

OHIO DAIRYMAN'S GUIDE -
MILK MARKETING

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Milk Marketing

Most of the enterprise decisions that a milk producer in Ohio must make are production-management decisions. However, there are a few basic marketing decisions that must be made that can have a substantial impact on the economic position of the milk producer. The key marketing questions include (1) whether to produce for the Grade A or the Grade B market; (2) which Grade A market (or processor) to ship milk to; (3) whether or not to become a member of a milk marketing cooperative; (4) what kind of hauling arrangements to make for shipping milk to the market; (5) whether or not to financially support dairy promotion programs; and (6) what level of milk price per cwt. to project for planning purposes.

1. The Grade A - Grade B Decision

Ohio is primarily a Grade A state in terms of milk production and marketing. In 1976, an estimated 92 percent of the 4.5 billion pounds of milk produced in the State was of Grade A quality.

In recent years, the number of milk producers in Ohio has declined substantially, but the rate of decline of Grade B producers has been much faster than that of Grade A producers. A comparison of milk producer numbers for 1960 and early 1977 is as follows:

Table 1. Number of Ohio Milk Producers, 1960 and 1977

	<u>Grade A Producers</u>	<u>Grade B Producers</u>	<u>Total Producers</u>
1960	21,650	22,950	44,600
1977	8,000	3,500	11,500
Pct. Change	-63%	-85%	-74%

While there are still 3,500 manufacturing grade milk producers in Ohio (or 30 percent of the total producers), they account for only 8 percent of the milk produced in the State. A look at the change in relative size of Grade A and Grade B producers over time helps explain the difference.

Table 2. Average Daily Delivery Per Producer, Ohio, 1960 and 1975

	<u>Average Daily Shipment For Grade A Producers</u>	<u>Average Daily Shipment For Grade B Producers</u>
1960	509 lbs.	117 lbs.
1975	1,170 lbs.	270 lbs.

At the present time, as the data in Table 2 indicate, the average Grade A producer in Ohio markets approximately 4 1/3 times more milk than does the average Grade B producer. These data begin to differentiate between the Grade A enterprise as a viable commercial operation and the Grade B enterprise in Ohio as a less intense and marginal type of operation.

A primary basis for a milk producer choosing between the Grade A and Grade B market is the price difference between the two markets. In recent years, Ohio milk producers have realized approximately \$1.60 more per cwt. for Grade A milk as compared to Grade B milk.

Table 3. Average Annual Ohio Grade A and Grade B Milk Prices Per Cwt., at Average Fat Test, 1970-1975

<u>Year</u>	<u>Grade A</u>		<u>Grade B</u>	
	<u>Average Price/Cwt.</u>	<u>Average Fat Test</u>	<u>Average Price/Cwt.</u>	<u>Average Fat Test</u>
1970	\$6.12	3.73 pct.	\$4.68	3.79 pct.
1971	6.28	3.72	4.73	3.73
1972	6.47	3.75	4.97	3.78
1973	7.56	3.70	5.89	3.75
1974	8.80	3.71	6.86	3.74
1975	9.05	3.73	7.48	3.75

As the data in Table 3 indicate, at fairly similar milkfat tests, the Grade A market has returned a substantially higher price than the Grade B market in Ohio. In fact, the Grade A market has returned an even better net price to producers because (1) hauling rates on bulk Grade A milk are substantially lower than hauling rates on manufacturing grade milk, and (2) producers marketing Grade A milk are more assured of accurate fat tests than are producers marketing Grade B milk.

While costs of producing milk for the Grade A market are generally acknowledged to be higher than production costs associated with Grade B milk, the cost difference is much less than the price difference. As a result, the Grade A price advantage clearly has shifted the Ohio dairy industry to a Grade A structure. Grade A requirements for producing milk in Ohio are in accord with the recommended provisions included in the U.S. Public Health Service Ordinance and Code. Fieldmen for cooperatives and for plants together with health inspectors and with Extension agents, are well qualified to assist milk producers in achieving and maintaining Grade A standards in milk production. For most farm situations in Ohio, milk producers are economically advantaged by choosing the Grade A market.

