Costs and Returns per acre from establishing irrigated alfalfa after barley, 2006
South Sanpete County

Receipts  
<table>
<thead>
<tr>
<th></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>$218.06</td>
<td>$218.06</td>
<td></td>
</tr>
</tbody>
</table>

Operating costs
Land preparation
- Plowing 1 acre: $5.88
- Discing 1 acre: $3.73
- Land plane 1 acre: $3.34
- Roller harrow 2 acre: $3.64
- Planting 1 acre: $2.96

Seed
- Barley 100 lb: $0.17 $17.00
- Alfalfa 16 lb: $2.52 $40.32

Fertilization
- Nitrogen (34-0-0) 278 pounds: $0.18 $49.62
- Phosphate (11-52-0) 48 pounds: $0.18 $8.57
- Custom application 1 acre: $7.82

Pesticides/herbicides
- 2,4-D - pints: $2.75
- Puma 0.67 pints: $25.00 $16.75
- Custom application 1 acre: $7.82

Irrigation (wheel line) 4 irrigations
- Labor 1.33 hours: $10.00 $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 $26.00
- Haul grain (custom) 82.0 bushel: $0.06 $4.92
- Baling 0.75 tons: $4.79 $3.59

Crop insurance (75% Yield, 100% Price) 1 acre 7.61% $7.17
- Interest on operating capital 7.61% $7.17

**Subtotal** $238.97 $239.64

Ownership costs (excludes cost of land)
- Farm insurance 1 acre: $2.00 $2.00
- Machinery ownership costs 1 acre: $111.39 $111.39
- Irrigation equipment costs 1 acre: $8.25 $8.25

**Total costs** $360.62 $361.29

Net returns to owner for unpaid labor, management, equity and risk
- Above operating costs $-20.91 $-21.58
- Above total listed costs $-142.55 $-143.22

Breakeven Table - Barley
Net returns per acre above operating costs

<table>
<thead>
<tr>
<th>Yield (Bu/acre)</th>
<th>Selling Price ($/Bu)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1.27</td>
</tr>
<tr>
<td>67.00</td>
<td>-$121.00</td>
</tr>
<tr>
<td>72.00</td>
<td>-$114.97</td>
</tr>
<tr>
<td>77.00</td>
<td>-$108.94</td>
</tr>
<tr>
<td>82.00</td>
<td>-$102.91</td>
</tr>
<tr>
<td>87.00</td>
<td>-$96.88</td>
</tr>
<tr>
<td>92.00</td>
<td>-$90.85</td>
</tr>
<tr>
<td>97.00</td>
<td>-$84.82</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.
Budget prepared by: E. Bruce Godfrey, Cody Bingham and Matt Palmer