



Financial Risks for Minnesota Crop Producers: Income Trends and Production Costs

2018 MINNESOTA CROP INSURANCE CONFERENCE
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DATA SOURCE: WWW.FINBIN.UMN.EDU

The screenshot shows the FINBIN website interface. At the top left is the FINBIN logo. To the right are navigation links: 'Getting Started', 'About FINBIN', 'About the Data', and 'Contact'. The main content area is divided into three sections. The first section, 'Generate a Summary Report', has three green buttons: 'WHOLE FARM', 'CROP', and 'LIVESTOCK'. The second section, 'Generate a Benchmark Report', has three red buttons: 'WHOLE FARM', 'CROP', and 'LIVESTOCK'. The third section, 'Compare Your Farm', has one blue button: 'FINANCIAL RATIOS'. On the right side, there is a 'Welcome to FINBIN' message. It states that FINBIN is one of the largest and most accessible sources of farm financial and production benchmark information. It lists three types of reports available: 'Soybean cost and returns by tillage system', 'Dairy cost and returns by size or location of herd', and 'Farm financial standards measures by type or size of farm'. Below this, it says 'The possibilities are endless. Select Whole Farm Reports, Crop Reports, or Livestock Reports to create your own custom report.' There is also a 'Something's New' section with a message about the new website look and feel, mentioning that the basic functionality is unchanged and that the site is now mobile-friendly. It ends with 'We hope you like the changes. Let us know what you think.'



