

# Farm Financial Benchmarking

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# What We Have Learned from 50 Years of Farm Benchmarking

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# **Farm Financial Benchmarking**

**The process of comparing the performance of an agricultural enterprise against the performance of other similar enterprises, through the use of comparable and reliable data, to identify business management strengths, weaknesses, and steps necessary to improve management performance and business profitability.**

# Is there a need for benchmarking in agriculture?



# **On Farm Benchmarking: How to Do It and How to Do it Better**

**The evidences shows, “different farmers are getting very different results from the same quantity of inputs.”**

**On Farm Benchmarking: How to Do It and How to Do it Better, J. R. Franks and Jimi Collis, International Farm Management Conference, 2003**



# Corn by Net Return

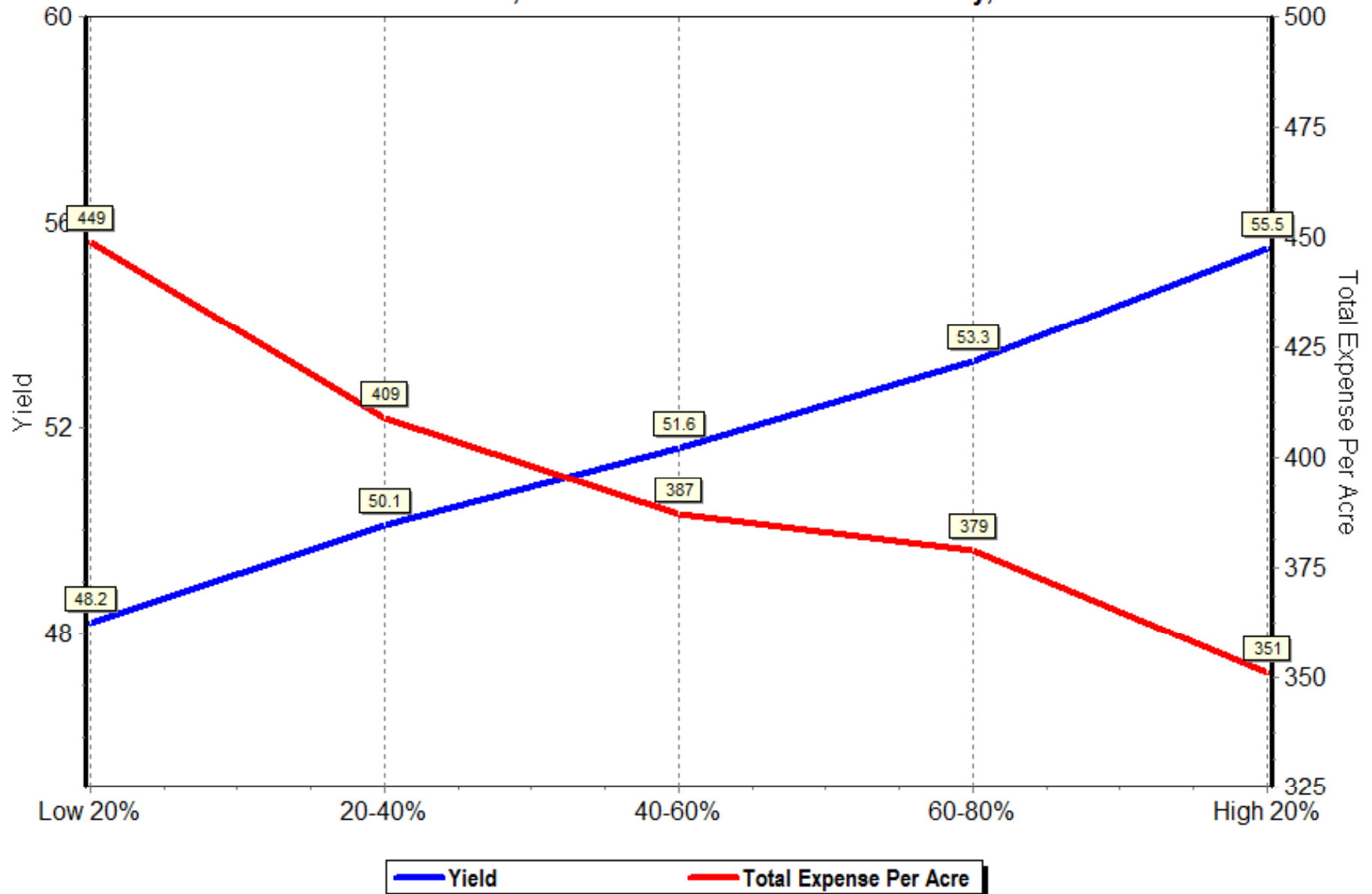
FINBIN Database, So MN, Cash Rented, 2010

