

CHANGES IN THE FLORIDA FEED INDUSTRY TO
MEET THE DAIRYMEN'S NEEDS
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I am not going to speak on nutrition today as there are several specialists on the program more qualified than I to discuss this subject. I am going to speak as a feed manufacturer and discuss what we are doing and plan to do to meet the needs of the dairymen of Florida.

Let me review the dairy feed industry in South Florida. Unfortunately, some of the needs of the dairyman were not recognized 15 years ago by the feed industry. I am not speaking of the nutritional needs of the dairy cow. The feed industry, through the co-operation of the universities, its own research staffs, commercial laboratories, its feed associations and other sources has always kept up to date with the nutritional needs of the cow and has always tried to keep you current on these needs. My subject today is not the needs of the cow but the needs of the dairymen.

Trends were developing 15 years ago that were ignored by the feed industry because it was easier and required less investment to supply a dairy with concentrates and sell sacked ingredients. If proof of this statement is needed, look around at the amount of mixing equipment in some barns. If we, as feed manufacturers, had recognized the trends and had been willing to invest in the solutions of your problems at that time, a lot of this mixing equipment would not be in the barns today.

Fifteen years ago, most dairymen bought sacked ingredients from his feed supplier and dumped these in layers in one section of his barn. Some still do it today. These were balanced with a dairy concentrate purchased usually from the same feed supplier. Why didn't the feed manufacturer equip himself to receive these ingredients in bulk and manufacture and deliver a roughage mix to you that was mixed and balanced nutritionally and save all this labor in the barn and do it at a price that was economically sound? We didn't recognize a trend and hesitated to make the necessary investment. The next step, particularly in the larger herds, was perfectly logical. Mixers were put in barns to mix roughage ingredients which were purchased on the basis as previously stated and we continued to supply the concentrates. This did not cut labor in most instances but it did increase investment. However, it gave a more uniform mix and made the work easier for dairy employees. We, as feed manufacturers, let this trend continue and in some cases we actually helped it along content to sell concentrates and furnish advice and formulation services.

The next step was also logical. The larger dairymen wanted his concentrate delivered in bulk. This the feed manufacturers equipped themselves to do at a substantial investment as they felt there was enough labor saving on their end to warrant the investment. At about the same time the dairyman was caught in a price squeeze and economics seemed to justify buying the roughage ingredients on a carload basis and have the manufacturer serve as a buyer or broker agent for a small fee which was supposed to be his profit, return on investment, sales cost and if a car or truck was late, fill in with stock from his warehouse. The feed industry accepted this role as long as the customer was buying concentrates. Next, and again in perfectly logical order, came the buying, storage and delivery of bulk, free flowing ingredients to the farm. Then, with the help of machinery companies, some of the larger dairymen decided to manufacture so called complete feeds on the farm or the combination of purchased concentrates were mixed with hominy and citrus pulp and the ingredients supplying fiber were purchased from a broker or feed manufacturer.

We are not saying on the farm mixing is wrong. When ever a new concept in feeding is suggested and is found to have merit, its acceptance must be based primarily on economics.

Therefore, when considering on the farm mixing other factors must be considered rather than just the cost of ingredients. The only way a dairyman can realistically decide if he should manufacture feed is to enumerate all the costs incurred. Then a comparison of the quality and cost of the feed produced should be made with the quality and cost of the product purchased from a feed manufacturer. It is not easy to make quality comparisons but this is a vital consideration.

Some of the costs which must be considered are as follows:

A. Original Capital Investment

This includes your equipment such as hammermill, conveyors, electric motors, elevators, storage bins, scales, mixers, molasses tanks, and in some cases, bulk trucks, not needed if commercial feed is used. All of this is needed equipment to manufacture properly plus the fact that very few dairies are located on a railroad siding so still must purchase their fiber sources such as hulls, snap corn, beet pulp, cob & shuck and chopped alfalfa from outside suppliers and have them delivered in sacks.

Also, the smaller items that their capacity does not justify purchasing in quantity such as salt, urea, deflourinated phosphate, trace minerals and vitamins must be bought from a feed manufacturer who does buy in carload quantity.