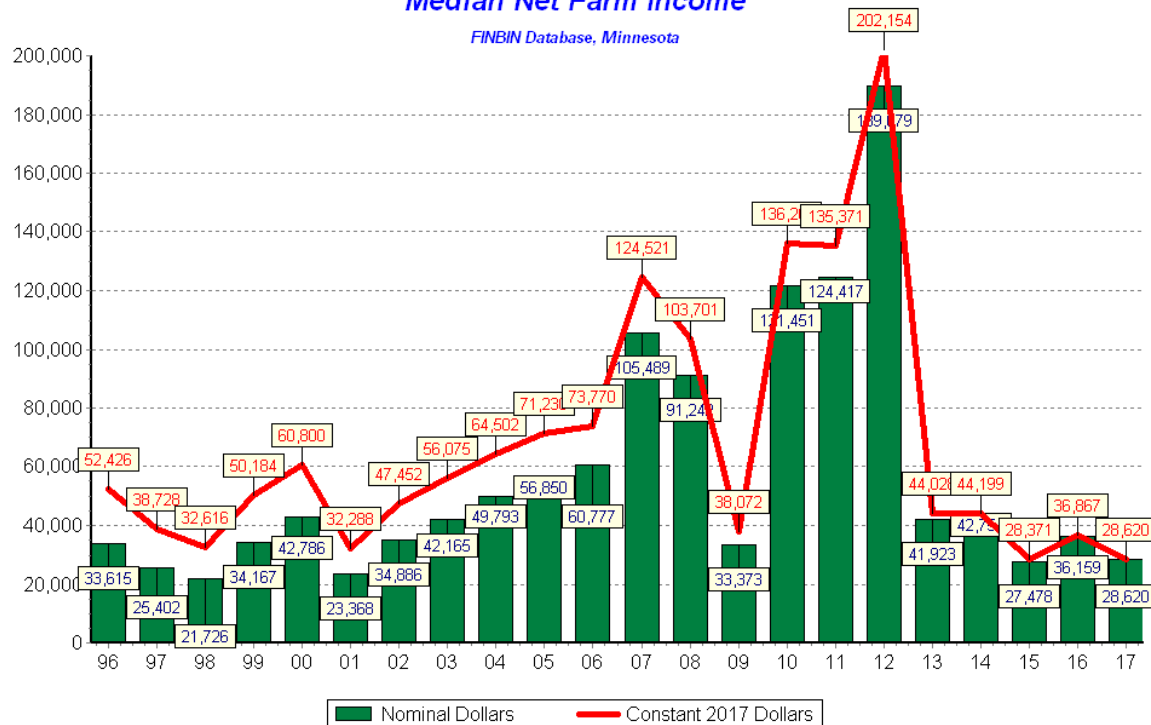
Whole Farm Financials: 2017



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Median Net Farm Income

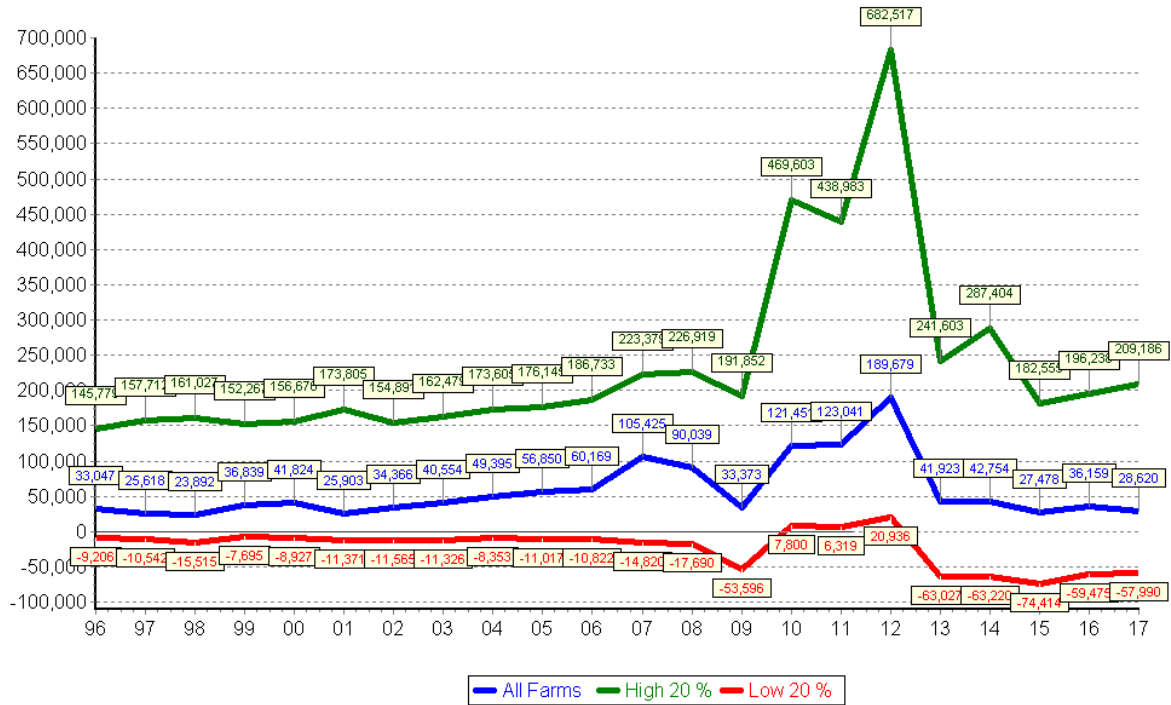
FINBIN Database, Minnesota



Data Sources: Minnesota Farm Business Management Education, Minnesota State Southwestern Minnesota Farm Business Management Associations, U of M Copyright 2018, Center For Farm Financial Management, University of Minnesota

