

A vertical photograph of a cornfield with tall, green corn plants and some yellowing leaves at the bottom.

# What's in your cost of production?

Using Farm Business Analysis to monitor  
crop cost of production and business health



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

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# The Plan



- Ohio Farm Business Analysis and Benchmarking Program
- Corn
- Soybeans
- Business
- Questions

# Ohio Farm Business Analysis and Benchmarking Program

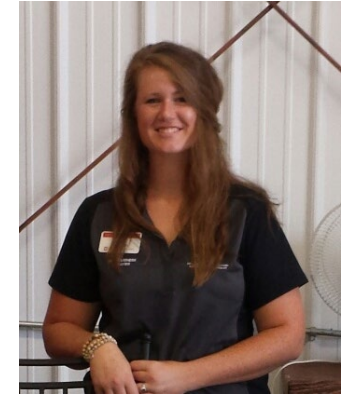
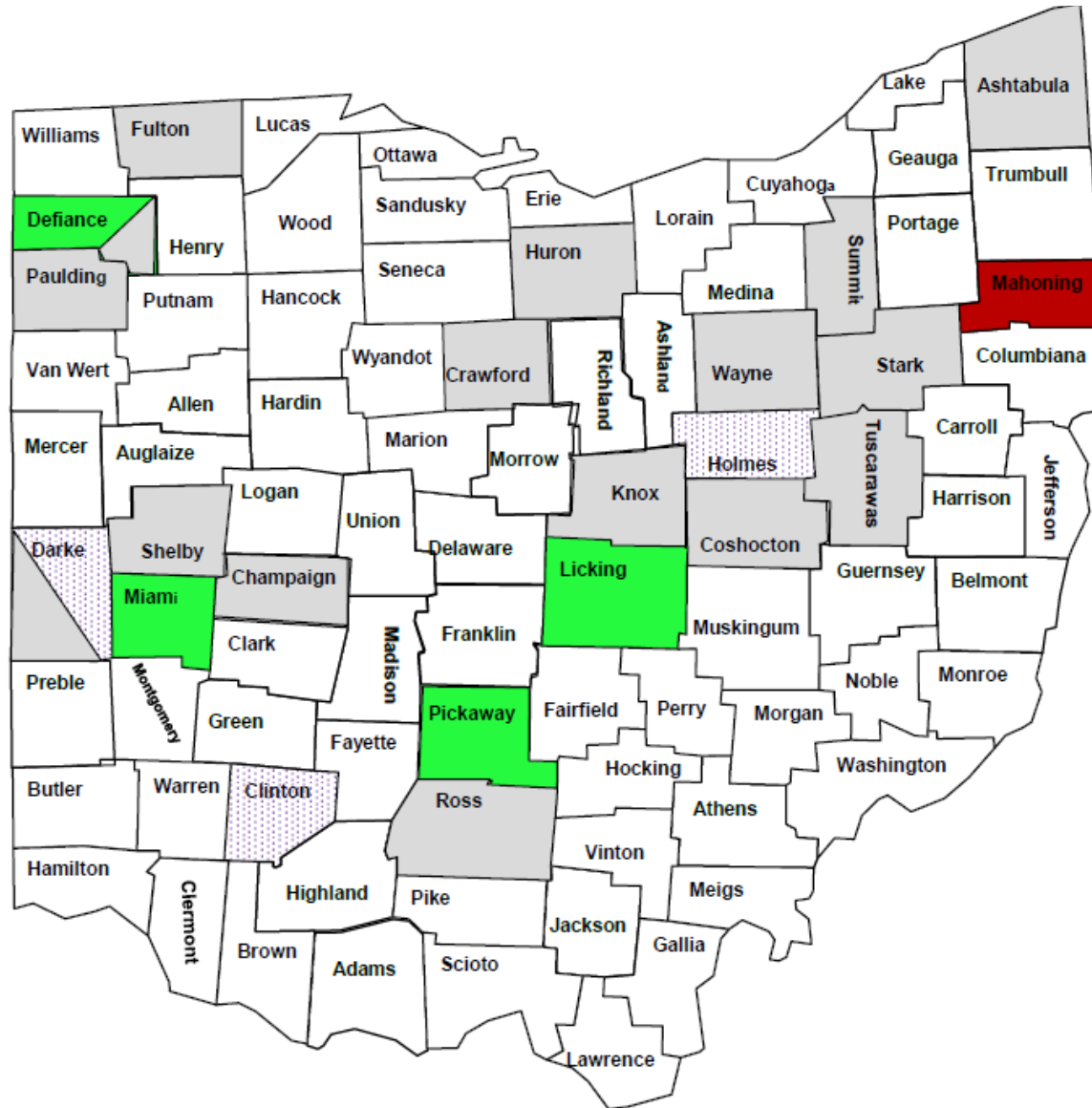
Helping Ohio's farm families achieve financial success in today's challenging marketplace



- Whole Farm Analysis
- Personalized Reports
- Cost of Production per Acre, Ton and Cwt.
- Enterprise Analysis
- Annual Summaries



# 2018 Farm Business Analysis Staff



## Analysis Technicians

Defiance - Clint Schroeder

Licking - Dave Grum

Mahoning- Chris Benton

- Haley Shoemaker

Miami -Sharon Harris

Pickaway - Trish Levering

# Location of the 43 farms, 2017 Ohio Farm Business Analysis Program

43 Crop, Crop & Livestock Farms



32,626 crop acres

27 Dairy Farms, 25 w/ Enterprise Analysis



53+ started, 43 completed, 7 Whole Farm, 36 w/ Enterprise Analysis

**CFAES**

OHIO STATE UNIVERSITY EXTENSION

# 2017 Ohio Farm Business Summary

Crop Enterprise Analysis with Benchmark Reports



[farmprofitability.osu.edu](http://farmprofitability.osu.edu)

