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# ALFALFA HAY

## COSTS & GENERAL HINTS ON PRODUCTION

University of California  
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BRIEFS ON GROWING QUALITY ALFALFA HAY  
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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:

Without question, Caliverde is the best variety to plant. (Ask for the publication "Caliverde: A New Alfalfa" in which the advantages are clearly explained.)

SEED TREATMENT:

Ordinarily, seed treatment will not be necessary. If seed treatment is desired, 8 ounces per 100 pounds of seed of New Improved Ceresan 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 Advisors' Office.

8/55

WHAT WILL IT COST ME TO GROW ALFALFA HAY  
WITH A YIELD OF 7 TONS PER A. IN 7 CUTTINGS

Roy M. Barnes\*

Burt Burlingame\*\*

Costs - Man labor @ 95¢ hr.; light tractor @ \$1.25 hr.

	Sample Costs		My Costs	
	Per Acre	Per Cwt.	Per Acre	Per Cwt.
<b>LABOR &amp; FIELD POWER COSTS:</b>				
Miscellaneous, renovation, ditch work, etc.				
2 man & 1 tractor hours	\$ 3.15			
Irrigation 12 times, 8 man hrs.	7.60			
Mowing 7 times man & light tractor .4 hr. each	6.16			
Raking & turning, man & light tractor 7 times, .4 hr.	6.16			
Baling contract at \$4.00 per ton	28.00			
Hauling & piling bales @ \$1.25 per ton	8.75			
Total Labor & field power costs	59.82	\$ 8.55		
<b>MATERIAL COSTS:</b>				
Irrigation, power to pump 4-1/2 Acre Ft. @ \$4.50	20.25			
Misc. materials sometimes necessary	1.00			
Total material costs	21.25	3.04		
<b>CASH OVERHEAD COSTS:</b>				
General expense	4.05			
County taxes	6.25			
Misc. repairs, compensation ins., etc.	4.00			
Total cash overhead costs	14.30	2.04		
<b>TOTAL CASH LABOR &amp; FIELD POWER COSTS:</b>	<b>95.37</b>	<b>13.63</b>		
<b>DEPRECIATION:</b>				
Depreciation on Stand - Cost \$24 - 3 yr.	8.00			
Irrigation facilities \$200	15.00			
Crop equipment \$20 - 10 yrs.	2.00			
Total depreciation	25.00	3.57		
<b>INTEREST ON INVESTMENT AT 5%:</b>				
Stand, irrigation & equipment \$122.00 av. value	6.10			
Land at \$500 per acre	25.00			
Total interest on investment	31.10	4.44		
<b>TOTAL COST OF PRODUCTION</b>	<b>\$151.47</b>	<b>\$21.64</b>		

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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 irrigation up is sometimes practiced. Broadcasting or seeding with a regular alfalfa drill both are successful.

#### PLANTING RATE:

If broadcasting, 20 to 25 lbs. per acre, or if drilling, 15 to 18 lbs. per acre is 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.

#### 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, Rose-dale 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. Perhaps applying phosphate to one check border, then watching the growth and appearance would be the best way to tell whether your field was low or deficient in this plant nutrient. Yields may be taken by

comparing the number of bales in the treated check and a like size check which was not treated. At any rate, 80 lbs. to 100 lbs. of phosphate (200 to 240 lbs. of Treble 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 scald out the plants. For good growth in Kern County, from 40 to 50 inches of water will be required in a season.

### WEED CONTROL:

Seedling Stands: If broad-leafed weeds are a problem in young alfalfa, use 4 to 6 quarts of a selective weed chemical into about 80 gallons of water per acre. This should not be applied when temperatures are above 80° C. as some injury to plants may occur.

Old Stands: One quart of a general weed chemical into 35 gallons of Diesel plus 80 gallons of water per acre will eliminate both annual grasses and weeds.

### 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 to one and one-half inches 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.)