

## EXPORTING ALFALFA PRODUCTS

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The most important occurrences in the world of alfalfa marketing are the dramatic changes which have taken place in its marketing structure within a relatively few years.

We started out with a product mix of baled alfalfa, sun cured alfalfa meal and pellets and dehydrated alfalfa meal and pellets.

The baled alfalfa was marketed to dairies, feed lots and sun cured plants and the dehydrated was sold mainly to formula feed manufacturers as was the sun cured.

However, the dehydrated rapidly gained the bulk of that market due to its flash drying process which resulted in a higher protein material very high in the oil soluble vitamins, Beta Carotene (Vitamin A), De-Alpha Tocopherol (Vitamin E), Vitamin K, the anti-coagulant and Xanthophyll the carotenoid pigment which developed the yellow color in the yolk of the egg and the skin of the broiler chicken. At that time a typical turkey growing ration contained up to 16% dehydrated alfalfa and from 4% to 8% in broiler and laying rations.

At this point the geneticists and the computers took over. The genetics of all poultry has improved to a point where turkeys for example mature a full month earlier than they used to by using a high calorie ration which converts feed to gain on a basis of 2.8 to 3.2 lbs. of feed per pound of gain versus 3.8 to 4.5 lbs. of feed on the lower calorie ration.

The nutritionists then were faced with formulating a higher energy low fiber feed which they did by eliminating or drastically limiting alfalfa in the ration. Practically overnight we lost from 40% to 50% of our market.

Fortunately at that time the foreign export market in Europe and Japan came in to take up the slack and at first was profitable. However, as that market developed, more plants were built in southern California and the Midwest to supply this demand and very suddenly there was more production than the export market plus the domestic market could utilize. Net result was a price for the product well below cost of production.

To further compound the problem France, Germany and the Netherland (with government subsidies) built plants to a point that instead of importing alfalfa products they were competing with us in the export market at even lower prices. Net result, the Midwest ended up with 250,000 tons of production with no home at any price as well as a chaotic domestic market. End result - a lot of closed plants and bankrupt producers.

The same thing has happened in California as Australia, New Zealand and Canada have entered the Asian market. Just last year Canada brought six plants into production, subsidized by the government of Canada, and exported between 75,000 and 100,000 tons of alfalfa pellets into the Asian market at prices well below our cost of production. End result - closed plants and bankrupt producers in southern California who had no domestic markets to fall back on. The moral is, do not build a plant of any kind where your only market is export.

In California we face the problem of diverting 200,000 tons of alfalfa production, which in the past has been exported, to the domestic market. The only way to do this is with aggressive merchandising of the alfalfa cube.

The development of the alfalfa cube is perhaps the most important change which has occurred in alfalfa processing since the dehydrating process was perfected.

The cube which is marketed today did not evolve painlessly. Many millions of dollars were spent on developing the cubing equipment which is considered standard and is in general use today.

Alfalfa cubes come in two forms, the sun cured and the dehydrated. The dehydrated cube made its first appearance this year when a stationary cuber was installed at a dehydrating plant in Firebaugh. Production was in limited quantity and the product is now being tested

In dairies and feed lots. Preliminary results of these tests look very promising. However, the fact that a dehydrated cube costs \$5.00 to \$6.00 more per ton to produce may limit its acceptability in large quantities. It is being used mainly to supplement low quality hay or silage thus its use will never be general like the sun cured product.

When alfalfa is harvested with 10% or less bloom the dehydrated cube is very high in quality. Even in late summer the TDN in the cubes analyzed at 55 to 58 which proves that a high quality cube can be made throughout the growing season by this method of harvesting and processing.

Cubed alfalfa is a vastly superior product to baled hay or pellets in that it is least costly to ship and handle, has greater feed efficiency and practically no waste. Its long fiber content contrary to that of 1/4 inch pellets is a major stimulant to the rumen, is cheaper than pellets and by merit alone should replace pellets in all feed lots in California

Baled hay due to its bulk is becoming increasingly difficult to handle efficiently. Truckers are more and more difficult to get to haul it, and labor to feed and handle it in the feed lot and dairy are more expensive and less willing to work on a bale pile.

#### Selling Cubes On Quality Basis

Penetrating the dairy market poses a somewhat different set of problems. We will have to produce a product which has a TDN of 53 to 58 and has a fine content of less than 10%. We will have to sell our cubes on the basis of quality and then deliver the quality which has been sold. True this entails additional laboratory costs but as quality in alfalfa varies so much it is necessary that more testing has to be done if we are to be successful in getting and keeping this market.

