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OSU Current Report

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HAYMARKET: A First Year Summary

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HAYMARKET is a computer-assisted marketing system for alfalfa hay (see OSU Current Report 465 for a detailed description of how HAYMARKET works). It was organized as a result of an interdisciplinary effort at OSU in conjunction with the Oklahoma Alfalfa Hay and Seed Association. The marketing program has been operating in Oklahoma since January 1983.

This Current Report summarizes several aspects of HAYMARKET's first full marketing year of operation.

Brief Review

HAYMARKET is a computer listing service designed to help growers find buyers and to help buyers locate hay. Alfalfa hay is described using both objective measures (protein and moisture) and subjective measures (maturity, foreign material, and color). Other information about the sale lot includes the name and address of the grower, quantity for sale, cutting, bale type, and date harvested and sampled.

The computerized list is sent periodically to a HAYMARKET mailing list of over 500 people or businesses. Most of those are alfalfa buyers, sellers, or persons who regularly are in contact with buyers or sellers. Buyers can also access the list via microcomputer if they wish.

Buyers select the desired hay and contact growers directly to negotiate price and arrange delivery. Sellers report their sales voluntarily so that the lists are kept up-to-date. Sale data also allow analysis for developing follow-up educational information for alfalfa growers.

Information reported here would not be available without growers who willingly supplied their sale information. No comparable alfalfa hay sales information is available through other marketing channels. We are especially grateful for those growers who cooperated with OSU.

Sales Summary

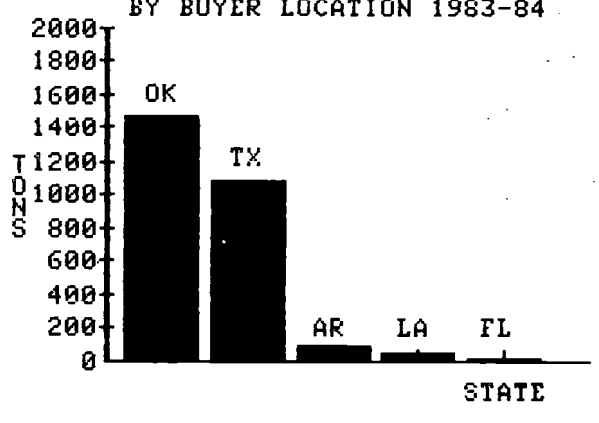
Sixty-eight lots of alfalfa hay totaling 3,773 tons were reported sold by 29 growers during the 1983-84 marketing year (May 1983-April 1984). Many more lots were listed on HAYMARKET during that period. Some hay was sold but not reported. Some hay was listed but was later fed by the grower rather than sold, due to below-normal hay supplies. A few lots remained unsold when the 1984 hay crop became available.

The average price for hay sold through HAYMARKET was $93.83 per ton. Thus, total dollar sales through HAYMARKET amounted to $354,020.59. No formal evaluation of HAYMARKET has been undertaken, but informal comments from growers suggest HAYMARKET's value to them. Grower comments indicate that exposure of their hay to more buyers created greater buyer interest than before HAYMARKET was started. Many growers indicated HAYMARKET helped them get a higher price for their hay in 1983-84.

Sales by Buyer Location

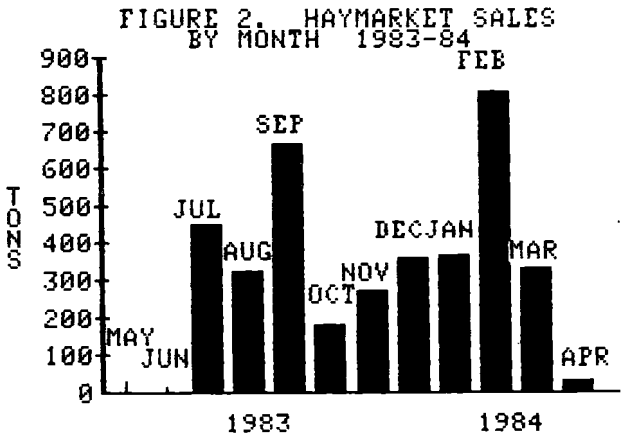
Nearly 95 percent of the alfalfa hay sold through HAYMARKET (2,552 tons), remained in Oklahoma or was shipped to buyers in Texas (figure 1). Small quantities of Oklahoma hay listed on HAYMARKET was reported sold to buyers in Arkansas, Louisiana, and Florida.

