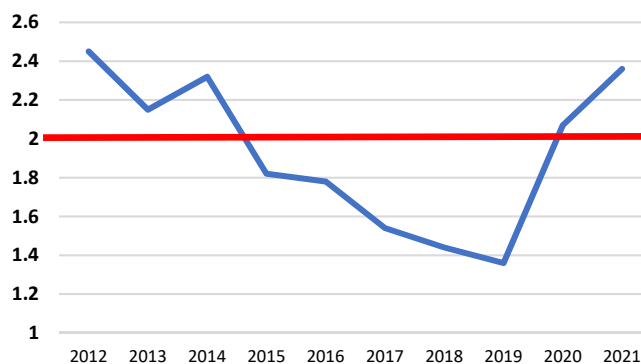
Gross Income by Profit Category



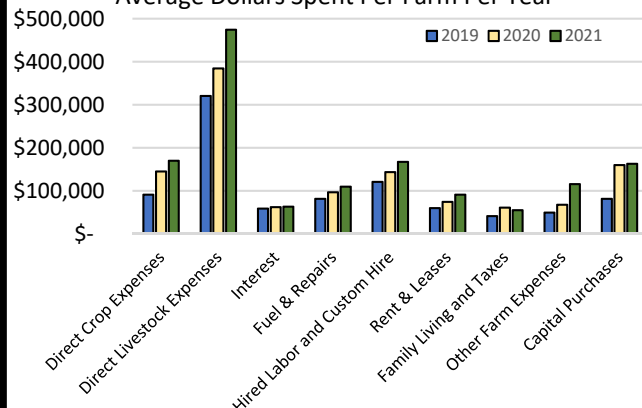
Operating Efficiency to Net Farm Income Ratio



Current ratio



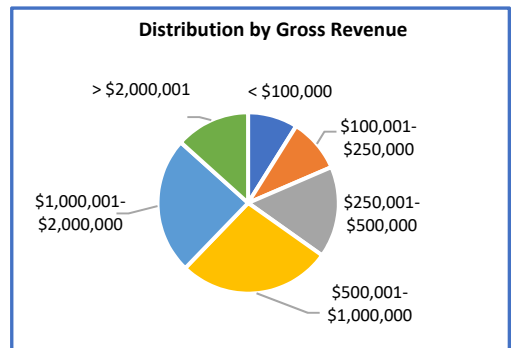
Average Dollars Spent Per Farm Per Year



Farms by Gross Revenue

	< \$100,000	\$100,001- \$250,000	\$250,001- \$500,000	\$500,001- \$1,000,000	\$1,000,001- \$2,000,000	> \$2,000,001
Number of farms	12	13	22	37	33	18
Total crop acres farmed	61	182	223	431	868	1,741
Total crop acres owned	33	76	111	156	214	779
*Approx. size of dairy		< 50 cows	< 100 cows	< 200 cows	< 375 cows	> 375 cows
Gross cash farm income	\$ 60,243	\$ 192,119	\$ 385,599	\$ 719,920	\$ 1,465,806	\$ 4,996,378
Net nonfarm income	\$ 37,058	\$ 32,510	\$ 9,162	\$ 16,122	\$ 13,327	\$ 4,311
Total Revenue	\$ 97,301	\$ 224,629	\$ 394,761	\$ 736,042	\$ 1,479,133	\$ 5,000,689
Operating and Interest Expense	\$ (72,392)	\$ (146,458)	\$ (279,491)	\$ (583,681)	\$ (1,158,161)	\$ (4,430,610)
Principal Payments	\$ (7,564)	\$ (29,398)	\$ (33,321)	\$ (55,612)	\$ (106,803)	\$ (305,572)
Amount left to pay family living or reinvest in the farm	\$ 17,345	\$ 48,773	\$ 81,949	\$ 96,749	\$ 214,169	\$ 264,507
Average number of farm owners	1	1.1	1.2	1.7	1.8	2.4
Average Farm Net worth	\$ 423,802	\$ 881,263	\$ 1,202,833	\$ 1,696,434	\$ 2,138,500	\$ 6,187,398

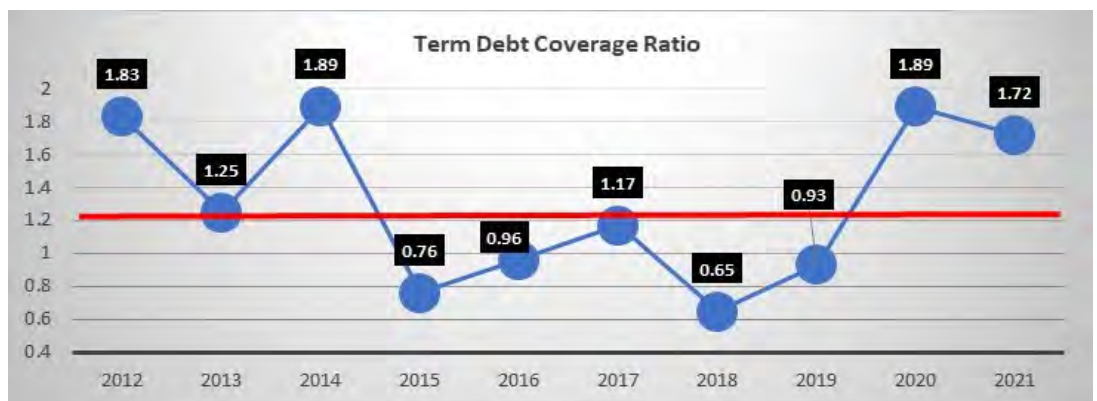
The farms in the Wisconsin database cover a wide range of farm sizes and types. This information shows the average farm size by gross revenue, farm operating and interest expense, debt payments, average net worth, and number of owners per farm. A single person or married couple are considered one owner. Over half of the farms in the database have a gross revenue between \$500,000 and \$2,000,000 and operate around 640 acres. Most farms with less than \$250,000 gross revenue would be considered part-time farmers and typically have off farm income to pay family living expenses.

