

AN ECONOMIC OUTLOOK OF ALFALFA'S
COMPETITIVE POSITION IN CALIFORNIA

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Introduction

Alfalfa is easily the most important commercial forage crop produced in California. It occupies about one-eighth of our irrigated and harvested acreage of farm land. During 1973 it generated over \$300,000,000 income at the farm level.

This is a most versatile crop. At its best on skillfully managed, deep loam soil with adequate water, it may also be produced under dry farmed culture. Harvesting and handling methods include grazing, cutting and stacking, baling and cubing, as well as green and dry chop. It is unexcelled as a dry roughage feed for dairy and beef cattle, horses and sheep.

Sales patterns are flexible too. Alfalfa may be sold after each cutting or at any longer interval depending on the market conditions and the grower's requirement for cash income. It may be sold by the acre, green and standing, by the animal unit month of grazing, as well as by the ton or bale 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 and long harvesting season it can greatly help the cash flow problem on diversified farms.

Production Costs

The startling increase in production costs for all crops during the past few years is no longer news. However, it does make individual growers look more carefully than ever before at the selection of crops and methods used to produce them. The cash costs of producing alfalfa at 8 1/2 tons per acre has increased on a comparable basis from \$21 per ton in 1970 to \$31.20 in 1974. These numbers are higher at lower yields. Investment costs have increased in the same ratio, bringing the total cost per ton from \$34 to \$50 for baled hay at 8 1/2 tons per acre yield. This rate of increase is generally true for all of the crops we produce. A major impact of this change is to increase the severity of risk, since a crop loss could have more devastating consequences now than several years ago. Crops with a lower risk hazard are in a relatively better position than those that carry a high risk factor for such natural causes as unseasonal freezes. Alfalfa may be classified as a crop with a fairly low risk factor as compared to crops that are extremely sensitive to weather problems and subject to rapid and wide market fluctuations.

The versatility of alfalfa is very much in its favor. If baling wire, for example, is extremely high in price or in short supply other harvesting methods remain available so that many growers are able to continue production in a satisfactory manner.

Marketing

Alfalfa hay marketing is 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 any marketing process. Of the portion that is marketed for domestic use the dairy industry is our biggest buyer, purchasing about 60% of this supply. The beef industry buys about 30% with the remainder going to all other outlets. It is quite apparent then that the economic health of the beef and dairy industries is important in projecting market demand for alfalfa hay.

At the time of this writing the economic health of the dairy and livestock industries is about as bad as it has been in any recent period in our history. The combination of pressures on the supply of feed grains, both foreign and domestic, have driven most of them to record highs. Our export policies with feed grains have shortened our reserves

and driven the prices very high. This in turn has drastically increased the market value and hence the market price of other feeds that are used by the livestock and dairy industry. At the same time there are consumer demands to see that the prices of milk and beef are reduced. This leaves the livestock and dairy producers in an extremely bad economic situation at the moment.

One course of action open to livestock producers is to substitute lower cost roughage feeds for alfalfa hay to the greatest extent possible. Cereal silage is one substitute that is increasing in use and does diminish the requirement for alfalfa hay. We expect that livestock producers will take every opportunity to cut feed costs including, of course, their use of alfalfa as long as the substitutes are lower in cost.

How Does Alfalfa Compete With Other Cash Crops?

For the most part growers try to maximize net income from their farming operations. When alternatives are available it is normal to make comparisons and then to start with the crop that produces the most net income. This crop will generally be grown until some limit is reached. That may be availability of water, a peak labor requirement, or some other constraint that will restrict the area of the most profitable crop. The growers would generally proceed through the second crop in the same manner and on down the list as far as necessary to fill out their land area with a satisfactory farming program. Alfalfa competes very heavily with cotton for space in much of the cotton growing areas of California. At the present time the outlook for cotton is not nearly as bright as it was 12 months ago. Both foreign and domestic sales are down and projected to remain lower than levels of one year ago.

Following is a brief list of some field crops together with their projected yields and net incomes per acre that may prevail in the San Joaquin Valley in 1975. It is realized that yield and price fluctuations could and will occur in some crops. This list assumes slightly better than average yields but the net income results are considered to be comparable.

| Crop | Yield Per Acre | Unit Price | Net Income Per Acre |
|----------------------------|----------------------|-----------------------|---------------------------|
| Cotton | (lbs. lint) 1,000 | (lbs. lint) \$.45 | \$100.00 |
| Alfalfa Hay | (Tons) 8 | (Ton) 65.00 | 106.88 |
| Tomatoes for Processing | (Tons) 24 | (Ton) 50.00 | 287.04 |
| Sugar Beets | (Tons) 26 | (Ton) 30.00 | 432.38 |
| Barley | (Tons) 2 1/2 | (Ton) 120.00 | 110.00 |
| Safflower | (lbs.) 2,000 | (Ton) 350.00 | 111.26 |

In some very productive areas of California alfalfa hay does not compete with cotton because the guaranteed water availability is not large enough to insure maximum production of alfalfa hay.

In addition to potential income, growers will also consider some other factors in deciding to grow more or less alfalfa in 1975 than in previous years. These include: (1) the grower's evaluation of risk; (2) the amount of custom services available for alfalfa production; (3) the inventory of machinery owned and available on the farm; and (4) the requirement for debt service and timing of cash income.

Some Factors That Favor Increasing Alfalfa Production

Relatively low risk.
Adequate custom services in many areas of the state.
Better price stability than some alternative crop possibilities.
Historically, fairly steady demand.
A good crop in terms of cash flow considerations in the farm business.
Projected net income as favorable as several alternatives.

Some Factors That Discourage Additional Hay Production

Declining numbers of beef breeding cattle and dairy animals.
Severe pressure on livestock producers to use the lowest cost feeding programs
Some alternatives appear to be more profitable, especially sugar beets.

Summary

The pressures that indicate expanding alfalfa very closely balance off the pressures that discourage any expansion. Cotton is discouraging in outlook at the moment as compared to previous years, which would theoretically make more land available for alfalfa. On the other hand cereal grains are at an extremely good economic position compared with recent history. Approximately half of our United States wheat production is exported which helps to hold down the supply available for domestic use. Much of our other cereal grains are exported and apparently this trend will continue. The livestock industry is under heavy pressure to reduce costs and reduce the energy levels of present feeding programs. A reduction in the use of cereal grains in the dairy industry could benefit alfalfa by requiring more of it to help compensate in the feeding program. In some areas where cotton will be reduced, sugar beets, tomatoes, and other alternatives are more profitable than alfalfa and can often be substituted for cotton. The combination of pressures suggests that no significant change in acreage will occur in 1975, but that California will have a small increase over the 1974 acreage.