Net Return Group	Lo Return 20 %	20-40%	40-60%	60-80%	Hi Return 20%
Yield	183	187	193	190	195
Gross return (with govt pymts)	\$788	\$852	\$917	\$939	\$1042
Seed	100	97	99	100	96
Fertilizer	129	129	123	108	98
Chemicals	24	25	23	23	24
Rent	179	174	172	161	154
Total direct expenses	582	557	544	503	480
Total expenses	690	653	636	583	559
Net return to operator lbr & mgt	98	199	281	356	483
<b>Cost of production</b>	<b>3.98</b>	<b>3.68</b>	<b>3.49</b>	<b>3.20</b>	<b>2.97</b>



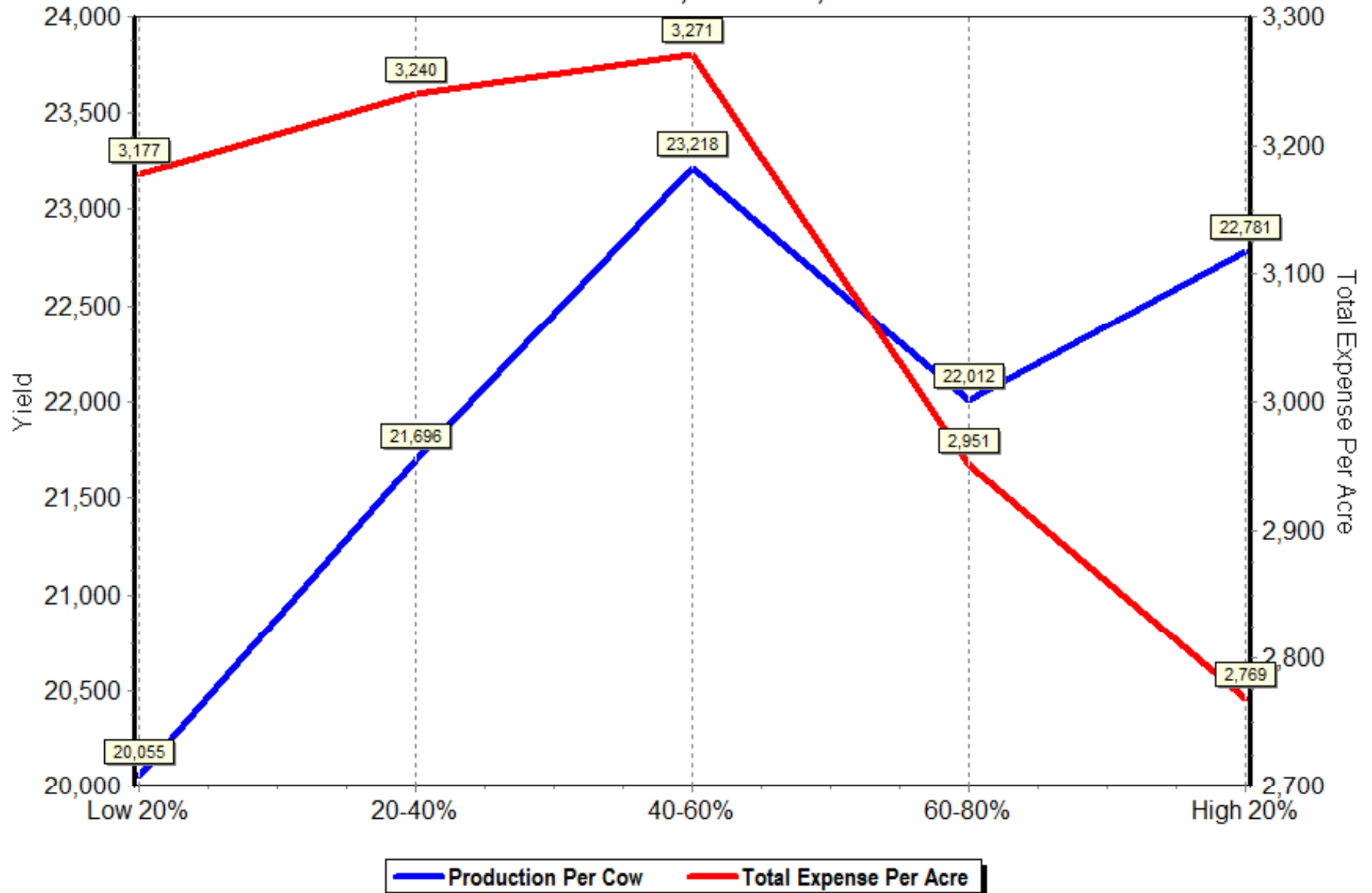
# Soybeans Yield and Total Expense by Net Return

