

## ALFALFA HAY ECONOMICS

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### Introduction

Alfalfa is queen of the forages. Easily the most important commercial forage crop produced in California, it occupies about 1/8 of all the irrigated, harvested acres of farm land in this state. An imposing 1970 farm value of nearly \$200,000,000 placed alfalfa high on the list of crops ranked by income.

An economic discussion of this crop must consider its importance to an individual farm as well as to the state as a whole.

This is a most versatile crop. At its best on skillfully managed deep loam soil with adequate water, alfalfa production is sometimes justified under dry farmed culture. Harvesting and handling methods have included: grazing, cutting and stacking, baling, wafering, cubing, green chopping, dry chopping and pelleting. A superb feed for large dairy cows, it has made valuable contributions to the nutrition of poultry and small fur bearing animals.

Sales patterns are flexible, too. Alfalfa may be sold after each cutting or at any longer interval up to one year, and sometimes even longer. It may be sold by the acre, green and standing, by the animal unit month of grazing or by the ton, bale, or sack, depending on the harvesting and storing methods combined with the buyer's requirements. This versatility is important on individual farms. Because of the flexible income potential it can greatly help the cash flow problem of the diversified farm.

Alfalfa is most strongly tied to the dairy industry in this state. This being the largest market segment, the economic health of alfalfa is closely associated with the strength of the dairy industry. Alfalfa is a free market crop, that is, there are no institutional restrictions on entry or withdrawal from this business.

### Production

Some comments on the cost of establishing an alfalfa stand and its subsequent production are in order. Averages for the entire state may be meaningless to many individual growers. Since we are in the central San Joaquin Valley, we may briefly look at some representative costs in this area. The total cost of shredding a previous crop, providing the necessary tillage and irrigation as well as planting alfalfa will require on the order of \$73 per acre. The biggest variables lie in the area of fertilizer requirement, cost of water, and the amount of weed control that may be necessary. Adding the interest and depreciation cost of equipment can bring the total to nearly \$85 per acre to establish a stand.

Cash production costs with baling as the harvesting method will be on the order of \$177 per acre to produce 8½ tons for a three-year period. When interest and depreciation costs are included, we are as high as \$290 per acre or slightly over \$34 per ton. These include all costs to roadside alfalfa but do not reflect any income earned from winter grazing. These costs include an allowance for interest on investment and depreciation of all equipment as well as the stand, together with the cost of production money required. Any of the costs that do not apply to an individual farm reduce the total accordingly. The actual cash cost level, plus depreciation of the stand require about \$25 per ton on the above basis. The individual grower's cash, land and depreciation costs will often range between \$30 and \$34 per ton at near average yields for this area, and lower if the 10-ton yield level can be reached.

### Marketing

Alfalfa hay marketing is very flexible, and this is one of the important values in farm production and cash flow on an individual farm. About 30% of our total production is utilized by the producers and does not go through an established marketing process. The remainder is marketed in many forms and many ways; again, a great tribute to the flex-

ibility of this crop. Baled hay is the form taken by the majority of our marketed production, although most overseas shipments are pellets and alfalfa meal. Cubes are an increasingly important factor. This product is gaining acceptance in the domestic market and shows indications that it will become a larger factor in overseas shipments. In 1970, about 10% of our cubed production was exported.

Many buyers tend toward an area preference or prefer to buy from growers with whom they have had satisfactory dealings in the past. These preferences have often taken priority over chemical testing and purchasing on a quality basis. As cubing becomes more common, we would expect this preference to diminish and quality testing to increase in importance.

The price of hay is largely controlled by supply and demand, hay quality, buyer speculation and season of the year. Much of our hay is sold locally on the basis of bargaining between buyer and seller. Hay brokers and co-op marketing are other important sales methods.

#### ALFALFA HAY

##### Recent California Acreage, Production and Farm Price\*\*

<u>Year</u>	<u>Acreage Harvested</u>	<u>California Production in Tons</u>	<u>State Average Farm Price for Baled Hay in Dollars Per Ton</u>
1971	1,187,000 (estimate)		
1970	1,152,000	6,451,000	30.50
1969	1,129,000	6,210,000	28.50
1968	1,152,000	6,566,000	25.90
1967	1,164,000	6,169,000	29.40
1966	1,141,000	6,390,000	28.20
1965	1,176,000	6,292,000	24.00
1964	1,176,000	6,527,000	24.80
1963	1,131,000	6,334,000	28.50
1962	1,120,000	5,824,000	23.40
1961	1,204,000	6,140,000	20.80

\*\* Season average price received by farmers for baled hay.

SOURCE: California Crop and Livestock Reporting Service.

#### Outlook

The outlook for the California alfalfa industry appears to be continuing new records for production and gross income. Annual gains during the next 5 years will be modest but steadily upward. The demand for alfalfa is influenced by: (1) numbers of livestock in the state, including dairy and other cattle, (2) the prices and supplies of competitive feeds, (3) condition and cost of range land, and (4) supply and cost of irrigated pasture silage and other forage crops. The demand for alfalfa from all segments of the livestock industry point toward a steady increase in requirements. The dairy industry is enjoying its best economic health in recent years. While cow numbers are not increasing significantly, production per cow and its related demand for feed are rising.

An interesting trend is the very modest beginning of confinement feeding of beef cow herds during part of the year. This is in its infancy as a California management practice but there are indications that it will increase, and this will be very beneficial to the

alfalfa industry. Costs of competing feeds are relatively high and do not place alfalfa at an economic disadvantage.

The outlook for exports of pellets and cubes is encouraging. At a very modest level in the early 1960's, exports of alfalfa pellets have risen to approximately 387,000 tons in 1970. Approximately 10% of the state's total output of alfalfa cubes was exported in 1970.

The modest but steady upward pressure for supplies is expected to continue. The economic health of the livestock and dairy industries is generally favorable. Cost of competing feeds are relatively high. These factors support the point of view that modest but steady increases in alfalfa production and prices will continue for the next several years.