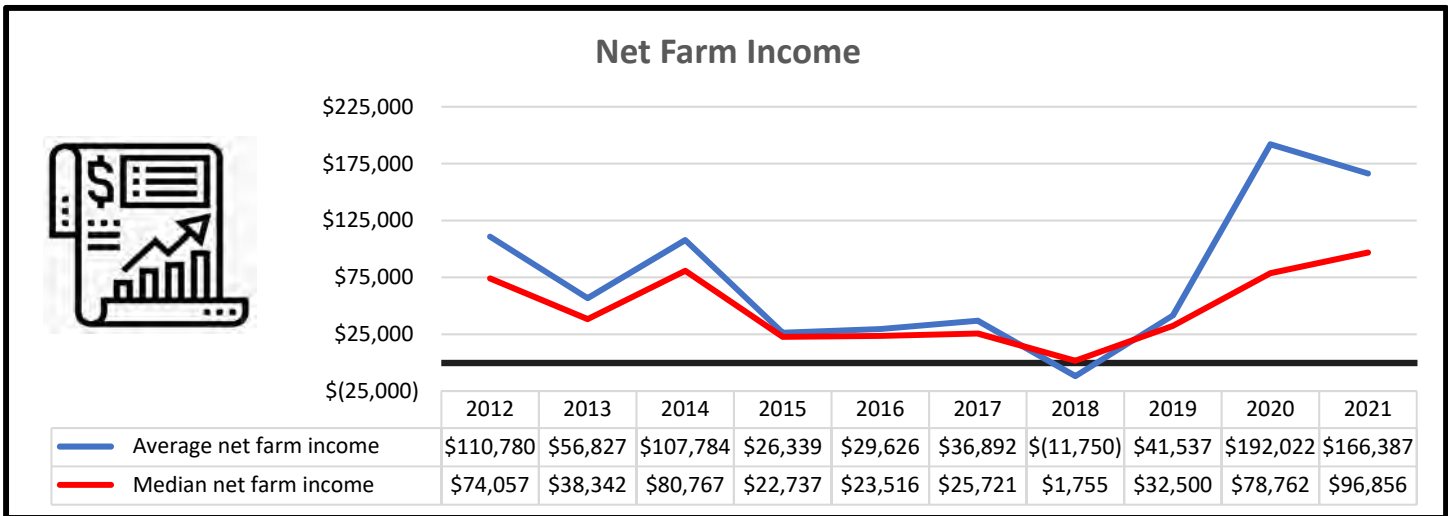


The past two years we have seen the average Rate of Return on Farm Assets and Rate of Return on Farm Equity return to favorable levels after five years of small returns.

Contributing factors to the positive returns: land values continue to increase, as well as, favorable yields and commodity prices.

Term Debt Coverage Ratio measures the ability of the farm to meet its scheduled debt payment. A ratio above 1.25 favored.





How Net Farm Income is used.

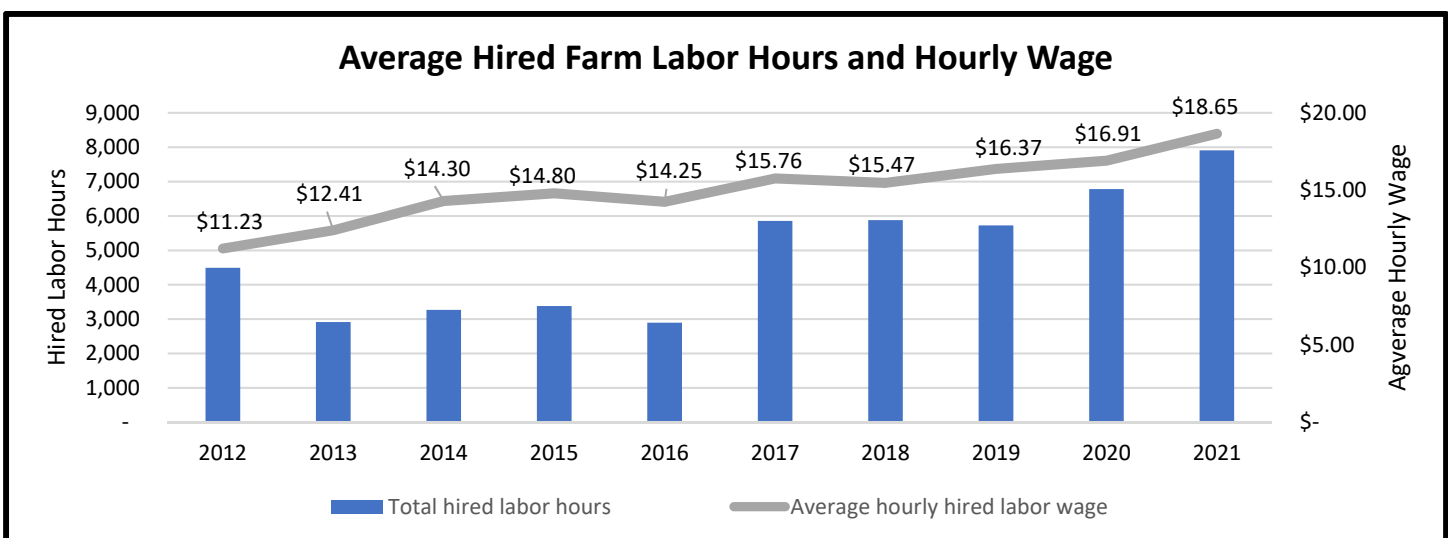
Net Farm Income is the profit from the farm. Those profits are used to make principle loan payments and pay family living. If the amount is negative, it indicates there is a need for other revenue sources. If no other revenue sources are available, most times the balance goes on an operating line of credit. If the balance after making term principle payments and family living is positive, the remaining amount is used to paydown operating lines of credit or other debt, reinvest, or save. In 2020 and 2021 there was a positive balance, and many were able to pay down past debt and build working capital.

	2016	2017	2018	2019	2020	2021
Net Farm Income	\$ 29,626	\$ 36,892	\$ (11,750)	\$ 41,537	\$ 192,022	\$ 166,387
Depreciation (plus)	\$ 48,827	\$ 72,954	\$ 78,403	\$ 76,841	\$ 71,927	\$ 89,374
Family Living (minus)	\$ (45,827)	\$ (49,130)	\$ (54,698)	\$ (49,157)	\$ (51,504)	\$ (55,261)
Scheduled Principle Payments (minus)	\$ (51,089)	\$ (61,102)	\$ (75,822)	\$ (98,011)	\$ (84,690)	\$ (91,025)

Balance	\$ (18,463)	\$ (386)	\$ (63,867)	\$ (28,790)	\$ 127,755	\$ 109,475
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Labor

Hired farm labor wages continue to raise as the farms compete with other businesses.



