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**MILK QUALITY  
INCENTIVES FOR  
DAIRY FARM EMPLOYEES:  
A MOTIVATIONAL  
APPROACH**

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# **MILK QUALITY INCENTIVES FOR DAIRY FARM EMPLOYEES: A MOTIVATIONAL APPROACH**

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## **Introduction**

Milk quality incentive programs for dairy farm employees have increased dramatically in recent years. Perhaps the driving force behind this trend has been the increase in milk quality premiums paid by milk handlers. For over 30 years, farm employers have used a variety of monetary incentive programs as a way to pay employees for meeting prespecified performance standards. Milk quality is only one area where incentive programs have been used. Others include incentives for heat detection, reduction in calf mortality, and milk production. The experience of dairy farm operators with incentive programs has indeed been one of trial and error with widely divergent results. In fact, some managers who have used incentives in the past report dissatisfaction with the programs and have ultimately eliminated them. This experience leads one to ask the question "What does it take to make an employee incentive program work effectively over the long term?" While there is much discussion about the role of an incentive payment as a motivator, a second very important ingredient in the success of effective incentive programs is the management of people. This point was emphasized by Dr. Bernard Erven in his presentation to the National Mastitis Council in 1990, entitled "The Employee Factor in Milk Quality". Dr. Erven writes "The production of high quality milk is accomplished through people. Fortunately, from the literature and farm experience, we know much about what people should be doing to assure milk quality. We are challenged to implement that knowledge through people."

This paper approaches the issue of quality incentive programs from the standpoint of employee motivation. For decades, industrial psychologists and others have researched the topic of human motivation. By understanding what motivates people to perform, we can look at the job behaviors required to produce quality milk and encourage those behaviors in the work place.

## **Incentives and Employee Performance**

To be effective, employee incentive programs should create the desire to perform. Some managers have reported problems with dairy incentive programs which were not carefully thought out or which did not meet the wants and needs of employees. At times, incentive programs fail because they are poorly designed or their objectives are unclear.

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Before taking a look at creating an environment to motivate people, let's look at common myths that surround employee incentive programs.

**Myth #1: Money Alone Will Motivate People to Perform** -- This point of view fails to recognize other important needs and wants that employees have. Examples include the need for positive feedback, recognition of a job well done, challenging work, positive working relationships, paid vacations, and time off to pursue personal interests.

**Myth #2: If an Incentive Program is Provided, The Manager Can Spend Less Time Managing and Dealing With Employees** -- Properly designed and implemented, incentive programs are likely to take more management time, not less. Monitoring performance, training, communication, and providing performance feedback are all management responsibilities which take on greater importance when an incentive program is in place. Incentives must be a part of a good personnel management program not a substitute for such a program.

**Myth #3: Incentive Programs Can Compensate for a Poor Wage and Benefit Package** -- Incentive programs should not be used in place of good wages and benefits. Incentives should be provided in addition to a sound wage and benefit plan. They should pay for the achievement of challenging goals.

#### Milk Quality Starts With Individual Employee Performance

Milk quality, for the purposes of this paper, is viewed as a people-oriented issue. The manager and employees working together as a team determine the quality of milk produced on the farm. One might argue that some problems affecting milk quality are not necessarily people related. There can be equipment failure, or environmental conditions which lead to problems. However, in almost every case, it is the actions of the manager and the workers that ultimately solve such milk quality problems. Key performance behaviors on the part of the workers include proper preparation of teats, predipping, postdipping, equipment maintenance, treating cows, withholding milk from treated clinical cows, and keeping dairy cattle housing clean and comfortable. It is these behaviors by the people doing the milking and caring for the cows that determine overall milk quality. The question in terms of milk quality is "How can we encourage employees to willingly and capably perform the tasks required to produce quality milk?"

A modern approach to motivation, Expectancy Theory, suggests that we answer four questions to determine how to best create an environment where workers will be motivated.

**Question #1: What do individual employees value?** -- Experts in the field of motivation suggest that there are rewards or outcomes from work which individual employees value. Employees are likely to have their own set of rewards on which they place a high value and other rewards on which they place a low value. For example, one employee may value additional cash while another employee may value praise and recognition. By understanding employee wants and needs, a manager is in a better position to design and implement incentive programs that are effective. Rewards and outcomes which employees value include money, benefits, reasonable work hours, challenging work, personal growth, continued feedback, praise, recognition, promotion, and status. Farm managers have long argued the value of money or wages and benefits as motivating factors to workers. Indeed, we can cite specific examples where some workers prefer additional cash over other rewards. One worker recently requested that his employer forego health insurance and a pension program so he could have additional cash in his paycheck. On the other hand, some workers are clearly motivated by rewards other than money. A middle manager, for example, may prefer more responsibility, more decision

making authority, or may simply be motivated by self-recognition of his or her role in the success of the business. A review of several milk quality incentive programs utilized by New York dairy farm operators, indicates that both monetary and non-monetary outcomes are valued by employees.