Median Net Farm Income

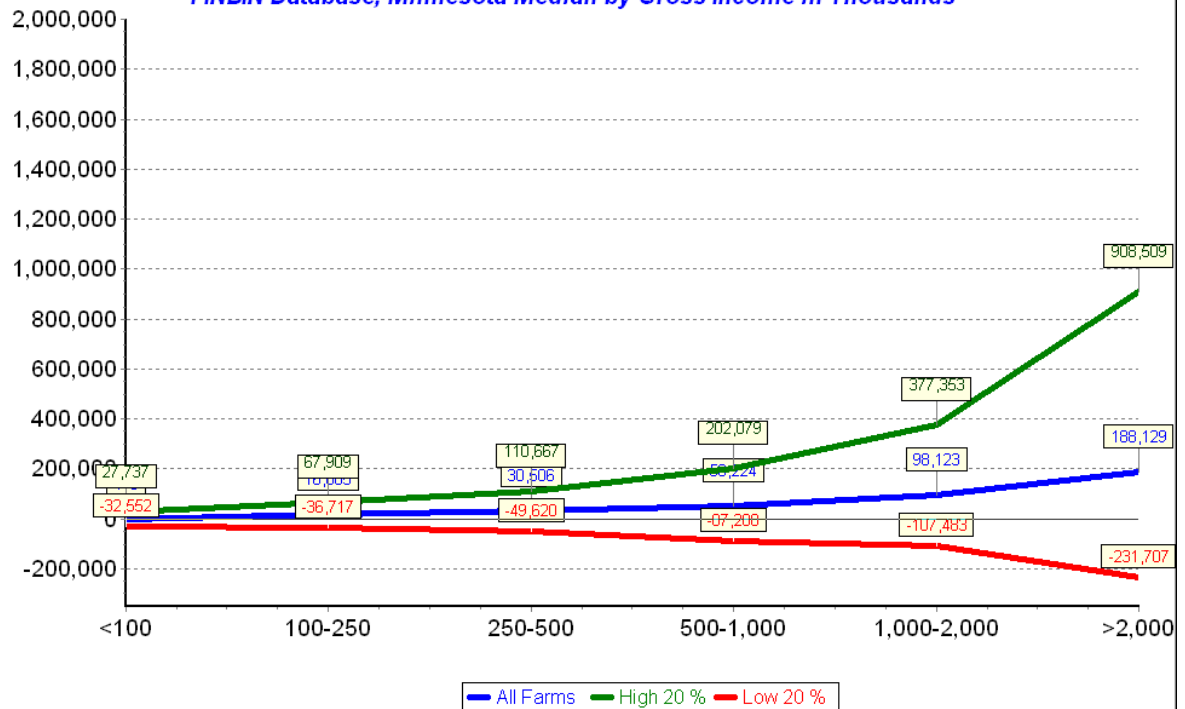
FINBIN Database, Minnesota



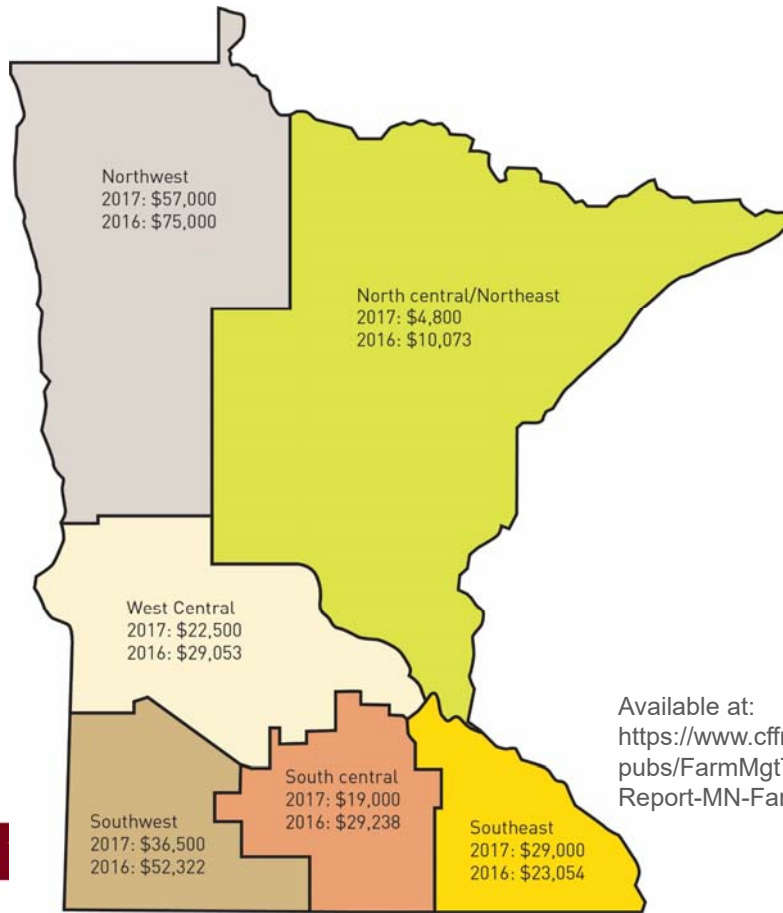
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 SW Minnesota Farm Business Management Association, U of M
 Data Sources: Minnesota Farm Business Management Education

