## Costs and Returns per acre from establishing irrigated alfalfa after barley, 2006

### North Sanpete County

#### Receipts

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity per acre</th>
<th>Unit</th>
<th>Price/cost per unit</th>
<th>Value/cost per acre</th>
<th>Base Value</th>
<th>Your Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley</td>
<td>82.0</td>
<td>bushels</td>
<td>$2.27</td>
<td>$185.81</td>
<td>$185.81</td>
<td></td>
</tr>
<tr>
<td>Straw</td>
<td>0.75</td>
<td>tons</td>
<td>$43.00</td>
<td>$32.25</td>
<td>$32.25</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$218.06</strong></td>
<td><strong>$218.06</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Operating costs

- **Land preparation**
  - Plowing: 1 acre, $5.88
  - Discing: 1 acre, $3.73
  - Roller harrow: 2 acres, $3.64

- **Planting**
  - Barley: 100 lb, $0.17
  - Alfalfa: 12 lb, $2.52

- **Fertilization**
  - Nitrogen (34-0-0): 205 lb, $0.18
  - Phosphate (11-52-0): 48 lb, $0.18

- **Custom application**
  - 1 acre, $7.82

- **Pesticides/herbicides**
  - 2-4-D: - pints, $2.75
  - Custom application: - acre, $7.82

- **Irrigation (wheel line)**
  - 4 irrigations, $10.00

- **Labor**
  - 1.33 hours, $13.33

- **Water assessment**
  - 1 share, $2.20

- **Repairs/maintenance**
  - 1 acre, $2.30

- **Pumping**
  - 42 acre inch, $0.00

- **Harvesting**
  - Combining: 1 acre, $26.00
  - Haul grain (custom): 82.0 bushel, $0.06
  - Baling: 0.75 tons, $4.79
  - Haul/stack straw: 0.75 tons, $3.63
  - Crop insurance (75% Yield, 100% Price): 1 acre, $5.63
  - Interest on operating capital: 7.61%, $5.60

**Subtotal** $186.38

#### Ownership costs (excludes cost of land)

- **Farm insurance**
  - 1 acre, $2.00

- **Machinery ownership costs**
  - 1 acre, $111.39

- **Irrigation equipment costs**
  - 1 acre, $8.25

**Total costs** $308.03

**Net returns to owner for unpaid labor, management, equity and risk**

- Above operating costs $31.68
- Above total listed costs $31.01

### Breakeven Table - Barley

<table>
<thead>
<tr>
<th>Selling Price ($/Bu)</th>
<th>Yield (Bu/Ac)</th>
<th>$1.27</th>
<th>$1.77</th>
<th>$2.27</th>
<th>$2.77</th>
<th>$3.27</th>
</tr>
</thead>
<tbody>
<tr>
<td>67.00</td>
<td>-$68.41</td>
<td>-$34.91</td>
<td>-$1.41</td>
<td>$32.09</td>
<td>$65.59</td>
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<tr>
<td>72.00</td>
<td>-$62.38</td>
<td>-$26.58</td>
<td>$9.62</td>
<td>$45.62</td>
<td>$81.62</td>
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<tr>
<td>77.00</td>
<td>-$56.35</td>
<td>-$17.85</td>
<td>$20.65</td>
<td>$59.15</td>
<td>$97.65</td>
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</tr>
<tr>
<td>82.00</td>
<td>-$50.32</td>
<td>-$9.32</td>
<td>$31.68</td>
<td>$72.68</td>
<td>$113.68</td>
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</tr>
<tr>
<td>87.00</td>
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<tr>
<td>92.00</td>
<td>-$38.26</td>
<td>$7.74</td>
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<tr>
<td>97.00</td>
<td>-$32.23</td>
<td>$16.27</td>
<td>$64.77</td>
<td>$113.27</td>
<td>$161.77</td>
<td></td>
</tr>
</tbody>
</table>

### Assumptions

1. Grain and alfalfa planted in April and harvested in July.
2. Interest computed on land preparation and planting costs for 10 months and fertilization/herbicide/irrigation costs for 3 months.
3. Machinery operating costs include: fuel, oil, repairs and labor.
4. Machinery ownership costs are allocated based on equipment used for each crop.
5. Machinery ownership costs include depreciation, interest, insurance, and housing.

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