CALIFORNIA ALFALFA INDUSTRY PRICES AND TRENDS

Seth Hoyt[1]

ABSTRACT

This past year was challenging for alfalfa hay growers in California. Financial problems in the dairy industry weighed heavy on the hay market the first half of 2003. Spring rains and hot midsummer temperatures disrupted normal hay production and increased supplies of dry cow hay. This was bearish to the Fair-quality alfalfa hay market the second half of the year. While acreage and production of high-quality alfalfa hay were down from 2002, a resulting boost in prices did not occur. The strong demand for higher test milk cow hay occasionally brought prices close to 2002's level. Much of the year, prices were the lowest since 2000. According to sources, the carryover of milk cow-quality alfalfa into 2004 will be below normal. With lower average hay prices for the season and negative margins, many hay growers in 2003 were again looking for alternative crops to plant with more profit potential. The reality was that even with higher milk prices during the late summer and early fall of 2003, it would take time for some dairy producers to heal financially.

Key Words: alfalfa hay, dairy industry, hay market, hay production, hay prices, alternative crops, milk prices

INTRODUCTION

After a significant increase in alfalfa hay acreage in 2002 and a resulting weaker market from the previous year, California growers reduced alfalfa acreage in 2003 by 50,000 acres. Considering that dairy cow numbers had continued to grow at an annual rate of 60,000 head through the first quarter of 2003, some thought the 2003 alfalfa hay market in California might be close to 2002. This did not occur. The economically depressed dairy industry was a bearish factor. The hay carryover into 2003 was up from the previous year, but many dairies stretched supplies longer into the spring than many in the hay industry anticipated. Lower May 1, 2003 hay inventories, including a sharp drop in alfalfa hay shipments from out-of-state, and lower production of high-quality alfalfa hay did not translate into stronger prices. Alfalfa hay prices were running around $5.00 to $15.00 per ton below 2002, according to Market News. Due to higher milk prices the second half of the year, trading on alfalfa hay picked up in September and October, reducing grower inventories in some areas. The exceptions were the southern California desert area and the northern mountains, according to sources.

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RECAP OF THE 2003 CALIFORNIA ALFALFA HAY MARKETING SEASON

Due to financial problems in the California dairy industry, supply-demand economics in the California alfalfa hay market the first half of 2003 did not appear to be performing as they have historically. During the spring and early summer, some dairies were extremely low on hay inventories before they made new purchases, some of which were only for short-term needs.

Two words that had a huge impact on the California alfalfa hay market in 2003 were "Milk Production." California milk prices reached a 25-year low in the spring of 2003 and a record 12-month period of depressed milk prices ending in June 2003. The reason behind the lower milk prices was excessive milk production. According to the California Department of Food and Agriculture, milk production in California has increased an average of 4.5 percent per year for the past 30 years. Consider that in March 2003 there were 3.1 billion pounds of milk produced in California compared to 2.1 billion pounds in March of 1994, an increase of 48 percent over the last nine years. Higher milk production and depressed milk prices nationwide prompted the U.S. dairy industry in 2003 to initiate an industry self-help program called Cooperatives Working Together (CWT). Under the modified program, slaughter of dairy cows began in September 2003. In total, 299 dairy herds are being retired nationwide with a total cow reduction of 32,724 head. This represents 608 million pounds of milk. The original CWT program proposal of last spring would have reduced the nation's dairy herd by around 125,000 head.

With December 1, 2002 hay stocks up 14 percent from the previous two years, dairy producers in California appeared to be carrying ample inventories of hay into 2003. Unlike the past few years, dairy producers were not actively purchasing new crop milk cow-quality alfalfa hay in the southern California desert in early 2003. Due to tight finances, dairies were using up old crop supplies and bearish on early new crop alfalfa prices. Granted, rain damage curtailed the amount of available milk cow-quality alfalfa offerings in the southern desert, but non rain-damaged higher-quality alfalfa only found light to moderate demand. Supreme quality alfalfa hay, from the early cuttings in the desert, ranged mainly from $100.00 to $110.00 per ton, f.o.b., according to Market News. The lower alfalfa prices prompted some Imperial Valley growers to plant Sudan hay in the spring of 2003. Consequently, in the July Imperial Irrigation District (IID) Report, alfalfa hay acreage had declined 12 percent, while Sudan hay acreage was up 32 percent from 2002. According to Market News, Fair quality alfalfa hay prices from January through October 2003 in the Imperial Valley averaged $68.64 per ton, f.o.b., the lowest price since 1999.

Stronger milk prices and reduced hay inventories at dairies boosted demand for alfalfa hay during the second half of 2003. California's May 1 hay stocks, estimated at 200,000 tons, were down 14 percent from 2002. Several factors caused the slip in milk production that began in mid 2003, which included lower TDN tests on spring and summer alfalfa hay cuttings, heavy dairy cow culling the first half of the year, changes in milk cow rations as dairy producers reduced feed costs, hot summer weather, and a drop in BST usage. Mother Nature played a big role in the increased amount of lower testing hay, with rain in the spring and very hot weather in midsummer. The slower growth in dairy cow numbers was evident in May and June, with the first month-to-month decline in California's dairy cow inventory since 1987. However, due to higher milk prices and an improved outlook, dairy cow numbers in July were 2,000 higher than

in June.

In August and September, the dairy cow growth rate had rebounded to 4,000 cows per month and Holstein Springer heifers were topping around $1,800 per head in central California, up substantially from last spring. Over the past few years, California's dairy cow numbers have been growing an average of about 5,000 head per month. In the 12-month period ending September 2003, dairy cow growth in California was 46,000 head or an average of 3,800 head per month.

In an effort to reduce costs in 2003, and with tight supplies of higher testing hay, some dairies lowered their TDN requirements for milk cow hay. Rather than the 56 TDN or higher, an increased number were using hay that tested closer to 55 TDN. While milk cow quality alfalfa hay found the best demand the second half of the season, dry cow hay was finding mixed demand, depending on the area of the State. In the central and northern valleys, dry cow hay movement was good late in the season. According to Market News, Supreme quality alfalfa hay delivered to Tulare, Visalia, and Hanford dairies averaged $153.51 per ton in October 2003, compared to $158.03 in October of last year. In April of this year, Supreme quality alfalfa delivered to the same areas averaged $147.00, compared to $167.95 per ton in April 2002. Fair quality alfalfa hay delivered to Tulare, Visalia, and Hanford averaged $90.66 per ton in October 2003, compared to $97.29 in October of last year.

According to sources, hot and dry weather in some Western States in 2003 significantly increased dry cow hay supplies in the West. As a result, alfalfa hay shipments into California from Nevada and Utah were down significantly from 2002. Some dairies in California that normally purchase milk cow-quality alfalfa hay in Nevada and Utah were looking elsewhere this year. In January through September 2003, alfalfa hay shipments into California from Western States totaled 426,660 tons, according to the California Department of Food and Agriculture border stations. This is down 19 percent from 2002 and 22 percent below 2001. Alfalfa hay shipments from Nevada and Utah in August 2003 were down 55 percent at 25,354 tons, compared to 55,764 tons last year. (Due to State budget cuts, which may close 11 of California's 16 border stations, alfalfa hay shipments from Oregon and a good amount from Arizona would not be available in 2004. I am hoping that complete shipment data for two of the major States—Nevada and Utah—will continue).

Two areas that had ample inventories of dry cow alfalfa hay in the fall of 2003 were the southern California desert and the northern mountains. Central California dairies were able to purchase sufficient dry cow hay in the central and northern valleys in 2003 without having to pay extra freight to bring hay in from the southern desert or the northern mountains. This put significant downward pressure on Fair quality alfalfa hay prices in the northern and southern ends of the State. Normally, growers in the northern mountains produce high-quality milk cow alfalfa hay in the summer months. Unfortunately, they were hit with hot weather and rain in 2003, which significantly increased non-test hay production. In the Imperial Valley, sources indicated there were heavy supplies of dry cow alfalfa hay. Market News reported Fair quality alfalfa hay was trading from $55.00 to $65.00 per ton the week ending October 31, 2003, compared to $80.00 to $90.00 in the southern desert the same week last year.

Besides milk cow quality alfalfa hay prices in the central and north-central valleys, a few other bright spots in the California hay market during 2003 were the alfalfa/grass mixes and Orchard grass hay for the horse/retail market, and Sudangrass and Kleingrass hay for export. While demand was disappointing for alfalfa hay and cubes for export in 2003, export demand was good for Sudan and Klein hay. Growers faced the continual challenge of meeting the quality specifications to obtain the top contract price on Sudan. Kleingrass hay acreage in the Imperial Valley has been steadily increasing the past few years (the October 13 IID report showed 13,327 acres, up 25 percent from 2002). Export demand for Klein hay was good most of the season.