FIGURE 1. HAYMARKET SALES BY BUYER LOCATION 1983-84



Sales By Month

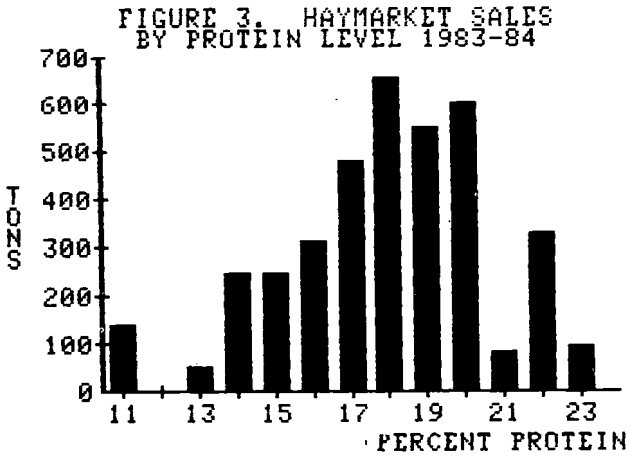
The first HAYMARKET list mailed for the 1983 crop year was in June 1983. The first hay reported sold from that HAYMARKET list was in July 1983. Figure 2 shows the distribution of sales by month throughout the 1983-84 year.



Sales by Protein

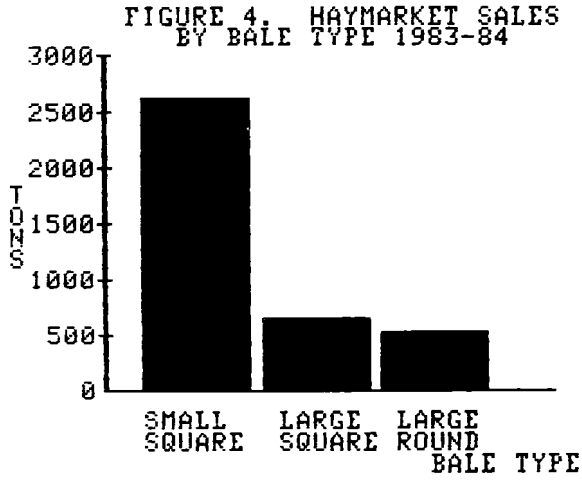
One of the objectives of HAYMARKET was for growers to market hay and buyers to purchase hay on the basis of quality. It was intended that higher quality hay was worth more and should earn a higher price. That rewards the better growers for producing a superior product. The best objective measure of quality that was available was protein on a dry matter basis. Thus hay listed on HAYMARKET was tested for protein by the OSU Forage Testing Laboratory.

Figure 3 shows the distribution of hay according to protein content. Protein ranged from 11 to 23 percent. Sixty-eight percent of hay reported sold (2,293 tons), had a protein content of 17-20 percent. A later section in this report discusses what buyers paid for various hay attributes, such as protein, bale type, color, and amount of foreign material.



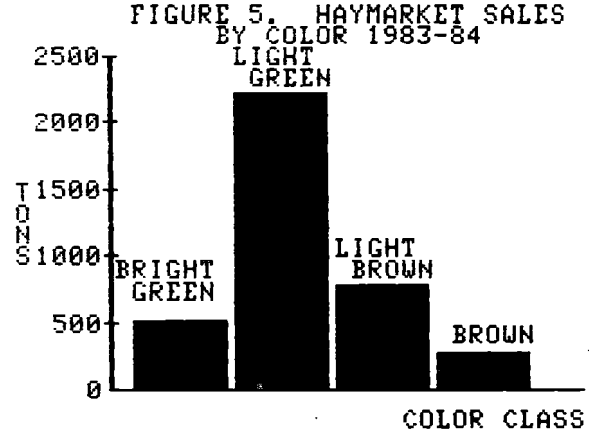
Sales by Bale Type

Seventy percent of the hay sold (2,628 tons) was harvested into small square bales (figure 4).



