SAMPLE COSTS TO ESTABLISH A STAND OF ALFALFA FOR HAY
IN TULARE COUNTY

Cost Analysis Work Sheet – 1973

Conditions of this example are as follows: Man labor at $2.90 per hour, which includes employer’s Social Security and Workman’s Compensation payments. Tractors are 80 h.p. crawler, 75 h.p. wheel diesel and 50 h.p. wheel diesel. Cash costs, depreciation and interest costs per hour for each tractor are: 80 h.p. crawler $4.70, $2.00 and $1.50. 75 h.p. wheel tractor $2.20, $1.00 and $50¢. 50 h.p. wheel tractor $1.60, $1.30 and 66¢.

Annual investment costs and real estate taxes are charged to the hay production schedule, so are omitted from the development costs.

NOTE: Alkali soils will require the addition of sulfur or gypsum to improve water penetration. These costs are not included in this example.

Prepared by William D. McClellan, Farm Advisor and Edward A. Yeary, Farm Advisor-Statewide

<table>
<thead>
<tr>
<th>Cash Costs:</th>
<th>Sample Costs per Acre</th>
<th>My Costs Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shred previous crop residue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \frac{1}{2} ) hr. man and 75 h.p. wheel tractor</td>
<td>2.55</td>
<td></td>
</tr>
<tr>
<td>Disc 2 X: total ( \frac{1}{2} ) hr. man and crawler tractor</td>
<td>3.80</td>
<td></td>
</tr>
<tr>
<td>Chisel: 1 hr. man and crawler tractor</td>
<td>7.60</td>
<td></td>
</tr>
<tr>
<td>Landplane 1 X: 1/6 hr. man and crawler tractor</td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td>Border preparation: ( \frac{1}{2} ) hr. man and 75 h.p. wheel tractor</td>
<td>2.55</td>
<td></td>
</tr>
<tr>
<td>Landplane between borders: 1/6 hr. man and crawler tractor</td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td>Fertilize: 100 lbs. of P₂O₅ from 11-48-0 @ $125/ton</td>
<td>13.00</td>
<td></td>
</tr>
<tr>
<td>Application: custom bulk spreading</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>Pre-irrigate: power for 1 ft. of water</td>
<td>6.50</td>
<td></td>
</tr>
<tr>
<td>Labor: 1 hr. per acre</td>
<td>2.90</td>
<td></td>
</tr>
<tr>
<td>Disc or springtooth for seedbed preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \frac{1}{2} ) hr. per acre man and 50 h.p. wheel tractor</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Re-shape borders: 1/12 hr. man and 75 h.p. wheel tractor</td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>Weed control: custom applied</td>
<td>10.00</td>
<td></td>
</tr>
<tr>
<td>Plant: seed, 20 lbs. at 95¢</td>
<td>19.00</td>
<td></td>
</tr>
<tr>
<td>Plant by airplane</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Cover seed: 1/8 hr. man and 75 h.p. wheel tractor</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>Repairs to equipment except tractors</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Office and business expenses</td>
<td>4.79</td>
<td></td>
</tr>
<tr>
<td>TOTAL CASH COSTS</td>
<td>84.63</td>
<td></td>
</tr>
</tbody>
</table>

Depreciation:

| Tractor: 1 5/6 hrs.                              |                        |                   |
| 75 h.p. wheel tractor 1 5/24 hrs.               | 3.66                   |                   |
| 50 h.p. wheel tractor \( \frac{1}{4} \) hr.     | 1.20                   |                   |
| Equipment except tractors                       | 3.50                   |                   |
| TOTAL DEPRECIATION                              | 8.68                   |                   |

Interest on Investment at 8%:

| Tractors: 1 5/6 hrs.                             |                        |                   |
| 75 h.p. wheel tractor 1 5/24 hrs.               | 2.74                   |                   |
| 50 h.p. wheel tractor \( \frac{1}{4} \) hr.     | .60                    |                   |
| Equipment except tractors                       | 1.90                   |                   |
| TOTAL INTEREST ON INVESTMENT                     | 5.40                   |                   |

TOTAL COST TO ESTABLISH ALFALFA: $98.71

UC Cooperative Extension
SAMPLE COSTS TO PRODUCE ALFALFA HAY IN TULARE COUNTY

Cost Analysis Work Sheet - 1973

Based on an average yield of 8 tons per acre over a 3-year stand life. Man labor at $2.90 per hour, which includes employer's Social Security and Workman's Compensation insurance payments. 50 h.p. wheel diesel tractor per hour cash costs $1.60, depreciation $1.30 and interest 66c.

