



## **Milker Training Strategies: Translating Theory Into Practice**

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If you manage other people on your dairy, then you are a trainer. Whether you are an effective trainer or not is another question. Effective managers put people into a position to succeed. Ineffective managers set people up for failure, and then complain that you can't find good help anymore. The success or failure of a dairy business depends on the skill, confidence, and motivation of the people that perform the milking process. The skill, confidence, and motivation of those same people depends on how well their manager trains them. This paper is intended for managers who want to succeed by translating theory into practice through training.

### **Improve consistency with skillful workers**

Even though milk is harvested in different ways on different farms, it is vitally important that milk be harvested in a consistent manner on each individual farm. The procedure used to prepare and milk cows should be performed exactly the same way every time a cow is milked, regardless of who is doing the milking. Skillful workers can perform procedures quickly and consistently, and the best way to improve people's skill is with training. Consistent milking increases labor efficiency and can improve animal performance.

Danish research demonstrated that cows milked with a standard operating procedure produced more milk and milk components than cows milked in a more variable way (Rasmussen, 1990). Consistent use of good milking procedures is achieved by establishing a standardized milking routine. Training is then used to ensure that all milkers actually perform the routine in the same way every time. If a standardized milking routine and an effective training program are not in place, it is almost certain that milking practices will vary from one person to the next. This variation means that at some milkings the dairy's resources are being used less efficiently, cows are subjected to unexpected treatment, the opportunity for disease transmission is increased, and cows likely produce less milk and milk components.

### **Training increases confidence**

People like to clearly understand their work and how they can do a good job. Training is an effective tool for dairy managers to orient new workers and to help current workers adopt new practices or technology. Training activities should always give workers skills that they can use in their job. Effective training will help workers to recognize when a job is well done and make them feel confident in their ability to produce good results.

## **Training can be a motivational tool**

Managers need to make sure that they and their workers have the right attitude about training. The right attitude can only exist in a dairy business that believes improved performance benefits everyone, including the employees. An employee can then understand that training to enhance performance will ultimately benefit him or her personally. This creates an environment where workers will feel motivated to take advantage of opportunities to improve performance.

Managers should encourage their labor team to have a feeling of ownership in their work. A great way to do that is to ask employees to constantly look for ways to improve work processes. A recent demographic survey of milkers in Pennsylvania uncovered some interesting facts. When milkers were asked if management requested their suggestions about improving milk quality, 31% indicated that they were always asked and 40% indicated that they were sometimes asked. When asked if they get to participate in making decisions about improving milk quality, fully 44% always participate, and 32% sometimes participate (Burns, 2000). This data indicates that most managers do try to involve front line milkers in efforts to improve milk quality. We can infer from this that milkers have some say in improving the work procedures that they use.

On-farm training is critical to successfully incorporating new practices. There is no way to determine if a practice is working without having confidence that the practice is consistently used. Managers need to help employees understand this concept. Employees will then appreciate training not only as a means for improving milkers' skills, but also as a means for implementing the ideas and decisions that they helped to make.

## ***Training Strategies***

There are many ways to conduct training. These include trial and error, lecture, watching video, demonstration, providing written lessons or directions, and many others. Although many people like to learn with trial and error, dairy managers probably won't find this an acceptable way to train milkers. Similarly, a written standard operating procedure (SOP) is a great support for other training, but SOP's are not sufficient by themselves to teach working skills. Training can be conducted at the farm or at some other location. It can be carried out by the dairy manager, veterinarian, extension agent, or other qualified person.

The challenge for the manager is to select a method that is appropriate both for the material to be learned and for the learners. While training provided by experts and in off-farm settings is certainly valuable, and a fertile source of ideas for improvement, it cannot take the place of on-farm training. Nilson (1990) put it this way:

Because you have the vision and can provide the leadership, you are the one most likely to succeed at delivering the training. Your focus, as a manager, on profitability and productivity makes you the ideal candidate to design and deliver

training to a single employee at a critical juncture when new knowledge or skills are required.