**Question #2: What behavior do you want?** -- Communication is a key to implementing milk quality incentive programs. Employees must clearly understand the milk quality program on the dairy farm. They should understand the goals established by the manager and what each goal means. Established goals for bacteria levels, somatic cell counts, freezing points and sediment levels should be clearly explained to employees. Once they understand the premium program provided by the milk handler, they should also understand how the farm milk quality incentive program will work. Questions which must be answered include - How much of the bonus from the milk plant will the employees receive? How will the incentive be divided among employees? When will the incentive payment be made?

**Question #3: Is the desired performance attainable?** -- Research has clearly shown that employees are much more motivated if they perceive the goal is attainable. Employees should be clearly shown what milking practices and other management practices contribute to quality milk production. They must see the link between proper management practices and the production of quality milk to be motivated to perform.

**Question #4: Are desired rewards linked to desired performance?** -- One common complaint about incentive programs is that employees lose interest once the program has been in place for awhile. Some managers report that employees come to expect the incentive as part of their pay, but do not necessarily link it to their performance. One manager reported that his own failure to praise his employees for attaining the farm's milk quality goals diminished the effectiveness of the incentive program. Instead of posting a notice on the bulletin board or writing a congratulatory note to employees with their paychecks, it was days or even weeks before the employees were notified of the achievement of their goal. While often not discussed, positive, timely feedback coming from the boss may motivate every bit as much as the money that the employees receive from the incentive program.

### Creating an Environment for Motivation

The challenge to the farm manager is to create an environment where all workers in the business will want to perform at a high level. In the case of milk quality incentive programs, there are five key personnel management issues which must be addressed to create an environment where people will be motivated to achieve milk quality goals. These include design of incentive payments, goal setting, team work, training, and performance feedback.

#### **A) Design of Incentive Payments**

Quality premiums paid to dairy farmers in the Northeast typically range from five cents per hundredweight to 35 cents per hundredweight, depending upon the quality performance of the farm. Farm managers who have implemented milk quality programs report providing part or all of the premium to farm employees responsible for achieving the milk quality goals. In some cases, the monthly incentive payment to employees can exceed \$200. Clearly, for many employees, this level of incentive payment is substantial and can be a strong motivator. To properly serve as a motivator, the incentive payment should be provided to employees as close to the time that the farm receives it as possible. Also, many farm managers divide the payment between employees who are directly involved in milk

production. Factors often taken into consideration when dividing up the incentive payment are the responsibility of each employee, the number of hours worked, the tenure of the employee, and the relative involvement of the employee in meeting quality standards. These factors should be considered when determining an equitable distribution of employee incentive payments. Failure to do this can result in discontent with the program because employees feel unfairly treated. It is also important to provide the incentive payment as a separate check. This reaffirms that the incentive is an addition to regular pay and directly tied to achieving milk quality goals. If the quality incentive is added to the regular paycheck, the employee is more likely to regard the payment as part of regular pay instead of a reward for superior performance.

While there is currently much interest in monetary incentives, it is important to note that non-monetary incentives can also be effective. Rewards in the case of non-monetary incentives are focused on recognition and token awards rather than money. For example, one business manager provides monogrammed jackets to employees who achieve performance goals.

## **B) Goal Setting**

The relationship between goal setting and motivation has been well documented by researchers Latham and Lock. There are three characteristics that should be considered when goals are designed. First, goals should be specific rather than vague. Goals are most effective when specific measures such as somatic cell counts or bacteria levels are used. Second, goals should be challenging yet reachable. Research has shown that difficult goals lead to a higher level of performance than easy goals. On the other hand, if the goals are perceived as unreachable or employees do not have control over reaching them, they are not likely to accept the goal or try to achieve it. Third, goals should be given a specific time frame in which they are to be met.

