

Barley Economics for 2009

Dwight Aakre
Farm Management Specialist

January 2009



Prices of Selected Inputs

| | 2007 | 2008 | 2009 |
|--------------------|-------|------|------|
| Diesel Fuel-gal | 2.30 | 2.90 | 2.10 |
| Nitrogen-lb | 0.30 | 0.80 | 0.54 |
| Phosphorus-lb | 0.25 | 0.60 | 0.66 |
| Potassium-lb | 0.20 | 0.50 | 0.70 |
| Barley Seed-bu | 5.50 | 8.50 | 7.60 |
| Operating Interest | 8.25% | 7.5% | 5.5% |
| Crop Insurance | 3.76 | 4.10 | 6.10 |

Malting Barley Direct Costs

| | South West | North West | North Central |
|--------------------|-------------|-------------|---------------|
| Seed | 9.50 | 9.50 | 11.40 |
| Herbicides | 16.50 | 16.50 | 16.50 |
| Fungicides | 1.50 | 1.50 | 1.50 |
| Insecticides | 0 | 0 | 0 |
| Fertilizer | 27.66 | 45.14 | 54.79 |
| Crop Insurance | 6.10 | 6.70 | 5.90 |
| Fuel & Lubrication | 9.30 | 9.30 | 11.32 |
| Repairs | 11.79 | 11.82 | 13.49 |
| Drying | 0 | 0 | 0 |
| Miscellaneous | 6.00 | 6.00 | 1.50 |
| Operating Interest | <u>2.43</u> | <u>2.93</u> | <u>3.20</u> |
| Total Direct Costs | 90.73 | 109.45 | 119.60 |

Malting Barley Costs and Returns

| | South West | North West | North Central |
|------------------------------|-------------|-------------|---------------|
| Yield | 46 | 48 | 56 |
| Price | <u>4.31</u> | <u>4.33</u> | <u>4.12</u> |
| Income | 198.26 | 207.84 | 230.72 |
| Direct Costs | 90.73 | 109.45 | 119.60 |
| Indirect Costs | 57.92 | 58.64 | 70.15 |
| All Listed Costs | 148.70 | 168.09 | 189.74 |
| Return to Labor & Management | 49.56 | 39.75 | 40.98 |
| Cost/bu | 3.23 | 3.50 | 3.39 |

Prices which provide the same Return over Variable Costs between crops - South West N.D.

Select reference crop: **S. Wht**
 Enter the S. Wht futures price: **\$6.50**
 Enter expected local basis (cash-futures): **-\$0.50**
 Expected S. Wht local cash price: **\$6.00**

| | S. Wht | Durum | Barley | Corn | Oil Snfr | Canola | Flax Field | Pea | Oats | W.Wht | Saffir |
|----------------|----------|----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
| Yield | 26 | 29 | 46 | 59 | 1140 | 1110 | 16 | 29 | 49 | 34 | 950 |
| Relative Price | \$6.00 | \$5.74 | \$3.23 | \$3.17 | \$0.16 | \$0.16 | \$8.18 | \$5.50 | \$2.79 | \$4.92 | \$0.15 |
| Income | \$156.00 | \$166.49 | \$148.50 | \$187.11 | \$185.22 | \$194.76 | \$130.86 | \$169.57 | \$136.49 | \$167.20 | \$138.87 |

Variable costs:

| | S. Wht | Durum | Barley | Corn | Oil Snfr | Canola | Flax Field | Pea | Oats | W.Wht | Saffir |
|-----------------|---------|----------|---------|----------|----------|----------|------------|----------|---------|----------|---------|
| Seed | \$11.75 | \$15.38 | \$9.50 | \$38.57 | \$25.15 | \$39.50 | \$8.40 | \$33.00 | \$8.80 | \$8.75 | \$12.50 |
| Herbicide | 20.00 | 20.00 | 16.50 | 17.00 | 27.50 | 18.00 | 22.50 | 25.30 | 9.00 | 15.00 | 18.10 |
| Fungicide | 5.50 | 5.50 | 1.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Insecticide | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fertilizer | 23.51 | 29.46 | 27.66 | 30.33 | 17.51 | 37.01 | 9.65 | 5.82 | 23.03 | 39.38 | 10.64 |
| Crop Insurance | 10.40 | 10.90 | 6.10 | 0.00 | 14.10 | 13.00 | 8.50 | 9.00 | 8.60 | 10.40 | 13.30 |
| Fuel & Lube | 7.80 | 7.89 | 9.30 | 9.67 | 8.34 | 8.51 | 8.80 | 9.10 | 9.39 | 7.68 | 7.77 |
| Repairs | 10.69 | 10.73 | 11.79 | 12.56 | 11.46 | 11.37 | 11.83 | 12.55 | 11.84 | 10.34 | 10.67 |
| Drying | 0.00 | 0.00 | 0.00 | 11.80 | 2.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Misc. | 6.00 | 6.00 | 6.00 | 6.00 | 11.75 | 6.00 | 1.50 | 3.75 | 6.00 | 6.00 | 6.00 |
| Operating Int. | 2.63 | 2.91 | 2.43 | 3.46 | 3.41 | 3.67 | 1.96 | 2.73 | 2.11 | 2.93 | 2.17 |
| Total Var.Costs | \$98.28 | \$108.77 | \$90.78 | \$129.39 | \$127.50 | \$137.06 | \$73.14 | \$101.85 | \$78.77 | \$109.48 | \$81.15 |

