

Wheat Economics for 2006

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Higher priced inputs for 2006

- Will the total bill be higher?
- Do we change crop mix?
- Do we change production practices?

What is the impact of market price changes?

- Offset cost of input increases?
- Magnify cost of input increases?

Southeast HRS Wheat Budget, 2005-2006

	2005	2006
Yield	37	41
Price	3.48	3.64
Market Income	128.76	149.24

Southeast HRS Wheat Budget, 2005-2006

Direct Costs	2005	2006
Seed	9.28	10.15
Herbicides	10.30	12.10
Fungicides	1.50	1.50
Fertilizer	27.36	37.05
Crop insurance	3.60	4.40
Fuel & Lub.	9.20	11.56
Repairs	10.29	10.34
Misc.	1.00	1.00
Operating Int.	2.36	3.41
Total Direct Costs	74.88	91.51

Southeast HRS Wheat Return Over Variable Costs

	2005	2006
Market Income	128.76	149.24
Direct Costs	74.88	91.51
RODC	53.88	57.73

Southwest HRS Wheat Budget, 2005-2006

	2005	2006
Yield	26	27
Price	3.26	3.41
Market Income	84.76	92.07

Southwest HRS Wheat Budget, 2005-2006

Direct Costs	2005	2006
Seed	7.25	7.25
Herbicides	9.20	10.30
Fungicides	1.50	1.50
Fertilizer	9.52	16.66
Crop Insurance	3.60	4.30
Fuel & Lub.	7.66	10.02
Repairs	9.11	9.47
Misc.	1.00	1.00
Operating Int.	1.59	2.34
Total Direct Costs	50.43	62.85

Southwest HRS Wheat Return Over Direct Costs

	2005	2006
Market Income	84.76	92.07
Direct Costs	50.43	62.85
RODC	34.33	29.22

Objective is to maximize return over variable costs ROVC is available to pay:

- Land costs
- Machinery ownership
- Labor and management (family living)

Change in Variable Costs, 2005-2006 South East

<u>Crop</u>	<u>2005</u>	<u>2006</u>	<u>Change</u>	<u>Yield</u>	<u>Per Unit</u>
W Wheat	\$69.20	\$85.87	\$16.67	47	\$0.35
Sp Wheat	\$74.88	\$91.51	\$16.63	41	\$0.41
Conf Snflr	\$98.44	\$113.12	\$14.68	1320	\$1.11
Oil Snflr	\$81.55	\$95.46	\$13.91	1420	\$0.98
Corn grn	\$166.75	\$178.27	\$11.52	115	\$0.10
M Barley	\$71.95	\$82.95	\$11.00	61	\$0.18
Durum	\$69.19	\$79.80	\$10.61	32	\$0.33
Oats	\$62.31	\$72.56	\$10.25	70	\$0.15
Canola	\$96.31	\$104.91	\$8.60	1200	\$0.72
Millet	\$46.13	\$52.19	\$6.06	1800	\$0.34
Drybeans	\$118.77	\$123.06	\$4.29	1520	\$0.28
Buckwht	\$41.90	\$45.09	\$3.19	950	\$0.34
Soybeans	\$72.71	\$73.64	\$0.93	33	\$0.03
Flax	\$65.05	\$62.65	-\$2.40	19	-\$0.13

Return Over Variable Costs, South East

<u>Crop</u>	<u>Income</u>	<u>Var. Cost</u>	<u>ROVC</u>
Drybeans	\$235.60	\$123.06	\$112.54
Soybeans	\$180.18	\$73.64	\$106.54
Conf Snflr	\$204.60	\$113.12	\$91.48
W Wheat	\$156.98	\$85.87	\$71.11
Oil Snflr	\$164.72	\$95.46	\$69.26
Millet	\$117.00	\$52.19	\$64.81
Buckwht	\$108.30	\$45.09	\$63.21
Sp Wheat	\$149.24	\$91.51	\$57.73
M Barley	\$136.64	\$82.95	\$53.69
Flax	\$106.40	\$62.65	\$43.75
Corn grn	\$215.05	\$178.27	\$36.78
Durum	\$116.16	\$79.80	\$36.36
Oats	\$96.60	\$72.56	\$24.04
Canola	\$117.60	\$104.91	\$12.69

