

Alfalfa Production and Prices in an Unstable Economy

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Determining alfalfa production patterns and price levels this year is a more difficult task than at any time in the more recent past, because the economy appears to be on the "cusp," of either recovery, or an even more precipitous slide into a deepening economic recession. This logic seems contrary to that which is being advanced by many economic soothsayers, in that many believe the current stock market situation portends of a great economic recovery just around the corner. Unfortunately, the economic facts of life do not paint that rosy a picture, and in support of a contrary hypothesis, the following facts are advanced: (1) record deficits for fiscal 1983-84, perhaps totalling \$150 billion or more, on the heels of a \$110 billion deficit this year, (2) unemployment in November amounting to 10.4 percent, (3) lackluster overall economic indicators pointing to no real prospects for recovery, despite the expected continued decline in interest rates, and more directly, (4) rising agricultural surpluses, commensurate costs of several billions more to maintain those surpluses, and no prospects of bringing in pervasive overproduction of almost all crops under control. What does all this have to do with the 1982-83 alfalfa situation? Last year we indicated the economic state of affairs was largely conditioning the overall wellbeing of many agricultural producers and relative economic health of those in particular crops. This continues to be true and the analogy applies to the economics of the alfalfa industry as much as it does to any other agricultural commodity. Effective demand and overall health of the economy are the major factors preoccupying all of us concerned with agriculture, and the prognosis is not favorable. It is going to take some time for the economy to recover, and in the interim, agriculture is going to bear a large portion of the adjustment process.

The 1982-83 Alfalfa Supply

Last year we said, "...Based on production alone, we might expect a rather robust marketing year, but other factors are conditioning total demand for the product, and carry-over, as well as supplies of other products are important..." That same statement is even more applicable this year, based in the facts outlined in my introduction. But there are some encouraging aspects of the situation, if you count yourself as a "contrary," i.e. someone whose management actions are usually the opposite of those in the mainstream.

Alfalfa production during 1981 totaled about 6.6 million tons and production during 1982 is expected to be down about 400 thousand tons, amounting to 6.192 million tons. If we look at the production of all other hay, we can total a figure of 1.325 million tons. By adding total production of alfalfa and all other hay to the estimated May 1, 1982 stocks, an estimated total 1982 supply of 7.988 million tons, down about 400 thousand tons from last year, is derived (Table 1). This May 1, 1982 carryin figure is the smallest in many years.

Cost Pressures and Alfalfa Production

There is little question that the economics of production continue to pressure the alfalfa grower in California. This fact is illustrated in the declining production of the crop. Total acreage declined in 1982 about 90 thousand acres from 1981, although production per acre increased slightly (Table 2). Our studies express the fact that weak prices and energy and water related costs of production continue to pressure the "average" grower. They also suggest that a producer is going to have to continue to do a much better than average job in order to stay in business.

Energy Costs Pressure Inshipments

But rising costs of production are only part of the puzzle. Energy, and energy related costs pressure the competition as well. Last year inshipments dropped off from the very large figure of 352 thousand tons the year previous. Last year about 326 thousand tons were transported to California markets, down about 26 thousand tons from the year previous.

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Utah and Nevada are the largest exporters, shipping about 119 and 179 thousand tons to our markets respectively. Neither of these numbers are really very large, comprising about 4 percent of our total supply, but they do compete with local production and in this sense should be considered (Table 3). Frankly, I do not look to very large if any increases in future inshipments of alfalfa into California markets from the Intermountain states. And I make this statement for two reasons. First, there has been a large dislocation in California dairy operations into these states because of lower costs of production; and the relative comparative advantage in land use for forage production in those states as opposed to California suggests this phenomena will continue. Second, cost-price pressures devil the Intermountain grower as well in the short run. October prices for alfalfa hay in Utah and Idaho averaged about \$65 per ton, and it is difficult to competitively ship alfalfa to California with that basic price frontier.

1982-83 Demand for California Alfalfa Hay

One can begin to feel like the proverbial broken record when it comes to the theme of principal users of alfalfa hay in California, because an analysis always begins with the relative numbers and the state of health of the California dairy industry. The major portion of this analysis will be left to one more imminently qualified on this subject-- John Siebert, who will follow on this program. But let us set the stage with a few numbers.

Last year we said there were too many dairy cow numbers in California, and the same situation prevails today. On January 1, 1981 there were 909 thousand dairy cows in inventory in California dairy operations. This year, at the same time, there were 940 thousand, an increase of about 3.4 percent (Table 4). Between January and July the inventory declined to about 924 thousand, but from July to September the inventory increased about 13 thousand animals.

The numbers suggest that the major portions of the increase are coming from the San Joaquin Valley dairymen. The inventory increased about 24 thousand animals in this area alone with the largest increases coming from Stanislaus, Merced and Kings counties.