Return Over Variable Costs: \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72 \$57.72

Note: - Only variable costs are considered in this comparison. You can include an amount under "misc." to account for any differences between crops in fixed costs, labor, management and risk.
 - Crop insurance for corn is only available by written agreement. An estimate is used.

Prices which provide the same Return over Variable Costs between crops - North West N.D.

Select reference crop: **S. Wht**
 Enter the S. Wht futures price: **\$6.50**
 Enter expected local basis (cash-futures): **-\$0.50**
 Expected S. Wht local cash price: **\$6.00**

| | S. Wht | Durum | Barley | Corn | Oil Snfr | Canola | Flax Field | Pea | Lentils | W.Wht | Mustard |
|----------------|----------|----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
| Yield | 28 | 28 | 48 | 69 | 1240 | 1300 | 17 | 30 | 1300 | 35 | 900 |
| Relative Price | \$6.00 | \$6.16 | \$3.48 | \$3.16 | \$0.16 | \$0.17 | \$8.47 | \$5.75 | \$0.13 | \$5.25 | \$0.18 |
| Income | \$168.00 | \$172.55 | \$166.83 | \$218.29 | \$202.02 | \$220.88 | \$143.92 | \$172.42 | \$174.76 | \$183.72 | \$159.43 |

Variable costs:

| | S. Wht | Durum | Barley | Corn | Oil Snfr | Canola | Flax Field | Pea | Lentils | W.Wht | Mustard |
|-----------------|----------|----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
| Seed | \$11.75 | \$15.38 | \$9.50 | \$38.57 | \$25.15 | \$39.50 | \$8.40 | \$33.00 | \$26.60 | \$8.75 | \$12.50 |
| Herbicide | 20.00 | 20.00 | 16.50 | 17.00 | 27.50 | 18.00 | 25.50 | 25.90 | 31.00 | 15.00 | 17.00 |
| Fungicide | 1.50 | 1.50 | 1.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Insecticide | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fertilizer | 39.83 | 39.83 | 45.14 | 58.56 | 33.15 | 64.67 | 21.10 | 16.22 | 11.71 | 56.14 | 33.29 |
| Crop Insurance | 10.00 | 10.80 | 6.70 | 0.00 | 14.80 | 10.90 | 8.30 | 8.20 | 15.90 | 10.00 | 9.90 |
| Fuel & Lube | 7.86 | 7.86 | 9.36 | 9.96 | 8.43 | 8.62 | 8.08 | 9.57 | 9.56 | 7.71 | 8.80 |
| Repairs | 10.72 | 10.72 | 11.82 | 12.71 | 11.51 | 11.43 | 11.34 | 12.82 | 13.22 | 10.36 | 11.83 |
| Drying | 0.00 | 0.00 | 0.00 | 13.80 | 2.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Misc. | 6.00 | 6.00 | 6.00 | 6.00 | 11.75 | 6.00 | 1.50 | 6.25 | 6.25 | 6.00 | 6.00 |
| Operating Int. | 2.96 | 3.08 | 2.93 | 4.31 | 3.87 | 4.38 | 2.32 | 3.08 | 3.14 | 3.38 | 2.73 |
| Total Var.Costs | \$110.62 | \$115.17 | \$109.45 | \$160.91 | \$144.64 | \$163.50 | \$86.54 | \$115.04 | \$117.38 | \$126.34 | \$102.05 |

Return Over Variable Costs: \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38 \$57.38

Note: - Only variable costs are considered in this comparison. You can include an amount under "misc." to account for any differences between crops in fixed costs, labor, management and risk.
 - Crop insurance for corn is only available by written agreement. An estimate is used.

Prices which provide the same Return over Variable Costs between crops - North Central N.D.

