

Crop Enterprise Analysis
2017 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Corn on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	27	5	6	6
Acres	291.36	206.50	431.33	245.17
Yield per acre (bu.)	171.13	164.45	173.97	171.86
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	2.94	2.78	2.92	2.95
Total product return per acre	502.65	457.04	508.05	506.79
Hedging gains/losses per acre	2.02	-	-	10.81
Crop insurance per acre	7.25	3.23	6.30	23.79
Other crop income per acre	2.97	0.09	3.56	3.35
Gross return per acre	514.89	460.36	517.91	544.74
Direct Expenses				
Seed and plants	94.28	102.60	101.32	78.21
Fertilizer	90.89	97.21	92.05	78.27
Crop chemicals	32.42	27.45	34.69	20.22
Crop insurance	22.82	23.10	26.43	18.03
Drying expense	6.61	7.58	4.90	5.98
Storage	0.65	1.88	0.05	0.00
Fuel & oil	18.86	20.45	14.23	22.28
Repairs	33.78	42.28	24.03	39.73
Custom hire	4.55	4.33	4.80	3.03
Hired labor	1.57	-	-	8.38
Machinery leases	1.65	6.73	-	-
Marketing	0.59	3.58	0.02	0.20
Operating interest	12.06	10.39	17.33	3.75
Miscellaneous	7.32	0.67	15.08	0.43
Total direct expenses per acre	328.04	348.26	334.92	278.51
Return over direct exp per acre	186.85	112.10	182.98	266.23
Overhead Expenses				
Hired labor	32.91	9.51	45.50	35.69
Machinery leases	7.21	7.90	5.26	16.65
Building leases	2.78	1.02	2.64	4.57
RE & pers. property taxes	25.55	32.00	22.25	34.40
Farm insurance	7.68	6.45	5.85	7.66
Utilities	6.75	5.45	5.81	5.08
Dues & professional fees	4.52	4.19	3.78	5.16
Interest	50.83	100.07	29.55	53.30
Mach & bldg depreciation	46.45	32.43	44.85	49.70
Miscellaneous	4.82	3.91	4.90	3.36
Total overhead expenses per acre	189.50	202.93	170.39	215.56
Total dir & ovhd expenses per acre	517.54	551.20	505.32	494.07
Net return per acre	-2.65	-90.84	12.59	50.67
Government payments	7.57	7.22	11.31	4.68
Net return with govt pmnts	4.92	-83.62	23.90	55.35
Labor & management charge	43.33	55.04	36.14	43.63
Net return over lbr & mgt	-38.41	-138.65	-12.24	11.72
Cost of Production				
Total direct expense per bu.	1.92	2.12	1.93	1.62
Total dir & ovhd exp per bu.	3.02	3.35	2.90	2.87
Less govt & other income	2.91	3.29	2.78	2.63
With labor & management	3.16	3.62	2.99	2.88
Net value per unit	2.95	2.78	2.92	3.01
Machinery cost per acre	107.79	118.77	80.43	124.99
Est. labor hours per acre	2.75	2.33	3.13	2.70

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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	40	8	8	8
Acres	460.64	290.22	720.53	601.20
Yield per acre (bu.)	168.11	155.33	171.81	167.99
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	2.99	2.96	2.94	3.00
Total product return per acre	502.20	459.28	505.37	504.45
Hedging gains/losses per acre	2.21	-	-	8.46
Crop insurance per acre	9.47	14.28	4.95	21.03
Other crop income per acre	2.51	4.54	2.53	2.90
Gross return per acre	516.38	478.09	512.84	536.85
Direct Expenses				
Seed and plants	90.66	99.48	96.06	72.37
Fertilizer	93.21	94.60	92.69	83.57
Crop chemicals	31.74	31.74	31.80	31.05
Crop insurance	22.23	24.10	24.80	16.36
Drying expense	6.21	10.49	4.86	5.92
Storage	0.51	1.06	0.20	0.01
Fuel & oil	20.13	19.32	16.38	24.65
Repairs	34.88	41.22	28.47	40.44
Custom hire	5.76	7.08	5.66	2.91
Hired labor	2.63	-	-	7.48
Land rent	127.14	149.66	137.74	110.19
Machinery leases	1.67	10.33	-	-
Utilities	0.30	2.40	-	-
Marketing	0.32	0.49	0.00	0.68
Operating interest	10.10	14.15	12.99	4.42
Miscellaneous	4.52	3.18	7.58	1.27
Total direct expenses per acre	452.02	509.31	459.23	401.32
Return over direct exp per acre	64.36	-31.22	53.61	135.53
Overhead Expenses				
Hired labor	23.11	11.66	26.93	28.77
Machinery leases	9.07	3.98	12.18	12.62
Building leases	2.83	6.90	0.18	3.97
Farm insurance	7.44	11.56	5.33	9.29
Utilities	5.62	4.76	5.91	5.81
Dues & professional fees	4.02	4.38	3.72	5.36
Interest	4.42	7.26	3.26	2.87
Mach & bldg depreciation	46.72	44.59	47.68	46.66
Miscellaneous	4.80	3.74	2.88	6.49
Total overhead expenses per acre	108.02	98.83	108.07	121.83
Total dir & ovhd expenses per acre	560.04	608.14	567.31	523.15
Net return per acre	-43.66	-130.05	-54.46	13.70
Government payments	6.11	6.94	7.16	4.91
Net return with govt pmts	-37.55	-123.11	-47.31	18.61
Labor & management charge	47.43	56.61	41.36	41.80
Net return over lbr & mgt	-84.98	-179.73	-88.67	-23.19
Cost of Production				
Total direct expense per bu.	2.69	3.28	2.67	2.39
Total dir & ovhd exp per bu.	3.33	3.92	3.30	3.11
Less govt & other income	3.21	3.75	3.22	2.89
With labor & management	3.49	4.11	3.46	3.14
Net value per unit	3.00	2.96	2.94	3.05
Machinery cost per acre	115.60	130.06	103.26	120.88
Est. labor hours per acre	2.45	2.55	2.49	2.54

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Soybeans on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	41	8	8	9
Acres	297.58	282.81	287.63	256.00
Yield per acre (bu.)	36.65	28.88	38.66	40.34
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.99	8.91	8.94	9.02
Total product return per acre	329.57	257.21	345.75	363.81
Hedging gains/losses per acre	2.04	-	-	10.82
Crop insurance per acre	16.92	18.51	10.52	26.20
Other crop income per acre	3.43	4.42	4.48	3.08
Gross return per acre	351.96	280.14	360.76	403.91
Direct Expenses				
Seed and plants	63.54	63.14	63.14	53.93
Fertilizer	15.35	14.86	21.06	13.05
Crop chemicals	35.88	37.55	35.70	28.25
Crop insurance	19.98	20.91	19.96	17.14
Fuel & oil	10.86	12.45	12.17	12.45
Repairs	21.86	24.88	25.95	25.41
Custom hire	3.37	6.42	5.09	1.12
Hired labor	0.10	0.55	0.00	-
Machinery leases	0.16	0.72	-	0.12
Marketing	0.17	0.61	-	0.27
Operating interest	6.17	5.88	7.31	4.61
Miscellaneous	5.58	4.26	4.05	1.98
Total direct expenses per acre	183.02	192.24	194.45	158.33
Return over direct exp per acre	168.94	87.91	166.30	245.57
Overhead Expenses				
Hired labor	20.17	15.79	17.64	23.87
Machinery leases	3.26	1.47	3.35	2.43
Building leases	1.83	0.39	0.89	3.39
RE & pers. property taxes	25.18	22.42	24.08	33.23
Farm insurance	7.19	8.26	9.95	6.63
Utilities	3.74	4.93	4.06	3.21
Dues & professional fees	3.88	3.53	4.31	5.31
Interest	45.84	53.02	30.81	59.74
Mach & bldg depreciation	27.86	32.75	29.45	31.05
Miscellaneous	2.51	3.21	2.06	2.95
Total overhead expenses per acre	141.47	145.77	126.60	171.83
Total dir & ovhd expenses per acre	324.49	338.00	321.05	330.16
Net return per acre	27.48	-57.86	39.70	73.75
Government payments	10.50	17.77	13.12	6.77
Net return with govt pmts	37.98	-40.09	52.82	80.52
Labor & management charge	28.38	32.49	31.60	28.86
Net return over lbr & mgt	9.59	-72.57	21.22	51.65
Cost of Production				
Total direct expense per bu.	4.99	6.66	5.03	3.92
Total dir & ovhd exp per bu.	8.85	11.70	8.30	8.18
Less govt & other income	7.96	10.29	7.58	7.02
With labor & management	8.73	11.42	8.39	7.74
Net value per unit	9.05	8.91	8.94	9.29
Machinery cost per acre	64.32	75.91	73.71	68.20
Est. labor hours per acre	1.67	1.74	1.77	1.65

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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	61	12	12	13
Acres	721.63	813.17	554.49	393.06
Yield per acre (bu.)	36.59	30.52	32.16	41.68
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.99	9.00	8.97	8.90
Total product return per acre	329.10	274.76	288.44	370.82
Hedging gains/losses per acre	0.31	-	-	1.74
Crop insurance per acre	17.57	27.48	33.50	10.41
Other crop income per acre	1.86	2.22	2.63	1.35
Gross return per acre	348.84	304.46	324.57	384.32
Direct Expenses				
Seed and plants	63.07	68.30	59.50	55.00
Fertilizer	15.27	12.55	17.82	14.20
Crop chemicals	36.24	43.18	32.19	29.81
Crop insurance	19.36	19.01	15.78	15.93
Storage	0.26	0.05	0.74	0.32
Fuel & oil	11.06	11.78	12.40	12.52
Repairs	19.53	19.89	19.32	21.29
Custom hire	5.34	6.73	7.47	2.29
Hired labor	0.59	0.18	0.01	3.82
Land rent	132.93	141.64	112.97	114.24
Machinery leases	0.64	1.63	0.39	0.68
Operating interest	6.16	7.38	9.38	2.74
Miscellaneous	4.99	5.95	0.87	2.59
Total direct expenses per acre	315.45	338.25	288.84	275.44
Return over direct exp per acre	33.39	-33.79	35.73	108.88
Overhead Expenses				
Hired labor	13.62	12.79	2.70	13.69
Machinery leases	5.51	2.49	10.06	5.92
Building leases	1.64	5.35	1.33	1.24
Farm insurance	6.19	6.86	6.28	6.75
Utilities	2.96	2.26	5.01	2.88
Dues & professional fees	2.82	2.40	2.80	3.21
Interest	2.32	3.01	1.48	2.18
Mach & bldg depreciation	24.76	26.32	22.94	24.58
Miscellaneous	2.96	1.74	2.84	2.27
Total overhead expenses per acre	62.78	63.22	55.44	62.73
Total dir & ovhd expenses per acre	378.22	401.47	344.28	338.17
Net return per acre	-29.39	-97.01	-19.71	46.15
Government payments	8.28	7.94	5.85	7.61
Net return with govt pmts	-21.11	-89.07	-13.86	53.76
Labor & management charge	27.94	25.35	29.96	30.63
Net return over lbr & mgt	-49.04	-114.42	-43.82	23.14
Cost of Production				
Total direct expense per bu.	8.62	11.08	8.98	6.61
Total dir & ovhd exp per bu.	10.34	13.16	10.71	8.11
Less govt & other income	9.57	11.92	9.40	7.61
With labor & management	10.34	12.75	10.33	8.34
Net value per unit	9.00	9.00	8.97	8.94
Machinery cost per acre	66.22	70.20	71.89	67.47
Est. labor hours per acre	1.38	1.24	1.14	1.69

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Soybeans Seed on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	182.63
Yield per acre (bu.)	40.42
Operators share of yield %	100.00
Value per bu.	10.86
Total product return per acre	438.95
Other crop income per acre	2.04
Gross return per acre	441.00
Direct Expenses	
Seed and plants	68.18
Fertilizer	17.04
Crop chemicals	38.06
Crop insurance	14.79
Storage	0.71
Fuel & oil	11.61
Repairs	24.94
Custom hire	2.26
Machinery leases	2.06
Marketing	1.39
Operating interest	9.81
Miscellaneous	2.76
Total direct expenses per acre	193.61
Return over direct exp per acre	247.38
Overhead Expenses	
Hired labor	8.31
Machinery leases	1.91
Building leases	0.83
RE & pers. property taxes	24.52
Farm insurance	6.98
Utilities	3.88
Dues & professional fees	5.79
Interest	54.79
Mach & bldg depreciation	24.50
Miscellaneous	3.11
Total overhead expenses per acre	134.63
Total dir & ovhd expenses per acre	328.25
Net return per acre	112.75
Government payments	9.81
Net return with govt pmts	122.56
Labor & management charge	27.74
Net return over lbr & mgt	94.82
Cost of Production	
Total direct expense per bu.	4.79
Total dir & ovhd exp per bu.	8.12
Less govt & other income	7.83
With labor & management	8.51
Net value per unit	10.86
Machinery cost per acre	65.69
Est. labor hours per acre	1.57

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Soybeans Seed on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	419.13
Yield per acre (bu.)	40.38
Operators share of yield %	100.00
Value per bu.	10.68
Total product return per acre	431.29
Crop insurance per acre	3.49
Other crop income per acre	1.86
Gross return per acre	436.64
Direct Expenses	
Seed and plants	62.66
Fertilizer	12.37
Crop chemicals	37.00
Crop insurance	16.16
Storage	0.61
Fuel & oil	12.79
Repairs	27.28
Custom hire	0.68
Hired labor	0.38
Land rent	124.34
Machinery leases	1.92
Marketing	1.65
Operating interest	7.25
Miscellaneous	2.65
Total direct expenses per acre	307.74
Return over direct exp per acre	128.90
Overhead Expenses	
Hired labor	11.76
Machinery leases	2.56
Building leases	1.17
Farm insurance	7.49
Utilities	3.35
Dues & professional fees	5.49
Interest	2.01
Mach & bldg depreciation	27.95
Miscellaneous	2.42
Total overhead expenses per acre	64.19
Total dir & ovhd expenses per acre	371.93
Net return per acre	64.71
Government payments	8.71
Net return with govt pmts	73.42
Labor & management charge	29.42
Net return over lbr & mgt	43.99
Cost of Production	
Total direct expense per bu.	7.62
Total dir & ovhd exp per bu.	9.21
Less govt & other income	8.86
With labor & management	9.59
Net value per unit	10.68
Machinery cost per acre	71.60
Est. labor hours per acre	1.53

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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	32	6	7	7
Acres	186.40	150.67	152.34	146.87
Yield per acre (bu.)	73.57	66.21	72.45	80.73
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.98	5.72	6.07	6.17
Total product return per acre	439.69	378.62	439.56	497.89
Crop insurance per acre	1.54	0.49	0.47	-
Other crop income per acre	2.77	3.36	3.06	4.24
Gross return per acre	444.00	382.47	443.10	502.13
Direct Expenses				
Seed and plants	21.30	19.13	22.11	16.78
Fertilizer	76.73	74.77	79.13	76.22
Crop chemicals	28.00	27.24	28.62	37.75
Crop insurance	14.13	14.70	12.89	18.57
Storage	0.64	-	0.84	0.04
Fuel & oil	12.63	10.95	13.16	10.30
Repairs	25.91	19.60	17.31	24.04
Custom hire	3.40	7.93	4.01	4.75
Machinery leases	0.30	-	1.31	-
Operating interest	6.68	6.84	9.00	3.60
Miscellaneous	5.64	10.31	10.10	5.14
Total direct expenses per acre	195.37	191.46	198.47	197.21
Return over direct exp per acre	248.63	191.01	244.63	304.92
Overhead Expenses				
Hired labor	17.40	22.64	13.86	9.96
Machinery leases	2.81	6.56	1.68	3.72
Building leases	1.61	0.44	5.73	2.46
RE & pers. property taxes	25.05	26.17	17.37	25.01
Farm insurance	8.45	5.15	7.01	10.24
Utilities	3.89	2.31	3.60	3.66
Dues & professional fees	3.57	2.77	2.94	4.88
Interest	51.75	42.79	40.75	50.43
Mach & bldg depreciation	29.05	20.95	28.18	31.14
Miscellaneous	3.45	1.89	4.65	4.87
Total overhead expenses per acre	147.02	131.68	125.77	146.36
Total dir & ovhd expenses per acre	342.39	323.14	324.24	343.56
Net return per acre	101.61	59.33	118.86	158.57
Government payments	14.12	8.78	10.15	10.56
Net return with govt pmts	115.73	68.11	129.01	169.13
Labor & management charge	30.95	25.14	27.45	31.65
Net return over lbr & mgt	84.77	42.97	101.56	137.48
Cost of Production				
Total direct expense per bu.	2.66	2.89	2.74	2.44
Total dir & ovhd exp per bu.	4.65	4.88	4.48	4.26
Less govt & other income	4.40	4.69	4.29	4.07
With labor & management	4.82	5.07	4.67	4.46
Net value per unit	5.98	5.72	6.07	6.17
Machinery cost per acre	73.02	63.45	66.14	73.04
Est. labor hours per acre	1.65	1.54	1.39	1.38

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Wheat, Spring on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	51	10	10	11
Acres	431.66	406.26	366.16	389.57
Yield per acre (bu.)	73.41	67.74	74.77	78.33
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.01	5.81	5.96	6.19
Total product return per acre	441.53	393.21	445.62	485.10
Crop insurance per acre	1.26	-	1.16	0.95
Other crop income per acre	1.99	2.44	3.28	1.11
Gross return per acre	444.79	395.65	450.06	487.16
Direct Expenses				
Seed and plants	19.55	19.35	19.75	19.20
Fertilizer	77.42	73.10	76.60	72.60
Crop chemicals	29.24	30.98	29.32	19.36
Crop insurance	13.75	14.86	15.12	13.05
Drying expense	0.18	0.03	-	0.60
Storage	0.32	0.66	0.76	0.01
Fuel & oil	12.31	11.58	11.09	15.37
Repairs	22.95	21.96	24.89	27.91
Custom hire	5.29	11.11	8.56	3.94
Land rent	131.79	143.27	126.93	111.14
Machinery leases	0.73	0.09	0.98	-
Marketing	0.56	0.34	0.06	1.73
Operating interest	6.24	6.90	6.74	3.29
Miscellaneous	4.86	8.57	5.82	2.53
Total direct expenses per acre	325.19	342.78	326.61	290.73
Return over direct exp per acre	119.60	52.87	123.45	196.43
Overhead Expenses				
Hired labor	15.46	18.86	16.64	15.70
Machinery leases	2.97	6.59	1.99	2.92
Building leases	2.19	0.43	3.30	1.38
Farm insurance	6.80	5.15	6.38	8.21
Utilities	2.76	2.36	2.55	3.19
Dues & professional fees	3.49	3.72	2.97	3.38
Interest	2.02	2.90	1.99	1.17
Mach & bldg depreciation	24.50	22.58	25.16	30.15
Miscellaneous	2.85	1.66	2.41	2.20
Total overhead expenses per acre	63.01	64.24	63.37	68.31
Total dir & ovhd expenses per acre	388.20	407.02	389.98	359.04
Net return per acre	56.59	-11.38	60.08	128.12
Government payments	11.26	8.68	8.66	16.02
Net return with govt pmts	67.85	-2.70	68.74	144.14
Labor & management charge	29.89	25.32	29.51	35.28
Net return over lbr & mgt	37.96	-28.01	39.22	108.86
Cost of Production				
Total direct expense per bu.	4.43	5.06	4.37	3.71
Total dir & ovhd exp per bu.	5.29	6.01	5.22	4.58
Less govt & other income	5.09	5.84	5.04	4.35
With labor & management	5.50	6.22	5.44	4.80
Net value per unit	6.01	5.81	5.96	6.19
Machinery cost per acre	68.21	72.80	72.18	78.13
Est. labor hours per acre	1.51	1.42	1.58	1.60

Crop Enterprise Analysis
2017 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	8
Acres	345.60
Yield per acre (bu.)	27.97
Operators share of yield %	100.00
Value per bu.	13.27
Total product return per acre	371.26
Crop insurance per acre	14.35
Other crop income per acre	3.51
Gross return per acre	389.11
Direct Expenses	
Seed and plants	3.29
Fertilizer	21.66
Crop chemicals	55.65
Crop insurance	21.52
Fuel & oil	14.88
Repairs	26.43
Custom hire	9.34
Hired labor	5.21
Land rent	130.96
Machinery leases	0.84
Marketing	0.83
Operating interest	5.58
Miscellaneous	3.95
Total direct expenses per acre	300.16
Return over direct exp per acre	88.95
Overhead Expenses	
Hired labor	13.70
Machinery leases	3.13
Building leases	2.36
Farm insurance	7.24
Utilities	3.90
Dues & professional fees	3.48
Interest	1.98
Mach & bldg depreciation	22.77
Miscellaneous	4.10
Total overhead expenses per acre	62.66
Total dir & ovhd expenses per acre	362.82
Net return per acre	26.29
Government payments	7.44
Net return with govt pmts	33.73
Labor & management charge	27.26
Net return over lbr & mgt	6.47
Cost of Production	
Total direct expense per bu.	10.73
Total dir & ovhd exp per bu.	12.97
Less govt & other income	12.07
With labor & management	13.04
Net value per unit	13.27
Machinery cost per acre	77.00
Est. labor hours per acre	1.29