MARKET FACTORS AND OUT LOOK FOR 2004

In discussions with industry members throughout California, including seed company representatives, the sentiment was that alfalfa hay acreage would be the same or lower in their areas. However, in the central and southern San Joaquin valleys, most sources thought alfalfa acreage would be down in 2004. Due to the number of alfalfa acres in this area (five counties, including Kern, Tulare, Kings, Fresno, and Madera, had 446,476 acres in 2002, according to the County Agricultural Commissioners' Reports), any reduction in alfalfa acreage could have a big impact on acreage statewide.

The main factor that could drive alfalfa acres lower in central California in 2004 is—cotton! Spot cotton prices in the San Joaquin Valley went from 58 cents in early September to the mid-to-high 70's in late October 2003. The prices in late October were 74.50 to 78 cents compared to 43.50 to 47 cents the same time last year. China's purchase of more than one million bales of U.S. cotton the third week of October (sources indicated this is about 10 percent of the annual U.S. cotton exports) pushed the cotton futures price to more than 80 cents per pound in late October. Some believe that alfalfa hay acreage switched to cotton in the central valley could push statewide alfalfa acres down in 2004.

Due to a lower processing tomato crop in 2003 (according to sources) and talk of stronger contract prices for the 2004 crop, some believe processing tomato acreage could displace alfalfa hay acreage in the central and northern valleys. Sources also believe Sudan hay acreage will be up in the central valley in 2004, with one source indicating that it could be close to 30,000 acres, around double the acreage from 2003. I would be surprised if Sudan acres were up in the Sacramento Valley after the bad experience many growers had in 2002. Growers, including some new to Sudan, found it very difficult to meet export-quality specifications and the resulting lower prices or rejected product caused some bad feelings. Additionally, due to strong rice prices, some growers in the Sacramento Valley may have another crop option.

The big question, how many alfalfa acres will there be in the southern California desert in 2004? According to the Palo Verde Irrigation District, 13,000 acres of alfalfa hay were taken out of production in that area from June through December 2003 due to a water deal with the Coachella Water District. Growers were working to put together another water deal that would hopefully, keep the 13,000 acres and possibly more out of production in 2004. What would the Fair-quality alfalfa hay market in the desert have been the second half of 2003, if those 13,000 acres had stayed in production? Alfalfa hay acreage in the Imperial Valley in October 2003 was still running about 19,000 less or 12 percent below last year. Sources believe that Imperial alfalfa

hay acreage may continue to decline, as there appeared to be more dry cow hay production in 2003 than demand and utilization from Chino dairies. Alfalfa growers in the desert cannot continue to operate if dry cow hay prices remain at $55.00 to $65.00 per ton. In most years, dry cow alfalfa from the desert will not ship to the southern San Joaquin Valley.

Industry sources indicate that California's December 1, 2003 hay stocks could be higher than the previous year. However, opinions are mixed. Sources in the central and northern valleys indicate that inventories are the same or lower than a year ago. If the carryover is higher than last year, ample supplies in the extreme southern and northern areas may be the reason. I have been told that milk cow quality alfalfa hay supplies at dairies (overall) in central and northern California are below a year ago. Sources indicated that some dairies will need milk cow hay by March and April of next year, earlier than in 2003. If this is true, the outlook for milk cow hay prices the first half of 2004 may be bullish. This could be positive for early alfalfa cuttings in the southern desert. If milk prices continue at profitable levels in 2004, high-quality alfalfa hay prices could be bullish all year. The dry cow alfalfa hay market will depend on how fast carryover supplies are traded and utilized, including supplies in Nevada. Weather will also be a big factor as we saw what the weather did to the dry cow alfalfa hay market in 2003.

Two other markets for hay in California are export and horse/retail. I have no idea what export demand will be for alfalfa hay in 2004, but it was not very good this year. It does appear that early demand for Sudan hay for 2004 is good. In October in central California, one exporter was offering contracts for the 2004 crop. Growers in the Imperial Valley, with the assistance of forage specialists, will hopefully, solve the problems they had with "Brown Leaf" in Sudan this year. If the Imperial Valley Bermuda hay quality improves during 2004, it could help export and horse/retail demand. Overall, quality was below normal in 2003 mainly due to weather. It appears that long-term demand for alfalfa/grass mixes and orchard grass hay is pretty solid. The dealer where I buy my horse hay was selling orchard grass and alfalfa/orchard grass mixes for $8.50 to $9.00 per bale this summer, while his alfalfa was selling for $2.00 per bale cheaper.

What impact will alternative feeds have on hay prices in 2004? Talking with green choppers in central California this year, they indicated the corn for silage acres were about the same as 2002. Corn for silage acreage in California has increased from 200,000 in 1990 to 390,000 in 2002. Acreage jumped 75,000 or 24 percent higher in 2002 compared to 2001. If hay prices are stronger in 2004, will the corn for silage acreage move higher again? If milk prices soften in 2004, dairymen could follow the same pattern as the past year and substitute various feeds, including by-product feeds in order to cut costs. This is the main reason why concentrate fed to milk cows was down in 2002 and the first half of 2003, according to sources.

While very strong soybean meal prices, the highest in six years, may be bullish to alfalfa hay prices in some areas of the U.S., it will probably have only minimal effect in California. Many California dairies use canola pellets/meal or distillers dried grains in mixed rations and not soybean meal as a protein source. While the canola and distillers grain markets have been strengthened by the higher soybean prices, there appears to be ample supplies and prices are much more competitive than soybean meal. With the Bush Administration pushing for more ethanol production to make the U.S. less dependent on foreign oil, and with the State of California to replace MTB in gas with ethanol, there may be an increased amount of distillers

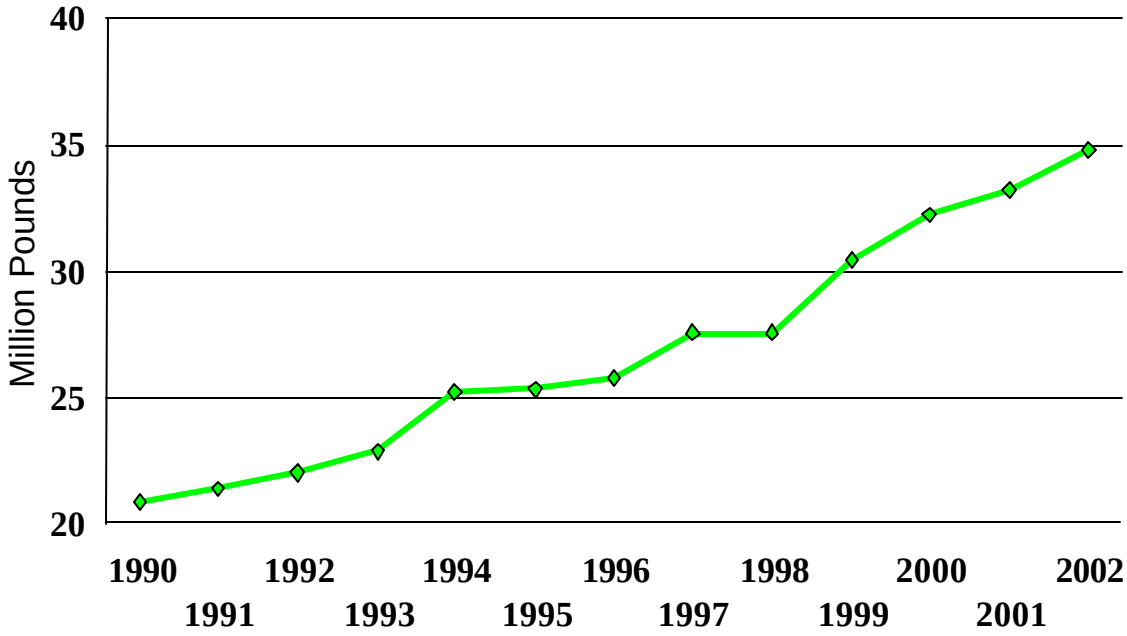
dried grains available in the years ahead. Feed corn prices, while up from the very depressed prices of 1999-2001, were still substantially below prices from the 1995-1997 period. The January through August 2003 average feed corn price was $2.13 per bushel, f.o.b. Iowa elevators, or just over $76.00 per ton, according to Market News. If you add the $25.00 per ton rail costs, this corn would deliver to California mills or receiving stations for about $101.00 per ton.