Remember in order to produce a high quality ration the feed manufacturing equipment must have the ability to accurately weigh and thoroughly mix. The equipment should contain magnets at several locations to trap metal and have cleanout sources to reduce contamination. All this requires considerable investment on the part of the dairyman.

B. The next consideration must be Operating Costs: Operating the equipment must be divided into several categories:

1. Depreciation

This is the original cost, including installation; divided the length of time the equipment will be worn out or obsolete.

2. Interest on Investment

Original cost, including installation, less depreciation, multiplied by the interest you pay for borrowed funds.

3. Repairs

Include time required as well as parts required.

4. Maintenance

Include labor plus such items as grease, oil, etc.

5. Insurance

Or risk of loss from fire or storm if no commercial insurance is carried.

6. Additional Taxes

7. Fuel or Power

Now, the next cost would be labor. This is the actual cost of hired labor plus the value of management time for supervision. In this capacity the time required to keep up to date with the latest nutritional research should be considered. Several days per year should be used for this purpose and this is a cost that is often overlooked in the cost of farm mixing.

C. Next there is the ingredient cost which actually consists of more categories than most people realize:

1. Purchase Cost of Actual Ingredients

This is relatively high due to the necessity of purchasing some ingredients in small quantities, often in bags instead of bulk requiring higher handling costs and deliveries of small quantities.

2. Transportation Costs:

Unfortunately, we have found that ingredient prices used for comparison to commercial feeds are not always quoted on a delivered to the farm basis. Also, a commercial feed in volume usually has the same transportation cost to your farm as a major ingredient without the disadvantages of higher costs for small deliveries of the smaller quantity items.

3. Shrink or Drift

This is a cost that is almost always ignored in on the farm mixing and includes moisture loss, rodent and insect damage, waste and lost in dust.

4. Interest

Average value of inventory multiplied by interest rate.

We have tried to realistically evaluate a dairyman's costs and problems as we feel that if we are to grow and justify our position as a dairy feed manufacturer, we must be in a position to deliver feeds of higher quality, better formulation and at lower prices than can be done by the dairyman. In order to do this we faced the fact that our incoming ingredients must be received almost 100% in bulk, including the hard to handle ingredients such as cottonseed hulls, snap corn, cob & shuck, etc. We have recently made a tremendous investment in our Boynton Beach Mill to manufacture, at costs competitive to on the farm mixing, such things as complete feeds, roughage mixes and dairy concentrates with the flexibility to adjust the formula to the particular farm. This remodeling is now completed at Boynton and our new mill for the Okeechobee area is being designed for next year construction. This mill will manufacture only complete feeds or roughage mixes, will receive incoming ingredients in bulk only and will deliver in bulk only. We sincerely believe that the local dairy feed manufacturers have now recognized the trends in the dairy industry and would like to suggest that before you make any substantial investments in mixing or bulk storage equipment that you sit down with the feed manufacturer of your choice and the machinery representative with whom you are dealing to make sure that the equipment purchased is economically sound and practical for the feeds you expect that equipment to handle.

We stated a moment ago that whenever a new concept in feeding is suggested and is found to have merit, its acceptance must be based primarily on economics. Many good ideas in terms of nutrition have proved to be impractical in terms of cost as of a given time of place or herd but entirely practical and profitable at other times or under other conditions. The idea of a complete dairy ration, mixed accurately, formulated and balanced scientifically, computed for least cost

and highest value, and delivered in bulk, falls in this category, in our opinion. We are in a position to make complete feeds economically but want to emphasize that there is no nutritional advantage in feeding a complete feed over what you can obtain from a conventional feeding program.

The trend in feeding dairy cattle will continue toward heavier concentrate feeding. The higher the production potential of a herd, the lower the percentage of roughage to be included in the ration. This is because energy intake must be sufficient to maintain the cow in good health and condition and produce milk in ever increasing amounts per cow.