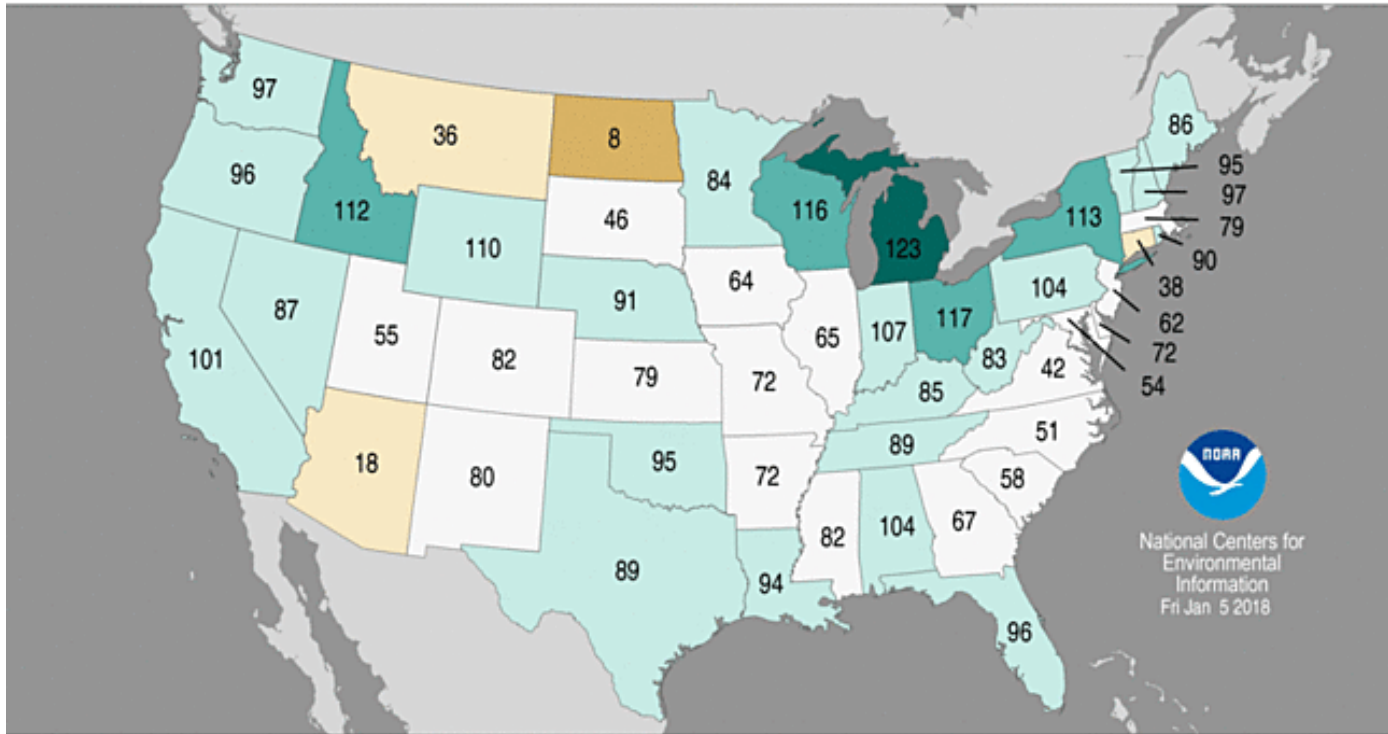
[farmoffice.osu.edu](http://farmoffice.osu.edu)