CONCLUSION

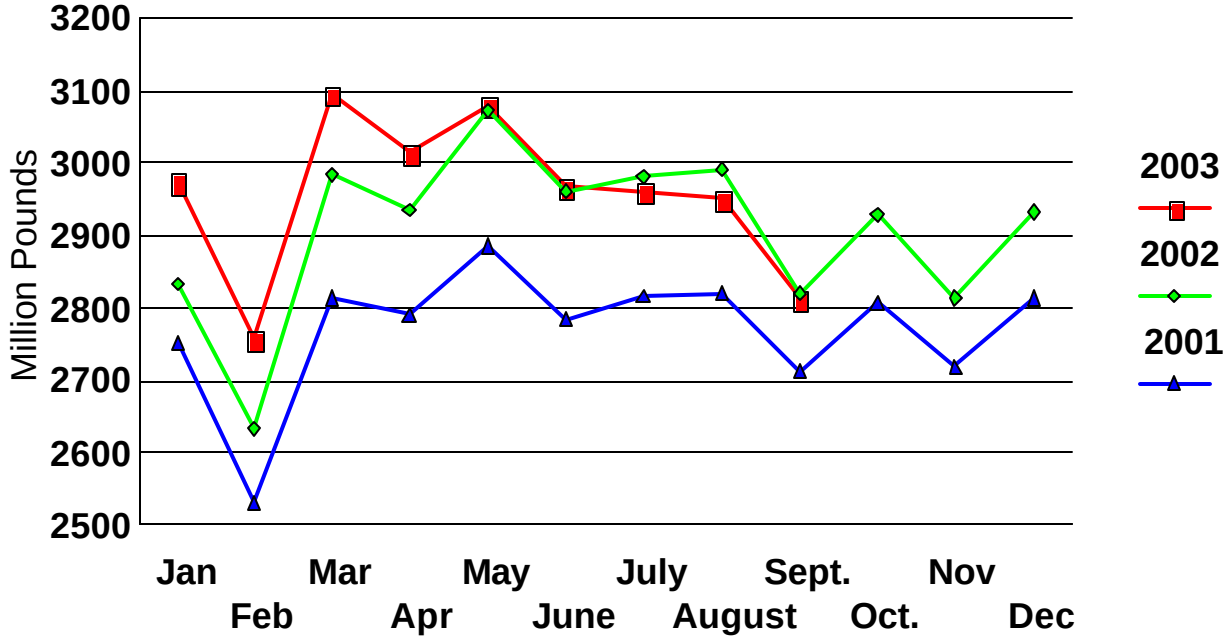
California's lower alfalfa hay prices in 2003 prompted alfalfa hay growers to look at alternative crops to plant for 2004. It appears that the strong cotton market in the fall of 2003 will convert alfalfa hay acreage in central and north-central California to cotton. Some alfalfa hay acreage in the central and northern valleys could be converted to processed tomatoes, if 2004 canning contracts are attractive. Alfalfa acreage in the southern desert could continue to decline due to very depressed prices on dry cow hay in 2003 combined with large inventories.

If, in fact, milk cow alfalfa hay supplies at California dairies are below a year ago, and given the rebound in dairy cow growth seen in August and September of 2003, alfalfa hay prices, particularly higher quality hay may be stronger in 2004. Dry cow alfalfa hay price trends in some areas might lag behind higher quality hay until carryover supplies are consumed. Stronger alfalfa hay prices could be dependent on milk prices holding at profitable levels, or at least higher than the very depressed prices in the first half of 2003. Any upturn in milk production that results in lower milk prices may be negative to the alfalfa hay market. However, it appears that in 2004, we may see further declines in alfalfa hay production and if dairy cow expansion continues, we could see a bullish alfalfa hay market in California.

Annual Milk Production, California
1990 - 2002

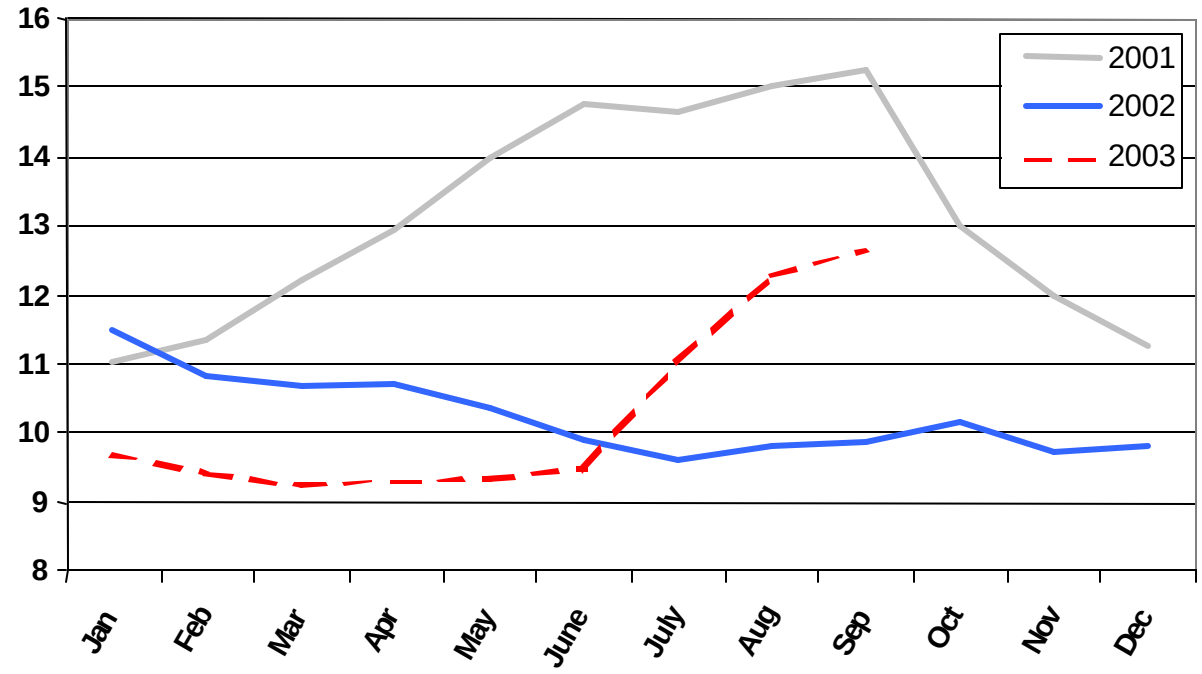


Monthly Milk Production, California
2001 - 2003



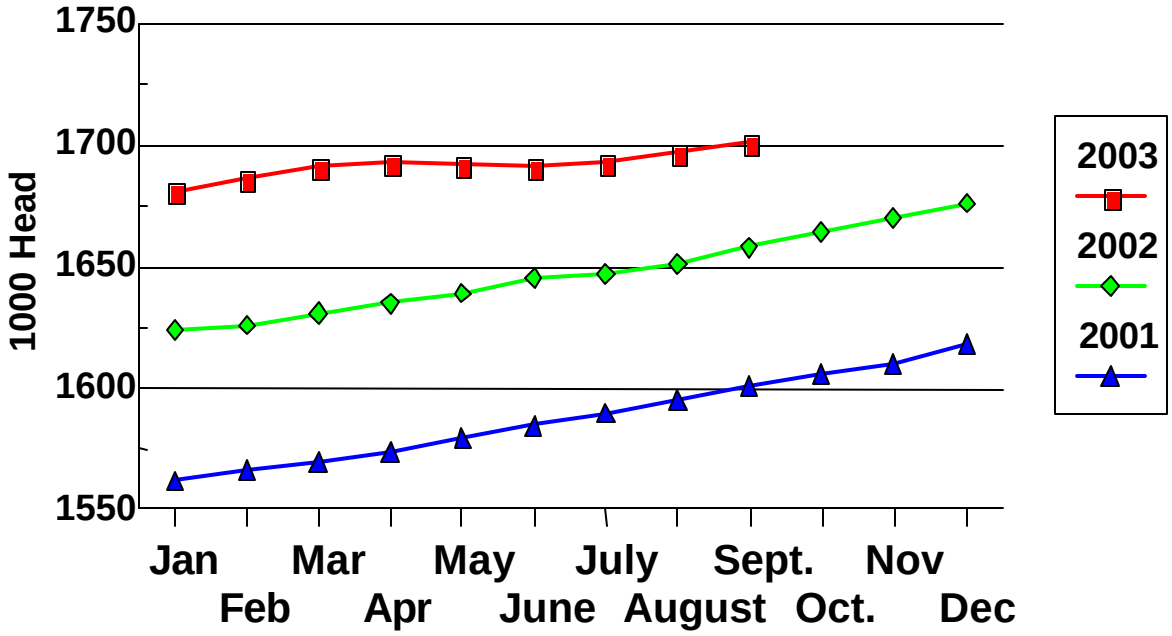
California Milk Prices (2001-2003)

