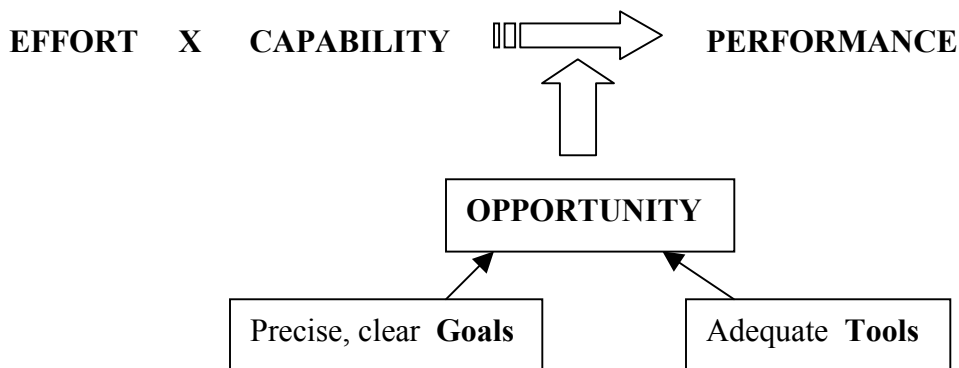


USEFUL IDEAS AND PRINCIPLES FOR THE IMPLEMENTATION OF REINFORCEMENT PROGRAMS TO KEEP MILKERS MOTIVATED

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One of the most common observations that we hear from herd managers or milking parlor supervisors is, “It would be great if milkers followed the procedures correctly the entire milking, every shift, even when they are not being observed or supervised. They are doing everything right, now, because they know we are watching them. I want them to always be motivated enough that supervision could be minimized. How can I help them to continually strive for excellence in their work?”

The efficiency of a milker determines his productivity to the dairy. Performance results from the combination of two factors: Effort and Capability



These two factors need an environment that fosters the desire for excellence. They need to play in a context of “Opportunity” in which precise, clear; defined goals and adequate tools are a provided. Goals play an important role because the behavior of many people, depending on their personality, is driven by a “**Need of Achievement**” (according to McClelland’s Learned Needs Theory). The other two needs that drive human behavior, suggested by McClelland, are: the “Need for Affiliation” and the “Need for Power”; everyone possesses all three needs, though in varying degrees. In people for whom the need for achievement is dominant, it is reflected in being goal oriented, engaging in competitive behavior, seeking challenge, taking risks and taking personal responsibility to resolve problems. In most people, “achievement” by itself is a strong motivator. It represents a sufficient reward by itself, so other incentives are not always necessary.

Let’s take some time to consider the working environment of milkers. Dairies, as businesses concerned with improving productivity, have engaged in a process of job simplification and specialization. This unfortunately has led to higher levels of boredom and dissatisfaction as milkers perform repetitive tasks. We need to accept that milking cows for several hours in a

modern parlor, can easily become a very routine and boring task. Then, add to that rigid and demanding milking schedules, risk of being hurt (kicked) and the fact that milkers get dirty and smelly.

One can easily conclude that milking cows is a job devoid of one of the three *critical psychological states* that are instrumental in improving motivation: “**Experienced meaningfulness of the work.**” With my modest and limited experience in training milkers in the past 8 years, I believe that this is one of the most important obstacles to overcome to be able to motivate milkers appropriately.

Most individuals use, although unconsciously, the “**Equity Theory**” developed by social psychologist J. Stacey Adams. According to this theory, the milker will compare the *ratio* of his *inputs* and *outputs* to the ratio of someone else’s inputs and outputs. The inputs, or what he brings to the dairy, will be hard labor, fatigue, pain and boredom. The outputs will be all those things he considers or perceives as his reward or what he gets from the dairy in exchange for his inputs (wages for example). Because of the conditions of the milkers’ job mentioned above, milkers will tend to perceive their “input/output ratio” much higher than the ratio for other people on the dairy or in the external environment. This will demoralize them, reducing motivation because they find it inequitable. Therefore, it’s quite important to improve or increase all those things they perceive as outputs (money is only one part of it) and in this way reduce the perceived ratio.