Net Farm Income, 2017

FINBIN Database, Minnesota Median by Gross Income in Thousands



Data Sources: Minnesota Farm Business Management Education
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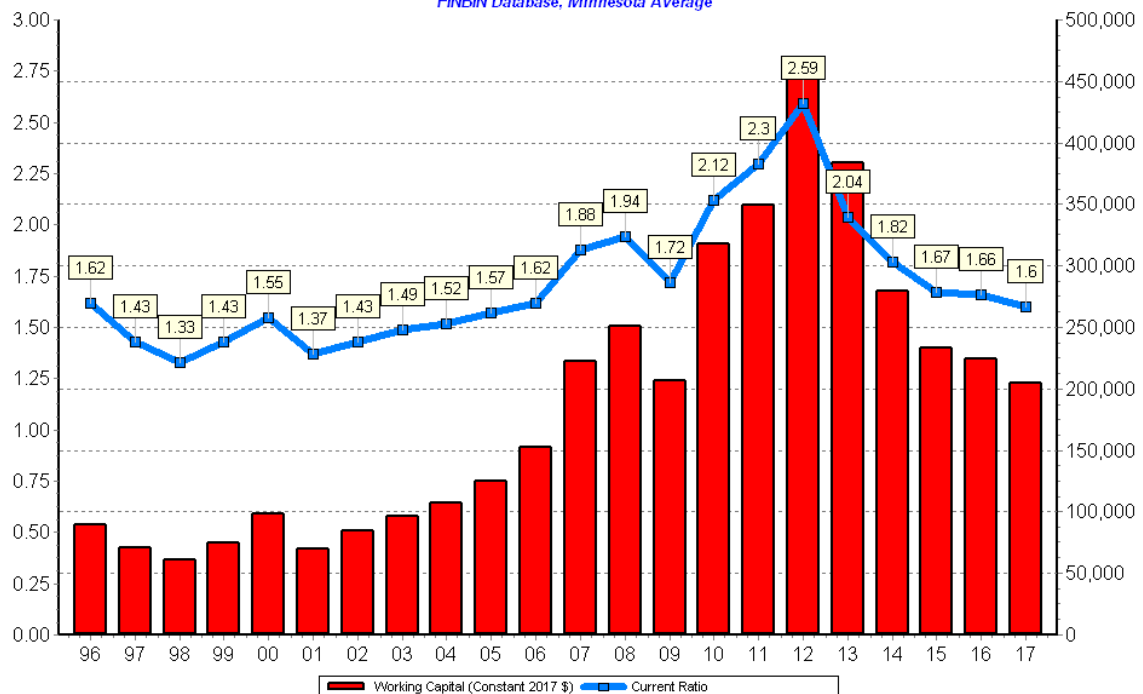


Available at:
<https://www.cffm.umn.edu/Publications/pubs/FarmMgtTopics/2017-FINBIN-Report-MN-Farm-Finances.pdf>



Current Ratio and Working Capital -- All Farms

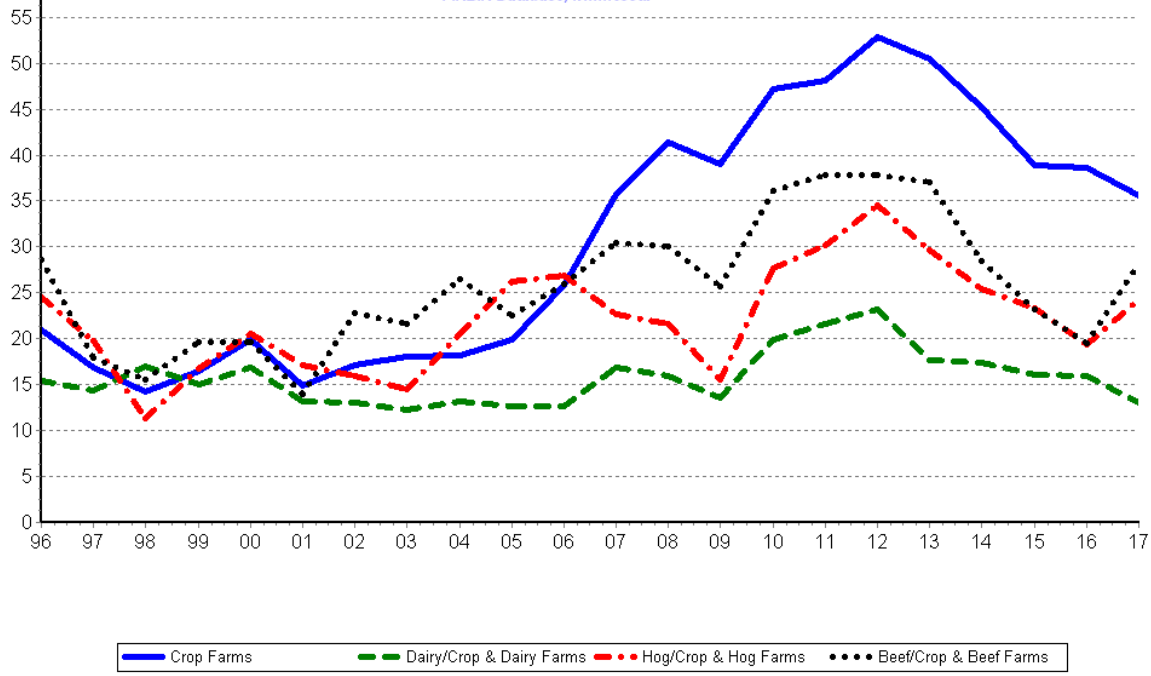
FINBIN Database, Minnesota Average



Data Sources: Minnesota Farm Business Management Education, Minnesota State Southwestern Minnesota Farm Business Management Associations, U of MN
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Working Capital as Percent of Gross Income