Change in Variable Costs, 2005-2006 South West

Crop	2005	2006	Change	Yield	Per Unit
Conf Snflr	89.63	108.34	18.71	1200	1.56
Oil Snflr	70.91	86.95	16.04	1200	1.34
Durum	52.13	67.01	14.88	30	0.50
Sp Wheat	50.43	62.85	12.42	27	0.46
W Wheat	45.81	57.61	11.80	33	0.36
M Barley	52.01	63.72	11.71	47	0.25
Rye	47.88	59.19	11.31	36	0.31
Oats	46.48	56.87	10.39	54	0.19
Canola	86.55	96.86	10.31	1190	0.87
Millet	28.96	36.43	7.47	1400	0.53
Lentils	64.89	71.73	6.84	1200	0.57
Y Mustard	44.36	50.27	5.91	850	0.70
Safflower	44.85	50.33	5.48	850	0.64
Chickpeas	183.06	188.44	5.38	1100	0.49
Corn grn	86.12	91.09	4.97	61	0.08
Field Peas	59.68	64.49	4.81	29	0.17
Buckwht	35.24	39.48	4.24	800	0.53
Flax	54.87	57.89	3.02	18	0.17

Return Over Variable Costs, South West

<u>Crop</u>	<u>Income</u>	<u>Var. Cost</u>	<u>ROVC</u>
Chickpeas	\$264.00	\$188.44	\$75.56
Lentils	\$140.40	\$71.73	\$68.67
Conf Snflr	\$175.20	\$108.34	\$66.86
Y Mustard	\$109.65	\$50.27	\$59.38
Buckwht	\$94.40	\$39.48	\$54.92
Millet	\$91.00	\$36.43	\$54.57
Safflower	\$102.00	\$50.33	\$51.67
Oil Snflr	\$132.00	\$86.95	\$45.05
M Barley	\$108.57	\$63.72	\$44.85
W Wheat	\$100.32	\$57.61	\$42.71
Field Peas	\$101.50	\$64.49	\$37.01
Flax	\$94.32	\$57.89	\$36.43
Durum	\$102.90	\$67.01	\$35.89
Sp Wheat	\$92.07	\$62.85	\$29.22
Corn grn	\$120.17	\$91.09	\$29.08
Canola	\$119.00	\$96.86	\$22.14
Oats	\$74.52	\$56.87	\$17.65
Rye	\$70.92	\$59.19	\$11.73

Barnes County Average Yields

Year	HRSW	Barley	Soybns	Drybns	Oil Snfl	Corn Grn
2004	51.8	65.7	24.8	1086	1098	90.9
2003	52.4	67.5	30.1	1567	1609	118.3
2002	32.4	54.4	33.7	1778	1530	118.4
2001	42.7	61.9	33.9	1700	1467	129.5
2000	40.8	59.1	32.6	1769	1491	113.9
1999	28.5	49.7	31.7	1643	1090	99.1
1998	34.6	62.2	33.0	1514	1621	101.6
1997	25.7	50.4	28.3	1289	1292	88.8
1996	36.3	59.3	28.0	1250	1642	77.3
1995	27.6	46.8	30.5	1395	1371	75.4
1994	31.6	58.1	34.4	1192	1480	83.8
1993	29.0	49.3	15.4	733	827	32.5
1992	48.7	78.8	22.8	780	1400	41.8
1991	35.5	56.0	24.4	1285	1617	72.1
1990	46.5	64.6	22.0	700	1340	66.2
1989	25.0	33.0	16.0	520	1230	42.3
1988	15.5	19.5	13.0	220	1090	36.0
1987	34.0	55.5	29.0	1600	1670	85.0
1986	31.5	59.0	28.0	1400	1560	88.8
1985	36.5	57.0	20.0	1250	1290	51.5
1984	40.0	62.0	17.0	860	1050	44.5
1983	27.5	46.0	18.5	690	970	57.0
1982	34.5	55.5	19.0	1150	1280	52.0
AVG	35.2	55.3	25.5	1190	1348	76.8
STD	9.1	11.9	6.8	429	240	28.8
CV	0.26	0.22	0.27	0.36	0.18	0.37
5-Yr Avg	44.0	61.7	31.0	1580	1439	114.2

Probability of Crop Yields for Barnes County

Percent Probability	HRSW	Barley	Soybns	Drybns	Oil Snfl	Corn Grn
	-----yield above-----					
10%	59.0	81.4	42.2	2288	1834	161.6
20%	51.6	71.7	36.7	1940	1640	138.4
30%	48.8	68.0	34.6	1807	1566	129.4
40%	46.3	64.7	32.7	1687	1499	121.4
50%	44.0	61.7	31.0	1580	1439	114.2
60%	41.7	58.7	29.3	1473	1379	107.0
70%	39.2	55.4	27.4	1353	1312	99.0
80%	36.4	51.7	25.3	1220	1238	90.0
90%	29.0	42.1	19.9	872	1044	66.8

Expected Marginal Return for Wheat from 2.5 Additional Pounds of Nitrogen for Barnes County