Overview of the 2021 WI FBPM Data

Financial Summary-Farms Sorted by Number of Years Farming

	10 or Less	11 - 20	21 - 30	31 - 40	Over 40	All Farms
Number of farms	30	17	32	27	29	135
Income Statement						
Gross cash farm income	\$ 429,031	\$ 806,660	\$ 2,231,741	\$ 799,341	\$ 1,967,758	\$ 1,308,497
Total cash farm expense	\$ 371,855	\$ 697,346	\$ 2,076,867	\$ 693,063	\$ 1,817,077	\$ 1,191,690
Net cash farm income	\$ 57,177	\$ 109,315	\$ 154,874	\$ 106,278	\$ 150,682	\$ 116,807
Inventory change	\$ 86,739	\$ 122,751	\$ 152,030	\$ 99,689	\$ 163,269	\$ 125,780
Depreciation	\$ (29,680)	\$ (75,942)	\$ (163,632)	\$ (57,672)	\$ (106,577)	\$ (89,374)
Net farm income from operations	\$ 114,235	\$ 156,124	\$ 143,272	\$ 148,295	\$ 207,374	\$ 153,212
Gain or loss on capital sales	\$ 2,022	\$ 16,303	\$ 29,035	\$ 2,604	\$ 15,217	\$ 13,174
Average net farm income	\$ 116,257	\$ 172,427	\$ 172,307	\$ 150,899	\$ 222,591	\$ 166,387
Median net farm income	\$ 70,982	\$ 85,082	\$ 164,781	\$ 114,612	\$ 76,777	\$ 96,856

Profitability (cost)						
Rate of return on assets	7.6%	8.3%	2.8%	6.1%	5.1%	4.8%
Rate of return on equity	13.5%	13.2%	1.3%	8.5%	7.8%	5.9%
Operating profit margin	20.3%	17.6%	8.4%	18.1%	11.6%	12.7%