FINBIN Database, Southern Minnesota Cash Rented Only, 2010



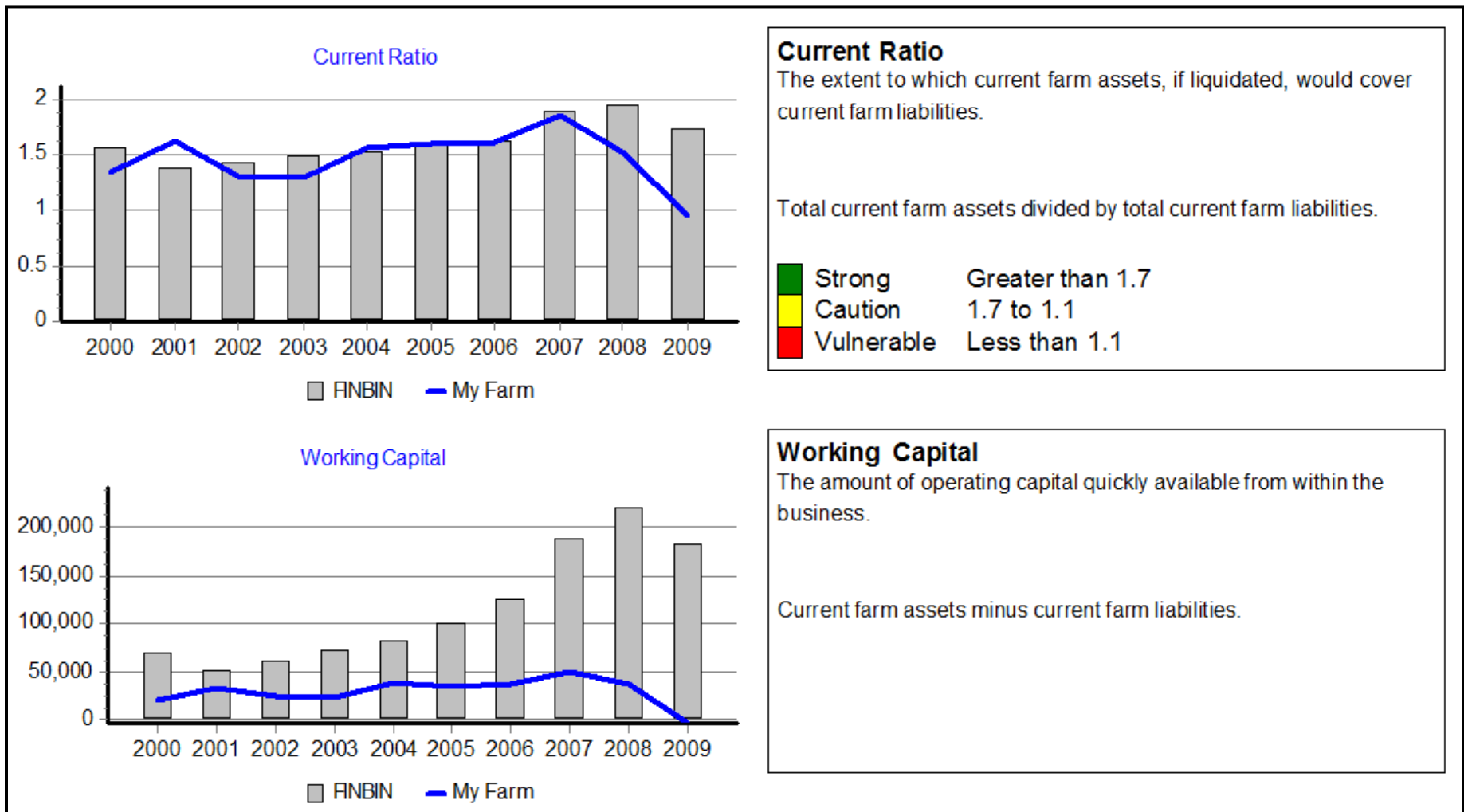
# Dairy Production Per Cow and Total Expense by Net Return