## Statewide Precipitation Ranks

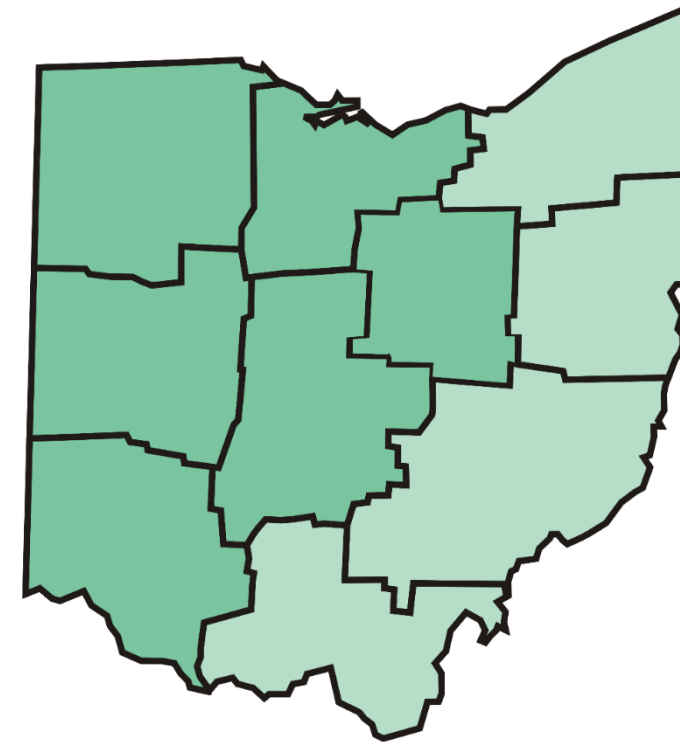
January–December 2017

Period: 1895–2017



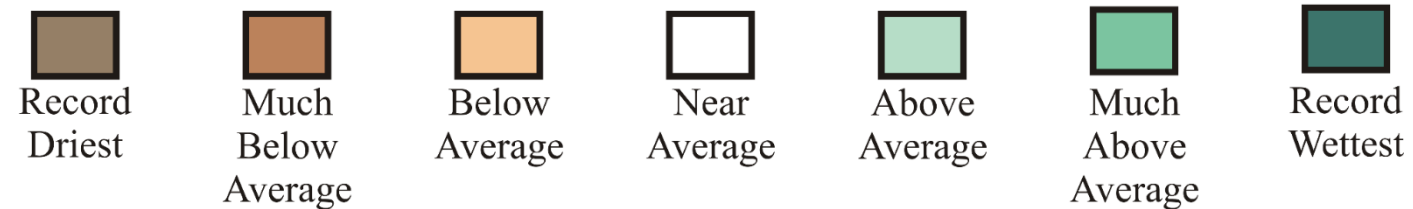
## 2017 Moisture Conditions

### Divisional Precipitation Ranks



January - December 2017

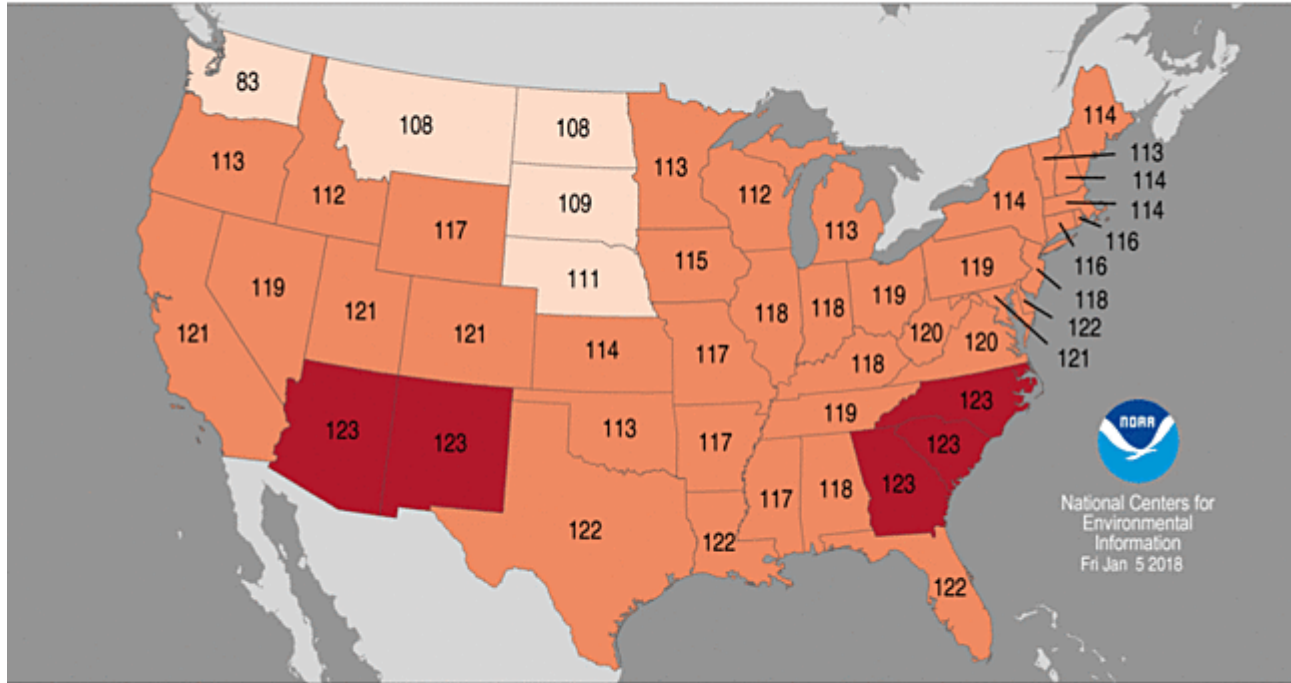
Period: 1895 - 2017



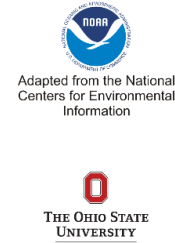
# Statewide Average Temperature Ranks

January–December 2017

Period: 1895–2017



## 2017 Temperature Conditions



### Average Temperature



### Maximum Temperature



### Minimum Temperature



January - December 2017  
Period: 1895 - 2017





# 2017 Ohio Farm Business Analysis

- 43 crop and crop/livestock farms
  - 32,626 crop acres
  - Whole farm analysis



## 2017 Ohio Farm Business Analysis

- 36 farms completed enterprise analyses
  - \*Analysis of crop and livestock enterprises
- 34 farms with crop enterprise analysis



## Crop Enterprise Analysis

### Corn on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	14
Acres	134.29
Yield per acre (bu.)	165.53
Operators share of yield %	100.00
Value per bu.	3.67
Total product return per acre	607.63
Crop insurance per acre	1.23
Other crop income per acre	0.23
Gross return per acre	609.09
<b>Direct Expenses</b>	
Seed	118.21
Fertilizer	122.26
Crop chemicals	62.74
Crop insurance	13.55
Drying expense	5.27
Storage	4.58
Packaging and supplies	1.17
Fuel & oil	28.19
Repairs	60.37
Custom hire	27.69
Hired labor	23.70
Machinery leases	9.54
Utilities	3.22
Hauling and trucking	2.03
Marketing	1.12
Operating interest	7.08
Miscellaneous	6.32
Total direct expenses per acre	497.04
Return over direct exp per acre	112.05
<b>Overhead Expenses</b>	
Hired labor	11.70
Machinery leases	0.95
RE & pers. property taxes	28.47
Farm insurance	12.85
Utilities	4.66
Dues & professional fees	5.60



# Crop Enterprise Analysis

- Accrual adjusted
- Identify:
  - Costs of production
    - Per acre
    - Per bushel or ton
  - Areas of concern/ Areas of opportunity
    - Benchmark Reports
    - Your farm performance highlighted
  - Successes




## Crop Enterprise Analysis

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Income from crop sales  
+/- Hedging gains or losses  
+ Crop Insurance  
+ Other crop income

- Direct Expenses
- Overhead Expenses
- Machinery depreciation
- Building depreciation

**Net Return per acre**



## Cost of growing corn, rented ground, 2017

Seed	\$ 97
Fertilizer	\$ 125
Chemicals	\$ 57
Repairs	\$ 47
Rent	\$ 132
 Total direct	 \$ 571
 Total overhead	 \$ 119
<b>Total cost/acre</b>	<b>\$ 690</b>
<b>Net Return (\$51) per acre</b>	





## Cost of growing corn, rented ground, 2017

Seed	\$ 97
Fertilizer	\$ 125
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Repairs	\$ 47
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Total direct	\$ 571
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Total overhead	\$ 119
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<b>Total cost/acre</b>	<b>\$ 690</b>
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<b>Net Return (\$51) per acre</b>	
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**Yield 174 bu/acre**

**Cost per bushel:**

**\$3.28 Direct**

**\$3.96 Direct & OH**

**\$3.75 Less gov't &  
other income**



## Cost of growing corn, cash rented ground, 2017

Average	
Seed	\$ 97
Fertilizer	125
Chemicals	57
Repairs	47
Rent	132
Total direct	\$571
<b>Total cost/acre</b>	
<b>\$690</b>	

High 20%	
Seed	\$ 97
Fertilizer	111
Chemicals	62
Repairs	50
Rent	137
Total direct	\$544
<b>Total cost/acre</b>	
<b>\$614</b>	



## Cost of growing corn, cash rented ground, 2017

### Average

Seed	\$ 97
Fertilizer	125
Chemicals	57
Repairs	47
Rent	132
Total direct	\$571

**Total cost/acre  
\$690**

**Yield 174 bu/acre  
Net Return (\$51) per acre**

Cost per bushel:

\$3.28 Direct  
\$3.96 Direct + OH  
\$3.75 Less gov't income

### High 20%

Seed	\$ 97
Fertilizer	111
Chemicals	62
Repairs	50
Rent	137
Total direct	\$544


**Total cost/acre  
\$614**

**Yield 196 bu/acre  
Net Return \$134 per acre**

Cost per bushel:

\$2.78 Direct  
\$3.14 Direct + OH  
\$2.89 Less gov't income






## Cost of growing soybeans, cash rented ground, 2017

Average	
Seed	\$ 62
Fertilizer	37
Chemicals	50
Repairs	30
Rent	138
Total direct	\$394
<b>Total cost/acre</b>	<b>\$463</b>

High 20%	
Seed	\$ 52
Fertilizer	57
Chemicals	35
Repairs	32
Rent	70
Total direct	\$298
<b>Total cost/acre</b>	<b>\$409</b>



## Cost of growing soybeans, cash rented ground, 2017

### Average

Seed	\$ 62
Fertilizer	37
Chemicals	50
Repairs	30
Rent	138
Total direct	\$394
<b>Total cost/acre</b>	<b>\$463</b>

**Yield 50.74 bu/acre**

**Net Return \$28 per acre**

Cost per bushel:

\$7.76 Direct  
\$9.12 Direct + OH  
\$8.31 Less gov't income

### High 20%

Seed	\$ 52
Fertilizer	57
Chemicals	35
Repairs	32
Rent	70
Total direct	\$298
<b>Total cost/acre</b>	<b>\$409</b>

**Yield 54.74 bu/acre**

**Net Return \$129 per acre**

Cost per bushel:

\$5.45	Direct
\$7.46	Direct + OH
\$6.90	Less gov't income

# Corn 2017; Cash Rent

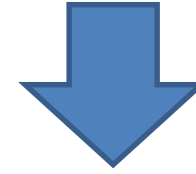
Benchmark Report, 27 Enterprises

RankEm

Farm ID: Sample Farm

	My Farm	Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Yield per acre (bu.)	180.00	178.18	27	111.38	138.26	155.15	165.00	171.64	179.75	184.66	191.41	198.38	220.59
Value per unit	3.70	3.70	27	3.08	3.34	3.50	3.57	3.62	3.75	3.79	3.79	3.80	3.88
Total product value	666.00	649.09	27	348.67	504.40	548.63	584.23	618.75	649.28	694.91	720.18	746.77	831.43
Crop insurance	0.00	0.00	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross return	666.00	649.09	27	348.67	518.89	555.49	592.10	618.75	649.28	696.84	725.44	751.87	831.43
Seed	107.29	107.29	27	116.65	114.66	113.17	113.17	113.01	104.42	99.64	89.88	79.09	68.26
Fertilizer	155.83	128.17	27	253.53	164.24	155.83	129.56	128.17	128.17	126.03	88.52	65.96	56.99
Crop chemicals	114.19	56.40	27	106.78	85.96	85.96	85.96	63.89	54.42	43.37	35.98	27.22	17.10
Crop insurance	0.00	18.70	21	33.84	29.32	29.32	29.16	23.31	18.70	13.99	11.76	8.52	5.68
Fuel & oil	20.78	26.42	27	45.91	43.95	37.59	30.62	26.42	26.42	26.42	24.47	21.13	12.46
Repairs	21.47	40.47	27	93.59	63.01	59.89	53.36	44.45	39.34	29.80	29.80	28.58	23.64
Custom hire	0.00	25.17	18	118.19	74.96	34.65	28.14	25.17	25.17	25.17	19.79	11.62	0.98
Land rent	37.12	149.78	27	223.84	199.01	193.25	180.00	174.53	141.73	88.01	80.22	50.00	33.49
Operating interest	1.22	7.35	22	26.60	26.60	26.60	19.11	9.91	5.45	3.30	2.50	1.75	0.69
Total direct expenses	506.97	585.00	27	778.49	700.97	696.35	678.93	646.91	582.38	543.03	506.97	471.88	371.12
Return over direct expenses	159.03	44.08	27	-165.82	-97.83	-31.51	16.44	33.53	49.07	89.91	110.88	157.58	232.41
Hired labor	23.94	19.17	23	56.69	50.28	21.55	19.17	19.17	7.76	0.00	0.00	0.00	0.00
Machinery leases	0.00	3.83	14	7.58	7.58	7.58	7.58	7.58	0.04	0.00	0.00	0.00	0.00
Farm insurance	6.40	9.74	27	49.92	15.65	11.26	11.26	11.26	9.15	7.06	6.53	3.27	2.99
Utilities	1.24	1.44	24	18.37	14.21	14.21	14.21	1.63	0.00	0.00	0.00	0.00	0.00
Dues & professional fees	0.00	6.22	26	14.07	7.91	6.90	6.46	6.46	5.89	3.88	2.82	1.98	1.23
Interest on interm. debt	5.54	5.59	25	15.58	14.20	9.26	5.59	5.59	5.59	3.04	1.38	1.19	0.82
Machinery depreciation	18.94	43.64	27	80.28	59.64	59.50	59.50	47.02	43.64	38.87	35.37	30.49	14.90
Building depreciation	3.00	6.45	27	16.12	9.81	8.87	7.44	7.44	5.27	3.66	2.66	1.67	0.66
Miscellaneous	0.19	7.96	24	31.61	17.69	10.06	7.96	7.96	7.96	6.00	2.47	1.69	0.84
Total overhead expenses	59.76	98.89	27	209.64	139.18	139.18	139.18	102.22	91.62	77.01	72.06	62.67	49.11
Total dir & ovhd expenses	566.74	719.01	27	863.56	835.53	824.90	801.14	749.89	704.40	630.79	612.95	548.89	476.76
Net return	99.26	-69.92	27	-236.89	-219.62	-123.13	-114.38	-85.71	-56.95	-28.16	-14.04	53.90	167.36
Government payments	0.00	33.70	27	0.00	14.62	23.45	27.51	29.47	33.85	35.61	43.44	57.93	93.16
Net return with govt pymts	99.26	-42.54	27	-206.10	-177.39	-95.29	-78.77	-45.63	-28.16	13.48	32.25	99.26	200.45
Labor & management charge	33.34	74.59	27	209.51	147.94	128.19	94.58	78.22	74.59	74.59	58.70	42.64	37.46
Net return over lbr & mgt	65.93	-127.61	27	-321.12	-252.83	-235.20	-173.35	-158.02	-120.21	-71.96	-25.63	15.82	98.33
Direct cost of prod per unit	2.82	3.51	27	4.86	4.41	4.03	3.59	3.56	3.51	3.08	2.87	2.79	2.57
Dir & ovhd cost of prod/unit	3.15	4.05	27	5.39	5.15	4.54	4.28	4.11	4.04	3.84	3.51	3.42	2.94
COP less govt & other income	3.15	3.80	27	5.16	4.85	4.31	4.07	3.86	3.76	3.58	3.29	3.15	2.68
Cost of prod with lbr & mgt	3.33	4.36	27	5.88	5.29	5.25	4.71	4.46	4.31	4.12	3.92	3.50	3.19
Machinery cost per acre	66.74	154.06	27	244.14	228.83	176.20	168.74	154.32	154.06	154.06	141.15	99.26	80.59
Est. labor hours per acre	6.80	4.32	27	8.98	7.42	6.22	5.21	4.90	4.25	4.25	4.25	3.80	2.13