We continue to stress that large numbers of dairy animals are a mixed blessing for the alfalfa industry. Large numbers of cows require large amounts of hay, but the present and future economics of the industry seem to say two things: (1) dairymen will continue to substitute other feedstuffs for forages, particularly with the present depressed state of the cereals industry, and (2) dairy policy is on the "cusp" as well. There are major changes coming in the dairy policy arena. We have had too much milk for far too long an extended period and something has to be done about it. Changes in legislation mean added pressure to the dairymen, and this in turn can be translated into two characteristics: (1) demise of the highly leveraged or marginal producer, and (2) a greater problem with accounts receivable for many hay producers, as dairymen seek added ways of securing float to help improve thin cash flow positions.

What about the inventory numbers and economic health of other animal industries? While these industries are marginal users of alfalfa hay, in the aggregate they add to the total demand for all hay, which in turn has a buoying effect on alfalfa prices. The California beef cow inventory continued to expand during 1981 and the total January 1, 1982 inventory amounted to 1,160 thousand beef cows, up 165 thousand or 16.5 percent from 1981. There seems to be a perverse sort of economics at work here. The California beef cattle industry has been subjected to many of the same sorts of pressures faced by any San Joaquin Valley alfalfa grower. However, two things are different: (1) prices have, on the margin, been sufficiently high enough to cause the producer to continue to hold back replacement heifers, particularly in light of the cash flow and debt problems encountered by many during the drought years of 1974-77 and (2) the past two years have been unusually good grass producing years, and this is mirrored in the fact that all other hay production has increased dramatically during 1981 and 1982.

Sheep and lamb numbers continue to hold their own, and anyone in the audience is better informed than I about horse numbers.

Another demand for alfalfa hay is for cubing and pelleting, but the quantities involved continue to decline. Last year we produced about 296 thousand tons of cubes, down smartly from the 463 thousand of the year previous. I cannot help but wonder if the pelleting and cubing businesses may become permanent casualties of the ongoing struggle for energy and energy supplies--but that is my opinion only, and should spark some discussion from those in the business in this audience.

Competition From Feedstuffs Continues

Last year, one of my caveats in regards to the whole situation surrounding alfalfa was ".....feedstuffs can replace alfalfa to a degree in animal rations..." I noted that May 1 inventories would likely be record low, and that observation has proven to be correct. Yet, we have not seen the run away pricing activity one might suspect if a market analysis were to be based on observation of supply data alone. This certainly holds true this year as well. We have a large volume of feedstuffs, and in addition supplies of corn, wheat and milo all point to a buyer's market in these areas as well.

A Real Mess in Cereals

By now, the story of overproduction of corn, soybeans and wheat is a matter of history, but a look at some of the numbers is sobering. We appear to have harvested a crop of more than 8.3 billion bushels of corn and 2.8 billion bushels of wheat. These numbers may seem a little meaningless until we translate them into some dollar figures and carryover volumes expected at the end of this year. It now appears we will have nearly 85 million metric tons of corn, and this total is up nearly 10 million metric tons from the estimate of just a month ago. In addition, we will have 38 million metric tons of wheat on hand and a whopping 102 million metric tons of feedgrains in total (Table 5). Translating these numbers into dollar estimates is even more chilling. Projections are now for season average prices as follows: corn \$87-94 per metric ton, wheat \$125-130 per metric ton, and rice \$165-193 per metric ton. Cash prices are averaging less than \$2.00 per bushel in the Corn Belt, and unless a badly needed long term grain sale or two is made, cash market prices could sink even lower.

Summary and Conclusions

By now, those of you who were here last year may conclude I have given the same speech. And in many respects, I suspect the similarities outnumber the differences. Let me summarize the most important aspects of this presentation:

- (1) Supplies of alfalfa hay will continue to be relatively short during this marketing year, particularly of good to excellent quality hay. I would expect to see more differential between good to excellent alfalfa and average to poor quality than at any time in recent years. Above average alfalfa growers should be able to capitalize on these differences by aggressive merchandising.
- (2) Usage will remain relatively high, since animal numbers continue to increase, but some new wrinkles in dairy legislation will curtail the buildup.
- (3) Supplies of alternative feedstuffs will continue to remain very high and competition for these products will be as aggressive as for alfalfa hay.
- (4) Cereals are in dreadful oversupply, and only massive long term sales can protect many mid-western producers from disaster.
- (5) Demand for livestock and poultry products will not improve in the first half of 1982. This will place added pressure on the profitability of those industries, and hence, on the demand for forages.