2. The Decision Regarding Which Grade A Market

Essentially, all of the Grade A milk marketed off farms in Ohio is shipped to plants regulated by Federal milk market order regulations. Almost all of the Grade A milk marketed in Ohio (over 95 percent) is received at plants regulated by the Eastern Ohio - Western Pennsylvania market (Order No. 36) or the Ohio Valley market (Order No. 33). Very small quantities of Ohio produced milk move to the Indiana Federal milk order and the Southern Michigan Federal milk order.

The Eastern Ohio - Western Pennsylvania market area includes cities such as Cleveland, Pittsburgh, Akron, Youngstown and Wheeling. The Ohio Valley market

area includes cities such as Toledo, Columbus, Dayton, Cincinnati, Marietta and Charleston. A map of the two market areas in Ohio and of the milksheds for these markets is shown in Figure 1.

As Figure 1 indicates, there is an area running across the State from Northwest Ohio to East Central Ohio that represents overlapping milkshed for Orders No. 33 and 36. In this area, producers are relatively indifferent as to which market their milk moves to. All milk produced south of the lower boundary moves to Order 33 plants, and all milk produced north of the upper boundary moves to Order 36 plants. These boundaries are not fixed by regulation, and may shift quickly as more milk is needed in one market or as a blend price advantage may occur in one market.

The Ohio portions of the market areas for Orders No. 33 and 36 are also shown in Figure 1. The designated market areas only serve to indicate that a handler who distributes packaged milk within the designated area becomes subject to the pricing and pooling provisions of that Federal order. The two unregulated areas shown in Figure 1 have very little meaning. Milk producers in those areas, for the most part, are shipping milk to plants that are subject to full Federal order pricing because those plants are already distributing in regulated market areas.

The primary basis for a producer choosing between Order 33 and Order 36 is the blend price that he can get in one market as compared to the other. Additional factors likely would include (1) hauling rates and hauling arrangements, and (2) membership in a cooperative that traffics the milk so that a producer himself is not making the market choice.

A review of average annual blend prices in Orders 33 and 36, together with the Class I utilizations in the two markets, provides the basic market information that a producer must consider in market choice. These data for the 1970

through 1976 period are shown in Table 4.

Table 4. Average Annual Blend Prices Per Cwt., 3.5% BF Test, and Class I Utilization, Federal Order Markets 33 and 36, 1970-1976

<u>Year</u>	<u>Ohio Valley Market</u>		<u>Eastern Ohio-Western Penn. Market</u>	
	<u>Blend Price*</u>	<u>Class I Utilization</u>	<u>Blend Price**</u>	<u>Class I Utilization</u>
1970	\$5.83/cwt.	72 pct.	\$5.82/cwt.	65 pct.
1971	5.96	68	5.99	64
1972	6.17	67	6.22	65
1973	7.14	67	7.19	66
1974	8.20	64	8.22	64
1975	8.47	64	8.50	64
1976	9.55	63	9.55	61

The data in Table 4 indicate that the difference in blend prices and Class I utilizations between Order 33 and Order 36 have been very slight in recent years. On the basis of this information alone, producers who have a choice between the two markets would not realize any clear advantage by switching. Butterfat differentials in the two markets are identical.

The data in Table 4 reflect minimum blend prices that handlers must pay producers in order to meet provisions of the Federal order. However, these announced prices are f.o.b. plant prices, which means that producers must pay their own hauling costs to market. Therefore, a producer may be influenced by the fact that he can get a lower hauling rate to one market as compared to the other market.