Hackman and Oldham have developed a “Job Characteristics Model” in which they provide insight into the way that jobs might be designed or redesigned. The model provides a conceptual framework that could help dairy producers in designing more motivating work. They identify in the model three critical psychological states an employee should undergo and are important to keep people motivated at work:

- Experienced meaningfulness of the work
- Experienced responsibility of the outcomes of the work
- Knowledge of the results of the work

They have also identified five core “job dimensions” that would influence these psychological states:

1. **Skill variety** refers to the number of different tasks that are performed by the milker on the job. Greater skill variety enables the milkers to use a broader range of talents which makes the job more interesting. As milkers attend training courses or milker schools and learn more about the factors that determine milk quality and udder health and how their work is directly or indirectly related to those factors, hopefully, they start to find the job more interesting because they realize that milk quality and udder health are complicated challenges requiring skillful and clever people. If milkers are also in charge of cleaning the milking equipment, they will have a greater skill variety than if they only milk cows, for example. This first job dimension is important when we are doing the “Milker Job

Description”, a document that identifies the job title and lists the responsibilities and essential functions of the milker.

2. **Task identity** is the portion of the total job that the person performs. The total job in this case is producing high quality milk. Milkers are involved in the harvesting process of that milk and they must identify well what portion of the total job they are performing and the importance of their work to achieve the final goal.
3. **Task significance** means the importance of the task and the degree to which the job impacts other jobs on the dairy and also the main goals and objectives of the dairy. The two highest level needs of people are the need for **esteem** and the need for **self-actualization**. Esteem can be both internal (the need for self-respect) and external (the need for recognition from others). The self-actualization need means, that people feel they are reaching their full potential and are able to develop themselves. It's important that milkers know and believe they are working to achieve valuable goals. They need to realize their work will transcend the cows' udders to be valued by the rest of society. This helps to satisfy the need for esteem and self-actualization that every person has.
4. **Autonomy** is the amount of control that the milker has over the way in which the work will be performed. This is one of the most difficult things to implement because it involves the “**empowerment**” of milkers in such a way that eventually they could decide how they are going to milk cows. The empowerment of milkers is possible only after they acquire enough knowledge and adequate skills to make appropriate decisions. In most instances milkers **are told how** they are going to milk; a cow prepping procedure, for example, is just “imposed” on them without their participation in the development of the procedure. It is important to let them participate and make suggestions when these decisions are made so they feel they have “**ownership**” in the adopted procedure. Otherwise the level of commitment is low.
5. **Feedback** is the degree to which milkers know how they are performing in the whole milking process. It is important to explain to them how the outcome of their work will be measured and how often the evaluation will take place. In addition, provide periodic and reliable information about the different parameters. In case a farmer decides to use some incentives, they should always be linked or related to levels of performance that are above the standard level expected according to the job description document. The feedback issue is important to satisfy the “Need for Achievement” already mentioned.

Other specialists mention particular features that are common to organizations where employees are highly motivated:

- ✓ Employees work with a well-defined purpose.
- ✓ They know precisely what the outcome or results of their efforts will be.
- ✓ They have a strong belief that their contribution is appreciated.
- ✓ They have a clear idea in their minds about how their work is contributing to attain the mission of the organization where they work.

This last feature implies that the leader of the organization has been able to envision an attractive, realistic and believable future for the dairy. This is a written statement that explains

the reasons why the dairy exists and reflects the values and beliefs that are important for the leader (**mission**). This mission needs to be effectively communicated to all employees, so everybody has a clear picture of the mission and is committed to striving for it.

MOTIVATION COMES FROM INSIDE AN INDIVIDUAL, BUT MANAGERS AND SUPERVISORS CREATE AND SHAPE THE PROPER ENVIRONMENT IN WHICH MOTIVATION CAN FLOURISH.

In order to achieve excellent performance from milkers, it's important to provide them three different kinds of tools:

- I. **Cognitive tools** (knowledge, including both awareness and judgment): We must invest time teaching them all details and facts related with the whole milking process and the main goals of milking: 1) *Good milkability*, 2) *Harvesting high quality milk* and 3) *Preserve udder health*, by reducing the incidence of new intra-mammary infections during the process and after it when possible. This involves qualification of the personnel through formal milker schools in or outside the dairy or simply by teaching them in an informal way all the necessary principles during the job hours. In short, milkers **MUST KNOW** all they are required to know to milk cows appropriately.
- II. **Psychomotor tools** (skills and abilities, acquired proficiency, aptitude, competence in doing the required procedures). Training and experience acquired through repetition of the right procedures will provide the skills necessary. Coaching is very important during training, giving mainly positive reinforcement when the trainee shows the right behaviors. In short, milkers **MUST BE CAPABLE** to physically perform the procedures and training plays an important role in that.
- III. **Affective tools** (Positive Attitude towards the job and Motivation are the main affective tools). Without these affective tools it is really difficult to attain levels of excellence, even if milkers have the other two types of tools. Milkers **MUST HAVE THE WILL** to do the job to perfection.

It is difficult to separate motivation from the other two types of tools. For example, the “**Expectancy Theory**” developed by Victor Vroom suggests three primary components of motivation:

- 1) The value that an individual places on the **reward to be earned** is called **Valence** (something equal to the Outputs in the “Equity Theory”). Hence, organizations must **create rewards that employees will value**; otherwise, the rewards offered won't be effective. Rewards are not necessarily only financial or monetary rewards. There are other sorts of rewards that help to satisfy the higher level needs of people (affiliation, esteem and self-actualization needs) and money is not required in large amounts or needed at all. Although money contributes mainly to satisfy the lower level needs of people (physiological needs and safety needs), compensation and benefits are of course necessary and are provided in exchange for the employees contributions (inputs). **The dairy must provide a fair exchange for the knowledge, skills, abilities and effort its milkers provide.** Offering fair and equitable compensation makes milkers feel valued.

(Employees are quite clever to discover if the organization is “putting its money where its mouth is”, in other words, if it is really openly rewarding those things that it proclaims to value.

- 2) The degree to which the individual believes that he has the necessary skills, abilities and knowledge to work in that level (milker post) and accepts such a responsibility, is called **Expectancy**. Many times motivation problems have their origin in a quite poor expectancy. That’s why, in these cases, more money (higher compensation) won’t solve the problem and if fact, could worsen it. Only qualification through teaching, demonstrating, training and coaching the milkers will solve the problem. This type of problem is common when Hispanic labor is hired. The expectancy could be low because they have the language barrier to understand and learn quickly. *Dairies must ensure that their work force possesses the skills needed to succeed.* Nobody likes to be a loser, or works happily and motivated when he does not feel capable to succeed.
- 3) The belief that an employee holds that his hard work will lead to a reward is called **Instrumentality**. Dairy managers must *create and maintain a climate of trust* and try to provide the compensation, benefits and any other kinds of incentives that they have offered to milkers. One must be careful in the design of incentives because it could be possible that the results or outcome that should lead to a special reward are not really related to the performance of milkers or under their control. For example, if a manager decides to offer a monetary incentive to milkers if they contribute to lowering the Somatic Cell Count to a level under 250,000, he must be sure that all other things necessary to lower the somatic cell count are in place; otherwise, in the long run milkers will convince themselves that they will never obtain the incentive even when the manager is willing to give it to them. The same situation could happen when somebody offers an incentive to milkers if the number of clinical cases of mastitis falls to a certain amount per month. If that dairy has serious problems with environmental mastitis because cows are always dirty due to bedding problems in the housing areas, milkers will lose the confidence in the dairy management because they can guess that the incentive is unreachable because the results required are not completely under their control. An alternate idea could be to offer the incentive but instead relate it to the cleanliness of the milk filters, which the milkers have direct control over.

In short, according to this Expectancy Theory, motivation can be lost if the reward offered is not valued by milkers; if their self-confidence regarding their capabilities is poor, or if they don’t have a strong belief that their hard work will lead to the reward.