From the standpoint of goal setting, development of milk quality incentive programs can be relatively easy since quality standards for the farm are predetermined by the milk handler. Also, the goals set up by the milk plant are usually very challenging. To consistently receive the milk quality premium, constant attention to detail is required month after month. An additional factor that provides challenge is that some milk cooperatives have recently adopted a milk quality premium system with two or three tiers. Under this type of system, the higher the quality level achieved, the larger the premium payment. So even if employees reach the first level of quality, they are challenged to meet the second and third levels for quality to receive a higher premium for the farm and presumably higher payments for themselves.

The primary reason for the effectiveness of milk quality incentive programs from milk handler to farm is the establishment of specific, challenging, and timed goals. One milk quality inspector for a northeast dairy cooperative recently remarked that the role of the milk quality inspector has changed in recent years from one of enforcement to one of providing the information and skills necessary to achieve quality goals. This is apparently due to the fact that farm managers no longer need to be convinced of the importance of milk quality. They have accepted the quality goals established by the milk handler and have turned their efforts toward achieving them.

## **C) Training**

Ongoing training is essential to ensure a high level of employee performance. To train employees to meet milk quality goals, two levels of knowledge and skill are important. First, the employee must understand what each goal means. It is not sufficient for the

milker to simply know that the somatic cell count must be below 250,000. The employee should know what somatic cells are, what causes them to occur in milk, and what an increase means in terms of udder health and milk quality. The second level of knowledge and skill required is the employee behavior that will help maintain or improve quality. Examples include cow handling, proper teat preparation, machine attachment, proper milk out, machine removal, teat dipping, and maintenance of clean comfortable cattle housing. The industry is well supplied with formal training tools to help the manager train employees in proper milking procedures and quality issues. Extension bulletins, videotapes, newsletters, and articles from the popular dairy press are but a few sources of expert information on milking practices and milk quality. Extension classes and workshops are also sources of classroom training in these issues. Regardless of the formal training available or the previous experience of the employee, a one-on-one ongoing training relationship is essential. Managers report an increasing number of milkers coming to dairies that have had no prior experience with dairy cattle. Even those with previous experience often need some type of training to acclimate them to the equipment and management practices of the farm.

The importance of the one-on-one training relationship cannot be overstated. In a recent survey of dairy farm managers, it was reported that the single biggest constraint in properly training employees is time. Managers have many responsibilities throughout a given day and setting aside training time is difficult. Setting aside time for ongoing mentoring and training is essential to ensure that training is done thoroughly.

A technique referred to as "Job Instruction Training" can be very helpful to the manager in designing appropriate milk quality training. Job instruction training originated during World War II when thousands of young men left American factories and went off to war. Management was forced to train replacement workers quickly to keep American factories operating. They used the job instruction training technique to train the new workforce. The following five training steps have been adapted from the job instruction training model.

Step 1: Prepare the Worker and the Workplace - Have materials and equipment ready and have the workplace properly arranged just as you want the workers to keep it. Put the workers at ease and get them interested in learning the job.

Step 2: Tell the Learner How to do the Task - Explain, show, illustrate, and question employees carefully to see that they understand how to do the job. Stress the key points and be patient. Be careful not to present more information than employees can master.

Step 3: Show the Employee How the Task is to be Performed - After a careful explanation, show the employee each part of the job, explain the job, and emphasize key points.

Step 4: Let the Learner do the Task - Have the employees show and tell you what they are doing and have them explain the key points back to you. Provide feedback and continue the process until you are certain the workers know how to do the job.

Step 5: Review the Work - After leaving the employee alone to perform the task, return and review the quality of the work. Provide feedback which reinforces good habits and helps the employees set goals for improvement. Encouragement is extremely important.

Training should be viewed as an ongoing process. Continued checking and encouragement will ensure training success.

**D) Teamwork** In most cases, quality incentives provided to employees are not provided to just one individual. They are provided to the team of individuals who have



been directly responsible for milking and other herd management practices. It is not desirable for individuals to work in isolation. The "loner" often works against the milk quality goals of the business. Characteristics of an effective team include:

1. Goals - As mentioned earlier goals are specific, challenging, and timed. To be effective there should be common goals for the work team and those goals should be foremost in the thinking of each team member. Effective communication and explanation of milk quality goals is essential.
2. Authority - The delegation of decision making authority empowers the team and its members and creates a greater desire to meet team goals. The team is then held accountable for using decision making power and authority effectively.
3. Communication - Team members continually communicate with each other. Everyone knows how everyone else is doing. There is immediate feedback from peers and from the managers. Ideally, with strong communication channels, mistakes are kept to a minimum and operations run smoothly. Farm managers with good milk quality programs report that properly managed teams "police themselves".
4. Morale - Strong feelings of commitment to the team are desirable; and this is what ultimately makes the team effective. Team members share the challenges of achievement and most importantly share the rewards (both monetary and non-monetary) of their successes.
5. The Role of the Leader - The manager as a team leader is primarily a coach, and his or her job is to service, develop, and support a winning team. The manager's role in the team is to empower team members to be effective and reach their goals.

