

# MARKET TRENDS IN THE CALIFORNIA ALFALFA INDUSTRY

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## ABSTRACT

California's 2001 alfalfa hay prices set new record highs. Low spring hay stocks, lower than expected acreage, and continued strong demand from a growing dairy industry were the main factors for the bullish hay market. Hay was one of the few positives in the California agricultural industry, which was challenged again in 2001 with overall depressed markets and grower losses. As the alfalfa industry made strategies for the 2002 season, there were strong indications that alfalfa acreage would increase in California. The big question was, how much? With continuing growth in the California dairy industry and with very strong hay prices in 2001, some in the hay industry felt alfalfa acreage needed to show some increase. Otherwise, the growing demand would continue to chase too few supplies. As has been the case the past two years, there are very few alternative field crops to plant in California with profit potential. Water supplies, and the resulting cost of water, have been a concern for alfalfa growers. The uncertainty of water may temper new alfalfa planting in areas where water supplies were very tight in 2001, particularly central and northern California. For the past few years, permanent crops have displaced alfalfa in the central and northern valleys, due to lower water usage and the potential for improved long term profitability. However, due to depressed markets on many permanent crops, this alternative may not be as attractive in 2002. Unlike many food commodities in California that were negatively impacted in the fall of 2001 by the events of September 11 or weak world economies, the alfalfa hay market remained strong.

**Key Words:** alfalfa hay prices, low hay stocks, dairy industry, alfalfa acreage, growing demand chasing too few supplies, water supplies, alternative field crops.

## INTRODUCTION

California hay growers found 2001 to be a positive year as prices outpaced even the most optimistic forecast. While hay prices set new record highs, profits were squeezed in some areas because of higher costs for water and energy. Because of very low hay stocks in California and the west in the spring of 2001, prices for all qualities of alfalfa surged upward through the year. With strong prices on dry cow alfalfa, some growers, particularly in central California, were harvesting for tonnage instead of quality and yields were above average in the summer months. Because of strong milk prices and profitability in the dairy industry in 2001, many dairy hay buyers were willing to pay higher prices for milk cow quality, high TDN test alfalfa hay

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## 2001 - WHAT A YEAR IN THE CALIFORNIA HAY MARKET!!!

Many of you know what caused the bullish alfalfa hay market in 2001 and most of you know how strong the market was this year. But for those of you who may not have a handle on the factors that caused the record high alfalfa hay prices this year, I'll discuss some of them.

On May 1, 2001, hay stocks in California were the lowest since 1997. A 17 percent drop in alfalfa hay shipments into California in 2000, compared to the previous year also contributed to the low May 1 stocks.

According to the California Department of Food and Agriculture's (CDFA) border station reports, inshipments of alfalfa from other states dropped to 700,000 tons in 2000, compared to 846,000 tons in 1999. Alfalfa hay shipments by truck into California were down 10 percent the first half of 2001, compared to the same period in 2000. Because of reduced supplies of alfalfa hay in Idaho, some Idaho dairy hay buyers were much more aggressive in Nevada and other western states to purchase alfalfa hay. It is interesting that in the July-September 2001 quarter, alfalfa hay shipments increased substantially into California, probably due to the very strong alfalfa hay market. I am estimating that alfalfa hay shipments into California in 2001 may end up being 2-3 percent higher than last year, the first year-to-year increase since 1998.

Most of you remember the strong alfalfa hay market in 1997. The same supply and demand fundamentals were evident at the start of the 2001 season. The big difference – California had 210,000 more dairy cows and 90,000 more milk replacement heifers (over 500 pounds) in 2001 than in 1997. The consumption by these additional dairy cattle alone would require roughly 690,000 more tons of alfalfa hay (my calculations).

Based on an average yield of 7 tons per acre, this would translate into approximately 100,000 additional acres of alfalfa hay in California. If you add this to the estimated 950,000 acres we had in 1997, we would need approximately 1,050,000 acres of alfalfa hay in order to meet the increased consumption. The estimated alfalfa acres in California for 2001 were 1,010,000. If it were not for the estimated higher yield of 7.2 tons per acre in 2001 (some growers harvested an extra cutting for the season and some were cutting for tonnage in the summer), the supplies would have even been tighter.