FINBIN Database, Minnesota, 2010





# FINPACK: Benchmarking at Analysis Time



# RankeM: Benchmarking for the Local Program

Ending Current Ratio	Ending Working Capital	Ending Working Cap to Rev	Ending Dbt to Ast Market	Rate of Ret on Ast Cost	Rate of Ret on Eq Cost
255.49	5,348,656	236.2	7	33.2	176.1
222.15	1,481,702	215.6	10	23.1	53.1
124.61	1,363,098	182.2	15	17.6	46.5
106.49	1,087,702	172.3	16	16.7	40.2
91.26	1,053,760	168.4	16	14.3	30.2
86.73	1,000,909	167.4	16	14.0	26.9
23.34	952,040	148.7	17	13.5	23.0
18.69	900,526	134.4	18	13.1	22.6
17.09	899,810	130.6	18	12.8	20.9
15.23	876,158	127.1	18	12.2	19.1
12.28	798,640	125.7	18	12.2	17.7
9.36	796,533	123.5	18	12.1	17.2
9.12	795,774	123.4	20	11.6	16.9
8.02	691,110	116.9	21	10.7	16.1
7.89	672,852	115.4	22	10.6	15.1
7.63	662,661	114.1	24	10.5	14.8



# FINBIN

Farm Financial Database

GENERATE A SUMMARY REPORT

WHOLE FARM

CROP

LIVESTOCK

GENERATE A BENCHMARK REPORT

DAIRY

CROP

## WELCOME TO FINBIN

Welcome to FINBIN, one of the largest and most accessible sources of farm financial and production benchmark information in the world. FINBIN places detailed reports on whole farm, crop, and livestock financials at your fingertips.

With just a few clicks of the mouse, you can see reports such as:

- ◆ [Cost and returns from Roundup Ready soybeans](#)
- ◆ [Dairy cost and returns by size or location of herd](#)
- ◆ [Farm financial standards measures by type or size of farm](#)

The possibilities are endless. Select Whole Farm Reports, Crop Reports, or Livestock Reports to create your own custom report.