Also, the blend prices quoted in Table 4 are minimum prices specified by the order. In fact, all Grade A producers in Ohio have received over-order

*Price at Central Zone (Columbus, Dayton, Cincinnati)

**Price at Zone 1 (5 cents higher at Canton and 8 cents higher at Cleveland); blend price also excludes 5 cent promotion deduction, effective mid-1973.

prices due primarily to bargaining efforts of dairy cooperatives since the mid-1960's. For the most part, the over-order premium blend prices in Orders 33 and 36 have been fairly similar. As a result, the differences in producer pay prices between the two markets have been very limited on a month to month and year to year basis. Even the seasonal takeout-payback plans in the two markets are the same.

3. The Decision Regarding Coop Membership

Dairy marketing cooperatives are a major institution in the milk industry. In Ohio, primarily in the Grade A sector, most milk producers have chosen to become a member of a dairy marketing cooperative.

There are substantial reasons why cooperatives have become such an important agency in the marketing of milk. Basically, milk is a complicated product to market. It is very perishable; it is produced and marketed every day of the year; it is subject to substantial seasonal swings in production and consumption; it is processed into different products having different demands; it must be handled under careful scrutiny in terms of temperature, flavor, bacteria count and contamination.

Dairy marketing cooperatives are organized to cope with the problems of handling milk and to serve as the marketing agent for milk producers. There are four primary objectives that dairy coops address themselves to:

1. To guarantee their member producers a market.
2. To bargain for the best price terms possible.
3. To market milk as efficiently as possible.
4. To help achieve higher quality levels in the milk coming to market.

At the present time, approximately 85 percent of the producers shipping milk in the Ohio Valley market and 66 percent of the producers in the Eastern Ohio -

Western Pennsylvania market are members of a dairy cooperative. Most of the dairy coop members in Ohio belong to one of the following four organizations:

Milk, Inc. (Cleveland)

Central Ohio Cooperative Milk Producers, Inc. (Columbus)

Miami Valley Milk Producers Association (Dayton)

Cincinnati Cooperative Milk Sales Association, Inc. (Cincinnati)

Several additional qualified cooperatives also serve as marketing agents in the two Federal milk orders, but these additional cooperatives are more limited in membership. The four listed cooperatives make up the membership of the Ohio Milk Producers Federation, which is basically the Ohio dairy farmer's lobby at the State level. The four listed cooperatives are also four of the sixteen cooperative members of Great Lakes - Southern Milk, Inc., which is a federation of dairy coops established for the purpose of coordinating Class I prices across a large number of fluid milk markets in the East North Central and Southeast regions of the United States. Finally, the four identified dairy coops in Ohio are all member organizations in the National Milk Producers Federation, which is the affiliation of more than 100 dairy coops nationally organized to act as the milk producer's lobby on Federal matters.

For a milk producer, the matter of whether or not to join a dairy coop involves two questions. How much is he going to benefit? How much is it going to cost?

1. Benefits: The benefits of dairy coop membership are measured largely in relation to the four objectives noted previously.
 - a. The guarantee of a market is crucial to dairy farmers. Much of the early impetus for the organization of dairy coops was to provide producers with a market, particularly in the spring flush, when they were subject to cancellation by their buyers.

In recent years, the market guarantee has become identified primarily in terms of (1) assuring producers of payment (2) re-locating outlets for producer milk when plants have closed, and (3) occasionally finding economic outlets for producer milk that has gone off-grade.

- b. Bargaining is the most visible benefit that cooperatives generate for dairy farmers. In recent years, cooperatives in Ohio have bargained for Class I premium prices substantially higher than minimum Federal order Class I prices. As a result, millions of additional dollars have been returned to dairy farmers over Federal order blend prices.

The equity problem that exists between coop members and non-members in marketing milk is especially obvious in the bargaining area. In effect, cooperatives gain enough control of supply to have sufficient market power to establish Class I prices above Federal order minimum levels. Processors must pay the negotiated price in order to receive milk. At the same time, processors will usually pay the non-coop producers the higher price also because failure to do so would be an incentive for all non-members to join the cooperative. As a result, the cooperative members who bear the cost of getting higher prices established see the benefits of their efforts extended to producers outside of the coop who do not contribute to the bargaining task.

