

ECONOMIC CONSIDERATIONS IN PRODUCING ALFALFA IN 1977-78

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Alfalfa production for 1977 started out with great expectations. Stockpiles were extremely low. Feed grain prices were high enough to encourage hay production. We had not yet accepted the fact that we were in the midst of a severe drought. Acreage in 1976 showed a very modest decline over the previous year. Prices of hay were strong but the price of cotton was relatively much stronger. There were some excellent choices available for field crops producers.

The 1977 story has unfolded now. The drought was severe and water costs skyrocketed. Stockpiles of feed grains overflowed available storage capacity and prices tumbled. In-shipments of hay into California in 1976 were twice the level of 1975 and began coming into California in great volume early in 1977. By mid summer of 1977 the price of cotton had dropped by nearly 20¢ per pound over mid winter levels. Hay prices declined, and storage increased, starting with summer cuttings. These statistics certainly make us wonder about the question, "where do we go from here?"

There is some comfort in the fact that all the news is not bad for all of the state.

Imperial Valley planted heavily in 1976-77 and had adequate water. Alternatives to alfalfa are not attractive enough to suggest that this acreage will be reduced. North of Sacramento where water is reasonably adequate in supply, alfalfa acreage is expected to increase slightly during this winter and next spring.

The dilemma lies in the San Joaquin Valley. As this paper is being written in October the Fresno area has received .02 inch of rain and none is presently in sight. Apparently no one can forecast what will occur later in the winter, but the outlook is discouraging at this time.

Let's look next at some possible costs and incomes from alfalfa and from crops that could be grown instead of alfalfa.

Crop	Sample Net Income Per Acre		Unit Price (Ton)	Net Income Per Acre
	Yield Per Acre (Tons)	Approx. Unit Production Cost (Ton)		
	6	\$ 95.10	\$ 50.00	\$-270.60
			60.00	-210.60
			70.00	-150.60
<u>Alfalfa Hay</u>	8	75.20	50.00	-201.60
			60.00	-121.60
			70.00	- 41.60
	10	63.26	50.00	-132.60
			60.00	- 32.60
			70.00	67.40
Cotton**	(Lb.Lint)	(Lb. Lint)	(Lb. Lint)	
			\$.45	\$-282.00
Based on a 1.7	600	\$.92	.55	-222.00
to 1 seed wt.			.65	-162.00
to lint wt. with			.45	-140.00
seed valued	1,000	.59	.55	- 40.00
@ \$84 per ton			.65	60.00
			.45	- 14.00
	1,400	.44	.55	126.00
			.65	266.00

**Seed credit is applied to gross production costs to arrive at a cost for lint cotton.

Crop	Sample Net Income Per Acre			Net Income Per Acre
	Yield Per Acre (Tons)	Approx. Unit Production Cost (Ton)	Unit Price (Ton)	
<u>Tomatoes for Processing</u>	20	\$ 46.17	\$ 50.00	\$ 76.60
			55.00	176.60
			60.00	276.60
	26	39.47	50.00	273.78
			55.00	403.78
			60.00	533.78
<u>Sugar Beets</u>	32	35.27	50.00	471.36
			55.00	631.36
			60.00	791.36
	(Tons)	(Ton)	(Ton)	
	20	\$ 25.45	\$ 20.00	\$-109.00
			25.00	- 9.00
<u>Wheat</u>			30.00	91.00
	27	19.42	20.00	15.66
			25.00	150.66
			30.00	285.66
	34	15.88	20.00	140.08
			25.00	310.08
		30.00	480.08	
	(Tons)	(Ton)	(Ton)	
	2	\$176.40	\$ 85.00	\$-182.80
			100.00	-152.80
			115.00	-122.80
	2½	142.00	85.00	-142.50
			100.00	-105.00
			115.00	- 67.50
	3	119.00	85.00	-102.00
			100.00	- 57.00
			115.00	- 12.00

One fact becomes quite apparent. This is that the alternatives of tomatoes, sugar beets and alfalfa seed, which could be much more profitable than alfalfa hay are all crops that require processor contracts. There is no expectation that significant amounts of these crops will be available beyond 1977 levels.

Price projections on processing tomatoes are not available at this time but the evidence suggests that there will be either lower prices or less acreage than last year due to the extremely heavy supply from the 1977 crop year.

The price of alfalfa hay is expected to strengthen as the winter progresses; tempered by the fact that the livestock industry is declining in size due to the extreme economic hardship brought on by the dry years. Dairy cattle members are declining slightly, but usage of alfalfa hay is not expected to change significantly.

The cost of production of alfalfa hay has been forced upward in this area primarily by increasing costs of labor, water, and machines. Some areas such as those on the west-side of the county are being forced completely out of the hay business due to the extremely high cost of water.

Other states around us such as Oregon and Arizona have a cost advantage now because their water costs are far lower than ours here in the central part of the state. Oregon reports a production cost of \$51 per ton at a 6 ton yield. Some Arizona budgets indicate a total cost of production of \$58.55 per ton with a 7 ton yield, which is often exceeded. The reason for this is primarily the difference between their water costs and ours.

Let's take a look at pressures suggesting that we plant more hay and those that suggest we plant less.

Pressures that suggest planting more hay. The market demand is expected to be very similar to the 1977 market. In areas where water costs are below \$12 per acre foot California can be competitive with in-shipments. Growers have developed markets over the years and would like to continue to service those customers if at all possible. There are not very many good alternatives for some growers to consider.

Pressures that suggest planting less hay. Stockpiles of feed grains are burdensome and these compete to some extent with alfalfa hay. Given the proper price relationships, substitutions of grains for hay can increase. These feed grain surpluses will then exert heavy downward pressure on hay prices. In many areas of the state water costs are excessive compared to those of competing areas and the production costs will be so high that profitable hay production is unlikely. There is no significant expansion of total export markets in sight.

Summary. This will be a winter in which difficult farm decisions must be made unless the drought is broken. Burdensome surpluses of feed grain, weak cotton prices and the need for processing contracts for our more profitable crops create a real dilemma for agricultural decision makers. The appearance now is that many growers will have to abandon traditional budgeting and calculate income over cash costs in selecting cropping programs. In many cases these will not meet all costs of production. From the balance of forces at work this suggests that the following will occur: Imperial Valley and southern California areas will have approximately the same acreage in 1978 as in 1977; the northern region, the northern Sacramento Valley will increase slightly in alfalfa acreage. The central portion of the state in the San Joaquin Valley is a question mark. Reasonable expectations indicate that a drop in alfalfa acreage will occur. The impact of a continuing drought, which is not now a certainty, would bring about a larger decline in alfalfa acreage than would occur if we have at least a 75% normal rainfall.