Asset turnover rate	37.5%	47.0%	33.5%	33.9%	43.9%	37.7%

Profitability (market)						
Rate of return on assets	8.3%	15.1%	3.5%	8.1%	7.0%	6.5%
Rate of return on equity	14.2%	27.2%	3.5%	12.2%	11.3%	9.8%
Operating profit margin	27.8%	41.2%	13.1%	34.6%	25.7%	23.8%
Asset turnover rate	29.9%	36.8%	26.9%	23.5%	27.3%	27.4%

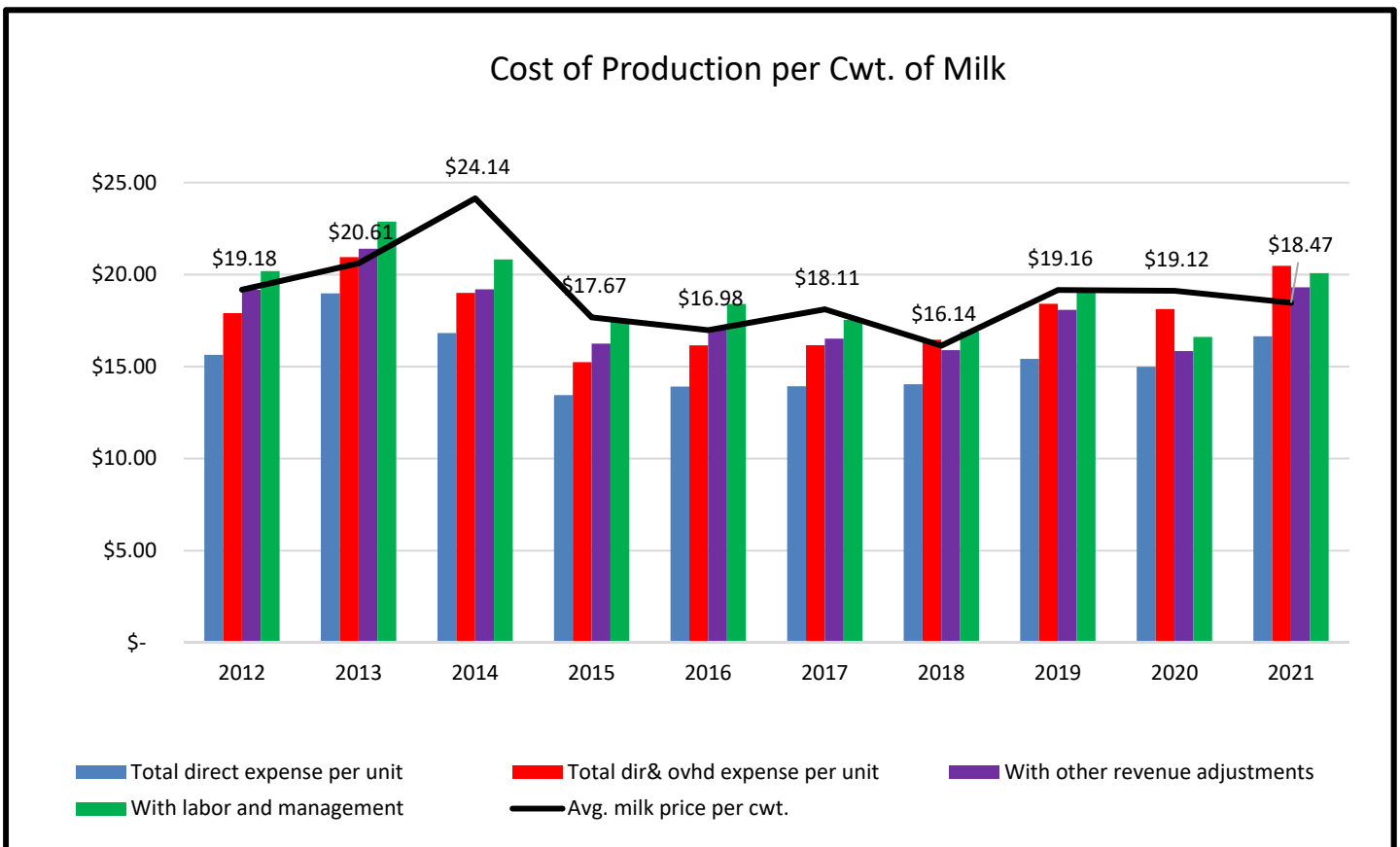
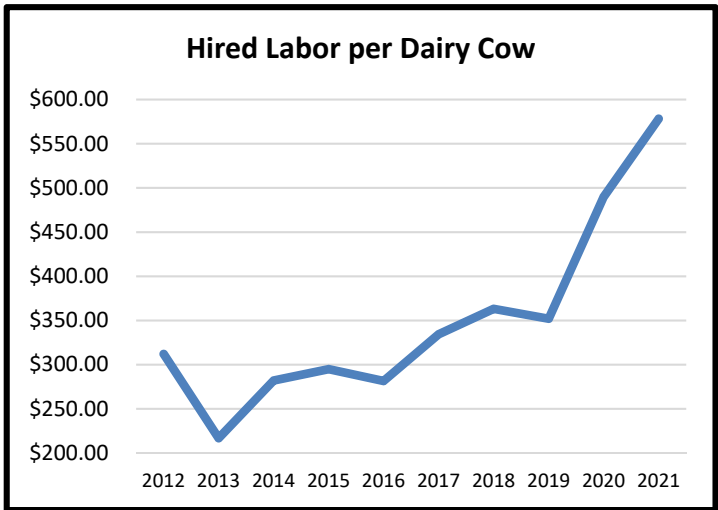
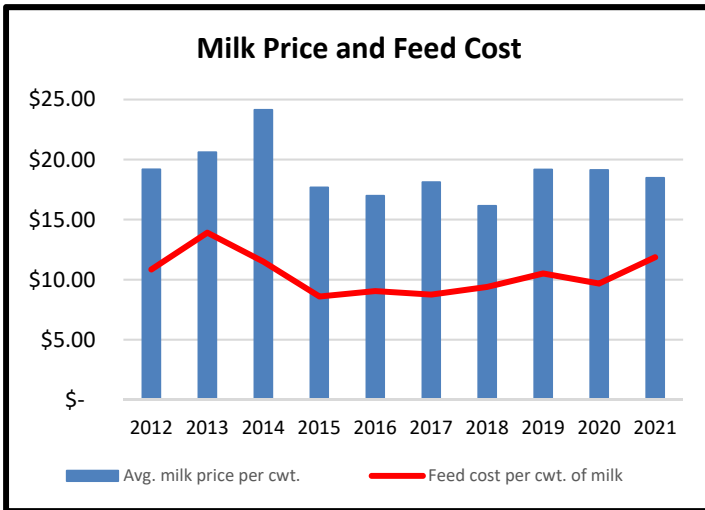
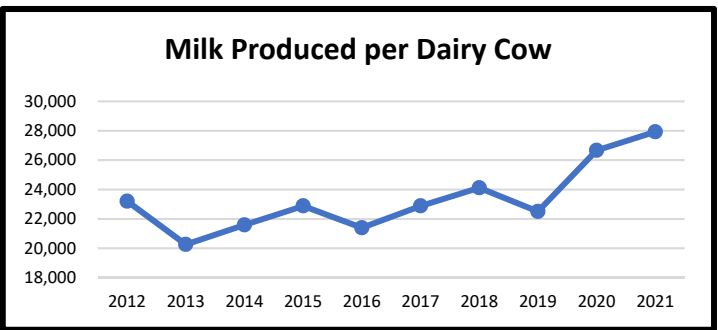
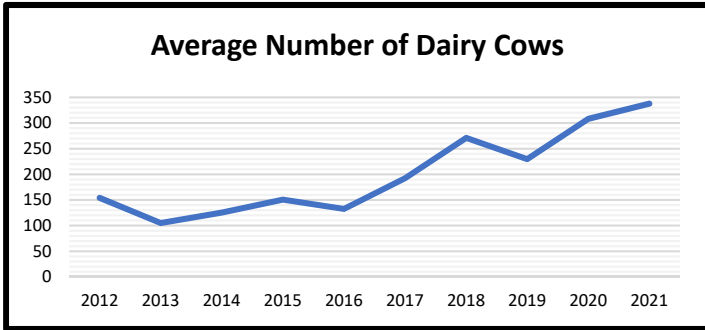
Liquidity & Repayment (end of year)						
Current assets	\$ 241,093	\$ 452,779	\$ 878,956	\$ 459,497	\$ 1,113,394	\$ 650,011
Current liabilities	\$ 114,804	\$ 172,101	\$ 472,862	\$ 153,570	\$ 397,207	\$ 275,310
Current ratio	2.1	2.63	1.86	2.99	2.8	2.36
Working capital	\$ 126,289	\$ 280,679	\$ 406,094	\$ 305,926	\$ 716,187	\$ 374,701
Change in working capital	\$ 67,775	\$ 143,622	\$ 162,476	\$ 124,840	\$ 243,664	\$ 148,970
Working capital to gross inc	24.70%	31.00%	17.20%	35.20%	33.60%	26.40%
Term debt coverage ratio	2.9	3.0	1.4	2.0	1.5	1.7
Replacement coverage ratio	2.4	2.1	1.1	1.6	1.2	1.3
Term debt to EBITDA	3.1	2.6	5.1	3.7	4.8	4.3