The same situation of inequity between coop members and non-members are evident in other areas of the marketing programs of dairy cooperatives. Dairy cooperatives will usually balance market supplies, develop more efficient hauling programs with lower hauling rates, promote milk consumption, sponsor and support dairy legislation, and act in other ways to benefit their producer

membership. In most of these instances, non-member producers on the market also receive these benefits without bearing the costs of implementing such activities.

As a general observation, the producer who chooses not to join a dairy cooperative individually may realize most of the benefits and pay fewer of the costs of marketing milk as compared to the coop member. Yet, if all producers made a similar choice not to join a dairy marketing cooperative, then the cooperative marketing program would collapse and premium prices, as well as other benefits, would immediately disappear for all producers.

- c. Marketing milk efficiently is a third benefit that milk coops direct themselves to accomplish. There are many aspects involved in the efficient marketing of producer milk. Two primary ones include improved traffic management in bulk milk assembly and equalization of milk supplies across the market. Improved traffic management concerns the routing of tank trucks and the load assignment of producers to avoid excess duplication, short loads, and unnecessary travel in bulk milk pick-up. A dairy cooperative is in a unique position to coordinate bulk milk assembly. Lower hauling rates than would otherwise prevail are established as a result of this activity.

A second major efficiency function of dairy cooperatives is to balance milk supplies across a market. A number of factors complicate a milk market in terms of the volume of milk supplied relative to the amount of milk in demand. Seasonal variations in production, seasonal variations in Class I sales, and daily variations in Class I milk requirements in a market mean that (1) reserve milk supplies are necessary to assure effective market operations throughout the year, and (2) a coordinating mechanism such as a cooperative

is necessary to move milk for Class I purposes among plants in a market, find outlets for excess milk supplies, and bring in loads of milk from outside the milkshed when supplies are short.

In Ohio, about 23 percent more Grade A milk is marketed in May than in November. Class I sales are about 21 percent higher in October than in June. Given these seasonalities, there has to be a substantial reserve supply of milk available in the flush production months in order to assure an adequate supply in the fall when sales are strong. The problem is further complicated because many processors operate only five days a week even while the cows are milking seven days a week. As a result, cooperatives serve an essential function in the market by balancing milk supplies on a daily basis and through the seasons of the year.

- d. In recent years, much of the procurement responsibility for fluid milk supplies has shifted from processors to cooperatives. Cooperatives have accepted the responsibility of assuring buyers that the supply of milk being marketed would be of the highest quality and would meet all Grade A standards. In order to guarantee that the milk supply would meet all quality requirements, cooperatives have necessarily had to expand and up-grade their field staffs to help resolve all individual producer quality problems. Bacteria counts, mastitis incidence, flavor and odor problems, refrigeration problems, and anti-biotic contamination are the types of problems that coop fieldmen are highly skilled in recognizing and in offering practical ideas for eliminating the problems. Milk is perishable and vulnerable to many deteriorating elements, and skilled field service provides an essential benefit to dairy farmers.

2. Costs: The costs of belonging to a dairy cooperative versus not belonging can be measured in different ways. Only the immediate and direct costs are considered here.

First, it should be recognized that there is a direct cost in being a non-member. Dairy farmers who ship milk to Federal order plants (and essentially all Grade A producers in Ohio do) are assessed a market service charge of 5-6 cents per cwt. by the Federal order. This charge is assessed to cover costs of providing check weighing and testing and distributing market information. Coop members are not subject to this charge because the coop itself performs these services.

For producers who join cooperatives, the direct costs vary, depending on the particular cooperative they join. Some coops have much more extensive investments than do other coops and their capital assessments reflect these differences.