Milk Pooling - Statewide Overbase



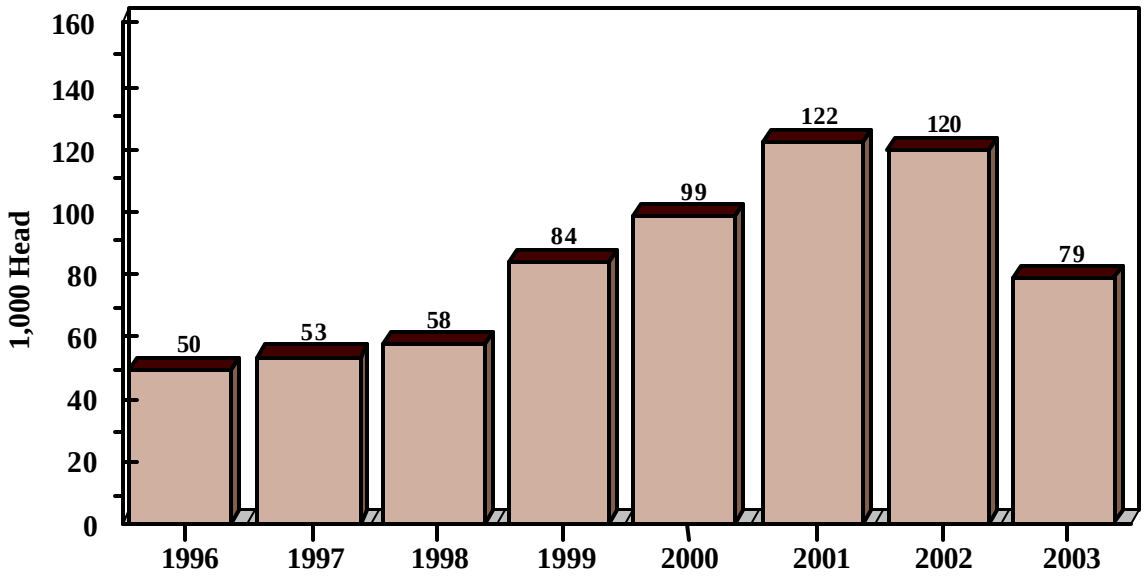
Dairy Cow Inventory, California

2001 - 2003



Incoming Dairy Replacement Heifers, CA

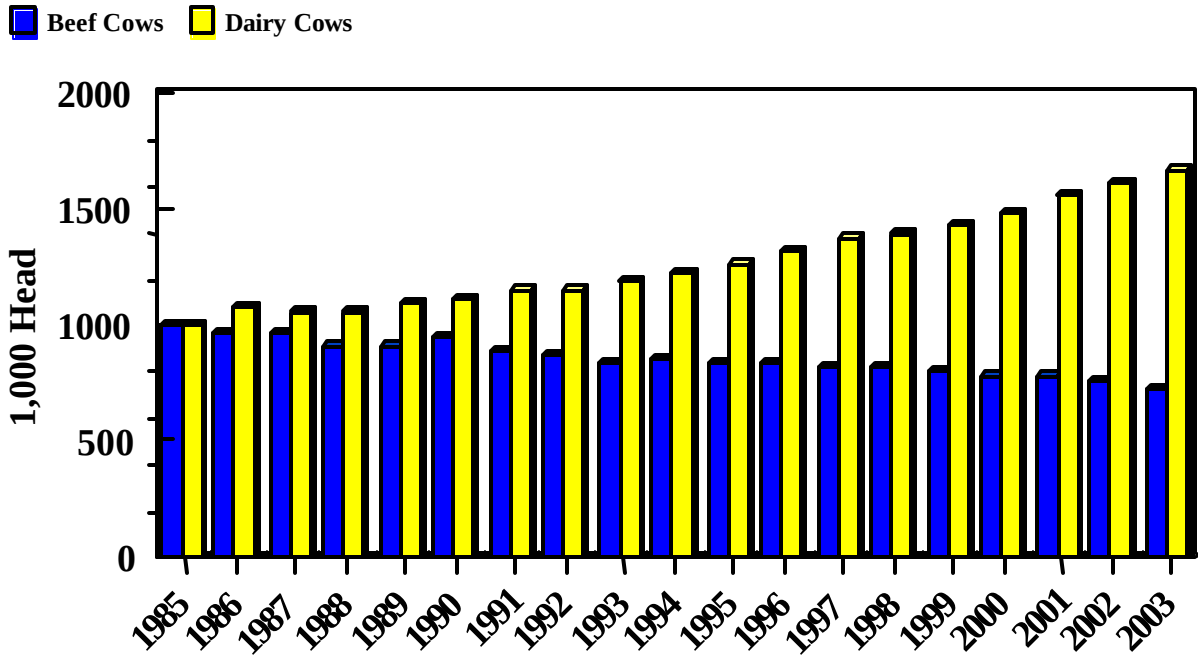
January-September, 1996-2003

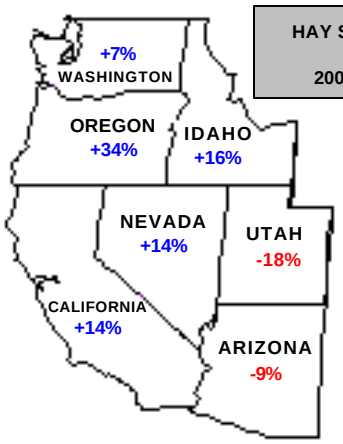


Source: CDFA Animal Health Branch

Dairy and Beef Cow Inventory, CA

Jan. 1, 1985-2003

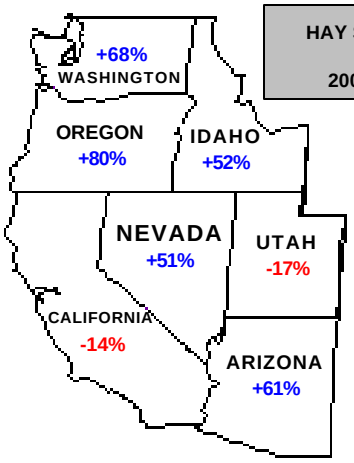




HAY STOCKS ON FARMS, DEC. 1
2002/2001 % CHANGE

7 WESTERN STATES +12%

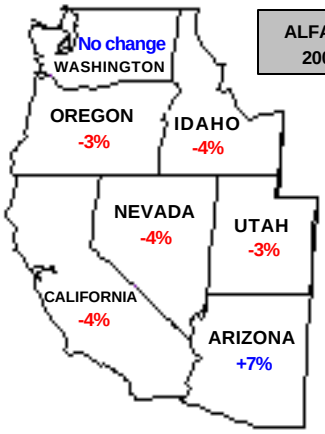
ENTIRE US -6%



HAY STOCKS ON FARMS, MAY 1
2003/2002 % CHANGE

7 WESTERN STATES +36%

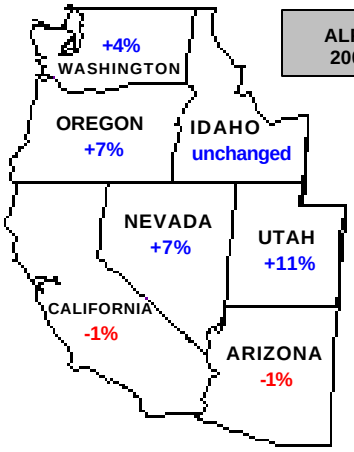
ENTIRE US -1%



ALFALFA HAY ACREAGE
2003/2002 % CHANGE

7 WESTERN STATES -3%

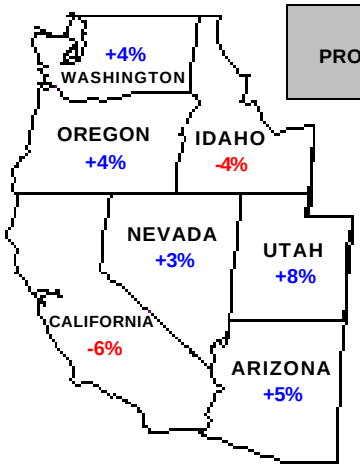
ENTIRE US +2%



ALFALFA HAY YIELDS
2003/2002 % CHANGE

7 WESTERN STATES +3%

ENTIRE US +5%

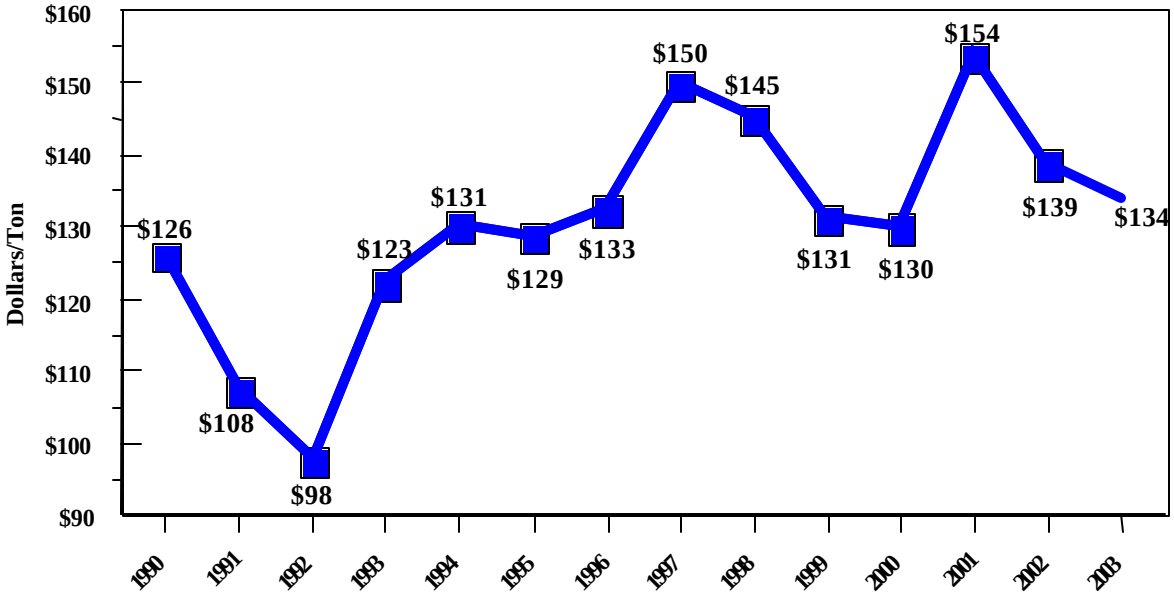


ALFALFA HAY PRODUCTION 2003/2002 % CHANGE

7 WESTERN STATES -1%

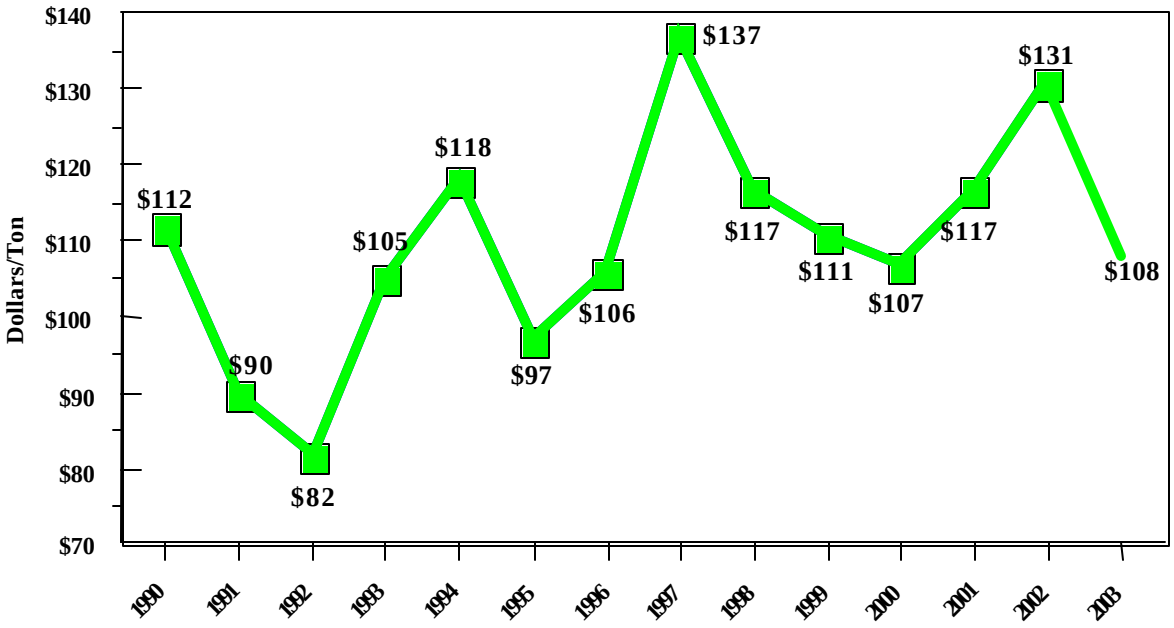
ENTIRE US +6%

Alfalfa Hay FOB Prices - Supreme Quality
Tracy - Patterson - Stockton



*2003 Data Represents Jan-Oct
Premium Quality before 1999
Source: USDA Livestock and Grain Market News

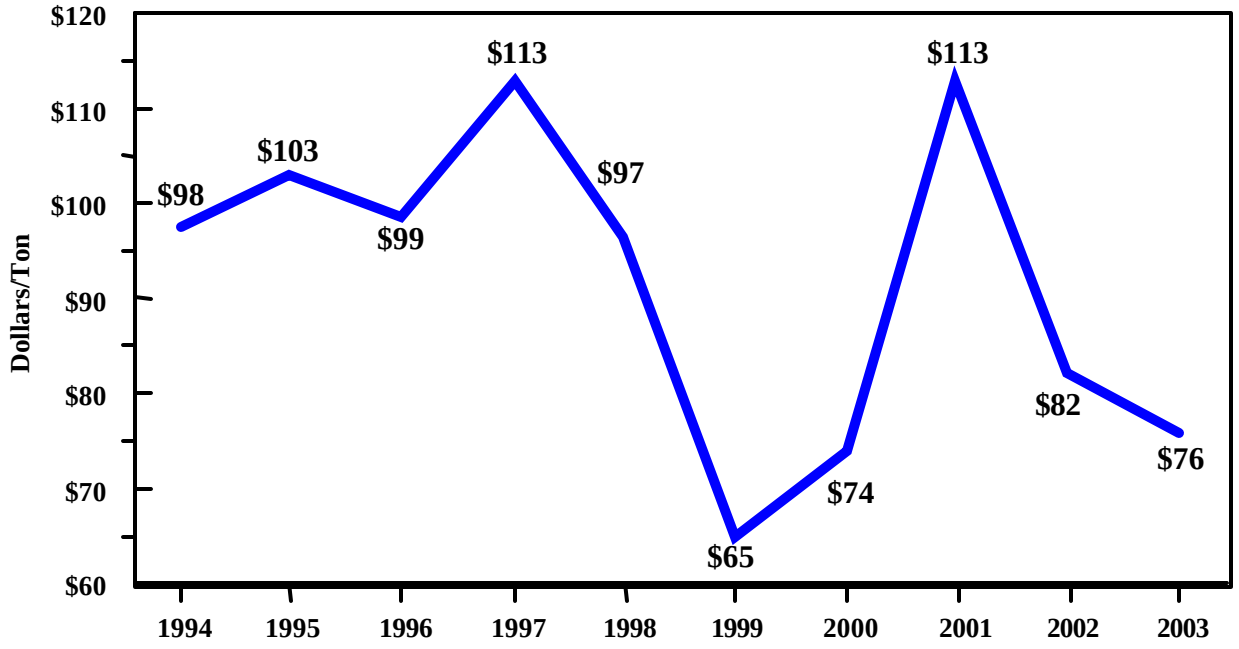
Alfalfa Hay FOB Prices - Supreme Quality
Imperial Valley



*2003 Data Represents Jan-Oct
Source: USDA Livestock and Grain Market News

Alfalfa Hay FOB Prices - Fair Quality

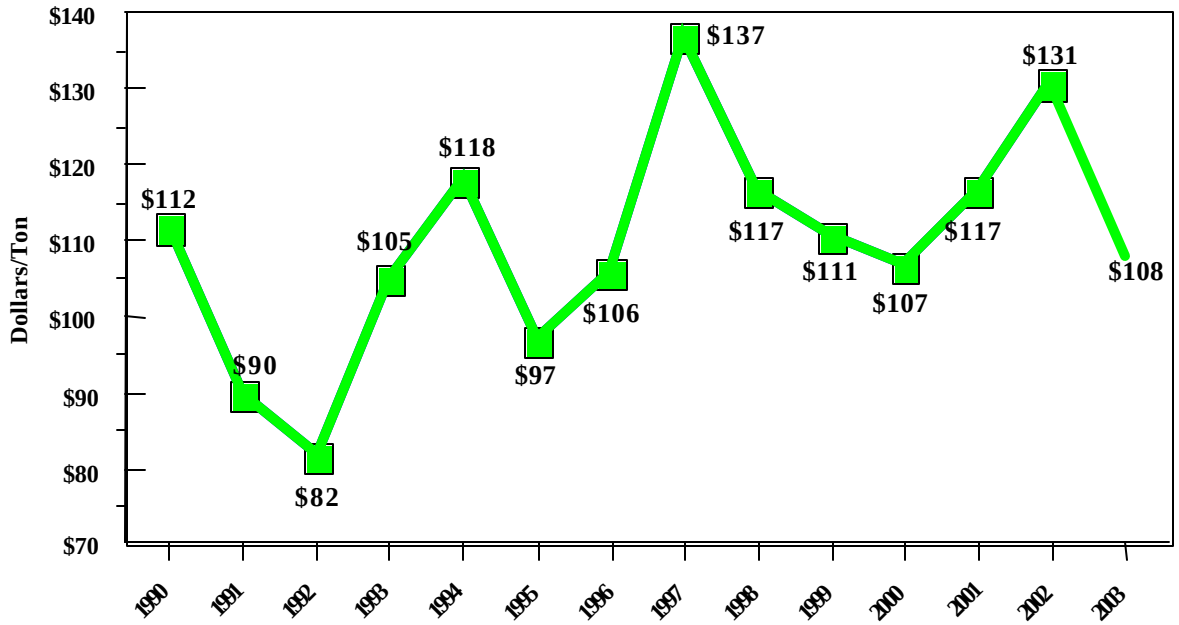
Tracy - Patterson - Stockton



*2003 data represents Jan.-Oct.
Source: USDA Livestock And Grain Market News

Alfalfa Hay FOB Prices - Supreme Quality

Imperial Valley

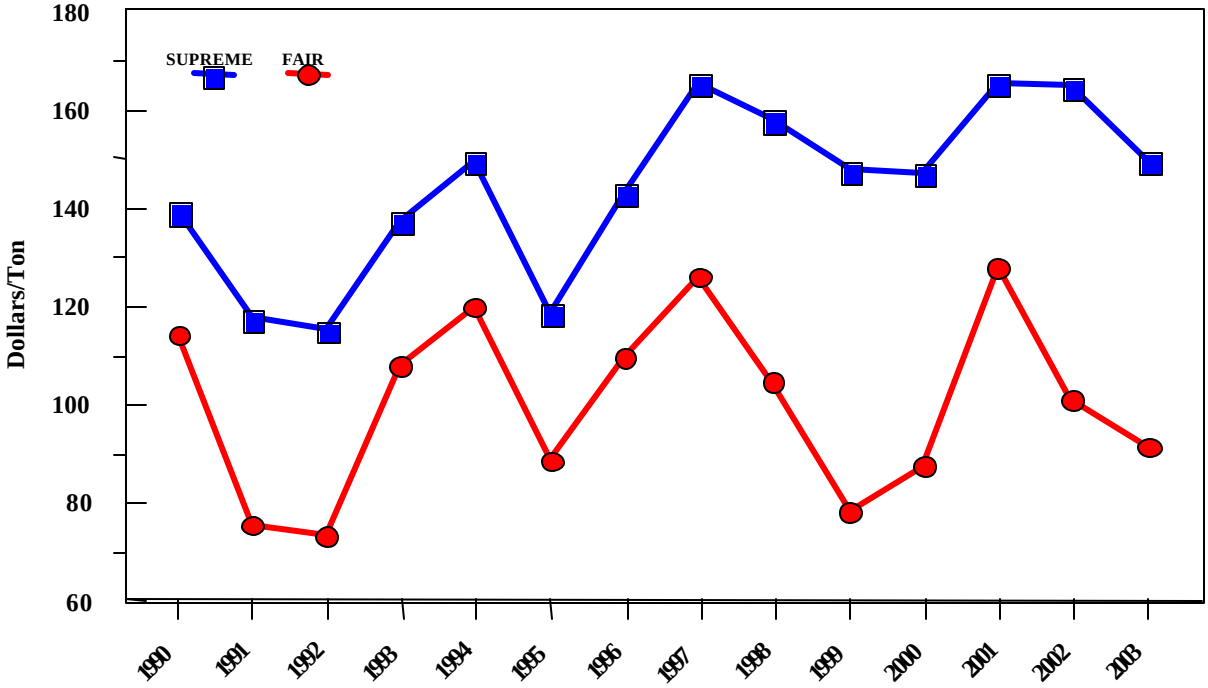


*2003 Data Represents Jan-Oct
Source: USDA Livestock and Grain Market News

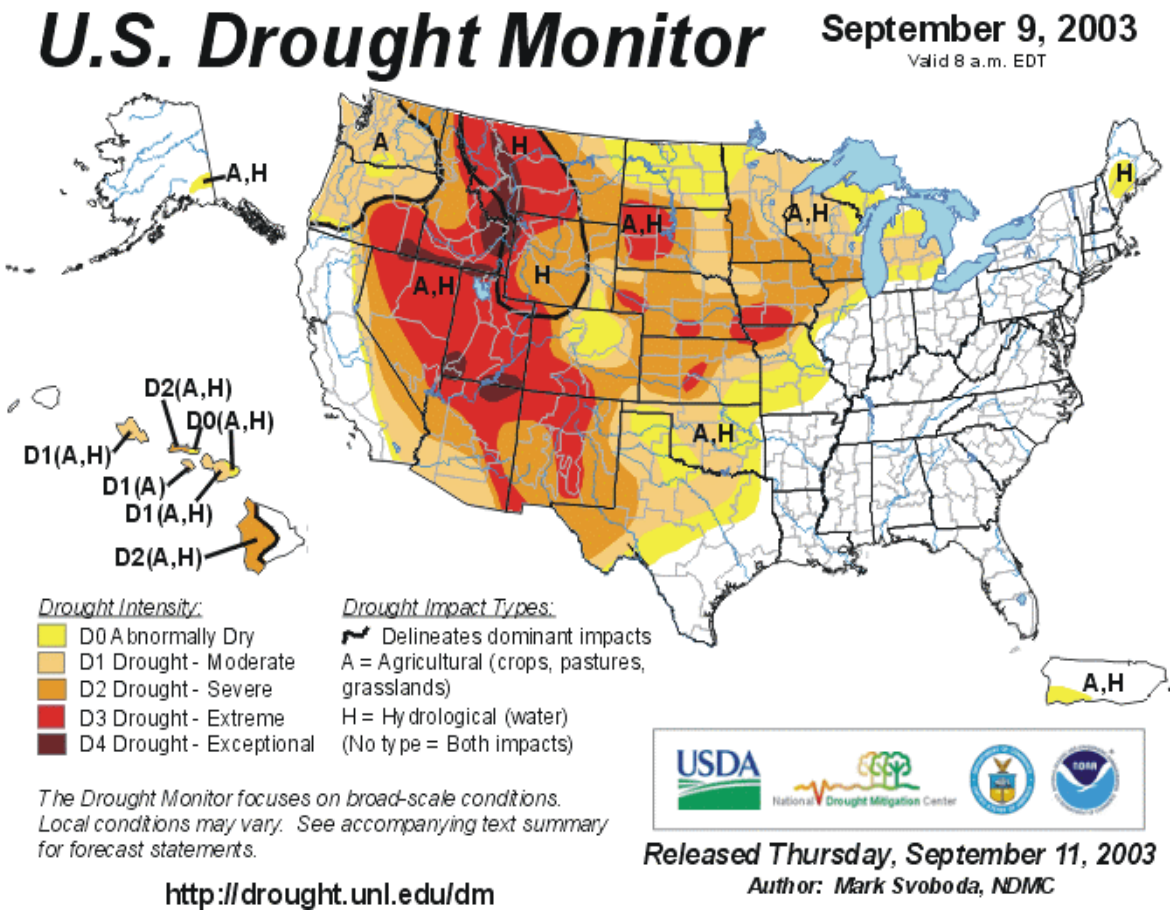
Tulare-Visalia-Hanford Delivered Alfalfa Hay Prices