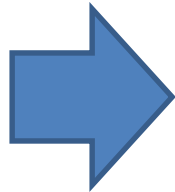




**Corn 2017; Cash Rent**  
Benchmark Report, 27 Enterprises

**RankEm**  
Farm ID: Sample Farm

	My Farm	Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Yield per acre (bu.)	180.00	178.18	27	111.38	138.26	155.15	165.00	171.64	179.75	184.66	191.41	198.38	220.59
Value per unit	3.70	3.70	27	3.08	3.34	3.50	3.57	3.62	3.75	3.79	3.79	3.80	3.88
Total product value	666.00	649.09	27	348.67	504.40	548.63	584.23	618.75	649.28	694.91	720.18	746.77	831.43
Crop insurance	0.00	0.00	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross return	666.00	649.09	27	348.67	518.89	555.49	592.10	618.75	649.28	696.84	725.44	751.87	831.43



Yield – 180 bushels/acre  
60<sup>th</sup> percentile  
40% of the farms achieved a higher yield

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Benchmark Report, 27 Enterprises

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Yield – 180 bushels/acre  
60<sup>th</sup> percentile  
40% of the farms achieved a higher yield

Value per unit - \$3.70/bu  
50<sup>th</sup> percentile



**Corn 2017; Cash Rent**  
Benchmark Report, 27 Enterprises

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Crop insurance	0.00	0.00	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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Yield – 180 bushels/acre  
60<sup>th</sup> percentile  
40% of the farms achieved a higher yield

Value per unit - \$3.70/bu  
50<sup>th</sup> percentile  
50% of the farms achieved a higher price



Gross return - \$666.00/acre  
60<sup>th</sup> percentile

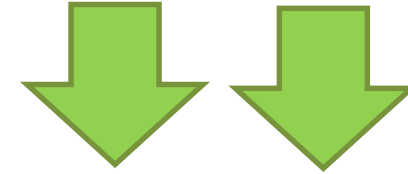
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Gross return	666.00	649.09	27	348.67	518.89	555.49	592.10	618.75	649.28	696.84	725.44	751.87	831.43



Total dir & ovhd expenses	566.74	719.01	27	863.56	835.53	824.90	801.14	749.89	704.40	630.79	612.95	548.89	476.76
Net return	99.26	-69.92	27	-236.89	-219.62	-123.13	-114.38	-85.71	-56.95	-28.16	-14.04	53.90	167.36
Government payments	0.00	33.70	27	0.00	14.62	23.45	27.51	29.47	33.85	35.61	43.44	57.93	93.16
Net return with govt pymts	99.26	-42.54	27	-206.10	-177.39	-95.29	-78.77	-45.63	-28.16	13.48	32.25	99.26	200.45
Labor & management charge	33.34	74.59	27	209.51	147.94	128.19	94.58	78.22	74.59	74.59	58.70	42.64	37.46
Net return over lbr & mgt	65.93	-127.61	27	-321.12	-252.83	-235.20	-173.35	-158.02	-120.21	-71.96	-25.63	15.82	98.33
Direct cost of prod per unit	2.82	3.51	27	4.86	4.41	4.03	3.59	3.56	3.51	3.08	2.87	2.79	2.57
Dir & ovhd cost of prod/unit	3.15	4.05	27	5.39	5.15	4.54	4.28	4.11	4.04	3.84	3.51	3.42	2.94
COP less govt & other income	3.15	3.80	27	5.16	4.85	4.31	4.07	3.86	3.76	3.58	3.29	3.15	2.68
Cost of prod with lbr & mgt	3.33	4.36	27	5.88	5.29	5.25	4.71	4.46	4.31	4.12	3.92	3.50	3.19



Total Direct & overhead expenses - \$566.74 per acre

80<sup>th</sup> percentile

Net Return - \$99.26 per acre; 100<sup>th</sup> percentile



## Corn 2017; Cash Rent

Benchmark Report, 27 Enterprises

RankEm

Farm ID: Sample Farm

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Crop insurance	0.00	0.00	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross return	666.00	649.09	27	348.67	518.89	555.49	592.10	618.75	649.28	696.84	725.44	751.87	831.43
Total dir & ovhd expenses	566.74	719.01		863.56	835.53	824.90	801.14	749.89	704.40	630.79	612.95	548.89	476.76
Net return	99.26	-69.92		-236.89	-219.62	-123.13	-114.38	-85.71	-56.95	-28.16	-14.04	53.90	167.36
Government payments	0.00	33.70		0.00	14.62	23.45	27.51	29.47	33.85	35.61	43.44	57.93	93.16
Net return with govt pymts	99.26	-42.54		-206.10	-177.39	-95.29	-78.77	-45.63	-28.16	13.48	32.25	99.26	200.45
Labor & management charge	33.34	74.59		209.51	147.94	128.19	94.58	78.22	74.59	74.59	58.70	42.64	37.46
Net return over lbr & mgt	65.93	-127.61		-321.12	-252.83	-235.20	-173.35	-158.02	-120.21	-71.96	-25.63	15.82	98.33
Direct cost of prod per unit	2.82	3.51		4.86	4.41	4.03	3.59	3.56	3.51	3.08	2.87	2.79	2.57
Dir & ovhd cost of prod/unit	3.15	4.05		5.39	5.15	4.54	4.28	4.11	4.04	3.84	3.51	3.42	2.94
COP less govt & other income	3.15	3.80		5.16	4.85	4.31	4.07	3.86	3.76	3.58	3.29	3.15	2.68
Cost of prod with lbr & mgt	3.33	4.36		5.88	5.29	5.25	4.71	4.46	4.31	4.12	3.92	3.50	3.19