Successful dairy managers need to train workers in the specific practices used at their farm. To do this, dairy managers need a training strategy. Effective learning takes place when the training strategy is well matched with the material. Table 1 identifies four strategies that dairy managers can use to train their workers. Different strategies will work to teach procedures, abstract ideas, thought processes or concepts. To explore all training strategies is beyond the scope of this paper. We will focus on the Behavioral Strategy because it is effective for teaching procedures or work routines. This strategy should be used on every dairy farm.

## The Behavioral Strategy

Many of the tasks performed during the milking process are repetitive and physical. Dairy managers can go a long way toward having a highly effective workforce by practicing the Behavioral Strategy alone. The key is to frequently offer encouragement and praise as you positively reinforce good work behaviors.

### Step 1: Establish Behavioral Objectives

As with most training strategies, there are a few steps that the trainer must take before the actual training begins. The first step is to establish the behavioral objectives. Behavioral objectives describe what the learner will be able to do, and to what degree, when the training is completed. For example:

After completing basic milker training with the parlor manager at Blue Sky Dairy and practicing for six milkings with a qualified milker, the learner will demonstrate to the parlor manager the ability to precisely follow the milking SOP and attach milkers to properly cleaned and prepped cows.

The above behavioral objective states what training and practice must take place and who will perform it. It also describes what the learner will be able to do when the training is completed to satisfaction. The parlor manager and the learner will have a good idea of what is expected before the training begins.

### Step 2: Task Analysis

Step two is to break the job down into the smaller steps necessary to complete it. If the dairy already uses standard operating procedures (SOP's) to manage work, then much of the preparation for training is already complete. If not, the trainer will

#### Writing an SOP or Doing Task Analysis

1. Think about the steps that are currently done to complete the process.
2. Make a **detailed** list of the steps in the order that they are done; this list is now a procedure.
3. Think about each step and decide if that is the best way to accomplish the process, get input from all workers who now do the procedure. Revise the procedure as necessary.
4. Involve your technical advisors such as your veterinarian, nutritionist, or extension agent; they can give you advice about the best way to do each step. Revise the procedure as necessary.
5. Test the procedure by doing each step exactly as it says. Have a person not familiar with the work follow the procedure. Revise as necessary.
6. Make a final draft of the procedure.

need to analyze the procedure being taught and break it down into smaller steps or tasks. Write down the tasks and arrange them in the most logical order. This is known as task analysis, and it is basically the same process that one uses to organize the steps in an SOP.

### **Step 3: Determine Present Skill Level**

Step three is to determine the learner's current skill level. This can be a tricky task, because people will sometimes claim to know more than they do. The learner may not be trying to deceive you because he might not fully understand the complexity or difficulty of the job. The trainer should emphasize that certain jobs such as milking need to be done according to the dairy's procedure and why that is important. A new worker, regardless of experience, will need basic training in order to follow the standard operating procedures of his new position. If he has previous experience, he will simply catch on quickly. On the other hand, unnecessary training for a qualified worker is frustrating and a waste of time.

### **Step 4: Explain and Demonstrate**

Step four of the behavioral strategy begins the active training process. Trainers should schedule an opportunity to work one-on-one or with a small group of learners. Those responsible for training should minimize interruptions and create a climate where all involved see the training as a special opportunity to improve. Refer to Diagram 1 for a graphic representation of the active training process.

People learn in different ways, so it is critical that the trainer involve as many of the learner's senses as possible. Explain verbally how the procedure is done and how it fits into the farm's overall plan. Show the written SOP to the learner and give her an opportunity to read and understand it. Physically show the learner how to best perform the procedure. Emphasize key points as you demonstrate. Ask the learner if she has any questions about what she has heard, read, and seen.