Solvency (end of year at market)						
Total assets	\$ 1,735,600	\$ 2,410,835	\$ 6,371,573	\$ 3,226,758	\$ 5,772,895	\$ 4,085,029
Total liabilities	\$ 858,390	\$ 1,170,902	\$ 3,063,319	\$ 1,345,865	\$ 2,887,629	\$ 1,953,799
Net worth	\$ 877,210	\$ 1,239,932	\$ 3,308,254	\$ 1,880,894	\$ 2,885,266	\$ 2,131,230
Total net worth change	\$ 162,342	\$ 345,543	\$ 227,985	\$ 256,316	\$ 407,509	\$ 272,432
Farm debt to asset ratio	50%	50%	49%	44%	51%	49%
Total debt to asset ratio	49%	49%	48%	42%	50%	48%
Change in total net worth %	23%	39%	7%	16%	16%	15%

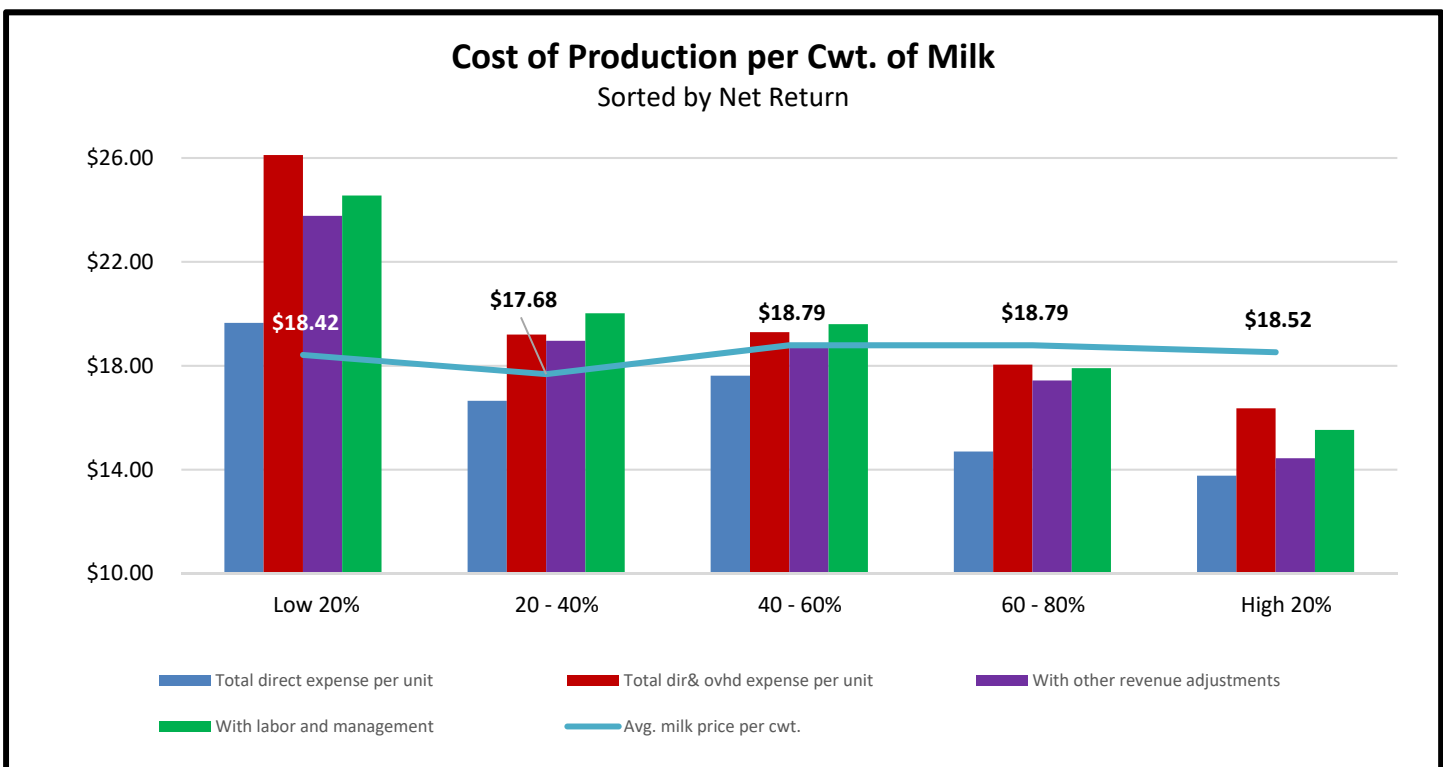
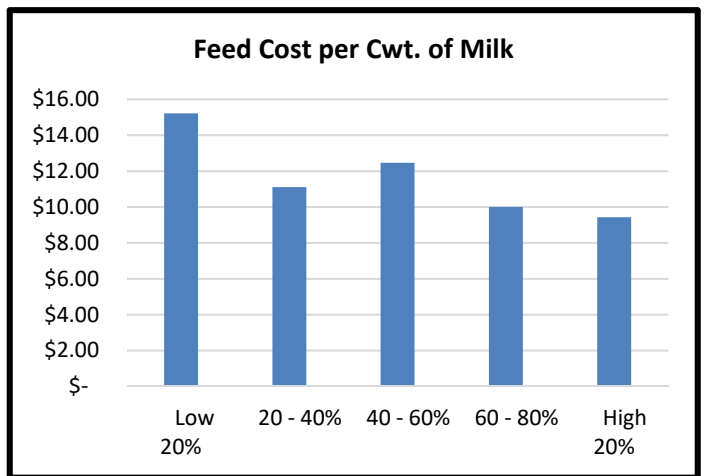
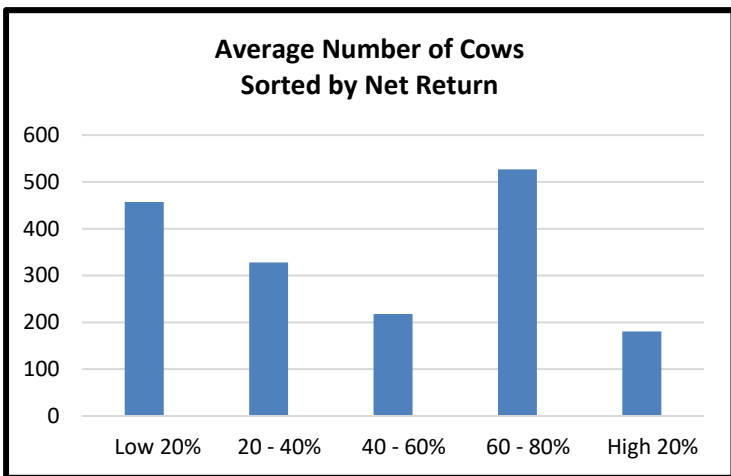
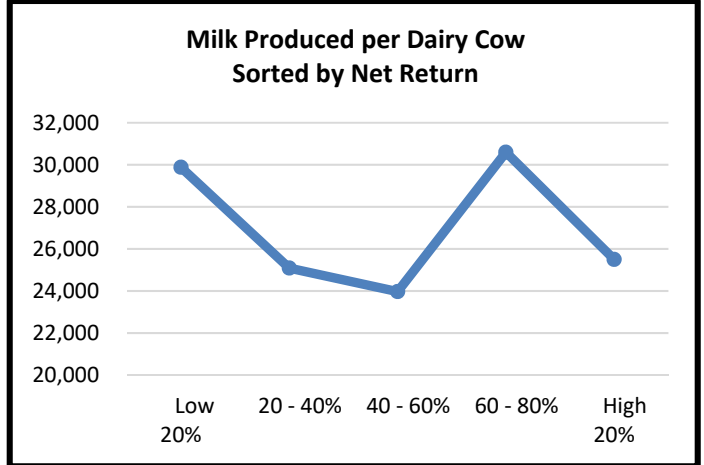
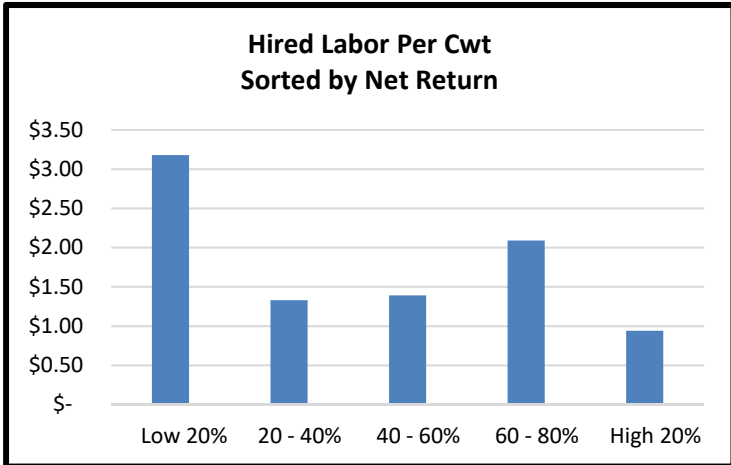
Nonfarm Information						
Net nonfarm income	\$ 25,161	\$ 15,332	\$ 23,283	\$ 9,995	\$ 5,255	\$ 16,169

Crop Acres						
Total crop acres	324	484	882	435	899	622
Total crop acres owned	96	79	324	160	406	227
Total crop acres cash rented	228	404	558	275	493	395
Machinery value per crop acre	\$ 833	\$ 791	\$ 1,344	\$ 1,003	\$ 1,192	\$ 1,136

Dairy Enterprise Charts (Non-Organic)