Market NewsYearly Average Price, 1990-2003

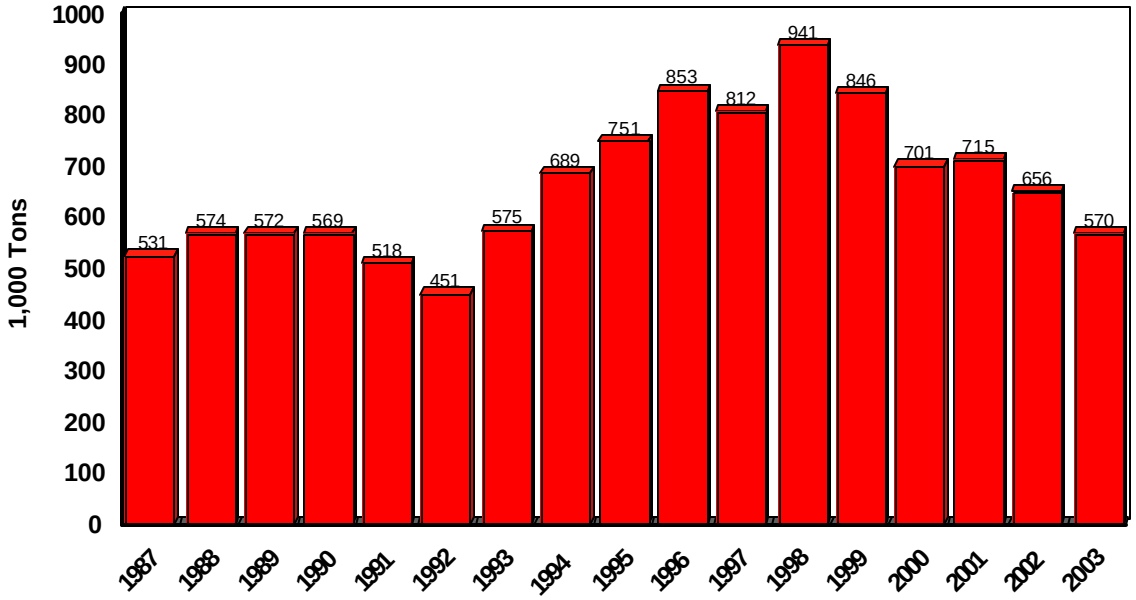
*Supreme and Fair Quality



*Premium Quality before 1999
**2003 Data Represents Jan-Oct

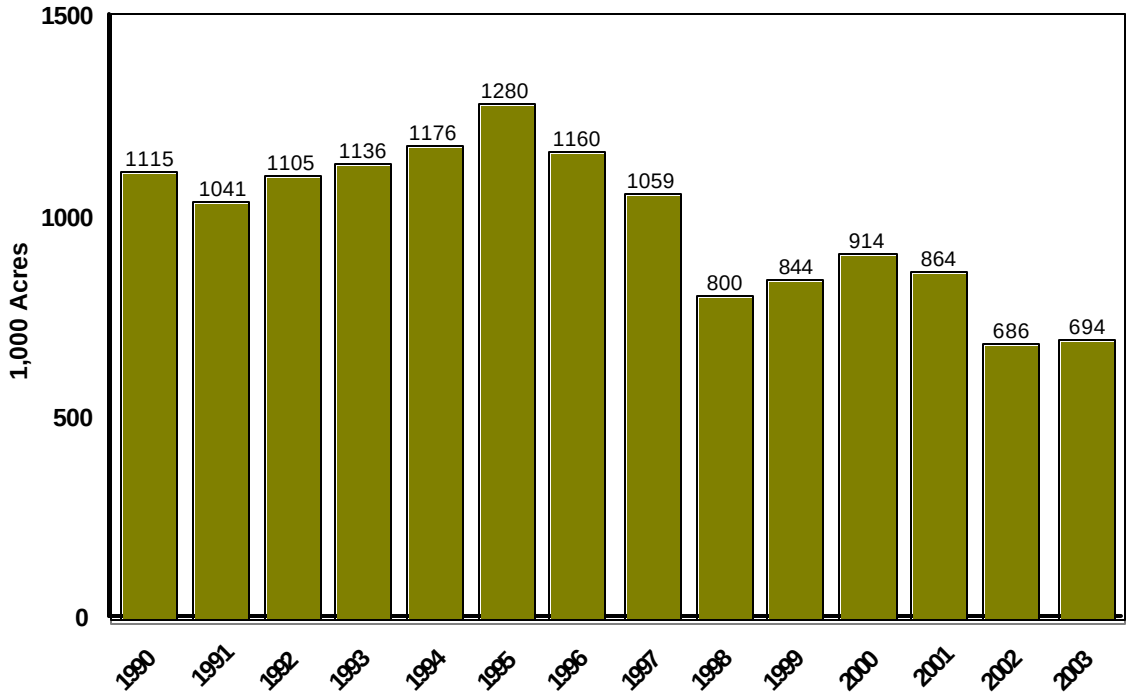


Alfalfa Hay Trucked Into California
1987-2003



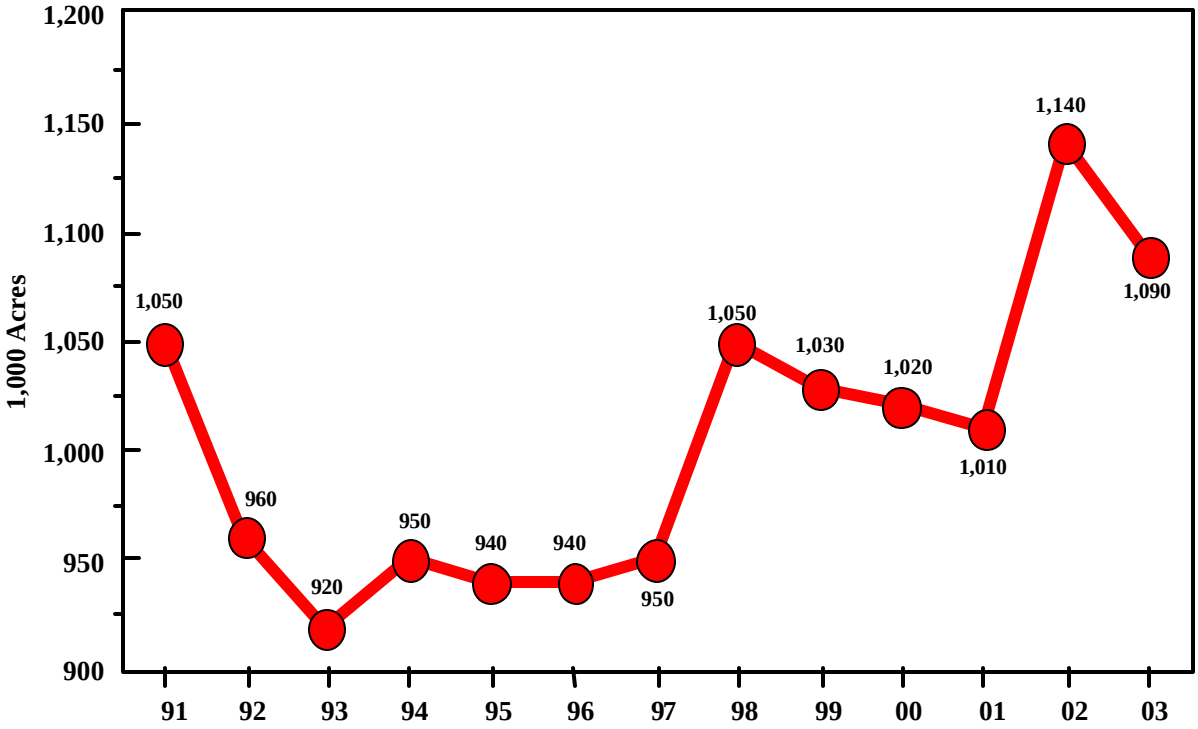
*2003 - Oct -Dec estimated
Source: CDFA & USDA Livestock and Grain Market News

All Cotton Harvested Acreage, California
1990-2003



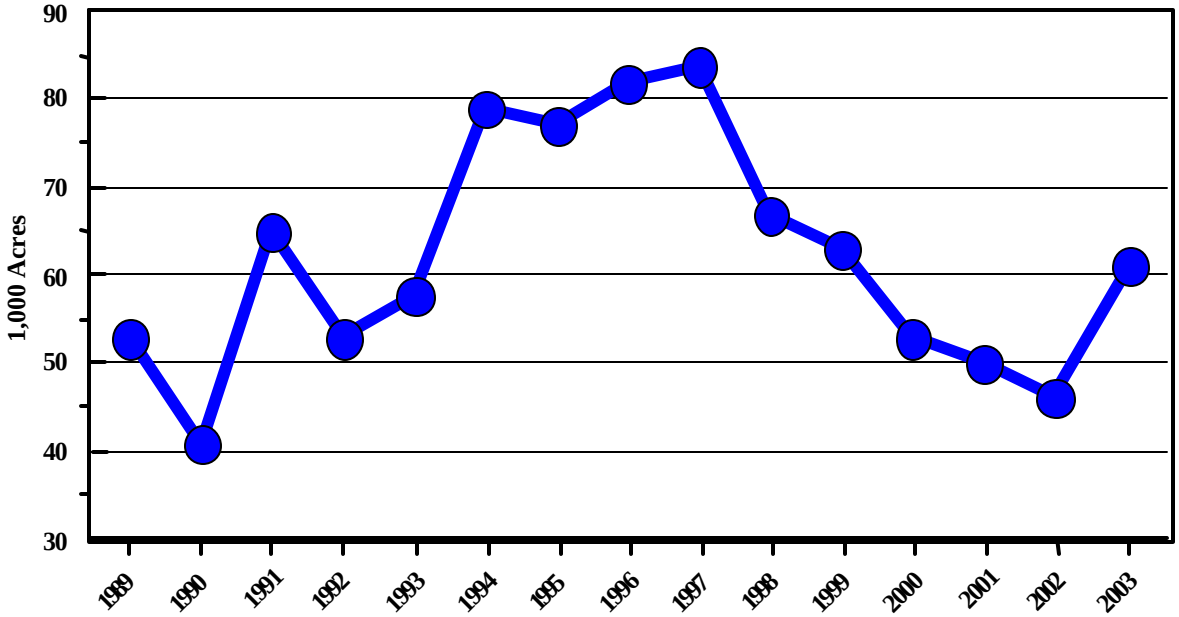
Alfalfa Hay Harvested Acreage, California