### **Step 5: Practice & Observe**

When you have answered all questions, continue by giving the learner an opportunity to practice. Watch her closely and re-emphasize the key points as she works through the procedure. Pay attention to parts of the procedure that the learner completes well and those that need improvement. Ask her why parts of the procedure are important, so that you can be sure she comprehends.

### **Step 6: Feedback**

Your use of feedback is critical to your success or failure as a trainer. There are four forms of feedback (Davis, 1998). Positive Reinforcement is to reward behavior that is desirable. Negative reinforcement is the threat of unpleasant consequences. Extinction or Ignoring is to simply provide no feedback to a certain behavior. Punishment is obviously to do something unpleasant in response to a behavior. Table 2 describes the types of feedback in more detail.

Your primary role is to identify correct behavior and reward it with positive reinforcement, that way you will lead the learner toward excellence. The learner will accept your positive feedback and feel that you are interested in his growth and development as an employee. To be a successful trainer you must identify correct behavior and reward it.

Effective trainers respond to those parts of the procedure that the learner did incorrectly by explaining and demonstrating them again. Give reasons why the procedure is the best way to complete the work. Use negative reinforcement to emphasize the impact and consequences of incorrect behavior. Always balance negative reinforcement with positive. (Because negative comments are heavier than positive ones to the learner, you need to use more positive comments to make them balance.) Patiently work through the procedure with the learner and demonstrate the problem areas again.

Trainers should be aware that they are always providing feedback, whether they intend to or not (Davis, 1998). Your body language can be a very strong source of feedback, especially facial expressions. Also, when you do not comment or express emotion about an action, you are providing feedback to the learner in the form of extinction. It is perfectly reasonable for the learner to interpret your lack of a response as an indication that the behavior he is currently practicing is unimportant, and they may stop the behavior, good or bad. Provide positive or negative feedback to the learner if the behavior is indeed important.

When the learner can complete the procedure at an acceptable level, basic training is complete. Take time to congratulate the learner and praise her for her efforts, try to specifically praise parts of the procedure that she does particularly well. Let her know that you are available to answer questions, and that you will continue to coach her as she improves her skills. The learner should complete basic training with a solid understanding of the procedure, confidence in her ability to perform, and good feelings about her job and the support of management.

### **A few notes about Negative Reinforcement**

Negative reinforcement *does not* involve yelling at the learner; that would be a form of punishment. An effective trainer uses negative reinforcement to help the learner understand the consequences of incorrect behavior. These consequences might include having to repeat work, poor quality work, not getting a job, or ultimately losing the job. In the dairy setting, the trainer might point out how inadequately cleaning teats will lead to poor milk quality, mastitis problems for the cow, and decreased profitability. Then the trainer might indicate how improper cleaning hurts the business and lets down the dairy's team of workers.

The following example should help to illustrate the difference between *punishment* (a negative act that is likely to lead to hard feelings) and *negative reinforcement* (the clarification of negative consequences resulting from incorrect behavior.) Joe is a new employee at the farm. Sarah, the parlor supervisor, trained him in the milking procedure two weeks ago. After his training, Joe milked ten times with other qualified milkers.

Today he is milking alone for the second time when Sarah comes in to provide some coaching. Sarah observes that Joe is trying to work too quickly and as a result he is not getting the cows clean. Sarah is having a frustrating day.

### *Punishment*

Angrily Sarah vents her frustration at Joe. “Joe, is that how I taught you to prep cows? You’re trying to rush through the cows to get done and you’re not getting them clean enough. Go home, I’ll finish this shift. Come back tomorrow morning and milk again with Carl.” Joe leaves with his feelings hurt and filled with resentment for Sarah.