The assessment for belonging to a cooperative basically can be divided into two categories: (1) operating dues, and (2) capital assessment. The operating dues, or money for costs of meeting current operating expenses, presently are about 7 cents per cwt. but vary somewhat among different organizations. Capital assessments among Ohio cooperatives range from 1 cent per cwt. up to 1 1/4 percent of the blend price. However, certificates or stock are issued for the capital assessments, and, assuming that there are sufficient earnings, the capital outlay revolves back to producers after a period of time.

A producer who chooses not to join a cooperative may be marginally ahead of the coop member in the net price received for milk. However, if many or all producers choose not to join a cooperative, the marketing program of producers disintegrates and all producers lose.

4. The Decision Regarding the Hauling of Milk

Hauling represents a significant cost in marketing milk. The average hauling rate for Grade A milk producers in Ohio presently is about 40 cents per cwt. In recent years, about 5 percent of the cash receipts to dairy farmers for milk has been paid out for getting the milk hauled to market.

An individual producer's hauling choices may be very limited. Almost all Grade A milk in Ohio is transported by contract haulers. In some instances, a dairy coop may make all of the arrangements with contract haulers, and a producer is simply assigned to a route. In other instances, a route of producers may negotiate hauling rates with a contract hauler. In some situations, individual producers may negotiate hauling rates and arrangements with contract haulers or with processors that manage their own procurement.

For the most part, Grade A milk in Ohio is assembled on an every other day pick-up basis. Studies have shown that costs of every-other-day pick-up are substantially lower than costs of every day pick-up. Hauling rates reflect this cost difference.

The fixed costs in bulk milk assembly are fairly high. It costs almost as much to pick up milk at a small volume stop as at a large volume stop. This means that the costs per cwt. for hauling milk from a large shipper are substantially lower than from a small shipper. Hauling rates should reflect the lower costs incurred at larger volume stops. Rate systems that include stop charges or schedules for higher volume-lower rates are important means of charging rates in relation to assembly costs. At the present time in Ohio, producers shipping more than 4,000 pounds every other day should be paying a lower hauling rate per cwt. than average. Producers shipping less than 2,200 pounds every other day should be paying a higher hauling rate than average. However, in some situations, milk producers may not have these kinds of hauling rate options available to them.

Producers need to pay attention to hauling rates because the rates are an important cost item. However, choices may be limited in attempting to find other hauling arrangements.

5. The Decision Regarding Promotion

Milk producers in Ohio have the opportunity to support programs designed to stimulate or expand the market for milk and dairy products. Promotion programs at the producer level are often called product promotion or generic promotion.

Nationally, the United Dairy Industry Association implements the dairy farmers promotion program for milk. The UDIA has three areas of emphasis.

1. American Dairy Association - advertising and mass media promotion.
2. National Dairy Council - nutrition education and nutrition research.
3. Dairy Research, inc. - development of new and improved products and processes.

Dairy farmers in Ohio are strong supporters of the United Dairy Industry Association's programs. In 1976, the Ohio component of UDIA, which is called Mid-East UDIA, raised \$2.45 million for the promotion of milk and dairy products. Milk promotion on television and in various magazines, together with the several Dairy Council units throughout Ohio account for a large proportion of the program budget.

Financing of the promotion program varies. For those producers in Ohio who are contributing, the current assessment is 5 cents per cwt. on all milk marketed. The voluntary-mandatory aspects vary. In Federal Order No. 36, a provision in the Federal order sets a 5 cent assessment on all milk producers on that market. However, producers may request their money back, and some of them do. In Federal Order No. 33, the major cooperatives assess their members at a rate of 5 cents per cwt. for promotion purposes.

The demand situation for milk and dairy products is a matter of continuing concern for everyone associated with the dairy industry. Per capita consumption of 545 pounds (milk equivalent) in 1976 was healthy, but concerns with substitution for milkfat, and in-roads of imitation products continue to prevail. Product promotion by milk producers is one means of influencing the demand situation. Studies have shown that intensive product promotion efforts for both fluid and manufactured dairy products can positively affect the demand situation. Product promotion is expensive and requires the financial support of all dairy farmers.

