

ALFALFA PRODUCTION AND MARKETING - Producer Story

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Mr. Reeves Davie

Our decision to plant a hundred acres of alfalfa in the late summer of 1981 was not made hastily. Past experiences of others in the area who had grown alfalfa commercially, an economic study of the alfalfa hay situation and the declining prices of corn, wheat, and soybeans all had their affect on our decision. However, we did not anticipate the price of corn, wheat and soybeans sinking to the levels they did this past year of 1982.

First, let me review some history of alfalfa production in the county. We moved to Hopkinsville early in 1956 and I served as the County Agricultural Agent there for the following eighteen years. Most of the land in the southern half of the county is well drained soil of limestone origin. At the time we moved, there were probably 300 farmers growing alfalfa. They fed it to dairy cows and sheep and some to beef cattle. The surplus was sold as a cash crop, primarily to truckers who came in, bought it, then went south with it. One man in Todd County, Felix Davis, had over 200 acres of alfalfa during the 1960's. Most of his hay moved directly from the field to the buyers. He carried on this operation for several years until his death. A commercial producer in Christian County with 60 acres of alfalfa was quite successful until a fertilizer dealer convinced him to make a liberal application of fertilizer containing a high amount of nitrogen after his last cutting of alfalfa in the fall. There wasn't a bale of alfalfa produced the following year. The Chickweed grew waist high during the winter and early spring and completely smothered out the alfalfa. During the 60's and early 70's, a group of 5 farmers in the Gracey area were each selling 100 to 200 tons of alfalfa hay per year making it an important part of their farm business.

When the alfalfa weevil became a problem in the mid 60's, farmers in the county were growing about 8,000 acres of alfalfa. The acreage gradually declined with the decline in dairy herds and sheep flocks. Labor for handling conventional bales was also becoming increasingly difficult to find. Then during the 70's, when grain prices improved, alfalfa almost disappeared from the county. During the hay-day of alfalfa production in the county, I had several fertilizer demonstration plots and one variety test plot in the county. One dairyman, through proper fertilization on a 40 acre field, produced 8 tons per acre in the late 60's.

The few farmers who were still producing alfalfa in the late 70's and early 80's were reporting a good demand and good prices for alfalfa hay. However, these producers had small acreages and had not mechanized their bale handling.

Our farming operation in the 70's was the production of crops usual to the area (corn, wheat, soybeans and tobacco).

With the purchase of a 63 acre farm in the fall of 1978, which Alfred and his wife moved to, we began talking about eventually seeding it to alfalfa. At the time of purchase, soybeans were growing in a solid stand of johnsongrass.

The year 1979 was our last year to grow corn. Farm analysis records kept by Gene indicated that corn lost money in 1975, 77 and 78 and made money in 1976 and 79. For the five year period, it had lost money. Soybeans had consistently made money. Wheat has consistently made good yields for us but the years 75, 76, 77 and 82 the prices were rather low. After the study of the farm analysis records, corn was dropped from our farming program. On all of our operations, 65 to 70 acres of early soybeans were planted and about 400 acres of wheat followed by double crop soybeans each year. This brought two rush periods a year, harvest wheat and plant soybeans, then harvest soybeans and plant wheat. Wet weather during either of these periods could really foul up our operation.

Early in 1981 we decided the price of wheat and soybeans didn't look so good either and began to think about another source of crop income. However, we didn't anticipate the low levels to which wheat and soybean prices would sink in 1982. We began to discuss more seriously diverting some of the wheat and soybean land to alfalfa as a cash crop.

From past observations and experience, we knew that when properly fertilized and managed, alfalfa would produce well on our soil. Approximately 90% of the soil in all our farming operations is classified as pembroke soil type, a well drained limestone origin soil. All evidence pointed to a good demand and ready market for high quality alfalfa hay.

Since our operation was small, when compared with most of the cash grain operations in the county, we viewed this as an opportunity to intensify land, labor, and machinery use. We had tractors, a mower, hay conditioner, a hay rake, a baler and very little hay storage space.

After wheat harvest, Gene left 48 acres to summer fallow and Alfred left all the cropland on his farm, about 52 acres. This was to control johnsongrass rootstocks and other weeds to get ready to seed alfalfa.

The decision was made to mechanize the operation using a New Holland stackliner, more commonly called a bale wagon. Equipment purchased was a new H89 haybine, a new righthand delivery rake and double hitch so that two swaths could be thrown together in one operation. Two used, high capacity balers were bought. One was in excellent condition, the other good. Total price for these two units \$1200.00. Two clear span hay barns were built to accommodate the bale wagon, this eliminated the hand labor involved in getting the hay from the field and stored in the barn. The barn on Alfred's place was 48x96 feet with 18ft. clearance 4608 sq.ft. The barn on Gene's farm was 48x120 plus a 17½ ft. shed the length of the east side. Total 7860 sq.ft. The larger barn also had 20' clearance. By using elevators to run hay up on top of the stacks made by the bale wagon, the two barns should hold approximately 750 tons of hay.

Total additional investment for buildings and equipment \$49,000.00. We did get some good buys on the used equipment, the two balers and the bale wagon. The bale wagon, a model 1034, had been used only one year and very little at that, it looked like a new one. Discounts from the dealer on the haybine and rake were well over \$3,000.00. With prudent shopping around, one can save a considerable amount on machinery.