Prepared by W. D. McClellan, Farm Advisor and E. A. Yeary, Farm Advisor-Statewide.

<table>
<thead>
<tr>
<th>Pre-Harvest Cash Costs</th>
<th>Sample Costs</th>
<th>My Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigate 13 times: labor 8 hrs.</td>
<td>$23.20</td>
<td></td>
</tr>
<tr>
<td>power for 4½ ac. ft. water @ $6.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilize: 100 lbs. of P_{2}O_{5} from 11-48-0 @ $125/ton</td>
<td>$13.00</td>
<td></td>
</tr>
<tr>
<td>Bulk spreading of fertilizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weed control: including application</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>Insect control:</td>
<td>$5.00</td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>Repairs to irrigation system and equipment except tractor</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>Misc. labor, materials, 1 hr. man &amp; tractor</td>
<td>$6.50</td>
<td></td>
</tr>
<tr>
<td>Business expense, office, car, etc.: 6% of pre-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>harvest and harvest costs</td>
<td>$7.09</td>
<td></td>
</tr>
<tr>
<td>TOTAL PRE-HARVEST CASH COSTS</td>
<td>$125.29</td>
<td>$15.66</td>
</tr>
</tbody>
</table>

Harvesting Costs:

| Swath 7 X: contract $2.25 per time                         | $15.75       |          |
| Turn: contract, 7 X at $1.00                              | $7.00        |          |
| Bale: contract, $3.50 per ton                             | $28.00       |          |
| Roadside: contract $1.50 per ton                          | $12.00       |          |
| TOTAL HARVESTING COSTS                                     | $62.75       | $7.84    |
| TOTAL CASH COSTS                                           | $188.04      | $23.50   |

Depreciation:

| Irrigation system and equipment $200.00 - 12 yr. life      | $16.65       |          |
| Tractor: 1 hr.                                            | $1.30        |          |
| Stand: Cost $98.71 - 3 yrs.                              | $32.90       |          |
| TOTAL DEPRECIATION                                        | $50.85       | $6.35    |
| TOTAL CASH AND DEPRECIATION COSTS                         | $238.89      | $29.85   |

Interest on investment at 8%:

| Irrigation system and equipment: ½ cost $100               | $8.00        |          |
| Tractor 1 hr.                                             | $0.66        |          |
| Stand: ½ cost $40.60                                     | $3.94        |          |
| Lease: $700.00 per acre                                  | $56.00       |          |
| TOTAL INTEREST ON INVESTMENT                              | $68.60       | $8.57    |
| TOTAL COST OF PRODUCTION                                  | $307.49      | $38.42   |

No allowance has been included for the cost of management.

No income from winter sheep grazing or green chopping has been indicated, although this is often earned by hay growers.

UC Cooperative Extension
## ALFALFA HAY PRODUCTION - 1973

### Sample Costs Per Ton at Varying Yields

<table>
<thead>
<tr>
<th>YIELD: Tons Per Acre</th>
<th>6</th>
<th>7</th>
<th>9</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Costs Per Ton</td>
<td>29.09</td>
<td>25.64</td>
<td>21.06</td>
<td>18.14</td>
</tr>
<tr>
<td>Cash and Depreciation Costs Per Ton</td>
<td>37.56</td>
<td>32.91</td>
<td>26.71</td>
<td>22.76</td>
</tr>
<tr>
<td>Total Costs Per Ton</td>
<td>48.99</td>
<td>42.71</td>
<td>34.33</td>
<td>28.99</td>
</tr>
</tbody>
</table>

### Sample Costs Per Ton at Indicated Yields Per Acre With Varying Water Costs

<table>
<thead>
<tr>
<th>YIELD: tons per acre</th>
<th>Total Cost* of Alfalfa Hay Per Ton at the Indicated Water Cost Per Acre Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$4.00</td>
</tr>
<tr>
<td>6</td>
<td>47.12</td>
</tr>
<tr>
<td>7</td>
<td>41.10</td>
</tr>
<tr>
<td>9</td>
<td>33.08</td>
</tr>
<tr>
<td>11</td>
<td>27.97</td>
</tr>
</tbody>
</table>

*Investment per acre in the irrigation system was assumed to be constant in this table.