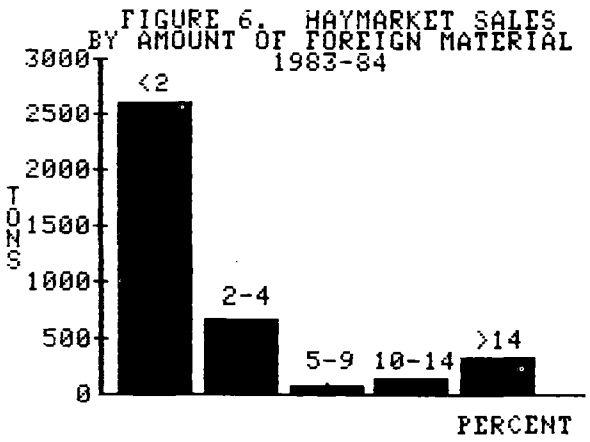
Sales by Color

Alfalfa hay listed on HAYMARKET was subjectively placed into one of four possible color classes. Figure 5 shows the distribution of hay tonnage by each color class. Fifty-nine percent of the hay reported sold throught HAYMARKET (2,212 tons) was judged to be light green. Both categories of green hay (bright green and light green) accounted for nearly three-fourths (72 percent) of all hay sold.



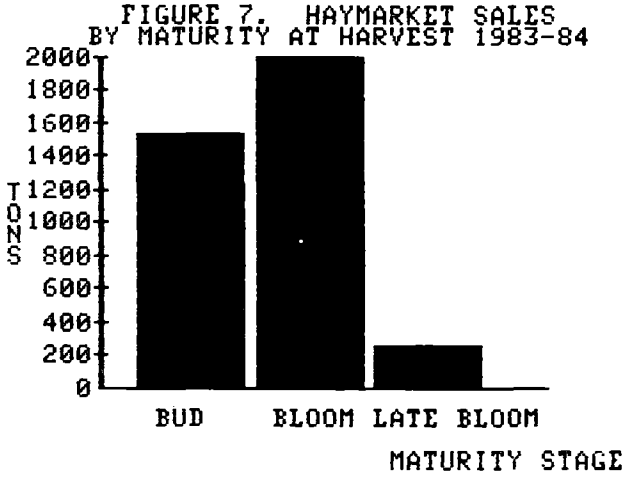
Sales by Amount of Foreign Material

Hay was subjectively evaluated for the amount of foreign material it contained (grass and broadleaf weeds). Seventy-seven percent of the hay reported sold (2,598 tons) was quite clean, having less than 2 percent of foreign material (figure 6).



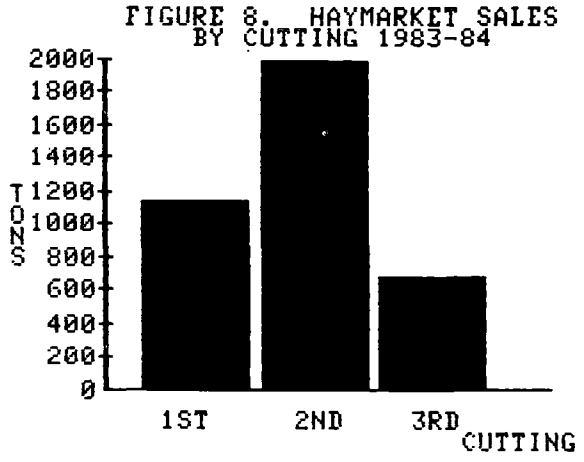
Sales by Stage of Maturity

Alfalfa hay should be harvested at the early bloom stage (about 10 percent of the plants in bloom). That harvest stage optimizes dry matter yield, protein level, and stand longevity. Hay was subjectively evaluated for its maturity at harvest and placed into one of three classes, bud, bloom and late bloom. Forty percent of the hay sold (1,528 tons) was harvested at the bud stage and another 53 percent (1,999 tons) was harvested at the bloom stage (figure 7). Thus, only a small percent was harvested well beyond the optimum maturity stage.