6. The Decision Regarding Blend Price Level

Individual dairy farmers cannot affect the price level in the market. But it is essential that dairy farmers have a specific sense of what the blend price will be as they look to the future. Many kinds of key decisions require reliable price information. Enterprise selection, adjusting herd seasonality, feeding program, desired milkfat test, projected cash flow situation, optimum number of dry cows and cows in milk, choice of market, and other basic decisions are affected by price expectations.

Milk pricing is a complicated subject. Several different institutions, such as Federal orders, price supports, and coops, have an impact on the level of blend prices. But in final analysis, producer milk prices are affected mostly by the market, i.e., by the forces of supply and demand in an openly competitive market.

Approximately 25 percent of the U.S. milk supply is produced in Wisconsin and Minnesota. Processors of manufactured dairy products in those two states pay their producers according to (1) how much the processor can realize for

manufactured product in the wholesale market, and (2) how competitive the processor must be to procure milk supplies in a market where many plants are bidding for producer milk. The average monthly price that is paid by plants in Wisconsin and Minnesota therefore is a market price, and it is used as the basic mover of producer milk prices in the Ohio markets and throughout the United States.

In considering what the Grade A blend price in Ohio will be as we look to the future, there are two questions that must be answered.

1. What factors will move the Minnesota-Wisconsin manufacturing grade milk price?
2. What factors unique to the Ohio fluid milk markets will further adjust the blend price?

Seven factors are fundamental as one attempts to answer the two questions.

These include:

- A. Cull Cow Prices - the level of price for cull cows has a significant impact on how many milk cows are in the national dairy herd. In the 1975-1977 period, cull cow prices have generally been under 25 cents per pound and there has been little price incentive to move cows to the slaughter market. As a result, cows have stayed in milk, milk production has been up, and milk prices have weakened. Opposite effects would occur if commercial and utility grade beef was above 30 cents per pound. A key to the milk price outlook, then, is the price outlook for cull cows.
- B. Feed Prices - The level of feed costs in dairy cow rations has proved to be a significant factor affecting feeding rates. As a result, milk production moves up with lower feed prices and down with higher

feed prices. In 1973, when both corn and soybean prices moved to very high levels, production per cow dropped for the first time in many years. The price outlook for corn and soybeans in particular can indicate what feeding rates are likely to occur, and whether milk production is likely to be affected by feed costs.

- C. Support Price - The support price for milk can have a substantial impact on producer milk prices in periods when milk supplies are heavy. Under the Agricultural Act of 1949, the Secretary of Agriculture must announce a support price for milk in the range of 75 to 90 percent of parity. For the 1977-78 marketing year, Secretary Bergland has announced a support price of \$ 9.00 per cwt. for manufacturing grade milk (83 per cent of parity). As a result of the support program, manufacturing grade milk prices are maintained near the support price and can be substantially higher if supplies diminish. In the Ohio Federal order markets, this means that the reserve milk (Class III) price will also be maintained near the support price, and that Class I and Class II prices will be similarly influenced. As a result, blend prices are assured of considerable stability even when milk supplies are excessive. The level of the support price offers all milk producers an essential benchmark as they consider prospective milk prices.
- D. Demand - Class I Sales - Consumption-sales-demand finally are fundamental to producer milk prices. In recent years, the demand for cheese has given a strong base to the total milk market. Continual monitoring of Class I (fluid) sales and sales of other dairy products and the demand response to retail price changes is important in evaluating potential price changes for producer milk. The continuing questions in Ohio's fluid milk markets are, "How do Class I sales

compare with those a year ago, and why are they different?" Information in the demand area can provide insight on producer milk prices as we look ahead.

