CALIFORNIA HAY PRICE AND SUPPLY SITUATION

Seth Hoyt

ABSTRACT/INTRODUCTION

The California hay market in 2007 made a remarkable turnaround from 2006. While hay prices in the West and nationally were higher than a year ago, the California market led the pack with the highest prices in the nation. While several factors drove the higher California hay market, two of the main factors were profitability in the dairy industry, particularly the second half of the year and tighter supplies of hay.

The course of events that transpired from the summer of 2006 into the spring of 2007 will demonstrate how the imbalance of hay supply/demand occurred in California. These events created a hay market where demand outpaced supplies throughout the season and will carry into 2008. Two other factors fueling the strong hay markets were higher hay exports, particularly on sudan grass (sudan) and drought conditions which caused an increased amount of hay fed to beef cattle. Supplies of hay had become so depleted that even record high alfalfa hay yields in late spring and summer cuttings could not soften the market. Short supplies and record high prices of dry cow alfalfa hay led to the use of a variation of by-product feeds not previously seen in California.

Hay production and hay markets in California in 2008 will be impacted by an array of crop options not seen by growers since the mid 1990’s. On the negative side, growers are facing reduced surface irrigation water supplies which will impact crops planted and crop rotations.

EVENTS LEADING TO THE RECORD HIGH ALFALFA HAY MARKET

While it was apparent that the hay market would be higher in 2007, the sharp upward move in dry cow alfalfa hay prices in California was the hot topic for the year. To fully understand the unprecedented year to year change in the alfalfa hay market one must go back to the summer of 2006.

The heat wave in July 2006 that killed thousands of dairy cows in California is where the story begins. The heat wave significantly disrupted the breeding cycles of dairy cows and it took longer, in some cases three to four months longer for cows to settle. This resulted in a larger number of dry cows in California in the spring of 2007. Thus, the demand for dry cow alfalfa hay was higher than normal.

---

1 Seth Hoyt, Senior Agricultural Economist, California Agricultural Statistics Service, CDFA-USDA, 650 Capitol Mall, Suite 6-100, Sacramento, CA 95814; Email: Seth_Hoyt@nass.usda.gov; In: Proceedings 37th California Alfalfa & Forage Symposium, Monterey, CA Dec. 17-19th, 2007. Published by Agronomy Research and Extension Center, University of California Dept. of Plant Sciences, One Shields Ave., Davis, CA 95616. See http://alfalfa.ucdavis.edu for this and other symposium proceedings.
Another development was the upward surge in corn prices in the fall of 2006. This came at a most inopportune time for dairy producers who were struggling through their worst year ever financially. As a result, most dairymen reduced the amount of corn in milk cow rations and increased the pounds of alfalfa hay and corn silage. This, along with the fact that some dairies were purchasing hay hand-to-mouth due to their poor financial condition resulted in below normal hay inventories at dairies as we entered 2007.

Adding to the “Perfect Storm” of factors that pushed hay prices sharply higher were hay production, milk prices, and drought. After reaching a low of $10.00 in July 2006, overbase milk prices in California were slowly climbing in the fall and were picking up momentum into the spring of 2007. While dairymen were still trying to recover financially, the $14.63 and $16.59 cwt. milk prices in April and May, respectively, and forecasts for much higher prices into the summer of 2007 turned up the demand for hay from dairies.

Another match that ignited hay markets was the 100,000 fewer acres of alfalfa hay in California in 2007. This was a major factor early in the year as freezing weather in January delayed the alfalfa hay harvest in the southern California desert and reduced tonnage on early cuttings in the central and northern valleys. Some dairies that were counting on early season alfalfa hay for milk cows were scrambling to find hay.

And finally, drought conditions in California, particularly in central and southern California forced beef cattle producers to feed more hay. Some beef cow operators in California that rarely feed hay, fed hay in 2007. Feedlots and growing lots fed hay to large numbers of thin feeder cattle that had been moved from dry foothills in central California in early spring.

All of these events led to the largest year to year market recovery in the history of the California hay industry. The $64.00 per ton year to year change in the dry cow alfalfa hay market in California far exceeded the previous record. It also led to the most diverse usage of by-product roughage feeds for dry cows ever seen in California. They included corn stalks, rice straw, bean straw, wheat straw, Bermuda grass hay and straw, sudan hay and straw, and some I’m sure I didn’t hear about.

In mid-November Supreme alfalfa hay delivered to Dairies in the Tulare, Hanford, and Bakersfield areas brought $220.00 to $248.00 per ton while Fair quality dry cow alfalfa delivered for $186.00 to $190.00 per ton, according to Market News. In the early fall, corn stalks were delivering to dairies for $80.00 to $90.00 per ton.