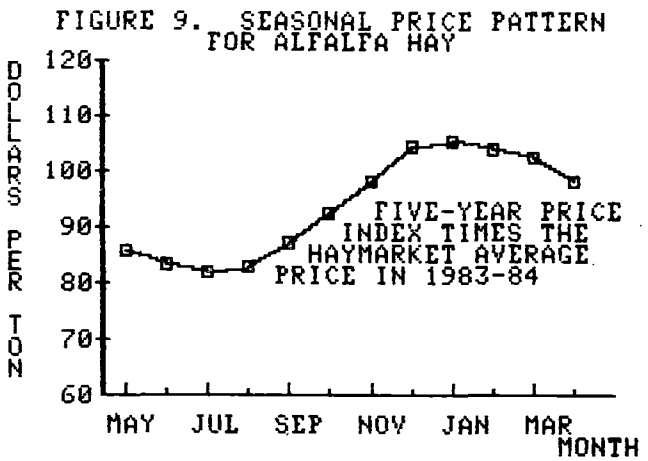
Sales by Cutting

More second cutting hay was marketed through HAYMARKET than either first or third cutting (figure 8). Fifty-two percent of the hay reported sold (1,978) was second cutting.



Price Analysis Results

First-year sales data were analyzed to determine (1) which factors were most important to buyers when purchasing hay, and (2) how important each factor was. The analysis confirmed a definite seasonal price pattern. Figure 9 shows prices for the 1983-84 marketing year, had prices conformed to the most recent 5-year seasonal price pattern. In fact, the 1983-84 price pattern was similar to that observed in Oklahoma the past few years. Prices were lowest during the harvest season. Then they increased as winter feeding approached and remained high through the winter feeding period. As spring and the new crop approached, prices began to decline.



Some growers market hay directly from the field. They incur less shrinkage during storage, reduce labor needs, require less storage facilities or space, and convert their alfalfa to cash rather than having their money tied up in the stored crop. Thus, for some growers marketing hay directly from the field has advantages which may offset the seasonally low prices during the harvest period. For growers with the necessary resources, storing hay for later sale may be an economical marketing strategy, because it enables them to capitalize on seasonally higher prices later in the marketing year.

It was found that growers received a $1.21 per ton price premium for each one percent higher protein level. Hay with 22 percent protein received a $6.05/ton more than 17 percent hay and $12.10/ton more than 12 percent hay. Growers have an economic incentive to produce higher quality hay.

Data suggest that some growers sold higher quality hay for less than the analysis indicated they should have gotten for it. Other growers sold lower quality hay for more than the analysis indicated they should have gotten for it. Both situations may be due to the fact that growers and buyers were inadequately informed as to the appropriate price and quality relationship. Thus, additional educational work is needed.

Bale type greatly affected sale price. Large square bales received a $21.46/ton premium over large round bales. Small square bales also received a premium compared to large round bales ($17.90/ton), but the price premium was less than the premium for large square bales. Square bales (large or small) fit better on flatbed trucks for long hauls. Thus, they reduce freight costs, compared to shipping large round bales. Those freight cost savings are translated into higher sale prices.

Growers were rewarded for keeping their alfalfa hay free of weeds and grasses. Hay with less than 2 percent of foreign material was worth $6.26/ton more than hay with more foreign material. At that premium level, growers may find it economical to invest in a planned weed control program.

Color was thought to be important to some buyers. The analysis confirmed that bright green and light green hay received a $8.62/ton price premium compared to light brown and brown hay. Growers face the difficulty of cutting hay at the proper stage and harvesting it without it being rain damaged. Results suggest it is worth some time planning when to harvest hay at the point of highest protein and to harvest it in a manner that retains the green color as much as possible.

Conclusions

Feed-back from growers and buyers indicates HAYMARKET is working and filling a marketing void. In fact, a commercial firm in Texas recently began a marketing service (called the National Hay Exchange) which was based in part on HAYMARKET.

HAYMARKET is providing a useful service for alfalfa growers and buyers. In addition, it provides useful data which enables further analysis. That, in turn, generates more information and helps growers with their alfalfa management program.

One objective of HAYMARKET was to reward growers of high quality hay with higher prices. Research indicates buyers will pay premium prices for premium quality hay. Thus, growers have an economic incentive to produce the highest quality product they possibly can. More education is needed to help growers improve their hay quality and to inform them of its value. And more education is needed for alfalfa hay buyers to inform they of the value of alfalfa relative to other protein sources in their feeding program.

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