## Costs of production per bushel

Direct cost of production

80<sup>th</sup> percentile

Direct and overhead costs

100<sup>th</sup> percentile

COP less govt & other income

90<sup>th</sup> percentile

# Corn 2017; Cash Rent

Benchmark Report, 27 Enterprises

RankEm

Farm ID: Sample Farm

	My Farm	Group Median		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Yield per acre (bu.)	180.00	178.18	7	111.38	138.26	155.15	165.00	171.64	179.75	184.66	191.41	198.38	220.59
Value per unit	3.70	3.70	7	3.08	3.34	3.50	3.57	3.62	3.75	3.79	3.79	3.80	3.88
Total product value	666.00	649.09	7	348.67	504.40	548.63	584.23	618.75	649.28	694.91	720.18	746.77	831.43
Crop insurance	0.00	0.00	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross return	666.00	649.09	7	348.67	504.40	548.63	584.23	618.75	649.28	694.91	720.18	746.77	831.43
Seed	107.29	107.29	7	116.65	114.66	113.17	113.17	113.01	104.42	99.64	89.88	79.09	68.26
Fertilizer	155.83	128.17	7	253.53	164.24	155.83	129.56	128.17	128.17	126.03	88.52	65.96	56.99
Crop chemicals	114.19	56.40	7	106.78	85.96	85.96	85.96	63.89	54.42	43.37	35.98	27.22	17.10
Crop insurance	0.00	18.70	1	33.84	29.32	29.32	29.16	23.31	18.70	13.99	11.76	8.52	5.68
Fuel & oil	20.78	26.42	7	45.91	43.95	37.59	30.62	26.42	26.42	26.42	24.47	21.13	12.46
Repairs	21.47	40.47	7	93.59	63.01	59.89	53.36	44.45	39.34	29.80	29.80	28.58	23.64
Custom hire	0.00	25.17	3	118.19	74.96	34.65	28.14	25.17	25.17	25.17	19.79	11.62	0.98
Land rent	37.12	149.78	7	223.84	199.01	193.25	180.00	174.53	141.73	88.01	80.22	50.00	33.49
Operating interest	1.22	7.35	2	26.60	26.60	26.60	19.11	9.91	5.45	3.30	2.50	1.75	0.69
Total direct expenses	506.97	585.00	7	778.49	700.97	696.35	678.93	646.91	582.38	543.03	506.97	471.88	371.12
Return over direct expenses	159.03	44.08	7	-165.82	-97.83	-31.51	16.44	33.53	49.07	89.91	110.88	157.58	232.41
Hired labor	23.94	19.17	3	56.69	50.28	21.55	19.17	19.17	7.76	0.00	0.00	0.00	0.00
Machinery leases	0.00	3.83	7	7.58	7.58	7.58	7.58	7.58	0.04	0.00	0.00	0.00	0.00
Farm insurance	6.40	9.74	7	49.92	15.65	11.26	11.26	11.26	9.15	7.06	6.53	3.27	2.99
Utilities	1.24	1.44	7	18.37	14.21	14.21	14.21	1.63	0.00	0.00	0.00	0.00	0.00
Dues & professional fees	0.00	6.22	3	14.07	7.91	6.90	6.46	6.46	5.89	3.88	2.82	1.98	1.23
Interest on interm. debt	5.54	5.59	3	15.58	14.20	9.26	5.59	5.59	5.59	3.04	1.38	1.19	0.82
Machinery depreciation	18.94	43.64	7	80.28	59.64	59.50	59.50	47.02	43.64	38.87	35.37	30.49	14.90
Building depreciation	3.00	6.45	7	16.12	9.81	8.87	7.44	7.44	5.27	3.66	2.66	1.67	0.66
Miscellaneous	0.19	7.96	7	31.61	17.69	10.06	7.96	7.96	7.96	6.00	2.47	1.69	0.84
Total overhead expenses	59.76	98.89	7	209.64	139.18	139.18	139.18	102.22	91.62	77.01	72.00	62.07	49.11
Total dir & ovhd expenses	566.74	719.01	7	863.56	835.53	824.90	801.14	749.89	704.40	630.79	612.95	548.89	476.76
Net return	99.26	-69.92	7	-236.89	-219.62	-123.13	-114.38	-85.71	-56.95	-28.16	-14.04	53.90	167.36

If this was an enterprise that did not meet net return goals not caused by weather issues:

Use the benchmark chart to identify where the farm is spending more than most farms

-is there a significant opportunity to control costs?

-impact on potential yield

Other considerations – what is holding back yield?



**BUSINESS**

## Summarized income statement

**2017 Financial Analysis Executive Summary**
**Income Statement**

Crop sales	621,500	
Crop inventory change	-55,885	
Gross crop income		565,615
Livestock sales	34,489	
Livestock inventory change	-	
Gross livestock income		34,489
Government payments		8,858
Other cash farm income		39,001
Change in accounts receivable		-
Gain or loss on hedging accts		3,687
Change in other assets		-
Gain or loss on breeding lvst		-575
Gross farm income		651,075
Cash operating expense	566,897	
Change in prepaid exp and supplies	-19,635	
Change in growing crops	-	
Change in accounts payable	-3,872	
Depreciation	46,526	
Total operating expense		589,916
Interest paid	23,817	
Change in accrued interest	7,321	
Total interest expense		31,138
Total expenses		621,054
Net farm income		30,021

**Other Measures**

Total crop acres		1,118
Backgnd Beef sold or transferred out		39
Change in earned net worth	-64,169	-5 %
Change in market value net worth	-39,446	-2 %

**Financial Standards Measures**

<b>Liquidity</b>	<b>Beg</b>	<b>End</b>
Current ratio	4.50	2.89
Working capital	576,026	466,160
Working capital to gross revenues	88.5 %	71.6 %
<b>Solvency (market)</b>	<b>Beg</b>	<b>End</b>
Debt to asset ratio	18 %	30 %
Debt to equity ratio	0.22	0.42
<b>Profitability</b>	<b>Cost</b>	<b>Market</b>
Net farm income	30,021	28,148
Rate of return on assets	-0.3 %	-0.3 %
Rate of return on equity	-3.3 %	-2.5 %
Operating profit margin	-0.8 %	-1.1 %
<b>Repayment Capacity</b>		
Term debt coverage ratio (farm only)		-0.03
Replacement margin coverage ratio		-0.03
<b>Efficiency</b>	<b>Cost</b>	<b>Market</b>
Asset turnover rate	40.5 %	31.8 %
Operating expense ratio		83.5 %
Depreciation expense ratio		7.1 %
Interest expense ratio		4.8 %
Net farm income ratio		4.6 %
<b>Other</b>		
Term debt coverage (farm+personal)		0.02
Term debt to EBITDA		1.65