### *Negative Reinforcement*

Sarah contains her frustration and pauses for a moment while she thinks of the best way to help Joe. “Joe, you’re starting to get the hang of it aren’t you? I want you to pay close attention to getting the cows’ teats very clean, because if you don’t, bacteria can enter the teats and cause a mastitis infection. (Sarah demonstrates proper cleaning technique.) I know you want to milk as fast as the other milkers, but give it some time. As you get more experience, you’ll find that you will milk well *and* fast. Right now, I think you’re catching on quickly and will soon be one of the best. Keep up the good work.” Sarah leaves and Joe keeps milking. He starts cleaning the cows better and stops worrying about milking as fast as the others. He has confidence in himself and a good attitude about his job and his manager.

Trainers should understand that most people have a natural desire to please their employer and be successful in their job. It is the manager’s responsibility to put employees in a position to succeed. An employee in a position to succeed will know how and why procedures must be correctly performed. His manager will also provide feedback to let him know that his good efforts are recognized and appreciated.

## ***Adapting Training for Learners***

### **Learning Styles**

Experienced trainers recognize that people learn in different ways. Effective trainers will alter their techniques in order to accommodate the learning needs of different people. Less effective trainers will sometimes become very frustrated with the learners apparent inability to understand. One of the underlying reasons for this problem is that people have different learning styles.

Individuals develop preferences for learning information in specific ways. It is not clear exactly how these preferences develop, but they are related to personality, values, family background, experience, and many other influences (Nilson, 1990). Individuals are not likely to have one preferred learning style that they use for all types of information. Most people will use some combination of different learning styles. It is usually not practical for trainers to match material exactly with the preferred learning style of every learner.

It is important to note that trainers also have a preferred learning style. Trainers are likely to teach material using the learning style that they prefer. The trainer's learning style may not match that of the learner, thus causing difficulty for the learner (Gray, 1998).

Researchers use many different theories to categorize the different learning style preferences. Some theories deal with the functions of the brain, others with the affect that personality type has on learning (Davis, 1998). Perhaps the most useful format for the purposes of practical trainers defines learners as Watchers, Readers, Doers, or Sensors (Gray, 1998).

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|-----------------|---|
| <i>Watchers</i> | Prefer to be shown and learn best when the content or task is demonstration.  |
| <i>Readers</i>  | Prefer to read written instructions and learn best when left alone with appropriate materials to figure it out for themselves.                      |
| <i>Doers</i>    | Prefer to learn by a form of hands-on trial and error and learn best by employing this hands-on approach.   |
| <i>Sensors</i>  | Prefer to learn by intuitively sensing what is occurring and learn best when given the opportunity to construct their own meaning for a given task. |

There is a strong possibility that you will recognize your own preferred style in the list above. If so, this is the first step toward understanding and using learning styles. Be aware of your own style, and your tendency to use it when training others. Then, recognize that other people may have a different preference for learning. Sensitivity to this issue will make you a better trainer.

The Behavioral Learning Strategy, as described earlier in this paper, targets a combination of learning style preferences. Using the training loop as illustrated in Diagram 1 provides at least partial instruction in the preferred learning styles of Watchers and Doers. If you provide a written standard operating procedure, then you greatly benefit Readers.

## **Cognitive Style**

Another important mental concept that trainers should be aware of is that of cognitive style. This trait has to do with how people organize information that they learn. Serialist learners tend to learn things in an organized, step-by-step fashion. They need to see how each part of a process builds on another in a logical fashion. In contrast, Holist thinkers need to see the big picture. The individual pieces hold no meaning for a Holist without seeing the idea as a whole (Gray, 1998).

In order to accommodate both cognitive styles, it is a good practice for trainers to begin by sharing the big picture with the learner (Nilson, 1990). Describe how the process to be learned fits into the overall operation of the business. This will give the Holist learner

an opportunity to see how everything fits together before getting to the detailed business of mastering the individual tasks. Serialist learners will not be disadvantaged by your description of the big picture, but it will probably not have much meaning to them until you teach them the detailed tasks in proper order.