Select reference crop: **S. Wht**
 Enter the S. Wht futures price: **\$6.50**
 Enter expected local basis (cash-futures): **-\$0.50**
 Expected S. Wht local cash price: **\$6.00**

| | S. Wht | Durum | Barley | Corn | Soybean Drybeans | Oil Snfr | Canola | Field Pea | W.Wht | Flax |
|----------------|----------|----------|----------|----------|------------------|----------|----------|-----------|----------|----------|
| Yield | 34 | 32 | 56 | 80 | 26 | 1330 | 1450 | 1360 | 34 | 44 |
| Relative Price | \$6.00 | \$6.40 | \$3.43 | \$3.51 | \$7.15 | \$0.18 | \$0.15 | \$0.17 | \$5.65 | \$5.11 |
| Income | \$204.00 | \$204.89 | \$192.11 | \$280.58 | \$186.02 | \$237.01 | \$220.21 | \$237.05 | \$192.07 | \$224.93 |

Variable costs:

| | S. Wht | Durum | Barley | Corn | Soybean Drybeans | Oil Snfr | Canola | Field Pea | W.Wht | Flax |
|-----------------|----------|----------|----------|----------|------------------|----------|----------|-----------|----------|----------|
| Seed | \$14.10 | \$20.50 | \$11.40 | \$51.26 | \$46.56 | \$42.00 | \$22.47 | \$39.50 | \$33.00 | \$8.75 |
| Herbicide | 21.00 | 21.00 | 16.50 | 17.00 | 17.00 | 33.30 | 27.50 | 18.00 | 25.90 | 17.00 |
| Fungicide | 5.50 | 5.50 | 1.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Insecticide | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fertilizer | 52.60 | 48.17 | 54.79 | 68.60 | 9.59 | 28.70 | 42.27 | 66.15 | 14.53 | 74.74 |
| Crop Insurance | 11.00 | 10.00 | 5.90 | 18.80 | 12.00 | 19.50 | 10.90 | 12.60 | 14.10 | 11.00 |
| Fuel & Lube | 9.81 | 9.75 | 11.32 | 13.99 | 8.23 | 12.01 | 11.34 | 9.94 | 9.69 | 9.90 |
| Repairs | 12.46 | 12.42 | 13.49 | 15.35 | 11.09 | 14.84 | 13.12 | 12.45 | 12.89 | 11.95 |
| Drying | 0.00 | 0.00 | 0.00 | 16.00 | 0.00 | 0.00 | 2.90 | 0.00 | 0.00 | 0.00 |
| Misc. | 1.50 | 1.50 | 1.50 | 1.50 | 6.00 | 9.75 | 7.25 | 1.50 | 6.25 | 6.00 |
| Operating Int. | 3.52 | 3.54 | 3.20 | 5.57 | 3.04 | 4.40 | 3.95 | 4.40 | 3.20 | 4.08 |
| Total Var.Costs | \$131.49 | \$132.39 | \$119.60 | \$208.07 | \$113.51 | \$164.50 | \$147.70 | \$164.54 | \$119.56 | \$152.42 |

Return Over Variable Costs: \$72.51 \$72.51 \$72.51 \$72.51 \$72.51 \$72.51 \$72.51 \$72.51 \$72.51 \$72.51 \$72.51

Note: - Only variable costs are considered in this comparison. You can include an amount under "misc." to account for any differences between crops in fixed costs, labor, management and risk.
 - Crop insurance for corn is only available by written agreement in some counties.

North West North Dakota Prices 1998-2007 and Derived Percent Malting

| | Feed Barley | Malting Barley | All Barley | Percent Malting |
|---------|-------------|----------------|------------|-----------------|
| 2007 | 3.82 | 3.92 | 3.88 | 60% |
| 2006 | 2.27 | 2.66 | 2.85 | 72% |
| 2005 | 1.46 | 1.95 | 1.78 | 65% |
| 2004 | 1.39 | 1.95 | 1.83 | 79% |
| 2003 | 1.94 | 2.38 | 2.25 | 70% |
| 2002 | 1.89 | 2.81 | 2.48 | 64% |
| 2001 | 1.48 | 1.74 | 1.83 | 19% |
| 2000 | 1.34 | 1.70 | 1.65 | 58% |
| 1999 | 1.37 | 2.11 | 1.92 | 74% |
| 1998 | 1.22 | 1.69 | 1.87 | 74% |
| Average | \$1.82 | \$2.29 | \$2.13 | 64% |

Feed Barley Costs and Returns

| | South West | North West | North Central |
|------------------------------|-------------|-------------|---------------|
| Yield | 46 | 48 | 56 |
| Price | <u>2.80</u> | <u>2.80</u> | <u>2.80</u> |
| Income | 128.80 | 134.40 | 156.80 |
| Direct Costs | 90.73 | 109.45 | 119.60 |
| Indirect Costs | 57.92 | 58.64 | 70.15 |
| All Listed Costs | 148.70 | 168.09 | 189.74 |
| Return to Labor & Management | -19.90 | -33.69 | -32.94 |
| Cost/bu | 3.23 | 3.50 | 3.39 |