**Information Accuracy**

Cash discrepancy	0
Liability discrepancy	0
Cash discrepancy to gross revenue	0 %



## Summarized income statement

## 2017 Financial Analysis Executive Summary

## Income Statement

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## Information Accuracy

Cash discrepancy	0
Liability discrepancy	0
Cash discrepancy to gross revenue	0 %

## Farm Financial Standards Council 21 Measures

# Whole Farm Analysis

Includes:

Income Statement

Statement of Owner's Equity

Statement of Cash Flows

Profitability Measures

Liquidity Measures

Solvency Measures

Repayment Capacity

Comparative Balance Sheets

-cost

-market

Comparative Trends

## Income Statement

Income	Quantity	Price	Amount	Expense	Amount
Corn, 2016 Crop	95,250 bu.	3.35/bu.	319,088	Seed	74,947
Corn, 2017 Contract	10,000 bu.	3.88/bu.	38,800	Fertilizer	115,680
Soybeans, 2016 Crop	25,592 bu.	9.48/bu.	242,612	Crop chemicals	38,217
Soybeans, 2017 Crop Contra	2,000 bu.	10.50/bu.	21,000	Crop insurance	27,978
Backgnd Beef, Beef Calves	39 head	149.22/cwt.	34,489	Drying expense	8,846
Cull breeding livestock			1,533	Storage	462
Crop government payments			8,858	Crop Custom hire	8,033
Custom work income			13,598	Crop Consultants	6,972
Patronage dividends, cash			4,901	Crop Marketing	3,111
Crop insurance income			9,136	Crop Miscellaneous	3,523
Other farm income			9,833	Purchased feed	4,503
				Veterinary	1,701
				Supplies	1,452
				Livestock Marketing	249
				Interest	23,817
				Fuel & oil	28,656
				Repairs	38,040
				Land rent	180,012
				Real estate taxes	3,535
				Farm insurance	10,357
				Utilities	5,246
				Miscellaneous	5,377
Gross cash income			703,848	Total cash expense	590,714
				Net cash income	113,134

Inventory Changes	Beginning Inventory	Purchases/Deposits	Sales/Withdrawals	Ending Inventory	Inventory Change
Prepays and supplies	112,225			131,860	19,635
Hedging gains or losses	2,733	6,540	10,000	2,960	3,687
Crops and feed	560,237			504,352	-55,885
Breeding livestock	27,732	-	-	27,157	-575
Other assets	49,500	1,653	-	51,153	-
Accounts payable	8,057			4,185	3,872
Accrued interest	9,630			16,951	-7,321
Total inventory change					-36,587
Net operating profit					76,547

Depreciation	Beginning Inventory	Purchases	Sales	Ending Inventory	Depreciation
Machinery and equipment	464,636	337,950	23,500	736,378	-42,708
Titled vehicles	5,664	-	-	4,814	-850
Buildings and improvement	59,367	-	-	56,399	-2,968
Total depreciation					-46,526

Net farm income					30,021
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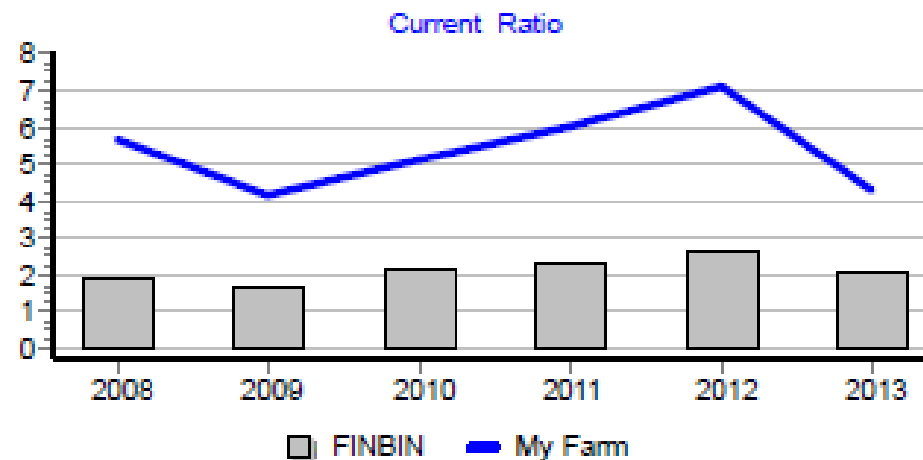
# Financial Standards Graphics

- Enhance the farm's understanding of
- FFSC measures
  - their farm's performance

ABC Farms Financial Analysis: 2013 Analysis

Page 9

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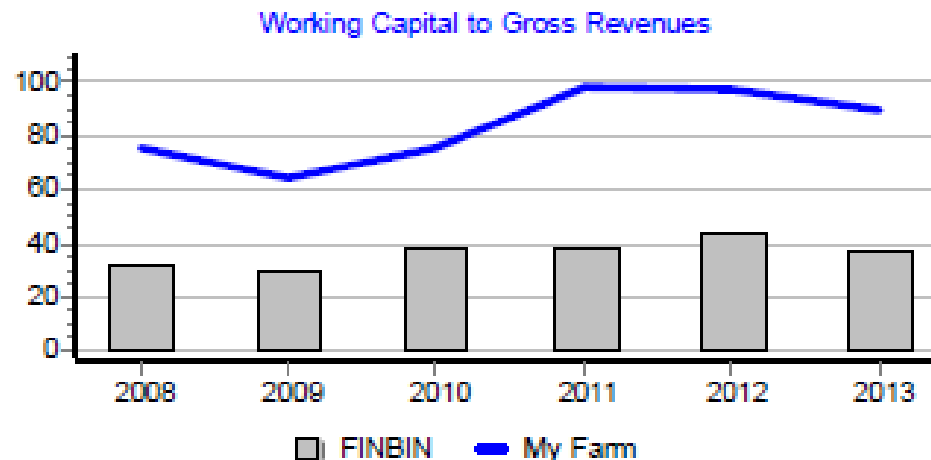


## Current Ratio

The extent to which current farm assets, if liquidated, would cover current farm liabilities.

Total current farm assets divided by total current farm liabilities.