One piece of advice, if you plan to build barns or any other large or expensive building in March and April, take out builders risk insurance. Fortunately, we did and incurred losses of well over \$3,000.00 by two storms hitting one barn before it was completed.

We think it is good that our farming operations were diversified to alfalfa production while we still had some cash and credit available. Many of our farmers are now in such a financial position as a result of 1982 grain and bean prices that they cannot make this change. Not only does the alfalfa program allow more intensive land, labor, and machinery use, it eliminates the need for nitrogen fertilizer, eliminates need for annual seedbed preparation, reduces herbicide costs when compared with corn, wheat, and soybean operations, and the work can be done with relatively small 40-50 HP tractors which are much more economical to operate than the large tractors of 100 HP and up. We are using a 46 HP tractor part of the time to operate the 1034 stackliner which carries in 105 bales per load. However, an industrial duty drawbar costing \$350.00 had to be installed on the tractor. This size bale wagon or stackliner probably needs a 60-70 HP tractor for most efficient operation.

Many of you probably have equipment and buildings that could be used to start producing alfalfa at much less cost than our initial investment. However, it appears that when sale of the 1982 hay crop is completed, it will probably return 75% or more of the initial investment.

The U.K. Agronomy Department, through their research, has developed information on varieties, seeding practices, fertilization, insect and weed control that will enable you to produce a high quality product that currently is in good demand and selling well. Weather is probably the greatest risk factor.

Mr. Gene Davie

What got me interested in commercial alfalfa production and why I decided to give it a try--My brother, Alfred, wrote a thesis on alfalfa production and marketing while working on his masters degree in Ag Economics at U.K. and has wanted to pursue the endeavor ever since. He purchased a 63 acre farm in 1978, but did not feel this was enough acreage to justify the equipment needed for mechanizing the endeavor and from time to time would try to get me interested in a joint investment in equipment.

My initial thoughts were that the investments in storage facilities would be imperative. As we got into the 1981 crop year, I was not optimistic about grain production returns and considering 1979 was the only really bright spot since 1976, as far as profit was concerned, I began to give the production of alfalfa more thought.

Upon analyzing the cost of storage structures and assuming a 20-year life; I realized that on a per ton basis, the storage costs would not be nearly as high as I had expected. Other factors favoring alfalfa production were no nitrogen fertilizer is required and it draws most heavily on potash which is the cheapest per unit of the three basic nutrients and is the easiest to maintain with our Pembroke soil type. Another big plus for alfalfa production was that most of my land is Class II and III and does not need to be continuously row-cropped.

Alfred had his entire crop acreage (56 acres) in wheat and I decided to devote a 47 acre field of wheat to a fall seeding of alfalfa. We felt this would be enough acreage to justify investment in a 9' hay-bine and 105 bale New Holland bale-wagon and still have machinery capacity to increase acreage in the future.

After harvesting the wheat, we waited about three weeks and sprayed with Roundup to kill scattered Johnsongrass rootstock and keep other weeds from going to seed. We then worked the ground into a fine seedbed, limed and sowed 15 pounds of alfalfa with a Brillion band-seeder. We inoculated at twice the recommended rate, mixing thoroughly with sugar water in a wash tub. With the phosphate testing in the medium range and potash testing high, we did not fertilize at seeding.

Upon obtaining an excellent stand, we began shopping for equipment through the winter months. We located a one-year old bale wagon for about 30% of list price of a new one and bought a new 9' mower-conditioner. We also bought a right-handed rake and a twin rake hitch to team up with an existing left-handed rake. We felt the twin rake was important to speed the operation and reduce leaf loss due to raking too dry. We also bought a good used baler and kept an existing one for a back-up.

In late February, we began work on storage barns. Alfred built a 48x96x18 clear-span, open-front barn, and I built a 48x120x19 clear-span with offsetting doors on each end and a 17' shed on one side. The 48' clear-span allows 4 rows with a 3-bale wide bale-wagon and the 18' clearance will allow the addition of a truck-mounted retriever or larger bale-wagon if we need to add to our existing equipment.

For fall seeded alfalfa, we used Furloe and Butyrac or 2,4-DB as needed for weed control and obtained good results. On established stands, we used Princep applied after freeze-down. For weevil control we used Furadan.

We try to fertilize according to University recommendations and like to apply after the first cutting and again after late July or early August cutting.

Weather permitting, we try to get the first cutting off in the bud stage and later cuttings as soon as we see a bloom-about 32 days.

The marketing of alfalfa is a job in itself for the new commercial producer. In the beginning, we decided we didn't want to get into trucking or delivery, but have about decided we may have to, on a limited basis.

Through the summer months, most of our markets were through hay-jockeys in the Lexington area. During the fall and winter months, most of our hay has gone direct to Southern dairymen. We have had analyses run on most of our cuttings and feel this is essential for hay going to dairy farmers. Many of the horse producers seem to be more interested in appearance than actual food value.

We try to always follow-up on the hay we ship direct and if the buyer is not satisfied, we want to know why. Most have been pleased with what they have received and the biggest complaint of those who haven't has been transportation costs. I feel that quality and honesty is the key to a good marketing program and if you strive for that, the demand will be there.

In summary, we have been satisfied with the results of commercial alfalfa production to date and have seeded 45 more acres this past fall. If something does not change our optimism in the next few months, we intend to sow another 60 acres in 1983.