We have found that the dairy men who operate on high priced and high taxed land, or limited acreage and where labor is scarce and very often inefficient are the dairymen most interested in complete rations. A large portion of the dairymen we serve in South Florida fall into this group. On the other hand, where good pastures are plentiful and roughage can be grown economically, and labor is available, hay and silage will continue to be fed separately.

However, the percentage of roughage to concentrate will still be reduced due to the increased production per cow. The decision of what feeding program is correct for a particular herd must be based on economics relative to that particular dairy and its conditions and then must be adjusted as the conditions change. Actually, a feed manufacturer today, to serve the dairyman properly, must be flexible enough to manufacture a feed for each dairy and its particular feeding problem.

We have found that the greatest problem in feeding a complete ration is the overfeeding of the low producing cows and the underfeeding of the high producing cows. With the real high producing cows the problem of roughage is most difficult. We have learned that when roughage--hay, ground corn cobs, cottonseed hulls, cob and shuck, snap corn, or some similar ingredient forms less than 20% of the complete ration, the percentage of fat in the milk is depressed. We have also learned that buffers such as bicarbonate of soda and magnesium oxide may be a partial answer to the fat test problem but we need much more information before practical recommendations applying to very high producing cows can be made.

We have learned in the use of complete feeds that the fiber shown on the tags of rations can be very misleading as fibers differ in their fat depressant effect according not only to their source, but also as to their physical properties, texture, and so forth. Experience seems to indicate that the type and texture of the roughage used in complete feeds may be of even greater importance than the amount used.

Also, the texture of a complete feed varies considerably depending mainly on the changes in texture of citrus pulp and cottonseed hulls, depending on the source or manufacturer of these by-products.

As stated previously, we have also learned that there is little if any nutritional advantage in complete dairy feed over the concentrate-roughage feeding program. The big advantages lie in the direction of management and increased efficiency in the use of capital, labor, and equipment.

The university, the experiment stations and our commercial nutritionists have a real challenge in the development of sound, practical, complete dairy rations for the high producing dairy cows of the future. We feel that the Florida feed manufacturers have now recognized the trends of the Florida dairy

industry and are equipping themselves with the type of machinery and personnel necessary to do the job for you economically and efficiently.

There is one other observation I would like to make regarding the comparison of feed tags. Florida State Law applying to feed manufacturers require the feed tag to show the guaranteed analysis and the list of ingredients used in the composition of the feed. The analysis is limited to minimum percentage of crude protein and crude fat, the maximum amount of crude fiber and the maximum percentage of total mineral ingredients. Certain additives must also be declared and the amounts stated on the tag. With in these limits the law requires only *that the ingredients claimed on the tag are in fact present in the feed in detectable amounts.* The actual quantity of any given feed ingredient is not required. This is a very wise provision because, in modern complex formulas, there is no practical or accurate way of determining how much of a given claimed ingredient is actually present in the feed after it has been mixed. To require "Open Formula" quantitative statements of individual ingredients, would open the door much wider than it is to any unscrupulous manufacturer who could flaunt such a law without detection by the state regulatory agencies.

The feed tag does Not reveal and Cannot reveal the comparative nutritional and economic efficiency of the blend of ingredients. Two feeds can carry identical guarantees and list of ingredients on the tag and still be miles apart in terms of results in the dairy barn.

Claims for superiority, based alone on minor differences showing on feed tags can not be supported in fact. A point or two, more or less of fat or fiber and frequently of protein reveals nothing as to the relative feeding value of the feeds. Neither is the simplicity or the complexity of the list of ingredients a basis for appraising the feeding value. We feel that it is essential for our company's representatives to know the reason for the guarantees behind each feed and the purpose of each ingredient or additive used in its composition. But, in the final analysis the dairyman's interest is in the product as a whole and what it does or will do when fed according to the manufacturers' program.

The most important ingredients in any formula feed are intangibles and cannot be shown on the tag. These are: the integrity of the feed manufacturer, his know how and all that it implies, his efficiency in filling the feed and feed service needs of his customers. For long pull success as a feed manufacturer, I feel that we must provide the dairymen of Florida with sound profit making feeds and services which are constantly adjusted to changes and improvements as they are developed through nationwide research.