Strong	Greater than 2
Caution	2 to 1.3
Vulnerable	Less than 1.3



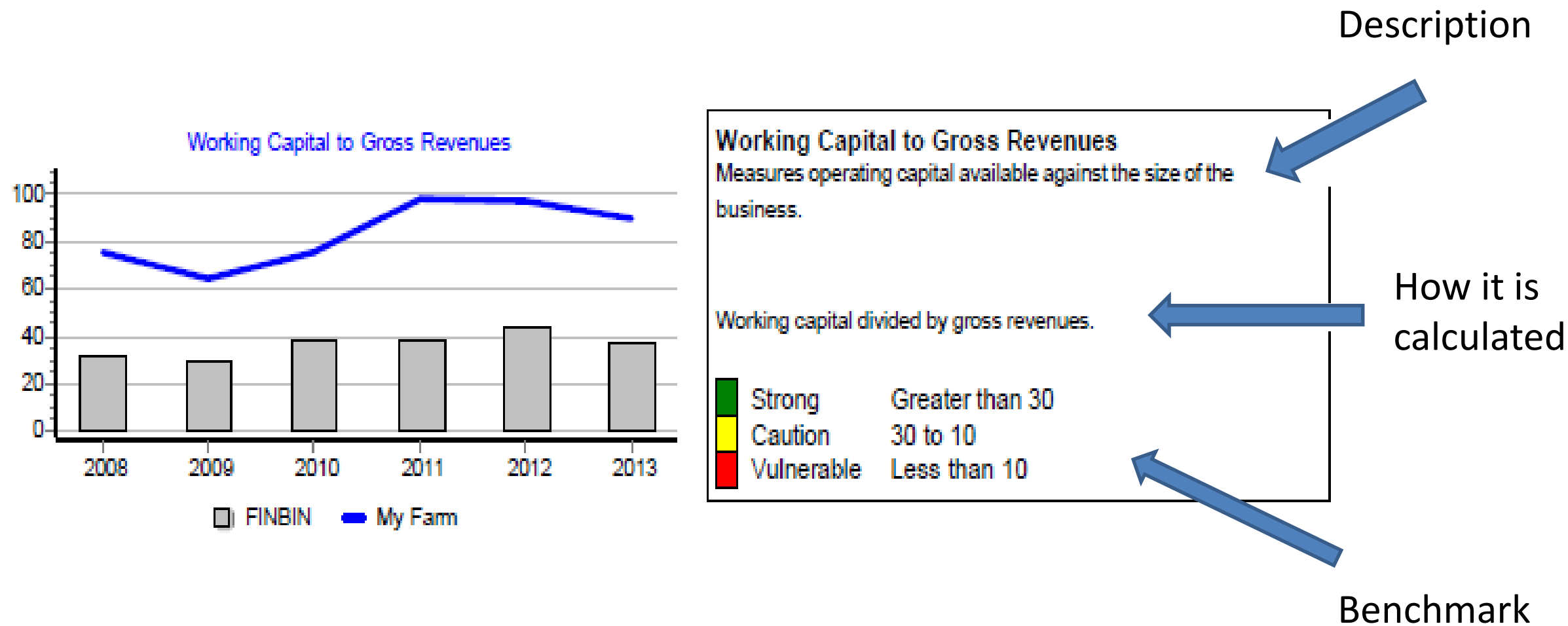
## Working Capital to Gross Revenues

Measures operating capital available against the size of the business.

Working capital divided by gross revenues.

Strong	Greater than 30
Caution	30 to 10
Vulnerable	Less than 10

# Financial Standards Graphics

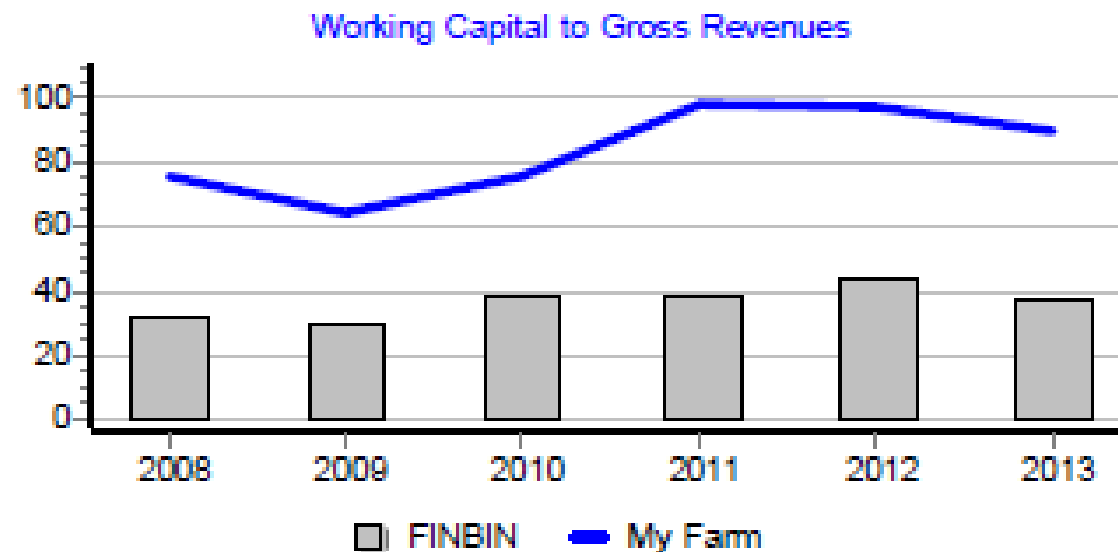




# Financial Standards Graphics

Show farm's current and historic performance (blue line)

Compare to performance of all Ohio farms in the FINBIN national database (gray bars)



**Working Capital to Gross Revenues**  
Measures operating capital available against the size of the business.

Working capital divided by gross revenues.

Strong	Greater than 30
Caution	30 to 10
Vulnerable	Less than 10

# Selected Business Factors

	Avg of All Farms	Crop Farms	Dairy Farms
<b>Liquidity</b>	42	11	24
Current Ratio	1.67	1.79	1.51
Working Capital / Gross Revenues	17.3%	45.7%	10.4%
<b>Solvency</b>			
Debt to Asset Ratio	30%	25%	33%
<b>Profitability</b>			
Rate of Return on Assets	2.6%	(0.1%)	3.3%
<b>Repayment Capacity</b>			
Term Debt Coverage Ratio	1.46	0.84	1.56

# The Plan



- Ohio Farm Business Analysis and Benchmarking Program
- Corn
- Soybeans
- Business
- **Questions**



Question:

What would make farm business analysis most useful for you?





## For More Information About Farm Business Analysis :

Visit: <http://farmprofitability.osu.edu>

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**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture