

ADVANTAGES OF CO-OPS ESTABLISHING AND ENFORCING
THEIR OWN QUALITY STANDARDS

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In order to properly discuss this topic, it is necessary to review the change in marketing patterns of milk and milk products in recent years.

The Dairy Industry has changed from one of local nature to one of inter-state complexity. Refrigeration improvements on the farm, in bulk milk transportation, in processing, delivery, merchandising and the home, have resulted in broadening the geographic boundaries for milk and milk products. Research and development in the sanitation procedures, automation, and process equipment, have resulted in quality improvements at all levels in the Dairy Industry, which have significantly improved shelf-life characteristics of milk and milk products. This also has allowed the geographical movement of dairy products for greater distances than were previously possible. A third important change has been the continual, although gradual, adoption of uniform regulations from municipality to municipality, and from state to state, which has aided in allowing the free movement of milk and milk products in inter-state commerce.

Recent years have seen a consolidation of dairy farms. Production has changed over recent years from general purpose farms to farms specializing in dairy production. Also, these specialized farms are growing larger and are tending to be business rather than family enterprises. The economic requirements for automation result in high fixed capital cost which require larger farm units in order to be economically feasible.

During this period of time also a consolidation of processors has been going on. The industry has changed from one of many small local processors to a greatly reduced number of much larger regional plants. These larger regional plants have evolved for several reasons. The elimination of artificial trade barriers has made it possible to consolidate large volumes in a single location. The capital cost of automation and new processes requires larger production volumes in order to be economically feasible. A change in the type of dairy buyer from the small store concept to the chain store concept has increased competition and resulted in lower margins which have required greater production units in order to reduce processing costs. This competitive process has also reduced the number of processors through economic attrition as well as consolidation of facilities.

The fourth factor changing marketing patterns has been the rise of dairy co-operatives as marketing agents. The co-operatives are providing the milk supply and management of many individual producers and their control extends

over many processors. This has resulted in a destruction of the original relationship between individual producers and specific processors. This has also reduced the effectiveness of dairy field men provided by the processors and in most cases, the dairy field man on the processors' payroll has been eliminated.

I believe the need for co-operatives establishing and enforcing their own quality standards can be demonstrated better if we understand what the main purpose is of a dairy co-operative. The purpose is two fold. First, is marketing - the co-operative's primary purpose is to find sufficient outlet for all production generated by it's members. Secondly, after the first purpose has been satisfied, the co-operative must work on improving the utilization and the blend price of the product. The co-operative must attempt to maximize the percent of production into Class I products.

Since the co-operative's primary role is that of marketing, it is clear then, that they should establish and enforce their own quality standards. As mentioned previously, the field men of the processors no longer have control over individual producers and have therefore lost most of their effectiveness. In some areas, individual producers are still assigned to a certain plant or processor, but the long range trend is to have the producers in a pool with the co-operatives scheduling where co-mingled tank truck loads are to move. It is also important to remember that regulatory agencies, generally speaking, only audit performance. Their programs are not set up to provide quality control on a continuing basis. They are set up to audit performance and protect the public health. Therefore, the co-operative really is the only entity in position to control and effectively administrate a quality control program on the raw milk supply.

The co-op has several advantages in establishing these standards - raw milk quality determines it's marketability. This is important in all areas and is growing more important in Florida. At the current rate of growth, Florida in 5 to 10 years, may change from a deficit state to a surplus state. At this point, it will be imperative, that the quality of raw milk is sufficient to move freely in inter-state commerce and find markets. The quality of raw milk also determines it's usage. The high quality goes into Class I utilization - lower quality may end up in Class II and unfortunately, some milk may have to be discarded. Improved quality, which is the result of improved sanitation on the farm, has benefits in terms of improving herd health, developing longer and better production periods for the herd, both of which result in increased producer returns. Quality effects the cost of the co-operative's operation, which is borne by it's individual members. Poor quality milk, which is rejected or diverted, increases the co-operative's cost and reduces the net to individual co-operative members. Also, in this period of consumerism we must assess the impact on future sales which can be created by adverse publicity on low quality products. Poor quality also can result in restrictive legislation, such as dating ordinances which

reduce the allowable shelf-life. Several of these ordinances already enacted reduce allowable shelf-life significantly below the level of current technology. These shelf-life regulations effect the net return to the producer, since they cause products to be discarded rather than consumed, which has the effect of lowering the blend price in any given market. I believe that it is also important to point out that research has clearly indicated that the initial quality of raw milk determines the shelf-life potential of the finished product. The higher the initial raw milk quality, the longer the potential shelf-life of the products resulting from it's processing.