Dairy Charts 2021 (Non-Organic)



COVER CROP ANALYSIS

CORN SILAGE WITH COVER CROP ENTERPRISE ANALYSIS

Owned and Rented Acres Combined

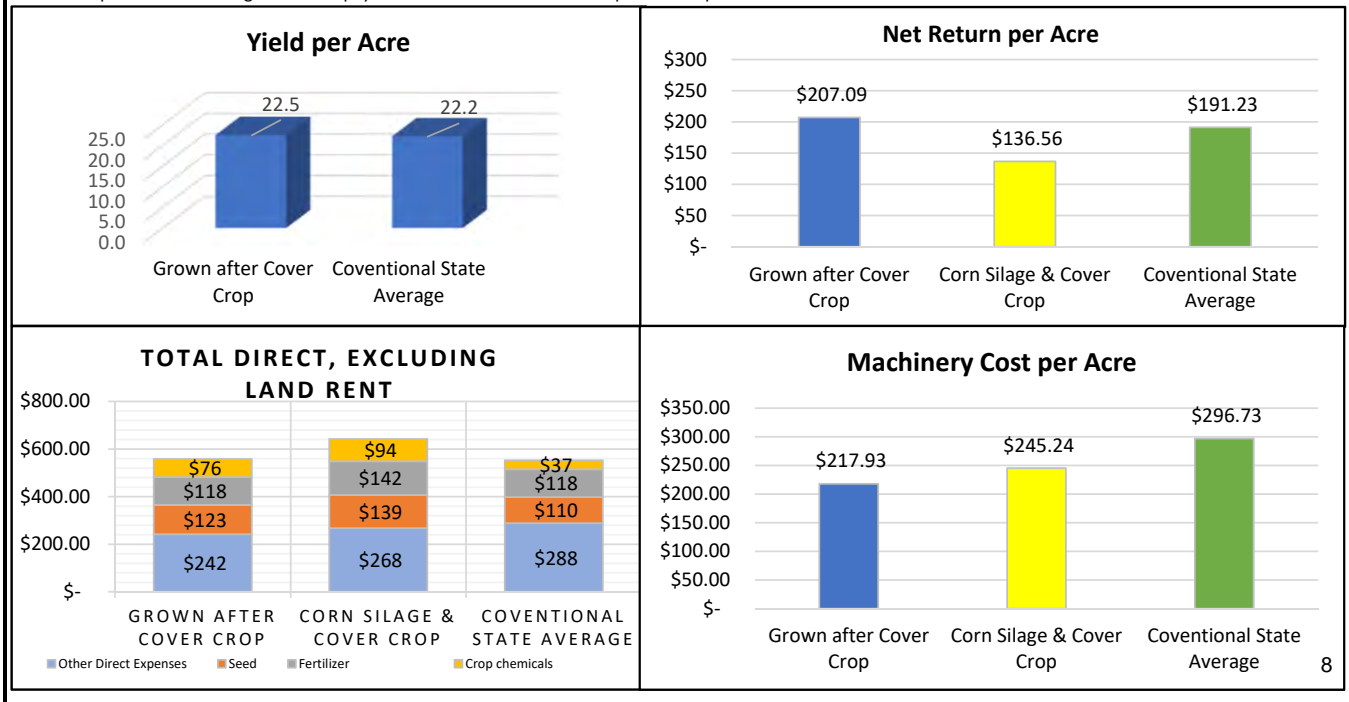
Wisconsin Farm Business and Production Management Database

Cover Crop Analysis Comparison

In 2021, crop enterprises grown after cover crops were tracked for the first time. The goal is to grow these reports in the future. The tables on this page provide comparison data for the crop raised after a cover crop, the cover crop only, the combined revenue and expenses for the enterprise and cover crop, and the conventional statewide average. The major direct expenses are listed here. A full detailed listing can be found at <https://finbin.umn.edu/>, by selecting the Summary Crop Report then sorting by Cover Crop Report. The limited number of farms with cover crop enterprises in this first year, reminds us that care must be taken when interpreting the numbers. As the data grows, a more comprehensive comparison will be available.

	Grown after Cover Crop	Cover Crop Only	Corn Silage & Cover Crop	Conventional State Average
Number of farms	11	11	11	43
Yield per acre (ton)	22.5	-	-	22.2
Value per ton	\$ 46.10	-	-	\$ 45.58
Other crop income per acre*	-	\$ 21.52	\$ 21.52	\$ 0.42
Gross return per acre	\$ 1,038.65	\$ 60.91	\$ 1,091.47	\$ 1,013.78
Selected Direct Expenses				
Seed	\$ 122.56	\$ 17.71	\$ 139.32	\$ 109.53
Fertilizer	\$ 117.52	\$ 24.22	\$ 141.60	\$ 117.53
Crop chemicals	\$ 75.50	\$ 15.36	\$ 93.77	\$ 37.42
Fuel & oil	\$ 29.73	\$ 8.64	\$ 38.37	\$ 42.86
Repairs	\$ 48.32	\$ 13.76	\$ 58.60	\$ 76.68
Custom hire	\$ 96.40	\$ 5.00	\$ 94.78	\$ 106.50
Land rent	\$ 115.59	\$ 0.63	\$ 124.60	\$ 100.48
Total direct expenses per acre	\$ 673.44	\$ 91.63	\$ 767.09	\$ 653.32
Return over direct exp per acre	\$ 365.20	\$ (30.72)	\$ 324.38	\$ 360.45
Total overhead expenses per acre	\$ 158.11	\$ 39.15	\$ 187.82	\$ 169.22
Total dir & ovhd expenses per acre	\$ 831.55	\$ 130.78	\$ 954.91	\$ 822.54
Net return per acre	\$ 207.09	\$ (69.87)	\$ 136.56	\$ 191.23
Net return over labor and management	\$ 179.91	\$ (77.91)	\$ 102.66	\$ 153.79
Cost of Production with labor & mgt	\$ 38.12	-	\$ 42.01	\$ 38.66
Machinery cost per acre	\$ 217.93	\$ 39.76	\$ 245.24	\$ 296.73

*Other crop income includes government payments for conservation related production practices.