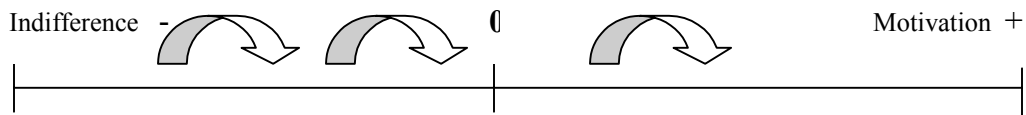
Another approach to Motivation and Human Influence is the one proposed by Charles Dwyer and consists of a five-part model of “**Human information processing**”:

1. Capability:

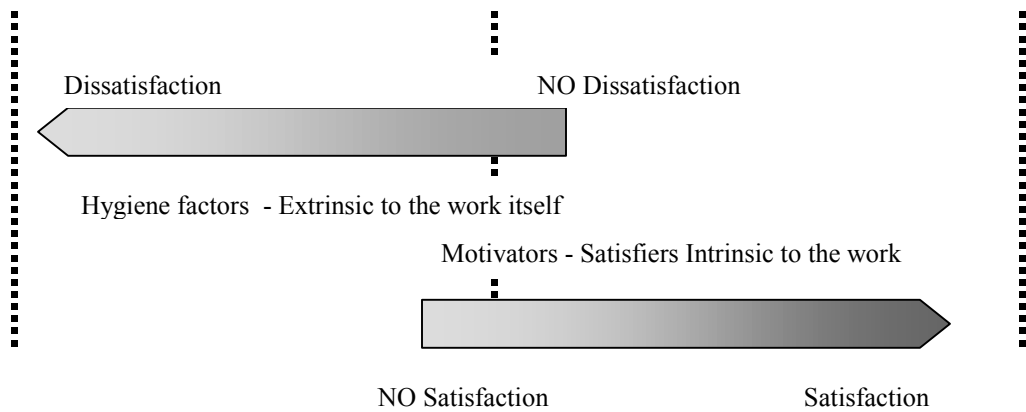
- Competence (Knowledge and Skill)
 - a. Does the person know in adequate detail what behavior or behavioral outcome is sought? (Important question when a language barrier exists between the herdsman and the milkers).

- b. Does the person have the competence to engage in the behavior? (Need training?)
 - Confidence in his competence to engage in the behavior is one's perception of one's own competence.
2. Perception of Value: The Valence already mentioned in the Expectancy Theory.
 - People want to feel good about themselves, to feel secure, to receive recognition, respect and status; to have security, autonomy, and fun; to achieve, to be referred to, to have power, to be admired, etc. *Give them these satisfactions in return for the behavior we want from them.*
3. Perception of Probability of Value: The Instrumentality already mentioned in the Expectancy Theory.
 - We need to deliver on what we promise and we must subtly let people know that we will deliver.
 - Trust is enormously powerful and equally fragile. Trust is like Humpty Dumpty; once broken it is very difficult to put back together.
4. Perception of Cost: These are the Inputs already mentioned in the Equity Theory.
 - Sometimes a milker may have inaccurate perceptions that promote the idea of a huge cost in terms of time, effort and energy involved in doing the work the way we prefer. Such perceptions are what keep people from doing what we want. Therefore, *altering perceived costs is another technique for achieving greater influence.*
5. Perception of Risk: Risk in this case equals greater costs than originally thought and a vague uncertainty that something might "go wrong".
 - There may be several "potential risks" and the milker will assign varying subjective probabilities to each of them: rejection, failure (increase in mastitis incidence), "looking bad", disapproval, embarrassment, and loss of self-esteem.

The dairy manager must influence the relative importance of the five conditions as perceived by the milker. Each **increase** in perceived value and probability of value will move the milker from indifference (negative area) to the area of motivation, as does each **decrease** in perception of cost and risk.



A milker can be visualized as being on the left or negative side of the continuum. It may require several “moves” (shape of perceptions) before the milker perceives “adequate reason” to engage in the behavior, i.e., before he moves over to the positive side.



