ALFALFA HAY

Sample

Costs of Production
Suggestions on Growing

University of California,
Farm and Home Advisor's Office
2610 'M' Street
Kern County
Revised May, 1965

UC Cooperative Extension
About These Cost Data——

The costs of production in any agricultural enterprise will vary considerably from ranch to ranch. The input and cost data in this booklet are sample costs. They are intended to be used only as educational guides in assisting you to appraise and plan your own crop and livestock program.

These cost data do not represent industry averages.
SUGGESTIONS ON GROWING QUALITY ALFALFA HAY

By
Roy M. Barnes - Farm Advisor

GENERAL:

Kern County has the climate, soil and water to produce high yields of alfalfa hay. With proper timing of the irrigations, cutting, and curing, good yields of high quality hay can be produced. Unless quality hay is produced, much of the effort to grow the crop may be lost.

SOIL REQUIREMENTS:

Alfalfa can be grown on all Kern County soils. The crop will do poorly on land that contains hardpan or an impervious layer nearer to the surface than four feet, or on soils where the water table is near the surface. A soil in which water will penetrate well is best. Alfalfa is moderately tolerant to alkali.

VARIETY:

There are several alfalfa varieties on the market. Some of these are certified Experiment Station releases and some are private varieties. It may be well to contact the local University of California Agricultural Extension Service office for characteristics of the various varieties.

SEED TREATMENT:

Ordinarily, seed treatment will not be necessary. If seed treatment is desired, 5 1/3 ozs. per 100 pounds of seed of Arasan SFX or 4 ozs. Phygon is recommended.

PREPARATION OF SOIL AND PLANTING:

Since alfalfa is to occupy the land for several years, special attention should be given to preparing the land so that water can be evenly and properly controlled. Details on the size of the border checks best for each type of soil may be had at the Farm & Home Advisors' Office.

Success in establishing a good stand depends mainly upon the kind of seedbed prepared. A good seedbed is firm and moist. A ring roller is excellent to firm a loose and open soil. After land has been prepared, an irrigation is essential. The water will reveal the high spots or sunken spots within the borders which then may be eliminated before seeding. Also, pre-irrigation will assist in firming the soil as well as providing the necessary moisture for germinating seed. In some soils, although not generally recommended, seeding dry then irrigating up is sometimes practiced. Broadcasting or seeding with a regular alfalfa drill are both successful.

PLANTING RATE:

If broadcasting, 20 to 25 pounds per acre, or if drilling 18 to 20 pounds per acre are sufficient.

PLANTING TIME:

The best time to seed alfalfa in Kern County is October and November, or February. Plants should have about six weeks growth to sustain heavy frosts.
## COST ANALYSIS WORK SHEET

**SAMPLE COSTS TO PRODUCE ALFALFA HAY IN KERN COUNTY - 1965**

Based on man labor at $1.20 and $1.40 per hour; 35 H.P. wheel tractor cash cost per hour $1.10; Depreciation $.60; Interest $.23

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**Roy M. Barnes**

<table>
<thead>
<tr>
<th>Operation</th>
<th>Hours Per Acre</th>
<th>Cash and Labor Cost Per Acre</th>
<th>Sample Costs</th>
<th>My Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fuel and Equipment</strong></td>
<td></td>
<td>Labor</td>
<td>Equipment</td>
<td>Material and Other Costs</td>
</tr>
<tr>
<td>1/3 Land prep. and Plant 2.0 &amp; 1.4</td>
<td>2.0 &amp; 1.4</td>
<td>$2.68</td>
<td>$1.54</td>
<td>1/3 Seed $3.07</td>
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<tr>
<td>Renovation</td>
<td>1.5</td>
<td>2.10</td>
<td>1.65</td>
<td>3.75</td>
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<tr>
<td>Irrigate: 12 times</td>
<td>8.0</td>
<td>9.60</td>
<td>2.50</td>
<td>Water: 4 1/2 ft. @ $6.00</td>
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<tr>
<td>Taxes</td>
<td></td>
<td>12.50</td>
<td>12.50</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous overhead</td>
<td></td>
<td>2.50</td>
<td>1.60</td>
<td>4.50</td>
</tr>
<tr>
<td><strong>Total Cultural Costs</strong></td>
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<td>$16.98</td>
<td>$7.29</td>
<td>$47.87</td>
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**Harvest:**

<table>
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<th>Hours</th>
<th>Cash and Labor Cost Per Acre</th>
<th>Sample Costs</th>
<th>My Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mow: 7 times</td>
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<td>Contract: 7 times @ $1.50</td>
<td>$10.50</td>
<td>$10.50</td>
</tr>
<tr>
<td>Rake: 7 times</td>
<td></td>
<td>7 times @ $1.50</td>
<td>10.50</td>
<td>10.50</td>
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<tr>
<td>Bale</td>
<td></td>
<td>9 tons @ $3.75</td>
<td>30.00</td>
<td>30.00</td>
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<tr>
<td>Roadside</td>
<td></td>
<td>8 tons @ $1.50</td>
<td>12.00</td>
<td>12.00</td>
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<tr>
<td><strong>Total Harvest Costs</strong></td>
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<td>$63.00</td>
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<td>$16.89</td>
</tr>
</tbody>
</table>

**Total Cash and Labor Costs**

- Cash and Labor Cost per ton @ 8 ton yield: $135.14

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**Extension Economist**

Spotted Alfalfa aphid control costs may vary from $5.00 to over $15.00 per acre.
PLANTING DEPTH:

Depth of seeding should not exceed 1 1/2 inches in a light soil or 3/4 inch in heavier soils.

FERTILIZATION:

If any fertilizer is needed, it will be phosphate. In some fields around Arvin, Wheeler Ridge, Rosedale and McFarland, tests have shown a phosphate deficiency. If the use of phosphate on other crops has given economical gains, then phosphate should be applied on alfalfa. At any rate, 80 lbs. to 100 lbs. of phosphate (200 to 240 lbs. of Triple Super Phosphate) is all that would be needed.

IRRIGATION:

Irrigation will depend upon the kind of soil. Usually, two irrigations per cutting is sufficient. Water should not be allowed to stand for any length of time in the hot weather since this will kill out the plants. For good growth in Kern County, from 40 to 50 inches of water will be required in a season.

WEED CONTROL:

Mechanical: If the crop is cut at the proper time, the new growth at the crown has started. When exposed to light and heat, this new crop grows rapidly, soon covering the ground. In so doing, shades out the grass and weed seeds that otherwise would have a chance to germinate.

Chemical: Ask for "Weed Control Recommendations" published annually by the University of California. It contains the latest chemicals that are registered for use on alfalfa hay and the weed they control.

CUTTING:

Quality hay depends upon timely cutting and proper curing. The best time to cut with the least injury to the stand is in the one-tenth to one-fourth bloom stage or when the next growth of the crown is one-half to one inch tall. Quality is also reduced when allowed to lay in swath or windrow longer than necessary to rake and bale.

(A more detailed publication on alfalfa production for the State of California is available at the Farm & Home Advisors' office, 2610 'M' Street, Bakersfield.)