Price wise, what may we expect? I expect prices to continue much along the same lines as last year (I sound like a broken record), but some real improvement could come about in the second half of next year if the economy turns around, and by then, I believe we will have made some progress in improving the deficit situation. In addition, expect some significant differences between good and average quality alfalfa. There is not too much of the former around and it is probably in strong hands. And of course, we must add our final caveat, "Watch the dairy cow numbers and dairy legislation! This unknown could have a real unpredictable effect on the whole situation.

Table 1
California Hay Crop Production, 1977-82

Year	Production			January 1			
	Carryover May 1	Alfalfa	All Other Hay	Total Crop	Total Supply	Year	Stocks on Farms
	-Thousand Tons-						
1977	680	6,669	1,060	7,729	8,409	1978	2,860
1978	1,082	5,941	1,014	6,955	8,037	1979	2,226
1979	765	6,300	995	7,295	8,060	1980	2,043
1980	620	6,592	1,144	7,736	8,356	1981	2,708
1981	542	6,615	1,236	7,851	8,393	1982	2,669
1982	471	6,192	1,325	7,517	7,988	1983	2,500-2,600*

Source: California Crop and Livestock Reporting Service

* Author's Estimate

Table 2
California Hay Crop Acreage and Yield, 1977-82

Year	Alfalfa Hay		All Other Hay		Total Crop	
	Acres Harvested	Yield Per Acre	Acres Harvested	Yield Per Acre	Acres Harvested	Yield Per Acre
	-Thousand Acres-		-Thousand Acres-		-Thousand Acres-	
1977	1,140	5.85	530	2.00	1,670	4.63
1978	1,090	5.45	520	1.95	1,610	4.32
1979	1,050	6.00	510	1.95	1,560	4.68
1980	1,030	6.40	520	2.20	1,550	4.99
1981	1,050	6.00	515	2.00	1,565	4.68
1982	960	6.45				

Source: California Crop and Livestock Reporting Service

Table 3
Alfalfa Hay Trucked Into California by State of Origin, 1977-81

State of Origin	Year				
	1977	1978	1979	1980	1981
	-Tons-				
Idaho	10,609	1,193	13,003	13,312	6,690
Nevada	108,197	142,673	236,178	178,578	178,640
Oregon	9,940	4,433	19,240	14,715	20,638
Utah	13,482	17,627	107,929	144,134	119,388
Total Inc/ Eleven States	143,175	166,690	378,168	352,175	326,481

Source: Alfalfa Hay: California Market Summary, 1981, Federal State Market News Service. Sacramento, 1982. Special thanks to Paul Lehigh for late breaking information.

Table 4

ESTIMATED NUMBER OF MILK COWS & HEIFERS THAT HAVE CALVED
ON FARMS, JANUARY 1, BY COUNTIES AND DISTRICTS, CALIFORNIA 1977-82

COUNTY & DISTRICT	1 9 7 7	1 9 7 8	1 9 7 9	1 9 8 0	1 9 8 1	1 9 8 2 a/
NINE NORTHERN COUNTIES		25,300	24,350	22,800		20,750
Alameda	500	700	300	50	-	-
Contra Costa	2,500	3,000	1,300	2,000	2,400	2,500
Lake	100	100	100	50	50	50
Marin	14,500	13,400	13,000	12,600	14,000	13,000
Monterey	4,000	4,300	3,000	4,200	4,300	4,000
Napa	2,800	3,600	2,400	2,250	2,000	2,000
San Benito	1,500	1,600	1,600	1,300	1,100	1,100
San Luis Obispo	2,400	3,200	2,000	2,100	2,200	2,300
San Mateo	200	200	100	50	50	50
Santa Clara	6,400	6,900	6,000	4,700	4,100	4,400
Santa Cruz	600	500	700	600	600	600
Sonoma	37,200	36,100	36,500	36,000	33,000	36,000
CENTRAL COAST	72,700	73,600	67,000	65,900	63,800	66,000
Butte	2,100	2,200	2,200	2,200	1,900	1,700
Colusa	700	500	500	500	500	500
Glenn	12,200	13,500	14,300	13,000	13,500	13,700
Sacramento	18,500	20,000	21,800	24,000	21,400	21,600
Solano	1,500	1,600	1,200	1,200	1,100	1,100
Sutter	800	700	1,200	1,000	1,400	1,500
Tehama	4,200	4,800	4,800	3,000	3,100	3,100
Yolo	400	400	300	400	500	400
Yuba	1,900	2,500	1,200	1,400	1,400	1,700
SACRAMENTO VALLEY	42,300	46,200	47,500	46,700	44,800	45,300
Fresno	51,000	50,500	51,000	53,500	51,500	54,700
Kern	28,600	25,800	22,000	21,000	20,000	20,000
Kings	40,600	43,000	44,500	50,000	51,000	56,000
Madera	12,800	13,600	14,500	16,000	16,500	17,000
Merced	68,200	73,400	78,000	79,000	82,000	90,000
San Joaquin	56,200	53,200	60,000	59,000	59,000	61,000
Stanislaus	83,400	86,300	91,000	94,000	102,000	107,000
Tulare	89,800	102,200	104,000	104,500	114,000	115,000
SAN JOAQUIN VALLEY	430,600	448,000	465,000	477,000	496,000	520,700
Alpine	100	100	-	-	-	-
Amador	200	200	250	50	50	50
Calaveras	200	200	200	100	50	50
El Dorado	300	300	200	100	100	100
Inyo	300	300	100	50	50	50
Mariposa	600	900	500	450	400	400
Mono	200	300	100	50	50	50
Nevada	300	300	200	-	-	-
Placer	700	800	450	450	450	450
Sierra	100	100	50	-	-	-
Tuolumne	100	100	100	150	100	100
SIERRA MOUNTAIN	3,100	3,600	2,150	1,400	1,250	1,250
Imperial	900	900	800	700	500	400
Los Angeles	20,000	21,500	11,500	11,000	5,300	4,300
Orange	2,500	1,900	2,000	300	300	300
Riverside	68,200	69,000	71,000	81,000	90,000	90,000
San Bernardino	116,100	128,000	141,000	143,500	163,000	166,000
San Diego	19,500	19,600	18,500	18,700	16,000	17,000
Santa Barbara	4,200	4,000	6,000	6,000	5,000	5,000
Ventura	4,800	4,200	3,200	3,000	3,000	3,000
SOUTHERN CALIFORNIA	236,200	249,300	254,000	264,200	283,100	286,000
ALL CALIFORNIA	809,000	846,000	860,000	878,000	909,000	940,000