On the other hand we have the Frederick Herzberg’s **Motivator – Hygiene Theory** in which satisfaction and dissatisfaction are not really opposite ends of one continuum. Rather, he proposed that the opposite of Satisfaction is No-satisfaction and the opposite of Dissatisfaction is No-dissatisfaction. To move a milker from Dissatisfaction to No-Dissatisfaction we will use factors that are **extrinsic to the work** itself and are called **Hygiene Factors**. These factors include working conditions and belong to the work environment. In fact, they are “dissatisfiers” when these working conditions are not adequate. These factors will not be successful to move milkers to the positive side , i.e., to really motivate them. They are only useful to move them to No-dissatisfaction. The hygiene factors must be met before a milker can be motivated.

Motivators are “satisfiers” and are factors **intrinsic to the work**: Increased job autonomy, challenge, increased responsibility, recognition for a job well done, etc.

| HYGIENE FACTORS | MOTIVATORS | |
|------------------------------|--------------------------------------|--------------------------------------|
| EXTRINSIC | INTRINSIC | TRANSCENDENT |
| Fair, equitable compensation | Recognition | Contribute to valuable goals |
| Work Environment | Achievements | Strive for a worthwhile mission |
| Working Conditions | Responsibility | Feel leaving a legacy |
| Work Relationships | Challenge | Give meaningfulness to work and life |
| | Work itself | |
| | Possibility for personal development | |

The general idea in motivation is to create a favorable environment in which we can reach a win – win situation or agreement with the milkers. The environment created by the dairy management will place in the milkers’ minds the right perceptions so they can really feel it is a win situation for them (and verify or confirm it). These win – win agreements **generate a greater coincidence** between all those things that are important for the dairy as organization (goals and mission) and those things that are important for the individual milker (his values). These win – win agreements are a sort of psychological contract between the leadership of the organization and the workers, and if they are going to succeed, then a context of mutual trust is a need. Another important requisite is to achieve comprehension and commitment in the next important areas:

1. The behavioral outcome that is sought:
 - Goals and objectives of the milking process desired
 - When must these objectives be achieved (Time table)



Goals not only need to be understood by milkers, they need to be accepted by them. Their participation is vitally important because they must take “ownership” of those goals and objectives. Goals must be specific, able to be evaluated and they must have a direct relationship with the work of the milkers (outcomes must be under their control). Goals should represent a reasonable challenge and we must provide feedback about the results. Feedback is the “Score Board” for the playing team.

2. Principles and Policies that will be used as a guide and are considered essential for success
3. The Resources that will be available for the milkers (technical, financial, management).
4. Appraisals of performance:
 - Standards that will be used for the appraisal of performance
 - Appraisal frequency for each of the objectives
 - Method to evaluate progress
5. Consequences that will derive from the outcomes: Positive (reinforcements, incentives) and Negative

Stephen Covey's Chart regarding human needs and motivation

| NEED | METAPHOR | PARADIGM | PRINCIPLE INVOLVED |
|---------------------|--------------------------|-------------------------------|--------------------------------------|
| Physical / Economic | Stomach | Scientific Authoritarian | Fairness |
| Social / Emotional | Heart | Human Relations | Kindness |
| Psychological | Mind | Human Resource | Use and Development of Talent |
| Spiritual | Spirit (Whole person) | Principle-Centered Leadership | Meaning |

MANAGEMENT STYLES: Control -vs.- Commitment

| | TRADITIONAL Control-Oriented | DEMING REVOLUTION Commitment-Oriented |
|----------------------------------|--|--|
| Employee roles | Take orders Do your job | Ask questions Critical part of a system |
| Mechanism for Achievement | Do the job "right" | Exceed Expectation |
| Emphasis | Means / Tasks | Ends / Accomplishments |
| Development of People | Managers responsible for improvement Little need for training | Everyone responsible for changes Training essential for continued success |
| Biggest fear | Upsetting the boss | Not meeting performance expectations |
| Structure of organization | Bureaucratic Inherently adversarial | Flat Inherently team collegial |
| Employees' response | Unmotivated | Motivating |
| Productivity | Average at best | Outstanding when successful |