**WEAK DOLLAR PUSHES HAY EXPORTS HIGHER**

Hay exports from West Coast ports were higher in 2007 due to a weak dollar and strong demand from Japan. Sudan hay exports from California were up significantly from 2006 and were the main driver in the 10 percent higher exports from California in the January thru September period.
While many California dairies returned to profitability by early summer of this year, such was not the case with Japanese dairy producers. Due to an oversupply of milk, milk prices in Japan were below the cost of production much of the year. As a result, Japanese dairy hay buyers were shopping for the best prices on hay in the World and this time they found it in the U.S. Milk production in Japan dropped 2 percent in early fall, according to sources and some signals were pointing to improved milk prices. The weak U.S. dollar should keep Japanese hay buyers coming to the Western States for the best deals on hay.

The dollar exchange rate, which favored U.S. hay and other commodity exports in 2007, has become even more favorable in recent months. For example, sudan hay exports from California are 15 to 20 percent lower in price than the two main competitors, Canada’s timothy hay and Australia’s oaten hay (similar to our oat hay). While Australia has received rain recently, drought has reduced the amount of oaten hay available for export. Some experts believe that exchange rates could continue to favor U.S. exports for the next two years.

**TIGHT SUPPLIES OF ALFALFA SEED**

Strong domestic and export demand for alfalfa seed combined with disappointing alfalfa seed production this past summer, particularly in the Imperial Valley, caused a tight supply of alfalfa seed in California in the fall of 2007. Demand was even stronger for conventional alfalfa seed as a result of the court mandate that halted the planting of Roundup Ready alfalfa seed after March 1, 2007. A growing number of hay producers in California were planning to use Roundup Ready alfalfa seed in 2007 and 2008.

**ALFALFA HAY IN-SHIPMENTS VERY STRONG IN 2007**

With short hay supplies in California combined with many dairies around June finally climbing out of the financial hole from 2006, out-of-state hay began to roll into California in the summer. Alfalfa hay shipments in July and August were a combined record 211,000 tons, up 72 percent from the July/August shipments in 2006. It was evident that California dairy hay buyers were not going to be outbid. Another development was shipments of alfalfa hay from Montana, Wyoming, and Colorado, States that rarely ship alfalfa hay to California. Tight supplies of alfalfa hay in the West appeared to be the reason for fewer fall shipments of hay into California.

The largest year to year increase of alfalfa hay trucked into California was from Arizona, nearly double the amount from last year. Nevada shipments were up 8 percent. Shipments of alfalfa hay from Utah were down 12 percent but this is somewhat misleading. Hay trucked in from Utah was down substantially the first three months of 2007 as old crop supplies were reduced significantly due to a severe winter storm in Colorado in January. In the June thru September 2007 period, alfalfa hay shipments from Utah were 138,637 tons, up 32 percent from the same period in 2006.
CORN FOR SILAGE MARKET/USAGE NEW HIGH

Strong grain prices, particularly the first half of the year and tight supplies and record high prices on hay pushed corn for silage acres and prices to record highs. Dairymen were paying $30.00 to $35.00 per ton fob for corn standing in the field. Early estimates on corn for silage acres in California for 2007 were 460,000 (corn planted for all purposes minus the estimated corn harvested for grain). This compares to 405,000 acres in 2006.

Corn for silage acres should be high again in 2008 as the outlook is for continued tight hay supplies and good export demand. The limiting factor will be surface water for irrigation. We could see another year where dairymen make offers that corn for grain growers find hard to refuse. This, combined with higher wheat acres could reduce the acres of corn for grain in California in 2008.

RETAIL/ HORSE HAY PRICES STRONG

Record high alfalfa hay prices translated into record high prices for alfalfa hay for horses. With many horse owners feeding grass or grass/alfalfa mixes, that market was also at record highs. In November, top orchard grass and orchard grass/alfalfa mixes in the Northern Mountain area of California were trading from $200.00 to $220.00 per ton fob barns. Timothy hay was trading from $210.00 to $280.00 per ton fob in the summer with prices higher on barn hay in the fall.

WHAT TO EXPECT IN 2008

Hay stocks on hand in California on December 1, 2007 may be up from the previous year due mainly to alfalfa hay imports from other States and strong alfalfa hay production in the summer. Unlike a year ago, more supplies are at the dairies and less in grower hands. In my opinion, stocks could still be the second or third smallest in the past ten years. It does not appear that hay stocks will be bearish to early season hay prices.