COVER CROP ANALYSIS

CORN GRAIN WITH COVER CROP ENTERPRISE ANALYSIS

Owned and Rented Acres Combined

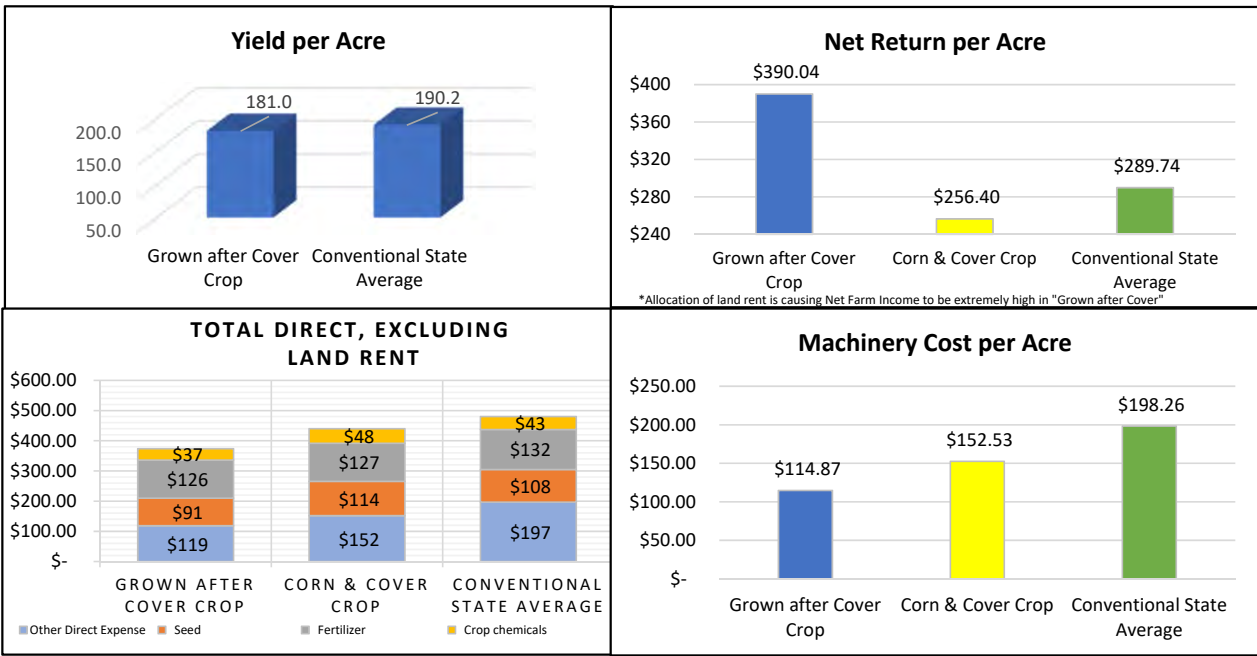
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	Grown after Cover Crop		Cover Crop		Corn & Cover Crop		Conventional State Average	
Number of farms	6		6		6		55	
Yield per acre (bu.)	181.0						190.2	
Value per bu.	\$	5.25		-		-	\$	5.27
Other crop income per acre*	\$	8.41	\$	28.36	\$	36.35	\$	3.58
Gross return per acre	\$	974.81	\$	32.51	\$	1,009.39	\$	1,024.95
Selected Direct Expenses								
Seed	\$	91.23	\$	22.69	\$	113.80	\$	108.41
Fertilizer	\$	126.49		-	\$	126.60	\$	132.11
Crop chemicals	\$	37.35	\$	10.63	\$	47.87	\$	42.98
Crop insurance	\$	9.13		-	\$	9.02	\$	15.30
Fuel & oil	\$	17.86	\$	6.76	\$	24.73	\$	31.54
Repairs	\$	29.36	\$	11.14	\$	41.18	\$	64.49
Custom hire	\$	12.18		-	\$	12.04	\$	38.38
Land rent	\$	117.99	\$	61.84	\$	178.89	\$	124.53
Total direct expenses per acre	\$	491.67	\$	127.86	\$	618.76	\$	604.62
Return over direct exp per acre	\$	483.14	\$	(95.35)	\$	390.63	\$	420.32
Total overhead expenses per acre	\$	93.10	\$	40.95	\$	134.23	\$	130.58
Total dir & ovhd expenses per acre	\$	584.78	\$	168.81	\$	752.99	\$	735.20
Net Return per Acre	\$	390.04	\$	(136.30)	\$	256.40	\$	289.74
Net return over labor and management	\$	290.18	\$	(177.31)	\$	115.25	\$	241.21
Cost of Production with labor & mgt	\$	3.65		-	\$	4.65	\$	4.00
Machinery cost per acre	\$	114.87	\$	36.44	\$	152.53	\$	198.26

*Other crop income includes government payments for conservation related production practices.