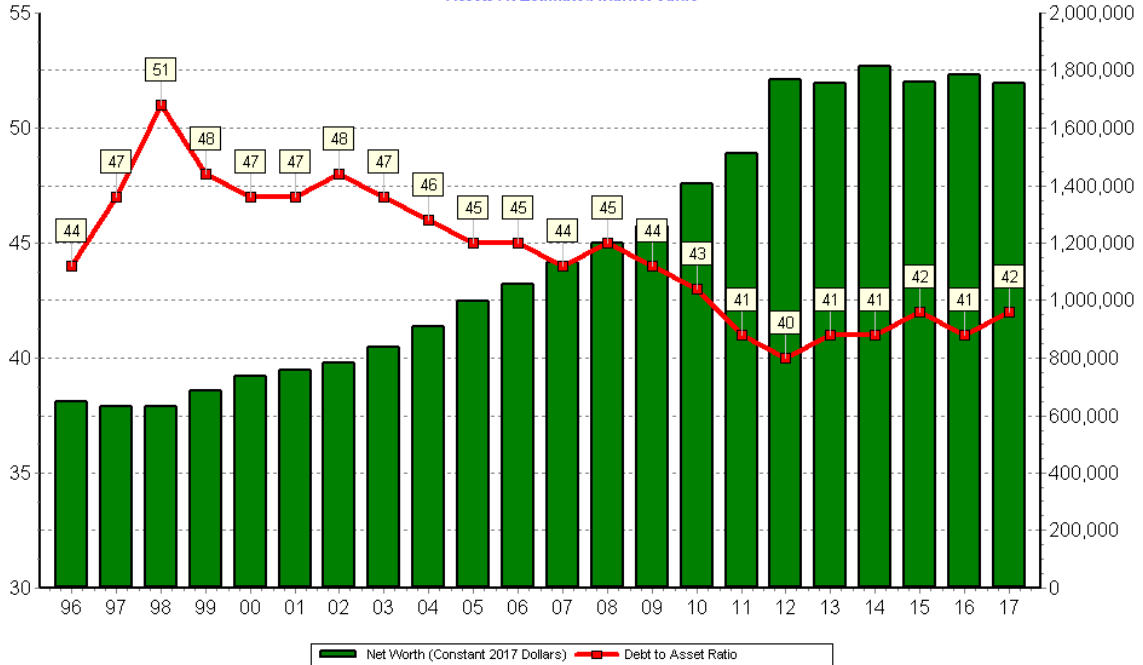
FINBIN Database, Minnesota



Data Sources: Minnesota Farm Business Management, Minnesota State Southwestern Minnesota Farm Business Management Associations, U of MN Copyright 2018, Center For Farm Financial Management, University of Minnesota

Net Worth and Debt To Asset Ratio

FINBIN Database, Minnesota Average Assets At Estimated Market Value



Data Sources: Minnesota Farm Business Management Education, Minnesota State Southwestern Minnesota Farm Business Management Association, U of MN Copyright 2018, Center For Farm Financial Management, University of Minnesota