Source - California Crop & Livestock Reporting Service.

a/ Preliminary estimates.

Table 5

U.S. GRAIN CARRYOVER STOCKS, FARMER-OWNED RESERVE,
CCC INVENTORY, AND PRICES 1/

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*****
COMMODITY      : 1980/81 : 1981/82 : 1982/83 PROJECTIONS
                :         :         : OCT. 13 : OCT. 22
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                :
                :          MILLION METRIC TONS
WHEAT
:
ENDING STOCKS, TOTAL :      26.9      31.7      39.0      38.4
  FARMER-OWNED RESERVE :      9.8      15.3      25.2      25.2
  CCC INVENTORY       :      5.3 2/   5.1 2/   5.0 2/   5.0 2/
  FREE STOCKS        :     11.8     11.3      8.8      8.2
AVERAGE FARM PRICE 3/ :     144      134    125-130    125-130
:
CORN
:
ENDING STOCKS, TOTAL :     26.3     60.1     75.9     84.6
  FARMER-OWNED RESERVE :      4.7     33.3     52.1     53.3
  CCC INVENTORY       :      6.1      7.2     10.8     11.4
  FREE STOCKS        :     15.5     19.6     13.0     19.9
AVERAGE FARM PRICE 3/ :     122      96     91-98     87-94
:
TOTAL FEED GRAINS
ENDING STOCKS, TOTAL :     34.6     73.0     94.0    102.2
  FARMER-OWNED RESERVE :      4.9     39.7     61.5     62.7
  CCC INVENTORY       :      7.1      8.4     12.4     13.0
  FREE STOCKS        :     22.6     24.9     20.1     26.4
:
RICE (ROUGH EQUIV.)
:
ENDING STOCKS, TOTAL :      .7      2.2      2.3      2.3
  FARMER-OWNED RESERVE :     ---     ---     ---     --
  CCC INVENTORY       :     ---      .8      1.2      1.2
  FREE STOCKS        :      .7      1.4      1.1      1.1
AVERAGE FARM PRICE 3/ :     282      204    165-193    165-193
:
TOTAL GRAINS 5/
:
ENDING STOCKS, TOTAL :     62.3    107.0    135.4    143.0
  FARMER-OWNED RESERVE :     14.7     55.0     86.7     87.9
  CCC INVENTORY       :     12.4     14.3     18.6     19.2
  FREE STOCKS        :     35.2     37.7     30.1     35.8
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1/ FARMER-OWNED RESERVES AND CCC INVENTORY ARE AS OF JUNE 1 FOR WHEAT, BARLEY, AND OATS, OCTOBER 1 FOR CORN AND SORGHUM, AND AUGUST 1 FOR RICE. 2/ INCLUDES 4 MILLION TONS IN FOOD SECURITY RESERVE. 3/ DOLLARS PER METRIC TON. 4/ RESERVE LOANS THAT WERE CALLED IN JANUARY 1981, AND EXTENDED INDEFINITELY IN APRIL. 5/ INCLUDES RYE.