## ***Conclusions***

Successful dairy managers will recognize the importance of highly motivated and skilled workers to their business. It is becoming very clear that human resources are critical, but managing those resources continues to be a challenge. In her excellent book on training, Nilson (1990) makes this point:

No matter what your point of view is on how to motivate people, you probably believe that motivated people contribute the most to an organization. Chances are that the most productive organizations are well-tuned in terms of the way in which employees fit their jobs. Motivated employees work for a purpose, know what the results will be, believe that their contribution are valued, and appear to have in mind the big picture of how their work helps carry out the mission of the company.

A high producing herd of cows doesn't just happen for no particular reason. It is the result of hard work and good management. In the same way, a motivated workforce doesn't just happen. A motivated workforce isn't the result of luck in hiring. Those farms that have a team of dedicated and satisfied workers are the result of hard work and good management.

Training is one of the primary techniques used by managers to put people into a position for success. Motivation comes from within an individual, but managers create the conditions for motivation as Nilson describes above. Satisfied workers, consistent, high-quality production, and increased profits are the rewards for dairy managers who adopt rational training practices and value their employees.

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**Table 1: Training Strategies (Davis, 1998)**

Strategy	Description	Application to Dairy
<b>Behavioral</b>	The behavioral strategy is most effective when physical work is learned. The trainer must break the work down into smaller steps that can be easily learned. The trainer teaches the small steps and lets the learner practice them. The trainer must provide positive reinforcement for steps done correctly and re-train the steps done incorrectly.	<ul style="list-style-type: none"> <li>• Milking procedures</li> <li>• Preparing/cleaning equipment</li> <li>• Handling/moving cows</li> <li>• Repairing equipment</li> </ul>
<b>Cognitive</b>	Used to convey concepts or information that needs to be processed and remembered. Effective for explaining how things work or came to be. Typically done with explanations, visual aids, reading, etc.	<ul style="list-style-type: none"> <li>• Explaining how mastitis is transmitted</li> <li>• Describing milk let-down</li> </ul>
<b>Mental Models</b>	Developing and refining problem-solving and decision-making skills. Practice using models of potential problem situations and finding good ways to resolve them. Using model situations where decisions must be made and organizing information to make good decisions with the best use of resources.	<ul style="list-style-type: none"> <li>• Training milkers how to deal with problems such as mastitis cases</li> <li>• Training milking managers how to interpret and use DHIA data</li> <li>• Training workers to think critically about procedures and develop ideas for improvements</li> </ul>
<b>Group Dynamics</b>	Used to build understanding and cooperation between people. Effective for developing teams. Helps people to realize the benefits of teamwork.	<ul style="list-style-type: none"> <li>• Building team approach to long-term challenges such as improving milk quality</li> <li>• Avoiding or resolving conflict among personnel</li> </ul>

**Table 2: Four Forms of Feedback (Davis, 1998)**

Feedback	Definition	Effective Use
<b>Positive Reinforcement</b>	Providing feedback that acts as a reward for correct behavior that the trainer wants to encourage.	Should be most frequent feedback. Trainers should teach themselves to notice good behaviors. Best way to establish good behaviors. Not rewarding is known as extinction (See below).
<b>Negative Reinforcement</b>	Providing feedback that acts as a warning of negative consequences that can result from incorrect behavior	Used much less than positive reinforcement. Not an actual negative consequence, but emphasis on avoidance. Negative consequences can be for the learner, animals, business, co-workers, etc.
<b>Extinction or Ignoring</b>	Providing no feedback at all in response to a behavior.	Sometimes behaviors can simply be ignored. If a behavior is unnecessary but not harmful, the trainer may ignore it and the learner will probably stop the behavior. On the other hand, trainers should be aware that ignoring good behaviors may have the same effect.
<b>Punishment</b>	Punishment involves doing something unpleasant in response to a behavior.	Effective trainers use punishment extremely rarely, usually when safety is being compromised. Punishment is effective for stopping a behavior, but not effective for establishing a behavior. Punishing a learner can lead to resentment toward the trainer, the organization, or the job.

**Diagram 1: Active training portion of the Behavioral Strategy**