COVER CROP ANALYSIS

SOYBEANS WITH COVER CROP ENTERPRISE ANALYSIS

Owned and Rented Acres Combined

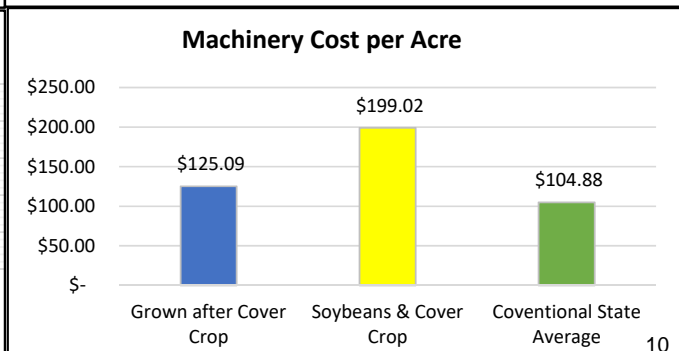
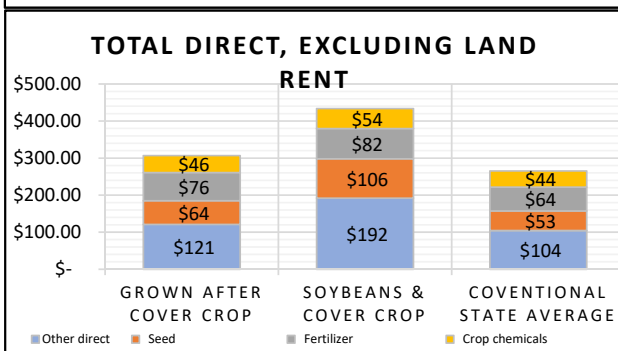
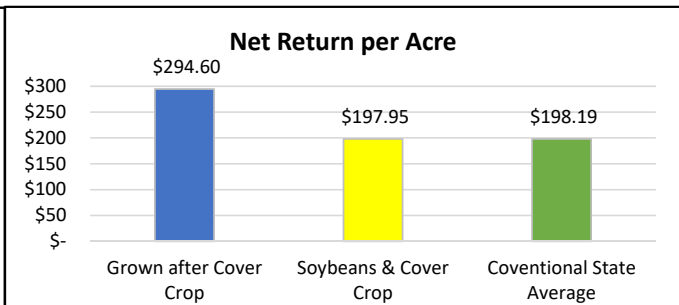
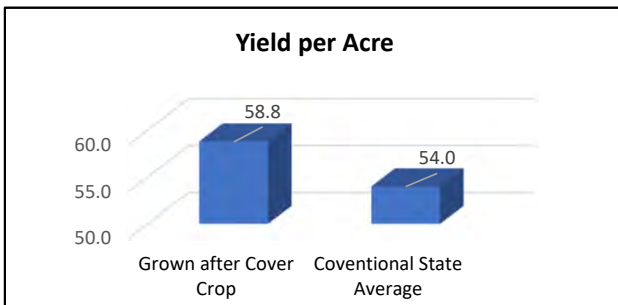
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	Grown after Cover Crop	Cover Crop Only	Soybeans & Cover Crop	Conventional State Average
Number of farms	5	5	5	33
Yield per acre (bu.)	58.8			54.0
Value per bu.	\$ 12.54	-	-	\$ 12.18
Other crop income per acre*	-	\$ 46.02	\$ 46.02	\$ 6.51
Gross return per acre	\$ 737.81	\$ 172.91	\$ 849.29	\$ 671.43
Selected Direct Expenses				
Seed	\$ 63.73	\$ 37.97	\$ 105.97	\$ 52.97
Fertilizer	\$ 75.94	\$ 8.79	\$ 81.61	\$ 64.32
Crop chemicals	\$ 45.82	\$ 3.27	\$ 53.72	\$ 43.68
Crop insurance	\$ 13.79	-	\$ 13.79	\$ 14.23
Fuel & oil	\$ 17.15	\$ 8.38	\$ 25.87	\$ 15.77
Repairs	\$ 39.99	\$ 15.25	\$ 59.57	\$ 27.08
Custom hire	\$ 14.11	\$ 26.73	\$ 31.35	\$ 21.70
Hired labor	\$ 15.81	\$ 1.95	\$ 31.61	\$ 3.86
Land rent	\$ 46.09	\$ 39.16	\$ 71.34	\$ 138.76
Total direct expenses per acre	\$ 352.73	\$ 156.47	\$ 504.76	\$ 403.91
Return over direct exp per acre	\$ 385.08	\$ 16.43	\$ 344.52	\$ 267.51
Total overhead expenses per acre	\$ 90.48	\$ 36.65	\$ 146.57	\$ 69.32
Total dir & ovhd expenses per acre	\$ 443.20	\$ 193.12	\$ 651.34	\$ 473.24
Net Return Per Acre	\$ 294.60	\$ (20.21)	\$ 197.95	\$ 198.19
Net return over labor & management	\$ 236.98	\$ (40.20)	\$ 111.42	\$ 152.19
Cost of Production with labor and mgt	\$ 8.51	-	\$ 11.68	\$ 9.36
Machinery cost per acre	\$ 125.09	\$ 75.94	\$ 199.02	\$ 104.88

*Other crop income includes government payments for conservation related production practices.



How does the farm benefit from the data?

Farms who complete a financial analysis, not only can see how they are doing financially, but they can also see how they stack up against other farms. Benchmark reports can be based on type, size, age, or location. Financially sound farms keep rural communities thriving. FBPM instructors work to help educate farmers on their farm financial position and goals; striving to make them a better business manager. Farms that complete an analysis annually, can track their information over time. A recently developed tool called, Plan on a Page has been shown to be very useful for trend analysis, budgeting and goal setting for the following year. Below is an example of the plan on a page.

Plan on a Page

Example Report

	3-year Average	2021 Actual	Group Benchmark	2022 Projected
Income Statement				
Gross cash farm income	1,798,706	2,238,769	818,554	1,637,586
Total cash operating expense	-1,683,836	-1,990,985	-698,804	-738,802
Inventory change	101,969	245,173	94,202	-628,603
Depreciation	-111,679	-116,635	-50,926	-142,004
Net farm income from operations	105,159	376,322	163,026	128,178
Balance Sheet (Market Value)				
Total assets	4,323,263	4,531,910	3,081,496	4,229,960
Total liabilities - ending (cost)	1,682,600	1,591,029	994,938	1,160,901
Net worth - ending (market, exclude def liabilities)	2,640,663	2,940,881	2,086,558	3,069,058
Change in retained earnings	102,665	382,784	168,115	128,178
Net worth change (market, exclude def liabilities)	140,200	412,395	223,619	128,178
Farm Financial Standards Measures				
Current ratio	0.99	1.32	2.00	2.42
Working capital	-5,936	151,709	294,224	276,633
Working capital to gross revenue	-1.2	6.4	100.3	24.8
Debt to asset ratio (market, exclude def liabilities) - ending	39	35	35	27
Rate of return on assets (cost)	4.7	13.1	7.9	
Rate of return on equity (cost)	4.4	21.2	11.1	
Operating profit margin (cost)	11.3	26.6	20.9	
Asset turnover rate (cost)	41.4	49.1	37.6	
Term debt coverage ratio (farm)	1.37	2.74	2.78	1.57
Operating expense ratio	84.0	75.8	71.8	70.6
Net farm income ratio	5.6	16.0	18.2	11.5
Repayment Capacity (farm & personal)				
Net farm income from operations	105,159	376,322	163,026	128,178
Depreciation	111,679	116,635	50,926	142,004
Personal income	0	0	46,453	0
Owner withdrawals / Adjusted family living	0	0	-46,759	0
Income tax (accrued)	0	0	-7,999	0
Interest on term debt	65,868	61,380	28,924	55,239
Capital debt repayment capacity	282,707	554,337	236,103	325,421
Scheduled farm and personal term debt payments	-206,169	-202,555	-88,045	-207,829
Capital debt repayment margin	76,538	351,782	148,058	117,592
Term debt coverage ratio	1.37	2.74	2.81	1.57

The historic farm information, along with a cash flow projection, can strengthen a farms communication and relationship with their lender, as well as, speed up the lending process. It also provides information to assist future discussions and business planning decisions.

Collaborators:



Data from this report is from 135 farms. The farmers are enrolled in a class in the Farm Business & Production Management program through the Wisconsin Technical College System. Colleges submitting farm analysis for the report are Chippewa Valley, Fox Valley, Northeast, Southwest & Western Technical Colleges.

This report was developed using FINPACK and RANKEM software developed by the Center for Farm Financial Management at the University of Minnesota. <http://www.cffm.umn.edu/>

Additional farm financial reports can be queried from the Center for Farm Financial Management FINBIN website. <https://finbin.umn.edu/>

This report was created through the efforts of the WI FBPM instructors and edited by Sara Maass-Pate, Farm Business & Production Management Instructor at Fox Valley Technical College and the USDA NIFA Farm Business Management Benchmarking Grant: "Collaboratively Breaking Down Barriers for Farm Financial Benchmarking to Grow the National Database", award number 2021-38504-35300.