- E. Producer Price Bargaining - What are the prospects for cooperatives in negotiating Class I premium prices in the future? What factors work against their bargaining activities? More recently, the dairy coops in Ohio have been establishing Class I prices at about 50 cents per cwt. above Federal order prices. As we look ahead, will dairy coops in Ohio continue to (1) have sufficient control of supply, and (2) have sufficient exemption from anti-trust action to bargain effectively? Blend prices are affected by this factor, and it must be recognized in forecasting producer milk prices.
- F. Import Quotas - Producer milk prices in the United States are protected by explicit import quotas on foreign dairy products. Only about 1.5 percent of our total milk supply normally can be imported. At various times, the import quotas on dairy products come under vigorous attack and pressure is exerted on the Federal government to relax the quotas. If imports were opened to some degree, producer milk prices in the U.S. would be subject to supply depressing effects. Therefore, any look ahead on producer milk prices requires an observation of what may happen to import quotas. Presently, import quotas on dairy products are not under any particular pressure, and domestic milk prices will be established independent of the effect of imports.
- G. Federal Order Markets - The two Federal order markets in Ohio are the basic instruments used for establishing minimum monthly class and blend prices. The purposes of a Federal order are to bring about price stability and orderly marketing. The primary methods used to

achieve these objectives are the operation of classified use price plans and the pooling of milk on a marketwide basis.

While a lot of attention could be directed to the pricing and pooling arrangements in the Federal orders, it is useful to recognize only some key factors in relation to the question of blend price outlook.

1. Price classes and formulas: Both Federal order markets have about the same classified price mechanisms.

Class I - milk used for fluid products; price formula is the Minnesota-Wisconsin price for the second preceding month plus (1) \$1.70 in the Ohio Valley market (Central zone), and (2) \$1.85 in the Eastern Ohio-Western Pennsylvania market (Zone 1).

Class II - milk used for "soft products" such as cottage cheese; price formula is the Minnesota-Wisconsin price for the current month plus 10 cents in both markets.

Class III - milk received in the pool which is not used for other products and is manufactured into "hard" products such as butter, cheese, and nonfat dry milk; price formula is that Class III milk is priced at the Minnesota-Wisconsin price for the current month in both markets.

2. Class I Utilization: The proportion of milk in the pool used for fluid (Class I) purposes is about the same in both Federal orders 33 and 36. In recent years, close to 65 percent of the milk has been used in Class I, 7 percent in Class II, and 28 percent in Class III. However, within a year, Class I utilization drops down toward 50 percent in June and reaches a high above 70 percent in October and November. Monthly blend prices are affected directly by these variable utilizations.

3. Seasonal Pricing Plan: Both Federal order markets have identical "take-out pay-back" pricing plans. Each year, in the four months April through July, 25 cents per cwt. is removed from the blend price to discourage production in the spring flush. Then in the four months September through December, that money is returned (with interest) to producers in order to encourage production in the fall deficit period. The combination of changing utilization and the take-out pay-back plan swings producer blend prices substantially within a year.
4. Butterfat Differential: Producer butterfat differentials are identical in Federal orders 33 and 36. The butterfat differential is calculated each month as a function of the wholesale 92 score butter price at Chicago. For example, if the Chicago butter price averages 90 cents a pound for a month, the butterfat differentials are figured at 11.5 percent of that price (11.5 percent is constant).

$$90 \text{ cents} \times 11.5 \text{ percent} = 10.35\text{¢ BF Differential}$$

The preceding specific provisions of the two Ohio Federal order markets provide some basis for estimating what blend prices will do within a year.

In summary, information that can be helpful in making marketing decisions can substantially strengthen the economic position of the milk producer. Milk markets are complex. Marketing decisions in the six areas noted should be based on the most complete information available. In some cases, fieldmen can provide excellent information. In other cases, coop management, Federal order personnel, or Extension agents can be more specific. House organs and dairy trade journal are usually excellent reference pieces. On marketing questions, milk producers need to strive to be decision makers and not decision takers.