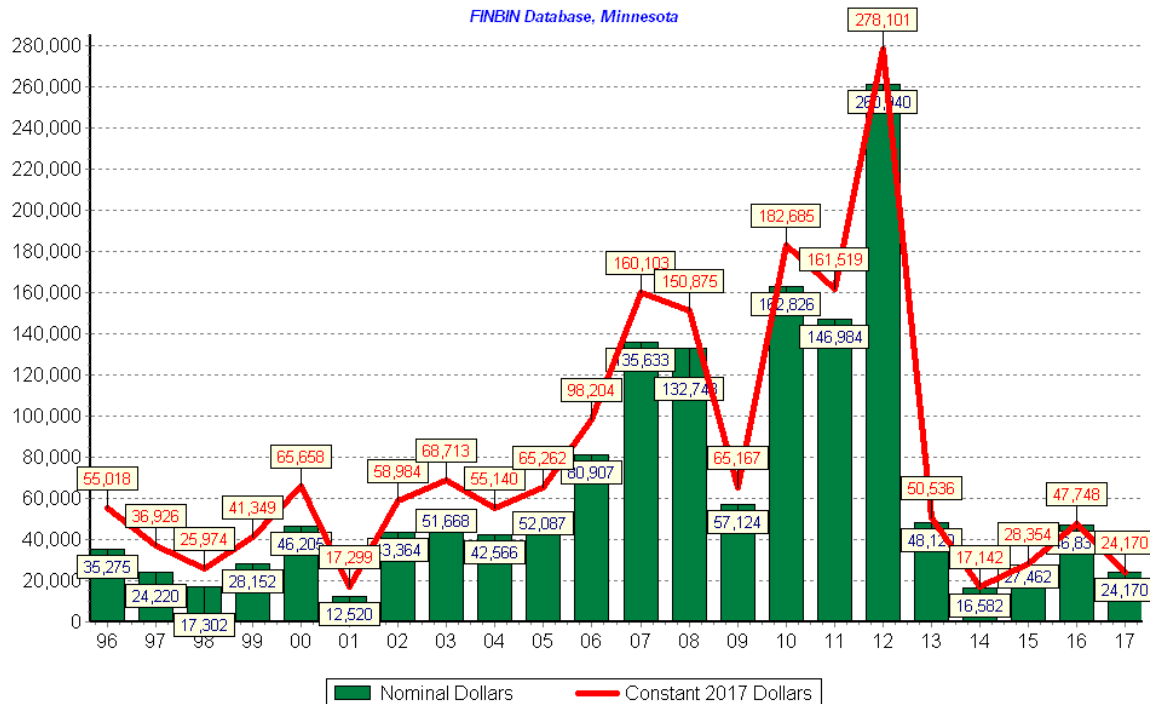
CROP FARMS



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Median Net Farm Income - Crop Farms

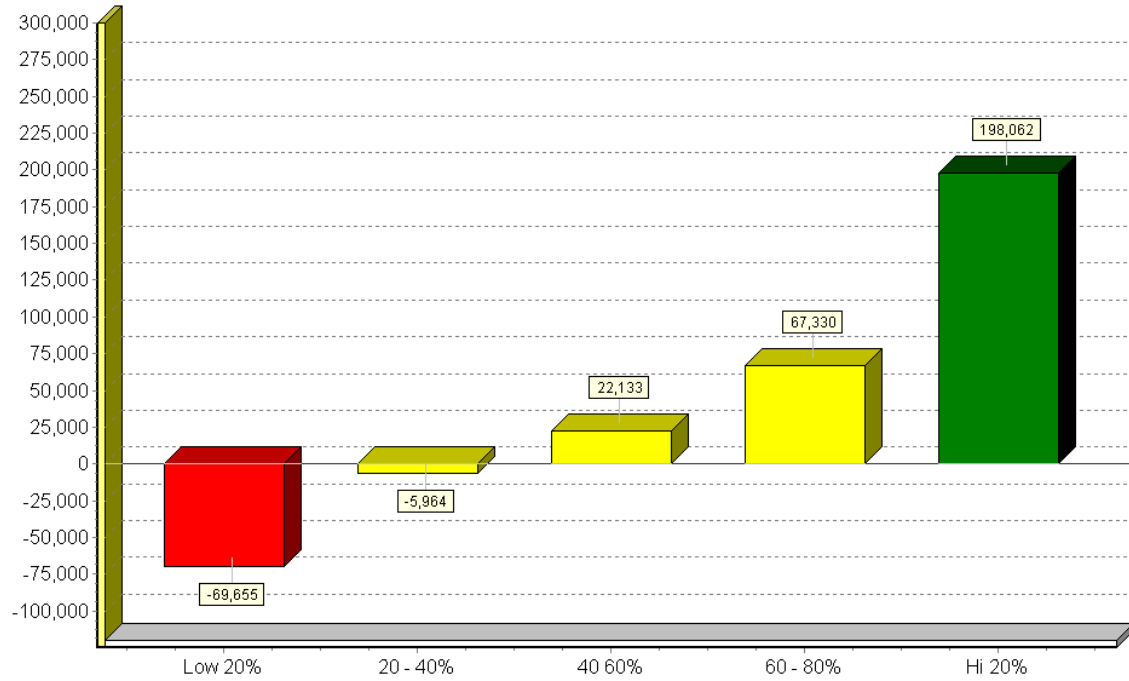
FINBIN Database, Minnesota



Data Sources: Minnesota Farm Business Management Education, Minnesota State Southwestern Minnesota Farm Business Management Associations, U of MN Copyright 2018, Center For Farm Financial Management, University of Minnesota