California will not follow the historical pattern of sharply higher alfalfa hay acres following such a strong market year as 2007. Growers have the most crop options since the mid-1990’s and this along with irrigation water uncertainties will temper an increase in alfalfa hay acres. Oat hay acres may also be impacted by the strong wheat market as some oat hay growers switch to wheat.

Alfalfa hay acres in the southern desert (Imperial and Palo Verde Valley’s) could be down 15,000 in 2008. Some Imperial growers are switching to Durum wheat and Durum acres could double from 2007. One would think sudan hay acres would increase with the prospect of another strong export year. However, starting January 1, 2008 Imperial Valley growers will be under water allotments and will no longer have the flexibility in crop rotations and water use. It appears that some growers will not have enough water in 2008 to plant sudan after wheat and come back with vegetables in the
fall. Some think that sudan acres will drop in the Imperial Valley in 2008 because of the new water allotments.

In the Palo Verde Valley, Metropolitan Water District will take the maximum water draw from the water deal finalized with growers a few years ago. Effective August 1, 2008, around 26,000 acres will be idled to fill this water order with around 4,000 of those being alfalfa hay acres.

Predicting what alfalfa hay acres will do in central and northern California is very dicey. There are areas where alfalfa hay acres are up and others where they are down. Acres will be down on the west side of the central valley that rely heavily on surface water for irrigation. If surface water allocations are 25 percent of normal from the Bureau of Reclamation (State Department of Water Resources announced November 26 an initial allocation of 25 percent for State Water Project contractors) this could push alfalfa hay acres lower in the central valley. New Alfalfa acres planted by dairies do not appear to be significant (a few thousand).

I believe that with lower acres in the southern desert and the west side of the central valley, alfalfa hay acres will not change much in California from 2007. However, continued dry weather and resulting low surface water allocations could push alfalfa acres lower. Conversely, above normal rain and snowpack in January and February may prompt above normal spring plantings and acres could be unchanged to slightly higher. The key to higher spring plantings will be if growers have seed on hand as alfalfa seed supplies are very tight. It would be wishful thinking to predict another 7.4 ton acre alfalfa hay yield in California in 2008 and an average yield could translate into unchanged to lower production for the State.

Wheat will displace alfalfa hay because of the strong wheat market, lower planting costs and lower water use. It is a very attractive and lower risk alternative. If irrigation water was not an issue, I believe alfalfa hay acres would unquestionably be higher in California in 2008.

Milk prices bounced back in the late fall of 2007 and the outlook is good for the first quarter of 2008. Below normal pre-holiday cheese and butter inventories nationally and strong dairy product exports are the main drivers. The outlook is for higher milk production nationally in 2008 and overall lower milk prices than 2007. With higher cost of production for California dairies (around $15.50 cwt. average), hay growers need to watch milk prices in the month’s ahead.

Early 2008 demand and prices should be very strong for alfalfa hay as some dairies will be in need of hay early in the season. It appears that alfalfa hay production in the southern desert will be lower than 2007. The alfalfa hay market the balance of the season in California could be close to 2007. However, a drop in alfalfa hay acres due to continued drought would be bullish to the alfalfa hay market. Higher alfalfa hay prices could be tempered if milk prices fall below the cost of production.
It should be another year for strong imports of alfalfa hay from other States as California hay supplies should still be tight. The retail/horse hay market should also remain strong in 2008 in spite of a projected increase in grass hay acres in the northern mountains and older alfalfa stands being seeded with orchard grass in the northern Sacramento Valley in the fall of 2007.
Figure 1.

January thru September Fair Quality alfalfa hay price was $64.00 per ton higher than the same period in 2006.

Figure 2
Figure 3  950,000 acres in 2007 is the smallest acres since 1997

Figure 4  July and August 2007 shipments into California totaled a record 211,000 tons, up 72 percent from the same period in 2006.
Figure 5  
2007 Corn for silage acres in California were estimated to be up 14 percent from 2006.

Figure 6  
Weak U.S. dollar pushed 2007 California hay exports an estimated 10 percent higher than 2006.
Figure 7  Dairy cow cull rate in CA went from an estimated 35 percent in 2006 to an estimated 32 percent in 2007

Figure 8  Incoming Dairy Replacement Heifers, California January - October, 1996-2007

Source: CDFA Animal Health Branch
California Wheat Prices
Any Class for Feed - Delivered Los Angeles
Dollars Per Ton

Source: USDA Livestock and Grain Market News 2007 - January thru October

Figure 9 2007 Wheat prices were at record highs

Alfalfa Hay Acreage, Imperial Valley
January 1, 1991-2008

Source: Imperial Irrigation District January 1, 2008 estimated

Figure 10 Lowest alfalfa hay acres in the Imperial Valley since 1989