1991-2003



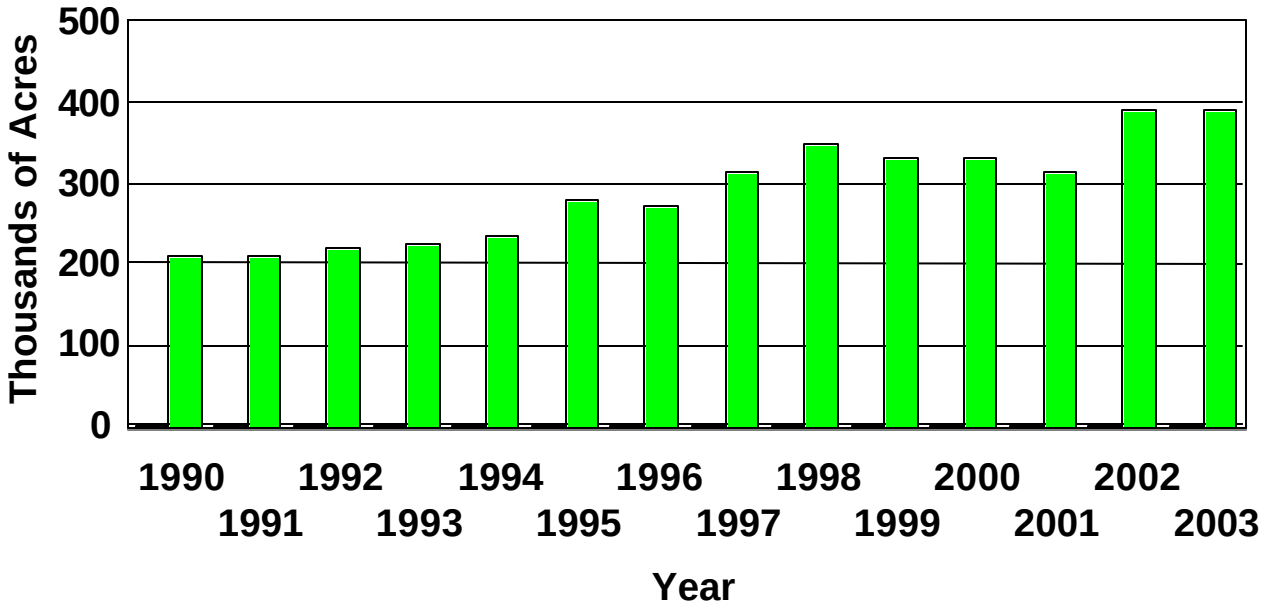
Sudan Hay Acreage, Imperial Valley

1989-2003



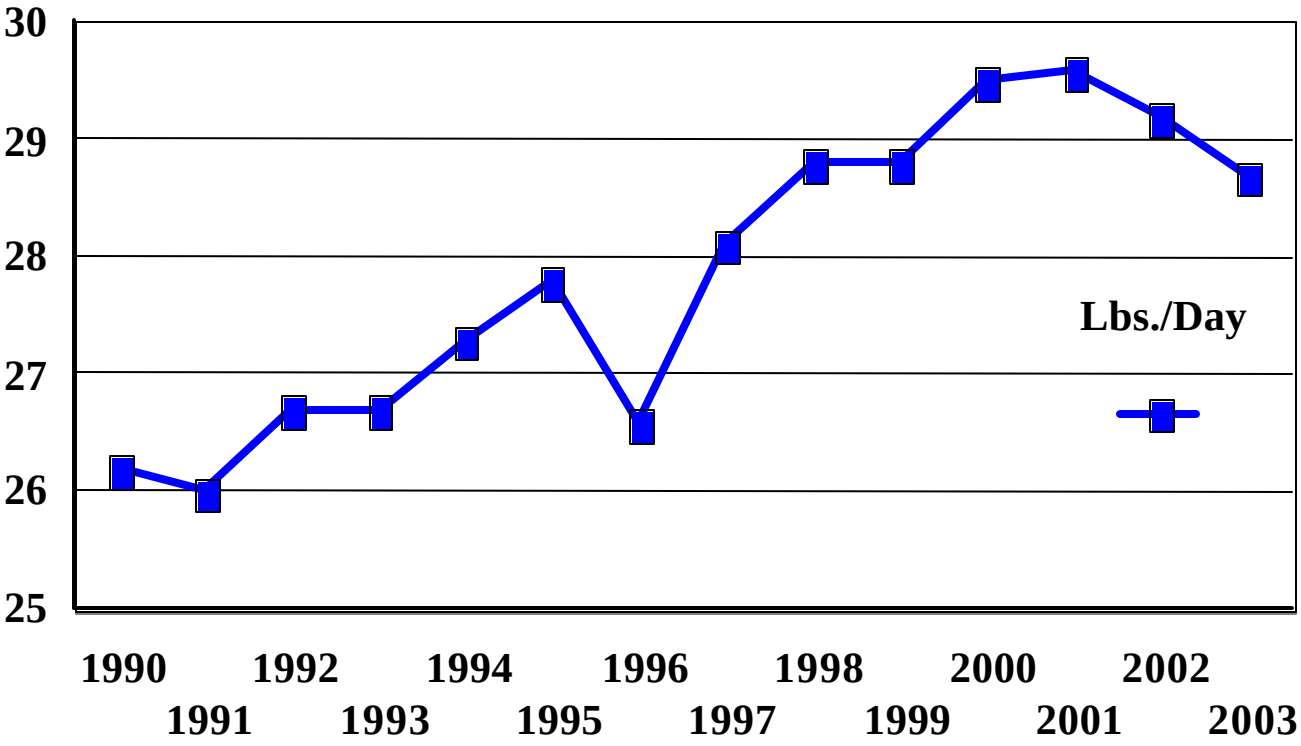
Source: Imperial Irrigation District

Corn For Silage Acres, California
1990 - 2003



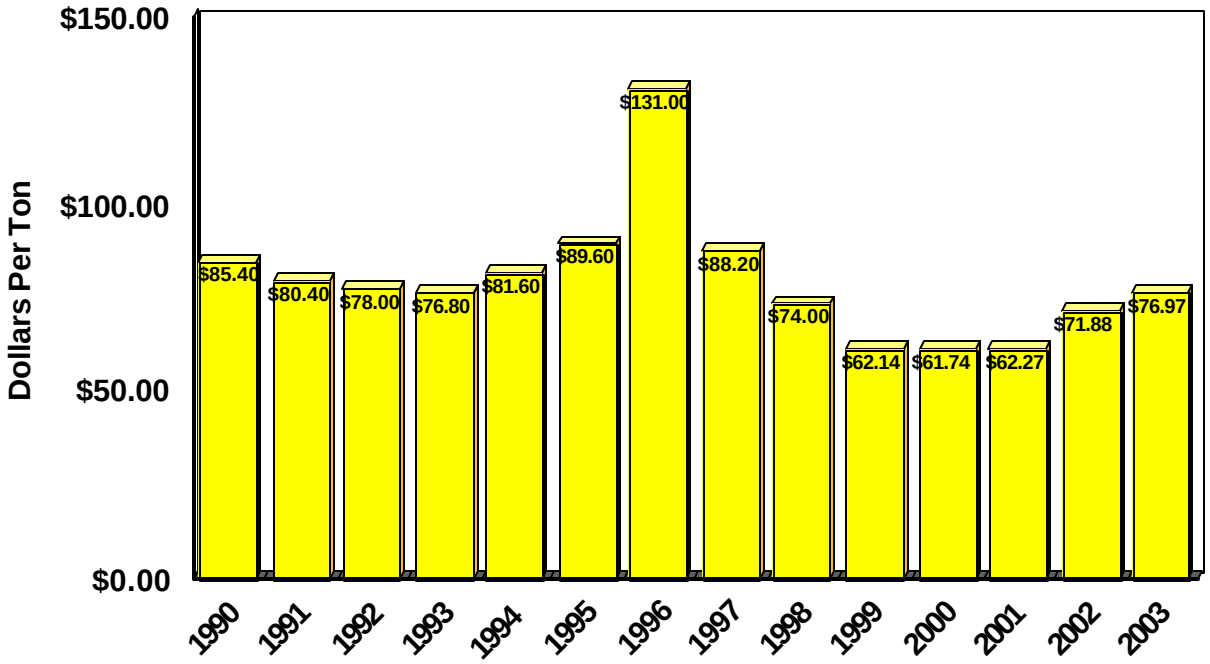
2003 : Difference between CASS planted corn acres and acres harvested for grain

Concentrate Fed To Milk Cows in CA
Pounds Per Day



Source: CDFA Dairy Marketing Branch

Feed Corn FOB Prices - Iowa
1990-2003



*2003 Data Represents Jan-Aug
Source: Federal-State Market News