Costs and Returns per acre from growing alfalfa hay, 2006
Morgan County

<table>
<thead>
<tr>
<th>Receipts</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>Alfalfa hay</td>
<td>2.9</td>
<td>tons</td>
<td>$88.57</td>
<td>$256.84</td>
<td>$256.84</td>
<td>$256.84</td>
</tr>
<tr>
<td>Residue</td>
<td>0.25</td>
<td>AUM</td>
<td>$11.53</td>
<td>$2.88</td>
<td>$2.88</td>
<td>$2.88</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td>$259.73</td>
<td>$259.73</td>
<td>$259.73</td>
</tr>
</tbody>
</table>

Operating costs

- **Fertilization**
  - Phosphate (11-52-0)
    - Quantity: 96 pounds
    - Price: $0.18
    - Value per acre: $17.14
  - Custom application
    - Quantity: 1 acre
    - Price: $7.82
    - Value per acre: $7.82

- **Pesticides/herbicides**
  - Furadan
    - Quantity: 1 pint
    - Price: $10.50
    - Value per acre: $10.50
  - Velpar
    - Quantity: 2 quart
    - Price: $16.50
    - Value per acre: $33.00
  - Custom application
    - Quantity: 2 acre
    - Price: $7.82
    - Value per acre: $15.64

- **Irrigation (wheel line)**
  - Labor
    - Quantity: 1.67 hours
    - Price: $10.00
    - Value per acre: $16.67
  - Water assessment
    - Quantity: 4 acre feet
    - Price: $3.00
    - Value per acre: $12.00
  - Repairs/maintenance
    - Quantity: 1 acre
    - Price: $2.30
    - Value per acre: $2.30
  - Pumping
    - Quantity: 31 acre inch
    - Price: $0.00
    - Value per acre: $0.00

- **Harvesting - Custom Rates**
  - Swathing
    - Quantity: 3 acre
    - Price: $15.56
    - Value per acre: $46.68
  - Turning/raking
    - Quantity: 3 acre
    - Price: $4.69
    - Value per acre: $14.07
  - Baling
    - Quantity: 2.90 tons
    - Price: $4.79
    - Value per acre: $13.89
  - Hauling/stacking
    - Quantity: 2.90 tons
    - Price: $3.63
    - Value per acre: $10.53

- **Interest on operating capital**
  - Quantity: 7.61%
  - Price: $5.41
  - Value per acre: $6.15

| **Subtotal**     |                   |       |                     | $205.64             | $245.27    | $245.27    |

Ownership costs (excludes cost of land)

- **Insurance**
  - Quantity: 1 acre
  - Price: $2.00
  - Value per acre: $2.00

- **Machinery ownership costs**
  - Quantity: 1 acre
  - Price: $56.51
  - Value per acre: $56.51

- **Irrigation equipment costs**
  - Quantity: 1 acre
  - Price: $8.25
  - Value per acre: $8.25

**Total costs**

- **Net returns to owner for unpaid labor, management, equity and risk**
  - Above operating costs: $54.09
  - Above total listed costs: $14.46
  - $54.09
  - $14.46

Breakeven Table - Alfalfa

<table>
<thead>
<tr>
<th>Yield</th>
<th>Selling Price ($/ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ton/Ac)</td>
<td>$78.57</td>
</tr>
<tr>
<td>1.90</td>
<td>$-45.06</td>
</tr>
<tr>
<td>2.40</td>
<td>$-9.99</td>
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<tr>
<td>2.90</td>
<td>$25.09</td>
</tr>
<tr>
<td>3.40</td>
<td>$60.16</td>
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<tr>
<td>3.90</td>
<td>$95.23</td>
</tr>
<tr>
<td>4.40</td>
<td>$130.31</td>
</tr>
</tbody>
</table>

Assumptions

1. Alfalfa already established. Harvested in June, August, September.
2. Interest computed on fertilization/herbicide costs for 6 months and operating 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.
6. Custom rates on all harvest operations.

Budget prepared by: E. Bruce Godfrey, Cody Bingham and Darrell Eddington