

Crop Enterprise Analysis
2016 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Soybeans, Food on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	342.77
Yield per acre (bu.)	36.76
Operators share of yield %	100.00
Value per bu.	13.37
Total product return per acre	491.57
Hedging gains/losses per acre	1.82
Crop insurance per acre	10.45
Gross return per acre	503.84
Direct Expenses	
Seed	4.13
Fertilizer	29.03
Crop chemicals	37.54
Crop insurance	20.95
Fuel & oil	12.92
Repairs	26.90
Custom hire	4.83
Land rent	130.63
Marketing	0.73
Operating interest	6.08
Miscellaneous	2.30
Total direct expenses per acre	276.02
Return over direct exp per acre	227.82
Overhead Expenses	
Hired labor	17.48
Machinery leases	1.40
Building leases	3.66
Farm insurance	9.22
Utilities	3.81
Dues & professional fees	3.12
Interest	1.43
Mach & bldg depreciation	26.71
Miscellaneous	7.28
Total overhead expenses per acre	74.11
Total dir & ovhd expenses per acre	350.13
Net return per acre	153.71
Government payments	10.47
Net return with govt pmts	164.18
Labor & management charge	30.16
Net return over lbr & mgt	134.02
Cost of Production	
Total direct expense per bu.	7.51
Total dir & ovhd exp per bu.	9.52
Less govt & other income	8.90
With labor & management	9.73
Net value per unit	13.42
Machinery cost per acre	70.36
Est. labor hours per acre	1.57

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Corn on Owned Land

	<u>Ava. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	26	5	5	6
Acres	232.62	202.64	254.56	303.77
Yield per acre (bu.)	182.73	176.57	177.50	189.78
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.09	3.01	3.04	3.21
Total product return per acre	563.82	531.28	539.42	608.51
Hedging gains/losses per acre	13.80	-	-	45.78
Crop insurance per acre	14.51	-	-	38.23
Gross return per acre	592.12	531.28	539.42	692.53
Direct Expenses				
Seed	90.94	106.60	89.83	76.93
Fertilizer	99.05	108.62	95.55	105.24
Crop chemicals	27.71	34.31	22.39	23.07
Crop insurance	18.74	21.05	19.21	19.15
Drying expense	9.68	12.96	14.34	8.46
Fuel & oil	21.27	20.98	19.18	24.93
Repairs	39.53	48.95	31.19	39.49
Custom hire	2.34	7.12	0.14	2.85
Hired labor	1.06	0.13	3.84	0.45
Machinery leases	4.41	1.19	11.67	2.73
Utilities	0.65	-	-	-
Marketing	0.76	-	2.09	0.75
Operating interest	7.95	1.88	11.29	3.32
Miscellaneous	3.02	1.09	3.43	5.76
Total direct expenses per acre	327.12	364.88	324.15	313.12
Return over direct exp per acre	265.00	166.40	215.27	379.41
Overhead Expenses				
Hired labor	27.56	33.15	13.37	40.50
Machinery leases	3.84	1.73	6.02	3.97
Building leases	3.83	0.93	3.21	7.35
RE & pers. property taxes	30.19	22.36	36.36	34.69
Farm insurance	9.36	17.68	5.54	7.51
Utilities	7.52	13.95	2.13	8.35
Dues & professional fees	5.44	5.41	4.59	5.92
Interest	55.30	36.22	79.75	49.60
Mach & bldg depreciation	53.74	65.73	46.62	55.74
Miscellaneous	5.72	9.75	1.36	6.25
Total overhead expenses per acre	202.50	206.93	198.94	219.89
Total dir & ovhd expenses per acre	529.62	571.80	523.08	533.01
Net return per acre	62.50	-40.52	16.33	159.52
Government payments	12.30	20.22	6.60	17.44
Net return with govt pmts	74.80	-20.30	22.93	176.96
Labor & management charge	56.92	57.54	47.42	70.94
Net return over lbr & mgt	17.88	-77.84	-24.49	106.01
Cost of Production				
Total direct expense per bu.	1.79	2.07	1.83	1.65
Total dir & ovhd exp per bu.	2.90	3.24	2.95	2.81
Less govt & other income	2.68	3.12	2.91	2.27
With labor & management	2.99	3.45	3.18	2.65
Net value per unit	3.16	3.01	3.04	3.45
Machinery cost per acre	121.35	142.30	117.46	119.28
Est. labor hours per acre	2.79	3.40	2.10	3.18

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Corn on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	37	7	8	8
Acres	475.51	254.09	491.78	611.60
Yield per acre (bu.)	182.04	177.97	188.25	176.99
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.06	2.90	3.06	3.16
Total product return per acre	557.95	516.78	575.44	558.62
Hedging gains/losses per acre	7.71	-	-	27.72
Crop insurance per acre	24.82	21.42	9.19	73.79
Gross return per acre	590.48	538.20	584.63	660.13
Direct Expenses				
Seed	90.84	99.16	96.73	82.41
Fertilizer	97.20	103.66	117.95	95.58
Crop chemicals	27.17	25.55	25.87	19.07
Crop insurance	17.65	25.98	18.27	20.61
Drying expense	7.34	12.40	10.78	6.68
Storage	0.30	0.91	-	0.76
Fuel & oil	20.38	17.88	21.05	21.56
Repairs	35.53	38.90	32.72	43.83
Custom hire	5.08	15.92	10.56	1.93
Hired labor	4.12	-	3.62	9.28
Land rent	126.94	144.99	125.11	118.76
Machinery leases	5.59	2.92	0.21	0.38
Marketing	0.38	0.74	0.38	0.62
Operating interest	8.91	9.95	6.72	7.19
Miscellaneous	3.14	2.21	3.61	3.81
Total direct expenses per acre	450.58	501.16	473.59	432.48
Return over direct exp per acre	139.90	37.04	111.04	227.65
Overhead Expenses				
Hired labor	21.36	21.40	17.88	25.43
Machinery leases	4.53	2.26	2.50	12.47
Building leases	2.66	7.13	0.14	3.89
Farm insurance	8.05	12.65	9.85	8.14
Utilities	5.17	5.64	4.08	6.80
Dues & professional fees	4.02	4.06	3.36	5.23
Interest	5.95	4.00	4.11	9.54
Mach & bldg depreciation	51.09	42.66	55.54	51.03
Miscellaneous	4.89	8.23	5.66	4.86
Total overhead expenses per acre	107.73	108.04	103.12	127.40
Total dir & ovhd expenses per acre	558.31	609.20	576.71	559.88
Net return per acre	32.17	-71.00	7.92	100.25
Government payments	12.31	12.98	10.93	15.94
Net return with govt pmts	44.49	-58.02	18.85	116.19
Labor & management charge	53.24	46.28	57.51	61.68
Net return over lbr & mgt	-8.75	-104.30	-38.66	54.51
Cost of Production				
Total direct expense per bu.	2.48	2.82	2.52	2.44
Total dir & ovhd exp per bu.	3.07	3.42	3.06	3.16
Less govt & other income	2.82	3.23	2.96	2.50
With labor & management	3.11	3.49	3.26	2.85
Net value per unit	3.11	2.90	3.06	3.31
Machinery cost per acre	122.96	121.80	121.49	133.91
Est. labor hours per acre	2.54	2.23	2.61	3.08

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Soybeans on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	40	8	8	8
Acres	270.71	252.06	242.75	226.38
Yield per acre (bu.)	44.55	37.50	45.98	42.74
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.18	9.06	9.28	9.19
Total product return per acre	408.79	339.60	426.68	392.85
Hedging gains/losses per acre	-0.24	-2.02	-	-0.22
Crop insurance per acre	26.56	26.89	2.71	114.44
Gross return per acre	435.11	364.47	429.39	507.07
Direct Expenses				
Seed	65.37	69.89	62.41	63.72
Fertilizer	15.85	20.55	11.72	13.69
Crop chemicals	28.48	28.21	32.04	21.22
Crop insurance	17.93	22.06	16.10	17.92
Fuel & oil	10.95	10.96	10.06	11.75
Repairs	21.16	22.82	20.78	24.02
Custom hire	3.88	6.88	4.79	1.82
Hired labor	1.06	2.47	0.06	3.18
Machinery leases	2.18	5.23	0.42	0.93
Marketing	0.41	0.46	1.27	0.03
Operating interest	5.68	6.04	6.20	5.16
Miscellaneous	2.94	1.72	2.38	3.39
Total direct expenses per acre	175.89	197.27	168.23	166.83
Return over direct exp per acre	259.22	167.19	261.16	340.24
Overhead Expenses				
Hired labor	12.24	5.42	12.20	14.65
Machinery leases	2.84	2.57	7.50	3.42
Building leases	2.16	3.30	0.84	4.35
RE & pers. property taxes	26.89	29.50	31.68	27.12
Farm insurance	6.71	6.44	5.99	7.75
Utilities	3.83	4.63	3.40	3.51
Dues & professional fees	3.83	3.67	3.65	4.20
Interest	61.01	64.08	96.03	75.60
Mach & bldg depreciation	29.11	34.88	22.50	30.94
Miscellaneous	2.66	3.22	1.94	3.38
Total overhead expenses per acre	151.27	157.70	185.74	174.91
Total dir & ovhd expenses per acre	327.16	354.98	353.97	341.74
Net return per acre	107.95	9.49	75.42	165.33
Government payments	7.66	11.98	9.82	7.49
Net return with govt pmts	115.62	21.47	85.24	172.82
Labor & management charge	30.41	29.07	27.57	37.79
Net return over lbr & mgt	85.21	-7.60	57.67	135.02
Cost of Production				
Total direct expense per bu.	3.95	5.26	3.66	3.90
Total dir & ovhd exp per bu.	7.34	9.47	7.70	8.00
Less govt & other income	6.58	8.48	7.43	5.15
With labor & management	7.26	9.26	8.02	6.03
Net value per unit	9.17	9.00	9.28	9.19
Machinery cost per acre	69.80	82.99	68.69	71.00
Est. labor hours per acre	1.47	1.30	1.16	1.68

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Soybeans on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	57	11	12	12
Acres	658.37	521.84	850.29	496.05
Yield per acre (bu.)	46.00	41.45	47.89	47.74
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.19	9.05	9.15	9.27
Total product return per acre	422.91	375.28	437.99	442.58
Hedging gains/losses per acre	-0.21	-5.12	2.15	-0.10
Crop insurance per acre	19.20	5.67	15.51	53.76
Gross return per acre	441.89	375.83	455.65	496.24
Direct Expenses				
Seed	64.44	65.39	64.95	61.96
Fertilizer	15.78	17.34	21.37	14.91
Crop chemicals	29.39	22.91	34.42	19.40
Crop insurance	16.62	17.43	16.43	13.98
Storage	0.28	0.45	0.02	1.21
Fuel & oil	10.91	12.40	11.19	12.06
Repairs	19.52	18.82	19.01	21.07
Custom hire	4.49	4.17	2.30	9.33
Hired labor	1.68	5.05	1.12	3.47
Land rent	129.90	126.49	134.33	111.74
Machinery leases	3.51	12.60	4.45	0.19
Hauling and trucking	0.18	-	0.07	0.54
Operating interest	5.38	6.67	3.71	3.74
Miscellaneous	2.96	3.31	2.46	3.20
Total direct expenses per acre	305.04	313.02	315.83	276.78
Return over direct exp per acre	136.86	62.82	139.82	219.46
Overhead Expenses				
Hired labor	11.08	7.42	10.30	16.05
Machinery leases	2.95	0.19	1.20	2.72
Building leases	1.20	3.21	0.03	0.58
Farm insurance	6.45	7.64	6.31	6.73
Utilities	2.86	3.01	3.00	3.05
Dues & professional fees	3.62	3.37	2.71	4.47
Interest	3.19	1.63	2.48	2.54
Mach & bldg depreciation	26.16	34.59	25.56	23.77
Miscellaneous	2.59	3.50	1.55	2.37
Total overhead expenses per acre	60.09	64.56	53.14	62.28
Total dir & ovhd expenses per acre	365.12	377.58	368.97	339.07
Net return per acre	76.77	-1.75	86.68	157.17
Government payments	9.69	11.35	12.90	7.82
Net return with govt pmts	86.46	9.60	99.59	164.99
Labor & management charge	30.49	26.87	29.85	36.26
Net return over lbr & mgt	55.97	-17.27	69.74	128.74
Cost of Production				
Total direct expense per bu.	6.63	7.55	6.59	5.80
Total dir & ovhd exp per bu.	7.94	9.11	7.70	7.10
Less govt & other income	7.31	8.82	7.07	5.81
With labor & management	7.98	9.47	7.69	6.57
Net value per unit	9.19	8.93	9.19	9.27
Machinery cost per acre	68.28	82.02	63.95	69.23
Est. labor hours per acre	1.39	1.32	1.36	1.79

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Soybeans Seed on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	379.29
Yield per acre (bu.)	45.69
Operators share of yield %	100.00
Value per bu.	10.64
Total product return per acre	486.11
Crop insurance per acre	37.91
Gross return per acre	524.02
Direct Expenses	
Seed	60.71
Fertilizer	13.70
Crop chemicals	37.95
Crop insurance	18.97
Fuel & oil	11.27
Repairs	27.77
Custom hire	1.22
Land rent	145.76
Machinery leases	5.31
Marketing	0.39
Operating interest	4.41
Miscellaneous	1.96
Total direct expenses per acre	329.41
Return over direct exp per acre	194.61
Overhead Expenses	
Hired labor	25.64
Machinery leases	0.89
Farm insurance	4.31
Utilities	3.27
Dues & professional fees	1.88
Interest	1.86
Mach & bldg depreciation	29.83
Miscellaneous	4.97
Total overhead expenses per acre	72.65
Total dir & ovhd expenses per acre	402.06
Net return per acre	121.97
Government payments	4.16
Net return with govt pmts	126.12
Labor & management charge	38.06
Net return over lbr & mgt	88.06
Cost of Production	
Total direct expense per bu.	7.21
Total dir & ovhd exp per bu.	8.80
Less govt & other income	7.88
With labor & management	8.71
Net value per unit	10.64
Machinery cost per acre	76.47
Est. labor hours per acre	1.93

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Wheat, Spring on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	30	6	6	6
Acres	201.89	148.67	269.33	135.80
Yield per acre (bu.)	73.82	56.47	73.47	80.66
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.95	4.74	5.00	5.00
Total product return per acre	365.17	267.87	367.34	403.35
Hedging gains/losses per acre	0.32	-	-	-
Crop insurance per acre	6.34	32.23	0.38	1.51
Other crop income per acre	2.18	-	-	14.73
Gross return per acre	374.00	300.10	367.72	419.59
Direct Expenses				
Seed	20.54	17.76	20.09	21.00
Fertilizer	84.52	79.98	81.78	80.36
Crop chemicals	24.70	27.43	22.15	26.33
Crop insurance	12.77	14.03	13.47	10.83
Storage	1.96	5.14	0.11	-
Fuel & oil	11.07	11.83	11.54	8.57
Repairs	22.05	26.26	19.89	24.76
Custom hire	7.33	4.45	5.34	6.22
Machinery leases	0.85	3.94	-	1.98
Marketing	0.69	0.03	1.95	0.99
Operating interest	5.21	6.17	4.47	5.92
Miscellaneous	3.11	4.49	3.91	3.08
Total direct expenses per acre	194.78	201.50	184.69	190.04
Return over direct exp per acre	179.22	98.59	183.03	229.55
Overhead Expenses				
Hired labor	14.65	12.11	15.48	14.39
Machinery leases	2.30	0.82	2.29	3.43
Building leases	1.38	3.28	1.61	0.87
RE & pers. property taxes	27.23	22.83	32.49	19.82
Farm insurance	6.50	5.57	6.70	4.04
Utilities	3.69	2.44	5.74	2.46
Dues & professional fees	4.97	3.15	4.27	2.32
Interest	46.99	72.21	50.86	38.74
Mach & bldg depreciation	27.85	20.48	30.06	28.60
Miscellaneous	2.68	4.86	1.45	2.38
Total overhead expenses per acre	138.24	147.75	150.95	117.04
Total dir & ovhd expenses per acre	333.03	349.25	335.64	307.09
Net return per acre	40.98	-49.16	32.08	112.51
Government payments	6.44	7.39	8.55	7.38
Net return with govt pmts	47.42	-41.77	40.63	119.89
Labor & management charge	30.25	27.42	33.68	29.97
Net return over lbr & mgt	17.17	-69.19	6.95	89.92
Cost of Production				
Total direct expense per bu.	2.64	3.57	2.51	2.36
Total dir & ovhd exp per bu.	4.51	6.18	4.57	3.81
Less govt & other income	4.30	5.48	4.45	3.51
With labor & management	4.71	5.97	4.91	3.89
Net value per unit	4.95	4.74	5.00	5.00
Machinery cost per acre	70.80	68.50	67.13	74.85
Est. labor hours per acre	1.59	1.59	1.84	1.43