Percent Probability	HRSW Yield	Fertility Yld Goal % of Ave	Wheat @ \$2.50	Wheat @ \$3.00	Wheat @ \$3.50	Wheat @ \$4.00	Wheat @ \$4.50
10%	59.0	134%	\$0.25	\$0.30	\$0.35	\$0.40	\$0.45
20%	51.6	117%	\$0.50	\$0.60	\$0.70	\$0.80	\$0.90
30%	48.8	111%	\$0.75	\$0.90	\$1.05	\$1.20	\$1.35
40%	46.3	105%	\$1.00	\$1.20	\$1.40	\$1.60	\$1.80
50%	44.0	100%	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25
60%	41.7	95%	\$1.50	\$1.80	\$2.10	\$2.40	\$2.70
70%	39.2	89%	\$1.75	\$2.10	\$2.45	\$2.80	\$3.15
80%	36.4	83%	\$2.00	\$2.40	\$2.80	\$3.20	\$3.60
90%	29.0	66%	\$2.25	\$2.70	\$3.15	\$3.60	\$4.05

Nitrogen recommendation for wheat = 2.5 YG-STN-PCC

\$/lb of N	\$N/bu	\$/T-NH3	\$/T-Urea
\$0.28	\$0.70	\$459	\$258
\$0.30	\$0.75	\$492	\$276
\$0.32	\$0.80	\$525	\$294
\$0.34	\$0.85	\$558	\$313
\$0.36	\$0.90	\$590	\$331

Stark County Average Yields

Year	HRSW	Durum	Barley	Oats	Oil Snfl	Canola
2004	27.9	28.7	45.8	50.0	805	895
2003	26.3	25.1	40.6	48.1	840	1209
2002	23.3	19.3	22.8	28.7	958	606
2001	41.7	37.8	48.6	69.7	1628	1464
2000	35.0	33.3	49.7	61.3	1495	1218
1999	22.7	31.4	46.4	43.9	960	969
1998	28.0	32.7	48.5	56.8	1311	
1997	24.5	25.4	39.1	47.5	1154	
1996	28.8	27.8	34.3	51.9	1378	
1995	28.8	29.2	35.3	58.3	1300	
1994	29.4	33.3	41.2	60.0	1050	
1993	31.7	30.3	44.7	70.4	500	
1992	28.2	35.3	42.7	57.3	740	
1991	24.0	18.5	29.8	44.0	248	
1990	19.0	23.5	28.0	36.5	380	
1989	14.5	15.5	18.0	24.0	470	
1988	7.5	7.5	8.0	11.5	550	
1987	26.5	28.5	40.0	48.0	1440	
1986	28.0	35.5	38.0	50.3	770	
1985	27.5	27.5	35.0	50.6	880	
1984	27.6	30.5	38.0	48.7	950	
1983	24.5	27.6	38.0	51.0	1000	
1982	23.0	21.5	34.9	47.7	770	
AVG	26.0	27.2	36.8	48.5	938	1060
STD	6.6	7.1	10.2	13.6	372	301
CV	0.25	0.26	0.28	0.28	0.40	0.28
5-Yr Avg	30.8	28.8	41.5	51.6	1145	1078

Probability of Crop Yields for Stark County

Percent Probability	HRSW	Durum	Barley	Oats	Oil Snfl	Canola
	-----yield above-----					
10%	41.8	40.6	58.3	73.9	1759	1575
20%	36.4	34.8	50.1	62.9	1458	1331
30%	34.4	32.6	46.9	58.7	1342	1238
40%	32.5	30.6	44.0	54.9	1238	1154
50%	30.8	28.8	41.5	51.6	1145	1078
60%	29.2	27.1	39.0	48.2	1052	1003
70%	27.3	25.1	36.1	44.4	948	919
80%	25.3	22.9	32.9	40.2	833	826
90%	19.9	17.1	24.7	29.2	532	582

Expected Marginal Return for Wheat from 2.5 Additional Pounds of Nitrogen for Stark County

Percent Probability	HRSW Yield	Fertility Yld Goal % of Ave	Wheat @ \$2.50	Wheat @ \$3.00	Wheat @ \$3.50	Wheat @ \$4.00	Wheat @ \$4.50
10%	41.8	135%	\$0.25	\$0.30	\$0.35	\$0.40	\$0.45
20%	36.4	118%	\$0.50	\$0.60	\$0.70	\$0.80	\$0.90
30%	34.4	111%	\$0.75	\$0.90	\$1.05	\$1.20	\$1.35
40%	32.5	105%	\$1.00	\$1.20	\$1.40	\$1.60	\$1.80
50%	30.8	100%	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25
60%	29.2	95%	\$1.50	\$1.80	\$2.10	\$2.40	\$2.70
70%	27.3	89%	\$1.75	\$2.10	\$2.45	\$2.80	\$3.15
80%	25.3	82%	\$2.00	\$2.40	\$2.80	\$3.20	\$3.60
90%	19.9	65%	\$2.25	\$2.70	\$3.15	\$3.60	\$4.05

Nitrogen recommendation for wheat = 2.5 YG-STN-PCC

\$/lb of N	\$N/bu	\$/T-NH3	\$/T-Urea
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