# FINBIN: Benchmarking On Demand

	Dairy -- Average Cow				
	1 - 50	51 - 100	101 - 200	201 - 500	Over 500
Number of farms	91	199	121	67	27
Milk sold	2,660.35	3,060.72	3,321.96	3,694.26	3,959.88
Dairy Calves sold	37.06	30.70	33.43	39.31	35.76
Transferred out	72.63	66.41	47.85	53.44	20.91
Cull sales	173.57	183.69	175.04	161.23	190.02
Other income	36.81	35.88	34.60	29.42	48.16
Purchased	-106.61	-52.65	-61.89	-42.94	-19.92
Transferred in	-124.85	-81.15	-77.76	-94.03	-110.56
Inventory change	67.27	15.15	49.85	38.86	58.74
Dairy repl net cost	-316.45	-395.94	-429.85	-439.48	-443.93
Gross margin	2,499.78	2,862.81	3,093.22	3,440.07	3,739.06
<b>Direct Expenses</b>					
Protein Vit Minerals	342.63	467.38	443.13	492.51	526.29
Complete Ration	181.55	164.77	240.45	275.35	324.66
Corn	215.11	227.66	237.21	232.41	224.80
Corn Silage	207.84	228.96	230.08	240.75	260.81
Hay, Alfalfa	260.61	204.49	229.54	133.50	140.20
Haylage, Alfalfa	79.53	110.12	95.60	140.91	72.80

# myFINBIN: Benchmarking Against My Peers



Center for Farm Financial Management

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**Corn per acre Location:Minnesota, Southwest; Year:2010; Tenure:Cash Rent**  
**Acres:251 - 500 acres,501 - 1,000 acres**