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	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	48	9	9	10
Acres	444.99	357.34	647.01	358.06
Yield per acre (bu.)	69.20	57.70	72.81	73.15
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.03	4.89	4.98	5.12
Total product return per acre	348.36	282.30	362.31	374.76
Hedging gains/losses per acre	0.35	-	0.26	1.69
Crop insurance per acre	14.19	40.24	5.88	19.90
Other crop income per acre	0.56	-	1.13	1.03
Gross return per acre	363.46	322.54	369.58	397.38
Direct Expenses				
Seed	18.86	22.36	20.92	17.53
Fertilizer	80.49	83.22	85.43	74.93
Crop chemicals	25.07	27.12	25.07	23.68
Crop insurance	13.94	10.81	14.76	13.62
Drying expense	0.92	0.01	1.75	1.00
Storage	1.19	3.61	0.05	1.23
Fuel & oil	11.53	12.53	12.01	12.57
Repairs	22.04	25.06	23.85	21.46
Custom hire	6.05	4.74	4.77	0.87
Hired labor	1.19	0.40	-	0.81
Land rent	132.94	157.85	138.35	106.08
Machinery leases	2.74	5.87	1.12	1.15
Marketing	0.43	0.42	1.23	0.15
Operating interest	5.16	5.77	4.36	5.62
Miscellaneous	3.77	6.61	1.95	2.96
Total direct expenses per acre	326.31	366.37	335.60	283.65
Return over direct exp per acre	37.15	-43.83	33.98	113.72
Overhead Expenses				
Hired labor	13.41	19.82	15.02	19.29
Machinery leases	2.03	0.98	2.18	2.01
Building leases	1.61	2.50	1.23	0.52
Farm insurance	6.83	5.99	6.27	7.94
Utilities	2.81	3.68	2.85	3.23
Dues & professional fees	3.64	3.26	4.09	3.43
Interest	2.71	2.12	3.42	1.92
Mach & bldg depreciation	26.95	18.31	29.20	26.50
Miscellaneous	2.62	6.68	2.53	2.07
Total overhead expenses per acre	62.61	63.34	66.79	66.91
Total dir & ovhd expenses per acre	388.92	429.70	402.40	350.57
Net return per acre	-25.46	-107.16	-32.81	46.81
Government payments	9.07	8.02	8.50	9.75
Net return with govt pmts	-16.39	-99.15	-24.31	56.56
Labor & management charge	31.69	34.96	28.60	31.19
Net return over lbr & mgt	-48.08	-134.10	-52.92	25.37
Cost of Production				
Total direct expense per bu.	4.72	6.35	4.61	3.88
Total dir & ovhd exp per bu.	5.62	7.45	5.53	4.79
Less govt & other income	5.27	6.61	5.31	4.35
With labor & management	5.73	7.22	5.70	4.78
Net value per unit	5.04	4.89	4.98	5.15
Machinery cost per acre	71.85	68.79	73.17	64.54
Est. labor hours per acre	1.50	1.82	1.48	1.74