Median Net Income -- Crop Farms

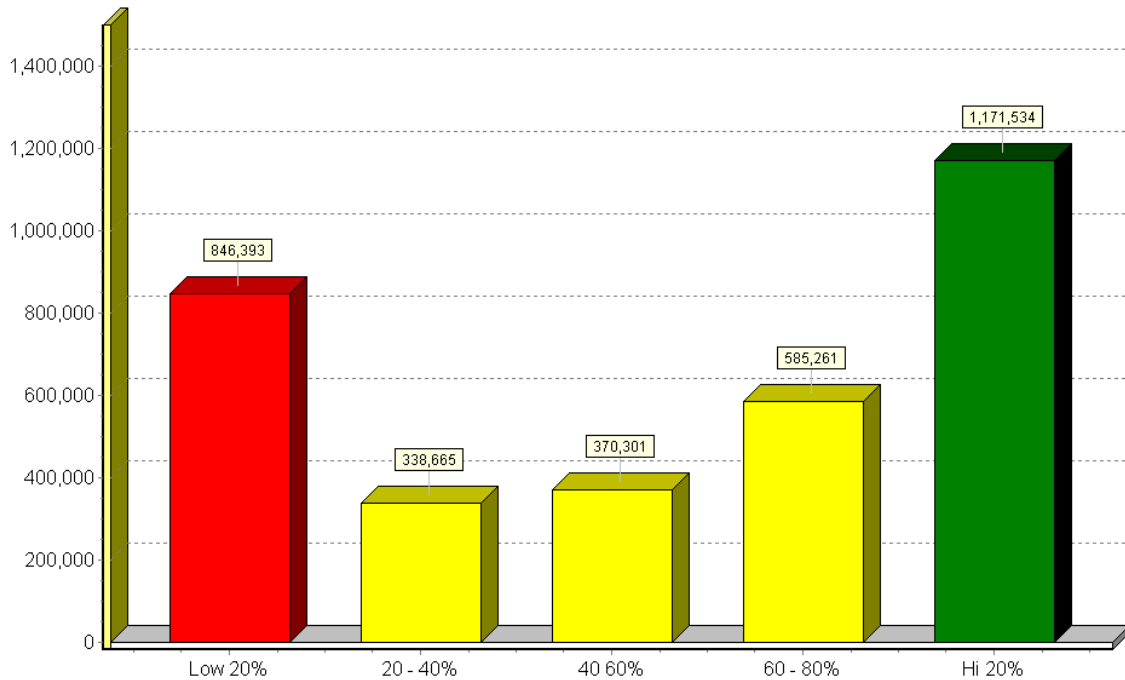
FINBIN Database, Minnesota 2017



Data Sources: Minnesota Farm Business Management, Minnesota State
Southwestern Minnesota Farm Business Management Associations, U of MN
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Gross Sales by Crop Farms Sorted by Net Income

FINBIN Database, Minnesota 2017



Data Sources: Minnesota Farm Business Management, Minnesota State
Southwestern Minnesota Farm Business Management Associations, U of MN
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HIGH VS LOW PROFIT CROP FARMS: FARM CHARACTERISTICS

Profitability Group	Low 20%	High 20%
Age	53	49
Years farming	29	27
Total crop acres	1358	1910
Percent of crop acres owned	20%	29%
Corn yield (bu/acre)	199	211
Corn price (\$/bu)	\$3.19	\$3.34
Soybean yield (bu/acre)	48	46
Soybean price (\$/bu)	\$9.22	\$9.27

FINBIN database, MN, 2017



HIGH VS LOW PROFIT CROP FARMS: 2017 FINANCIAL PERFORMANCE

Profitability Group	Low 20%	High 20%
Gross sales	\$846,000	\$1,172,000
Median net farm income	-\$70,000	\$198,000
Current ratio	1.1	2.3
Working capital to gross revenue	8%	57%
Working capital	\$64,000	\$713,000
Term debt coverage (accrual)	-0.3	2.2
Debt-to-asset ratio	38%	25%
Operating profit margin	-14%	18%
Operating expense ratio	97%	68%
Machinery investment per acre	\$682	\$573

FINBIN database, MN, 2017



HIGH VS LOW PROFIT LARGE CROP FARMS: FARM CHARACTERISTICS

Profitability Group	Low 20%	High 20%
Age	51	50
Years farming	29	30
Total crop acres	3,173	3,390
Percent of crop acres owned	17%	30%
Corn yield (bu/acre)	198	209
Corn price (\$/bu)	\$3.16	\$3.32
Soybean yield (bu/acre)	49	45
Soybean price (\$/bu)	\$9.24	\$9.30

FINBIN database, MN, 2017

Large = Over \$1,000,000 in gross revenue



HIGH VS LOW PROFIT LARGE CROP FARMS: FINANCIAL PERFORMANCE

Profitability Group	Low 20%	High 20%
Gross sales	\$2,136,000	\$2,244,000
Median net farm income	\$-192,000	\$520,000
Current ratio	1.2	2.3
Working capital to gross revenue	11%	58%
Working capital	\$221,000	\$1,414,000
Term debt coverage (accrual)	-0.4	2.7
Debt-to-asset ratio	40%	24%
Operating profit margin	-12%	22%
Operating expense ratio	98%	65%
Machinery investment per acre	\$613	\$593