	My Farm	Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Acres	534.00	121.70	273	25.00	41.66	68.00	78.00	100.60	134.95	154.19	292.70	390.00	665.60
Yield per acre (bu.)	194.19	186.09	273	151.37	165.30	174.76	180.00	184.28	187.30	191.58	195.02	199.33	209.74
Value per unit	4.54	4.78	273	3.92	4.36	4.48	4.50	4.74	4.89	5.00	5.00	5.50	5.56
Total product value	881.60	881.60	273	642.75	735.54	801.28	825.74	867.09	895.26	923.54	964.70	1,016.89	1,094.81
Gross Return	779.91	876.87	273	639.85	735.54	792.96	821.98	862.34	894.57	922.45	963.71	1,006.95	1,112.00
Seed	100.88	100.34	273	130.26	117.01	108.37	105.45	101.51	98.94	94.34	91.90	88.70	85.94
Fertilizer	78.20	103.36	265	174.70	142.57	127.33	112.12	103.40	101.44	92.89	82.99	78.30	66.17
Crop chemicals	16.57	19.36	273	35.77	28.10	27.57	24.11	20.07	18.52	16.00	13.89	10.30	8.15
Crop insurance	13.86	13.29	273	27.15	23.94	18.76	16.04	14.54	12.59	11.11	10.34	8.77	5.86
Drying expense	0.00	3.67	143	21.89	10.82	8.16	6.87	4.55	3.54	3.54	3.14	1.36	0.78
Fuel & oil	14.64	24.38	273	41.68	36.24	30.22	27.02	24.82	23.50	22.41	19.62	16.03	13.25
Repairs	14.78	35.61	273	70.03	54.39	48.75	42.70	40.64	33.73	28.75	24.09	19.66	14.66
Land rent	171.79	155.00	273	221.27	198.66	183.20	173.39	160.00	150.22	149.03	135.82	124.25	92.00
Operating interest	0.00	7.33	260	23.53	17.97	13.08	11.41	8.12	6.99	3.84	2.67	0.81	0.16
Miscellaneous	0.00	2.37	107	12.66	4.91	3.95	2.45	2.37	2.37	1.76	1.39	0.95	0.19
Total direct expenses	422.75	493.94	273	596.78	556.74	537.00	520.69	506.37	484.77	459.80	438.79	419.27	390.03
Return over direct expenses	357.16	385.33	273	118.51	227.22	283.34	333.74	362.80	408.45	440.44	479.62	543.88	658.77
Hired labor	4.18	5.64	196	25.98	19.08	14.12	9.28	6.45	5.12	3.42	2.91	0.79	0.08
Farm insurance	9.79	5.35	272	14.80	10.16	8.31	7.55	5.90	5.20	3.94	3.46	2.31	1.58
Utilities	0.00	4.21	236	9.99	9.18	7.05	5.46	4.62	3.89	2.68	2.04	0.87	0.00
Dues & professional fees	5.61	1.96	164	8.83	6.18	4.21	3.72	2.35	1.85	1.14	0.75	0.59	0.14
Interest on interm. debt	0.00	4.98	240	17.68	10.24	7.23	6.26	5.24	4.09	3.39	2.15	1.00	0.48
Machinery depreciation	50.57	31.34	273	70.34	51.90	47.94	39.97	32.64	29.69	27.47	22.67	17.14	11.35
Building depreciation	16.36	5.58	235	17.46	12.38	9.33	7.66	6.08	4.74	3.49	2.34	1.28	0.31
Miscellaneous	26.51	4.56	260	30.19	13.82	7.92	5.85	5.16	3.56	1.71	1.22	0.88	0.42
Total overhead expenses	113.02	71.41	273	153.87	114.07	100.37	84.04	77.64	64.66	60.46	55.10	46.59	36.99
Total dir & ovhd expenses	535.77	577.69	273	689.64	640.67	614.31	600.03	586.92	567.33	548.22	517.96	488.82	451.23
Net return	244.14	309.41	273	64.13	156.46	203.71	236.91	284.98	328.97	363.17	401.14	455.54	570.07
Government payments	28.70	18.79	273	13.67	15.19	16.98	17.28	18.22	19.11	19.87	20.79	21.90	25.41
Net return with govt pymts	272.84	328.80	273	81.80	176.48	221.24	256.04	305.01	343.64	385.42	417.79	474.98	588.92
Labor & management charge	170.32	51.36	273	76.74	68.64	64.13	60.77	54.59	48.15	45.56	40.17	32.77	13.76
Net return over lbr & mgt	102.52	274.40	273	28.92	120.32	172.36	211.01	259.45	289.81	330.37	372.36	410.87	526.91
Direct cost of prod per unit	2.18	2.67	273	3.45	3.09	2.94	2.79	2.72	2.63	2.50	2.40	2.28	2.03
Dir & ovhd cost of prod/unit	2.76	3.12	273	3.92	3.54	3.35	3.25	3.15	3.08	2.96	2.82	2.70	2.47
COP less govt & other income	4.01	3.04	273	3.83	3.46	3.27	3.14	3.07	3.00	2.87	2.72	2.61	2.37
Cost of prod with lbr & mgt	3.64	3.30	273	4.15	3.79	3.56	3.45	3.36	3.24	3.16	3.02	2.85	2.56
Machinery cost per acre	79.99	106.22	273	168.44	149.74	138.64	127.00	113.34	101.15	96.25	88.35	83.17	72.13
Est. labor hours per acre	3.32	2.51	273	4.56	3.58	3.26	2.92	2.66	2.45	2.09	1.98	1.60	1.27

# Limitations of Benchmarking

- 1. Ignores economic principals\***
- 2. Doesn't identify cause and effect\***
- 3. Doesn't help top farmers\***
- 4. It's expensive**
  - You don't want your benchmarking to indicate that you are spending too much on benchmarking
- 5. Doesn't recognize unique management practices**

\*From: Is farm benchmarking the new acceptable face of comparative analysis?, Fleming, Farrell, Villano, and Fleming, Australian Agribusiness Review, Vol. 14, 2006



# Interpreting Benchmark Comparisons

- **Key**

- Each farm has a unique situation
- There are reasons for differences
- Some of those reasons are due to the unique goals and management strategies of the farm manager