Cubers can give a major assist by running daily laboratory analysis on each days production and sorting the product by lot so that the quality of cube delivered can be guaranteed on a TDN basis. This would result in the marketing of alfalfa cubes on a quality basis and enable the producer to receive a premium for the higher quality production. This program has been standard in the dehydrating industry for many years and has resulted in a price differential of from \$1.00 to \$3.00 per ton in the domestic market.

In order to produce this high quality, cube alfalfa will have to be cut prior to 10% bloom regardless of the age of the field. This is not easy as farmers traditionally have harvested their alfalfa on a 30-day schedule, regardless of bloom. They will have to be educated to the fact that an additional 3 to 5 day delay in harvesting after 10% bloom can result in a nutritional loss of 25% in the cube.

We must eliminate the hardware. This is a major problem and is one of the main reasons many dairymen have refused to convert to cubes. It is almost a certainty that any field which has previously been baled will have baling wire in it. Magnets should be installed in all cubing equipment and policing the field for wire ahead of cubing is also advised. By these procedures hardware disease can be practically eliminated.

It might be well at this time to discuss farmer relations. Most of us are professional cubers in that we buy most of the alfalfa that we process. It is most necessary that the farmer's hay is cubed on schedule. Nothing could be more irritating to a farmer than hay in the windrower with the new crop growing at the same time. This must be done if you want to continue buying alfalfa from the same farm.

The cubing of complete rations for dairies and feed lots is the next logical development utilizing large tonnage of alfalfa, grains and silage. This is already being done by some operators with success and many more stationary cubers will no doubt be in this phase of cubing as more dairy farms become interested in converting to the more efficient complete rations for their livestock. The complete ration cube would be particularly advantageous to the smaller dairy unable to justify the expense of installing the equipment necessary to make a complete ration.

#### Export Market

For the past 10 years extensive efforts have been made by producers and exporters to market high quality alfalfa products to Japan with practically no progress being made.

Japan would like a higher quality but so far have refused to pay a premium for it. They are much more interested in price than quality.

There is good reason for the attitude; Japan's average farm is 2 1/2 acres and all arable land has been farmed for generations mainly to rice and high income crops. This has resulted in practically no supply of roughage grown within Japan and their dependence on imports of roughage from other countries to supply the need.

This demand for more roughage becomes greater every year as cattle and fowl population on feed has increased yearly by 10% for the past 10 years with no end to the expansion in sight. This is the reason they are interested in more tons at least cost than in high quality alfalfa products.

At the present time there is a growing demand in the export market for cubes. Last year 14,648 metric tons of cubes were exported from California with Australia contributing 4,959 metric tons for a total of 19,607 metric tons. This year the tonnage exported will be larger than last year by several thousand tons. This business has been done so far on a profitable basis and will probably continue for some time.

However, it might be well to point out some facts about export markets which you may or may not know. Traditionally, export markets are surplus markets, usually starting out profitable and ending up highly unprofitable, as competition enters the field. As has happened in the past production is increased to supply the exports, but the eventual loss of the export market destroys the profitability of the domestic market as well.

The development of export markets for cubes is being observed very closely by foreign producers of alfalfa products. Australia has some cubing equipment and has ordered some more very recently. Canada will no doubt install cubing equipment as well as the western European nations along with Mexico.

You can be assured that as this market develops into important tonnage, in the not distant future you are going to be competing with all of these countries for the business. The important fact to remember is that every one of these competing nations can produce much cheaper than we can, which automatically means lower prices for cubes in the export market.

There has been a problem of mold in cubes which have been shipped to Asian countries in containers. This condition is caused by sweating from the top of the container due to extreme changes in the dew point. This condition can be corrected by spraying an insulating anti-sweat compound to the roof of the container. This treatment is relatively inexpensive and should be done to eliminate the losses due to mold.

#### Domestic Market Expansion

It seems to me that our future lies in developing and increasing our efforts in the domestic market by aggressively working on both dairies and feed lots to increase the disappearance in these markets. This can be done by providing a high quality product at a fair market price. The possible tonnage to sell into these two outlets has more potential than any combination of exports could provide, and more important, can be sold on a profitable basis.

The processing of alfalfa has traditionally been a low profit business and all segments of the industry have suffered the cost of over production and bad quality over the years by a great number of failures.

Keeping producing capacity within the limits of market development is the key to profitable markets. The alfalfa dehydrating industry, as well as the sun cured, developed that excess capacity with disastrous results. We can take a lesson from what has happened in the past by adding to production capacity only as fast as the market for cubes develops, with the emphasis on producing a high quality product at a fair market price.