I came up with some very rough numbers (my personal calculations) on alfalfa hay consumption in California in 2001:

1,590,000 dairy cows x 15 lbs./day =4,353,000 tons/year  
750,000 milk replacement heifers over 500 lbs. x 7 lbs./day = 958,000 tons/year  
375,000 dairy heifers under 500 pounds x 3 lbs. per day =205,000 tons/year  
750,000 horses (animal drug company's estimate) x 10 lbs./day=1,370,000 tons/year  
(Based on 70% of hay fed to horses being alfalfa or alfalfa mixtures.)  
465,000 cattle on feed for slaughter x 1 pound per day =85,000 tons/year  
80,000 tons of alfalfa hay exports (industry estimate)

7,051,000 Total Tons (Does not include hay fed to beef cows, sheep, goats, or other uses.)

The estimated 2001 alfalfa hay production in California is 7,272,000 tons. Add to this a projected 715,000 tons of alfalfa hay imported from other states, an estimated 150,000 tons of alfalfa hay on hand May 1, and the total supply of alfalfa hay in 2001 is around 8,137,000 tons. Based on these rough numbers, the December 1, 2001 stocks of all hay (approx. 85% alfalfa) would be 1,250,000 tons (my personal guesstimate). This compares to 1,598,000 tons on December 1, 1997. If the stocks were 1,250,000 tons, it would be the lowest December 1 stocks since 1967. (Now we'll see how close I come to the official CASS estimate.)

Strong demand from retail/horse buyers also contributed to the higher hay market in 2001. I think it was due to short inventories of retail and horse hay going into 2001 and probably not so much of a year-to-year increase in horse numbers. However, there may have been an increase in the horse population in 1999 and 2000 when the economy was very strong. It would not be surprising if horse numbers declined a bit in the coming year as we enter into a recession period.

Due to the strong hay market in California and with a continued weak economy in Japan, industry sources indicate that overall hay exports in 2001 were down from last year. This is verified by export data from Washington State University Cooperative Extension, which showed that baled hay exports from the west coast to Japan the first six months of 2001 were down 13 percent from the first half of 2000. After a sharp decline in exports in 1998, baled hay exports had been recovering the past two years. Industry sources indicated that overall exports of alfalfa and Sudan hay in California were down in 2001, and it appeared that much of the decline was in the northern part of the State.

## **MARKET FACTORS AND OUTLOOK FOR 2002**

In late October and early November of this year, I talked with nine companies that sell alfalfa seed. It became very obvious to me that alfalfa acreage in California should be up in 2002. The seed guys are guessing new acres of alfalfa in California will be up 5-15 percent from 2000. However, a few companies said some of their growers were waiting until around March to plant to see what the water picture looks like. But others mentioned that some growers planted early in the fall of 2001 to take advantage of what could be a strong alfalfa hay market next spring.

Analyzing different acreage scenarios, I believe one can get a general idea of how the market may respond next year. For example, if alfalfa acres were up 5 percent in 2002 (at approx. 1,060,000 acres), and based on my calculations of higher acreage in order to meet the growing dairy demand, the market would probably absorb the increased acreage and could continue to be strong. That is if everything else remained about the same as in 2001 (retail/horse and export sales, and about the same amount of alfalfa trucked into California from out-of-state). Also, this is based on an average yield of 7 tons per acre for the season. One factor that could change the alfalfa hay market picture in 2002 would be milk prices. The September 11 attacks caused a sharp drop in dairy product demand from hotels and restaurants, which in turn was putting downward pressure on milk prices in the fall of 2001. However, if consumers return to more normal travel and dining out patterns, milk prices could stabilize in the months ahead.