There are very distinct advantages in co-operatives having the power to enforce their own quality standards. Almost all milk is co-mingled in transportation. This requires that every lot of milk contained on that co-mingled load is of the required quality. If not, the other lots are contaminated with this lower quality, which results in the whole tank truck load being downgraded. It only takes a few instances of this to significantly effect the blend utilization of an individual co-operative. Also, as with any program, compliance will never be totally effective as long as it is on a voluntary basis with no method of enforcement. We have many examples of this with relation to public law. Lack of enforcement results in lack of compliance. If dairy co-operatives have the power to enforce standards, more rapid correction of defects will result. The attainment and maintenance of quality standards aids marketing, product utilization, herd health, and reduces operating costs, all of which will improve the individual co-operative members' net return.

For those dairy co-operatives which do recognize and accept the need for developing and enforcing their own quality standards, I would recommend a three step program. The program should involve research and training, development of standards, and enforcement procedures.

In research and training, State Agricultural Schools should be utilized to research operating problems, to improve operating techniques and to develop procedures helpful in the operation of the individual farm. The State Agricultural Schools can also be called upon to aid in training members through such things as seminars, field presentations, etc. Use should also be made of the State Department of Agriculture to aid in research and help train individual members and employees of members in good operating techniques through their field services departments and through their testing capabilities. The dairy co-operatives themselves should develop standard operating procedures and instructional material which would be made available to individual members, to aid in producing high quality milk. The co-op should also provide an energetic field program, have representatives work directly with individual members, and their employees, on quality improvement, following up on quality problems, reviewing sanitation methods, and working on herd productivity. This on-site training is most effective when field visits coincide with milking times.

The standards established by the co-operative should, in most cases, be more stringent than State or Federal standards in order to guarantee compliance of co-mingled loads on every shipment of milk. As will be mentioned later, more enforcement programs are based on a three out of five compliance

program and the statistical law of probability is that a goodly number of co-mingled loads will have at least one producer with higher than standard results.

I would recommend that at least as a minimum the following standards be established in such a program:

- Bacteria:** Samples should be taken weekly and should have limits of 50,000 per ml on a standard plate count basis and 500 per ml on a laboratory pasteurized basis. Once a month a direct microscopic somatic cell count should be taken with a limitation of 1,000,000 per ml.
- Butterfat:** A sufficient number of samples should be taken for payment purposes.
- Temperature:** Each pickup should be checked and should have a standard not to exceed 40°F.
- Sediment:** A sample should be checked monthly and should have a result no greater than a number two pad on the USDA Sediment Chart - Series 1964.
- Antibiotics:** A Zero tolerance. The co-operatives should check co-mingled loads on a daily basis and check individual producers on a monthly basis.
- Pesticides:** Zero tolerance. The co-operative should check co-mingled loads on a semi-annual basis and if any positive results are obtained, conduct individual producer sampling.
- Added Water:** Each producer should be checked for added water at least monthly and a standard should be set not above minus 0.530 degrees centigrade.
- Acidity:** This should be checked weekly and have a standard not greater than .02 above normal for the area.

As mentioned earlier, the enforcement provisions are the key to effective program. The enforcement can take a variety of forms such as imposition of fines, downgrading of classification, reduction of base, or suspension of milk shipments. Whatever method is chosen, it will involve economic impact on a producer not meeting standards and create the "teeth" necessary to implement and make effective a quality control program.

Compliance to the standards should be similar to that of the United States Public Health Service. That is, based on an analysis of the most

recent five samples and enforcement action being taken when three out of the most recent five samples fail to comply with standards. Each time an individual producers' milk is checked he should be notified of the results of this checking or testing. A special form should be used for results not meeting standards, a warning letter should be issued when two out of the last five samples in a given category do not meet standards, and a re-testing procedure should be set up for those producers failing in compliance on a three out of five basis.

It is important to point out that the enforcement of standards must be accompanied by increased field help and testing in order to help the individual producer solve his problem as rapidly as possible.

In summary, the current marketing patterns have determined that the dairy co-operatives are the only entities in position to establish and enforce quality control standards on a raw milk supply. Economics require that they do so. Without enforcement the quality control program established will be ineffective. If the program is ineffective, the net return on invested capital and labor expended by the individual producer will not be maximized. Also, without quality control, improvements in per capita consumption of dairy products cannot be achieved.