FINBIN database, Over \$1 million Gross Revenue, MN, 2017



CORN, CASH RENTED, 2017

Profitability Group	High Cost 20%	Middle 20%	Low Cost 20%
Yield	205	215	224
Seed	123.47	118.10	112.27
Fertilizer	126.67	115.00	104.16
Chemicals	43.35	37.56	34.22
Rent	223.18	219.87	217.55
Total costs	843.46	743.60	672.43
Cost of production	4.07	3.46	3.00
Corn Price			

FINBIN database, Southern MN, 2017

CORN, CASH RENTED

Expenses	2013	2014	2015	2016	2017	2018 Estimated	2019 Estimated
Seed	125.48	128.46	122.78	120.78	117.78	114.25	
Fertilizer	191.40	167.27	147.28	134.62	116.24	106.94	
Chemicals	34.21	35.25	37.19	37.77	38.19	38.95	
Fuel & drying	56.85	57.14	32.73	29.87	44.46	42.24	
Crop insur.	25.89	22.74	22.86	18.25	20.08	20.08	
Rent	250.27	250.87	235.18	230.13	219.00	214.62	
Other Exp	<u>199.85</u>	<u>197.41</u>	<u>192.23</u>	<u>183.87</u>	<u>186.28</u>	<u>182.55</u>	
Total cost	883.95	859.14	790.25	755.29	742.03	719.63	

FINBIN database, Southern MN, 2017

CORN, CASH RENT, NFI PER ACRE

ASSUMES 2018 PROJECTED EXPENSES

Yield per Acre					
\$/Bu	160	175	190	205	220
2.50	-320	-282	-245	-207	-170
3.00	-240	-195	-150	-105	-60
3.50	-160	-107	-55	-2	50
4.00	-80	-20	40	100	160
4.50	0	68	135	203	270

*Assumes 2018 projected expenses



CORN, CASH RENT, NFI PER ACRE

LOW COST 20% OF PRODUCERS

Yield per Acre					
\$/Bu	160	175	190	205	220
2.50	-234	-197	-159	-122	-84
3.00	-154	-109	-64	-19	26
3.50	-74	-22	31	83	136
4.00	6	66	126	186	246
4.50	86	153	221	288	356



CORN, CASH RENT: COST OF PRODUCTION

Rent/Acre	Yield per Acre		
	170	190	210
100	3.85	3.45	3.12
150	4.15	3.71	3.36
213	4.44	3.97	3.60
250	4.53	4.05	3.66
300	4.74	4.24	3.83
350	5.03	4.50	4.07

*\$35 Labor & Management charge per acre included
FINBIN database, Southern MN, 2017



SOYBEANS, CASH RENTED

Expenses	2013	2014	2015	2016	2017	2018 Estimated	2019 Estimated
Seed	60.14	60.84	58.22	56.54	56.16	56.16	
Chemicals	35.21	39.07	45.04	44.59	46.42	46.88	
Fuel	22.70	22.12	15.12	12.93	15.31	16.08	
Crop Insur.	23.55	21.32	21.10	18.16	20.89	20.89	
Rent	240.79	247.57	232.20	224.75	217.34	212.99	
Other Exp.	<u>157.39</u>	<u>152.38</u>	<u>152.27</u>	<u>149.58</u>	<u>146.52</u>	<u>143.59</u>	
Total Cost	539.78	543.30	523.95	506.55	502.64	496.59	

FINBIN database, Southern MN, 2017



SOYBEANS, CASH RENT NFI PER ACRE

\$/Bu	Yield per Acre				
	40	45	50	55	60
7.00	-182	-147	-112	-77	-42
8.00	-137	-97	-57	-17	23
9.00	-92	-47	-2	43	88
10.00	-47	3	53	103	153
11.00	-2	53	108	163	218

*Assumes 2018 projected expenses

SOYBEANS, CASH RENT COST OF PRODUCTION

Rent/Acre	Yield per Acre		
	45	55	65
100	9.30	7.61	6.44
150	10.41	8.52	7.21
213	11.52	9.43	7.98
250	11.81	9.67	8.18
300	12.64	10.34	8.75
350	13.75	11.25	9.52

*\$35 Labor & Management charge per acre included
FINBIN database, Southern MN, 2017



Questions?

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