Figuring a 10 percent increase in acreage, to approximately 1,110,000 acres, I believe the market might face some challenges the second half of the year. This would be the highest acreage since the 1,100,000 in 1988 or the 1,140,000 in 1977. At this level, I personally think the market would be lower for the year, but probably not a train wreck. This is because, for the second consecutive year, the early indications point to lower stocks going into 2002. Even with 10 percent more acreage, the market the first half of 2002 could remain strong, but possibly not as high as in the fall of this year. I am basing this on my dairy sources, who indicate that milk prices will take a sharp drop in November and could be soft through the first quarter of 2002. This is after very strong milk prices this past summer and early fall. With 10 percent more alfalfa acreage, I believe prices will be weak the second half of 2002 and this could push the overall market lower for the year.

If alfalfa hay acres are up 15 percent, to 1,160,000 acres, there are some additional challenges. This would be the most acreage since 1973. I still believe the early demand in 2002 would be good as dairymen, especially those who didn't fill up this fall, come into the market. I think the early alfalfa cuttings in the southern desert will find good demand. However, by the summer market, supplies could be building rapidly. In the 15 percent higher acreage scenario and maybe even at the 10 percent level, some growers, if not many, may take out or dry up old stands in the summer and this would reduce production. At 10-15 percent more acreage, hay stocks in the fall of 2002 could be higher than the previous two to three years, especially at a 15 percent increase.

Having gone through the various scenarios on acreage, the key element for any projection for 2002 will be **water**. If water supplies are tight, it will be much more difficult to predict acreage and production. However, even with tight water supplies in 2001, many growers, who had water in California, were getting hefty yields per acre with some growers harvesting an extra cutting. But, I think it is pretty safe to say that another dry year would have more of an impact on the alfalfa industry than in 2001.

If the alfalfa and other hay markets are lower in 2002, hay exports may pick up. It appears that hay export buyers from Southeast Asia will continue to be price sensitive in 2002. The weak Japanese economy and the impacts of "Mad Cow Disease" on the Japanese beef cattle and dairy industries will have an impact on export hay demand from Japan in 2002.

It is difficult to estimate alfalfa hay shipments into California by truck in 2002. It may be pretty close to 2001. It really depends on available new crop supplies in the west next summer and fall. Hay stocks will be tight in most western states going into 2002. If Idaho dairymen can fill their needs from Idaho and Utah, and are not as aggressive for Nevada hay, alfalfa shipments from Nevada could increase in 2002. Water supplies and alfalfa acreage will be the key factors.

The retail and horse market on alfalfa and other hay may follow the same demand pattern as hay for the dairy trade. Low carryover supplies may keep the market strong early, but, depending on acreage, the market could soften the second half of the year if acreage is up and supplies of horse-type hay start to build.

## CONCLUSION

After being one of the few agricultural commodities in California that were profitable in 2001, indications point to increased alfalfa acreage in 2002. The one key element that could temper the acreage increase and alfalfa hay production in 2002 will be **tight water supplies**.

With the continued growth of the California dairy industry, alfalfa hay acreage will probably continue to increase in California in the coming years to meet the growing demand. Dairy industry sources indicate that expanding cheese production in California will continue to push the dairy cow inventory higher. The alfalfa hay market could be strong in early 2002, as some dairymen enter the year with light to moderate hay supplies. Lower milk prices could keep next spring's alfalfa hay market below fall 2001's level, but still above the past ten-year average. If California's alfalfa acreage increases significantly in 2002, prices could be lower for the year with the biggest decline during the second half.

You may be surprised that I did not mention what impact cotton growers would have on new alfalfa acreage in 2002, especially with the very low cotton market in the fall of 2001. Cotton industry sources indicated that, with a few exceptions and other than the normal 3-4 year rotation, many cotton growers in central California will probably not switch to alfalfa hay. Sources say the growers are set up for cotton, not for hay. This, along with the Government Loan Program on cotton, which extends to the 2002 crop, may keep many cotton growers from planting alfalfa. Additionally, some growers may be hesitant to switch to alfalfa given the coffee shop talk of possible sharp increases in alfalfa planting and fear of a lower hay market in 2002.