#### **E) Providing Performance Feedback**

Above all, performance feedback should be timely and ongoing. Employees want to know how they are doing and how they can improve. In the case of a milk quality incentive program, reporting to the employees the quality information from the milk plant as soon as it is received is critical. If the quality goal has not been met, an immediate discussion should take place regarding what potentially has gone wrong and how to correct it. Conversely, if the milk quality premium goal has been reached, it is important to provide the motivational rewards appropriate for continuing to reach the goal. Remember that while money will be provided shortly after the goal has been reached, it is not the only reward employees value. A reward that should not be overlooked is recognition from the manager that the job has been well done. This might include personal compliments to each individual on the team, or a written notice on the bulletin board or in the paycheck congratulating the team for superior performance. Some farm managers routinely allow their employees to be recognized at milk cooperative annual meetings and dinners where quality awards are presented.

A common problem with incentive programs is they are often regarded as something that employees will automatically receive. In the case of milk quality premiums, it is a monthly challenge to either receive the top premium or to be shooting for the premium in the next tier of the program. The challenge should never stop. It is through constant communication by the manager and constant performance feedback that these goals will be uppermost in the minds of the individuals most responsible for milk quality.

## Summary

The concepts presented here are based on Human Resource Management theory and research. These concepts are not new; they have been developed over the last few decades and have been used by managers in a wide range of businesses. The farm manager faces two challenges. The first is to become aware of modern personnel practices and the second is to apply them to the business on a daily basis. Most managers would admit that they don't always utilize the personnel management practices they know they should. Failure to do the "little things" to create a motivated work force is counter-productive in the end. The following list of "Ten Ways to Destroy a Milk Quality Incentive Program" is designed to reinforce the concepts presented in this paper and to serve as a management reminder to continuously support the efforts of farm employees toward business goals.

## References

- 1) Employee Incentive Pay in Dairies. 1991. University of California Agricultural Extension, February 5, 1991, Modesto, California. pp. 23-31.
- 2) Erven, B.L. 1990. The Employee Factor in Milk Quality. Proceedings, 27th Annual Meeting of the National Mastitis Council. pp. 58-67.
- 3) Erven, B.L., G.K. Hutt, T.R. Maloney, R.A. Milligan. 1990. Managing Farm Personnel in the 90's. A.E. Ext. 90-6, Department of Agricultural Economics, Cornell University, Ithaca, New York 14853.
- 4) Heneman, H.G., D.P. Schwab, J.A. Fossum, and L.D. Dyer. 1986. Personnel/Human Resource Management, Richard D. Irwin, Inc., Homewood, Illinois 60430.
- 5) Maloney, T.R., S.A. Woodruff. 1989. Wages and Benefits of Full-Time Non-Family Employees on Larger Than Average New York State Dairy Farms. A.E. Res. 89-20, Department of Agricultural Economics, Cornell University, Ithaca, New York 14853.
- 6) Milligan, R.A., G.K. Hutt. 1990. A Conceptual Framework for the Management of Farm Businesses. Staff Paper No. 90-15, Department of Agricultural Economics, Cornell University, Ithaca, New York 14853.
- 7) Staw, Barry M. Psychological Dimensions of Organizational Behavior. MacMillan Publishing Co. pp. 43-53.

### **Ten Ways to Destroy an Employee Milk Quality Incentive Program**

1. Fail to praise employees for the good job they are doing.
2. Forget to give employees their incentive payment on time.
3. Communicate quality standards incompletely or inaccurately to employees.
4. Take the attitude that "The money I pay toward quality should be sufficient to motivate people - other employee wants and needs are not important."
5. Fail to expect employees responsible for quality to work as a team to meet common milk quality goals.
6. Fail to instill a sense of pride in employees for their part in producing a quality product and creating a profitable business.
7. Believe that since there is a milk quality program in place, you can spend less time working directly with your people.
8. Give your employees responsibility for achieving milk quality goals but don't give them the decision making authority they need to get the job done.
9. Fail to invest enough time in employee orientation, training, and ongoing skill development.
10. Ignore employee suggestions about how to do the job more effectively.