# What do you need to benchmark your farm?

## 1. Financial metrics for your farm or ranch

- Accurate and complete
- Consistent with benchmark database

## 2. Database to benchmark against

- Accurate
- Comparable
- Uniform
- Large enough to be meaningful



# What metrics should we benchmark?

- **Whole farm financial ratios and measures**
  - Diagnostic
- **Enterprise level**
  - Prescriptive
- **Profit center and cost center**
- **Activity level**



# How Accurate is Our Data?



# NAFBAS/NFRBMEA Study 2006

<b>Analysis System</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>
<b>Net Farm Income</b>	<b>158,373</b>	<b>184,815</b>	<b>173,793</b>	<b>124,649</b>	<b>151,730</b>
<b>Adjust for owner wages</b>	<b>47,368</b>			<b>47,368</b>	<b>47,368</b>
<b>Adjust depreciation</b>	<b>-29,126</b>	<b>-6,602</b>	<b>-2,289</b>		<b>12,950</b>
<b>Error</b>					<b>27,800</b>
<b>Net farm income</b>	<b>176,615</b>	<b>178,213</b>	<b>171,504</b>	<b>172,017</b>	<b>239,848</b>

# NAFBAS/NFRBMEA Study 2006

<b>Analysis System</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>
<b>Current Ratio</b>	<b>4.70</b>	<b>6.32</b>	<b>6.57</b>	<b>3.73</b>	<b>6.51</b>
<b>Current assets</b>	<b>407,712</b>	<b>547,364</b>	<b>436,081</b>	<b>407,712</b>	<b>439,891</b>
<b>Deferred pat/oth cur</b>			<b>-40,774</b>		
<b>Dairy calves</b>			<b>10,150</b>		
<b>Breeding livestock</b>		<b>-139,650</b>			
<b>Error</b>					<b>13,900</b>
<b>Total current assets</b>	<b>407,712</b>	<b>407,714</b>	<b>405,457</b>	<b>407,712</b>	<b>453,791</b>



# NAFBAS/NFRBMEA Study 2006

<b>Analysis System</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>
<b>Current Ratio</b>	<b>4.70</b>	<b>6.32</b>	<b>6.57</b>	<b>3.73</b>	<b>6.51</b>
<b>Current liabilities</b>	<b>86,679</b>	<b>86,640</b>	<b>66,422</b>	<b>108,743</b>	<b>67,571</b>
<b>CPLTD</b>			<b>16,513</b>		<b>15,365</b>
<b>Accrued interest</b>		<b>39</b>	<b>3,744</b>	<b>50</b>	<b>3,744</b>
<b>Accrued tax liability</b>				<b>-22,114</b>	
<b>Total current liabilities</b>	<b>86,679</b>	<b>86,679</b>	<b>86,679</b>	<b>86,679</b>	<b>86,680</b>



# NAFBAS/NFRBMEA Study 2006

<b>Analysis System</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>
<b>Total current assets</b>	<b>407,712</b>	<b>407,714</b>	<b>405,457</b>	<b>407,712</b>	<b>453,791</b>
<b>Total current liabilities</b>	<b>86,679</b>	<b>86,679</b>	<b>86,679</b>	<b>86,679</b>	<b>86,680</b>
<b>Current ratio</b>	<b>4.70</b>	<b>4.70</b>	<b>4.68</b>	<b>4.70</b>	<b>5.24</b>

# Key analysis issues – whole farm

- **Chart of accounts issues**
- **Balance sheets at cost or market**
- **Inventory valuation**
- **Depreciation**
- **Value of unpaid labor and management**
- **Charge for equity capital**
- **Paid operator labor**
- **Entities vs sole props**





# Key analysis issues – enterprise level

- **Transfer costs at cost or market**
- **Land costs**
- **Operator labor & management vs. owner withdrawals**
- **Charge for equity capital**
- **Government payments**
- **Other questions**
  - Manure value
  - Soybean fertilizer



# One Final Thought on Benchmarking

- **You have to do something with them**
  - An active assessment of strengths and weaknesses and commitment to change

