



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**U.S Department of Agriculture**  
**Agricultural Outlook Forum 2003**  
**February 20 & 21, 2003**

**OUTLOOK FOR MILK AND DAIRY PRODUCTS**  
**A PRODUCER'S OUTLOOK ON COMPETING IN A CHANGING**  
**DAIRY SECTOR**

Donald Bennink  
North Florida Holsteins, Bell, Florida

## COMPETING IN A CHANGING DAIRY SECTOR

DONALD BENNINK  
North Florida Holsteins  
Bell, Florida USA

Dairy farming in the United States has become very competitive. There are few protections to anyone's market. Quotas are almost nonexistent. What was a way of life has become a business. Volatility in prices has become the rule. Financial Management skills are a must for survival.

The survivors tend to be either large producers who capitalize on the efficiencies of volume or the low cost, low overhead producer that spends very little to make up for his lower volume. The latter group, tend to rely heavily on grazing. They seem to be the most successful where climate suits the growing of grass for all or a major part of the year.

A simplistic but reasonably realistic difference between the well managed grazing dairy and the well managed intensive dairy is on the same amount of land there would be four times as many cows on the intensive dairy. Typically the grazing dairy might make twice the margin per unit marketed, but the intensive dairy would market six times as much. If the margin were 5 cents per pound for the grazing dairy and two and one-half cents per pound for the intensive dairy their relative profits on the total operation would be a one to three ratio, [5 cents x one vs. two and one-half cents x six]. Thus, if this were true when the grazing dairy cleared \$50,000.00, the intensive dairy would clear \$150,000.00. The intensive dairy would have a lot more invested, require more financial and personnel management skills plus be more vulnerable during long periods of extremely low milk prices.

Generally, larger herds have higher average production. This coincides with the adoption of more modern technology such as Total Mixed Rations, the use of consultants and the specialization of a more highly trained workforce. Volume purchasing reduces the average cost per unit and volume sales increases the average price received per unit sold.

Milk production in the United States is shifting westward at a rapid pace. The drier climate, low population density, availability of high quality alfalfa and labor favor large herd development. Florida has held a relatively stable level of production, mostly because of the higher prices from a high utilization fluid market that its geography

protects. This is in spite of an adversely hot, humid climate and lack of quality locally grown forage.

Major changes in herd size create special issues such as the following:

1. People management becomes key. Weakness in this area is the first or second greatest reason for failure.
2. Improving the environment for cows is frequently very costly and often very necessary for some climates. This high overhead often needs a large herd if cost per cow is to be economical.
3. Feeding large herds has added a whole new dimension to dairy farming. Total mixed rations being fed to groups rather than individual cow feeding and intensive use of nutritional consultants have become the norm. The trend has been toward purchasing more commodities and fewer mixed feeds except for the special additives in a pre-mix.
4. Management has gone the way of specialization rather than one person doing it all. Specialists in milking, feeding, breeding, herd health and financial planning and accounting are the rule more than exception for dairy farms with large herds.

The major factor affecting success that is dramatically different between the small and the large dairyman is the ability to motivate and educate the dairy's workforce. There is a great difference between doing it your self and getting someone else to do it.

Judging an individual's desires, talents, general motivation, trustworthiness, and leadership qualities are important in where and how he is used. Treating all employees with respect, giving decent working conditions and fair pay is only a part of having a stable and productive work force. The best managers are able to place people in the positions where they perform their best. Good performance is not just what the individual does but how his actions affect the performance of other individuals. Providing incentives for an individual to improve themselves and thus the whole operation is key. Figuring out whether this is recognition, education, monetary or the chance to advance up the management chain is important.

A feature that I would expect to be common among all successful areas of management styles and cultures is that of having some individual in charge of and thus

responsible for each of the various divisions that an individual dairy farm may have. The number of divisions would tend to increase as the size of the farm and number of enterprises it has increases. The main reason for specific individuals being in charge of specific departments is that when something goes wrong or something is particularly good, you know who is responsible.

It's our belief that no one person should have more than five people answering to him or her. For instance, the five that currently answer to me are the person in charge of bookkeeping and the office, the person in charge of the feed department, the person in charge of the shop and crops, the person in charge of construction and overall farm maintenance, and the person in charge of the dairy herd. Each of them has similar structures under them. Generally, one person can't adequately give the needed attention to more than five people. I emphasize that each of our supervisors, are working supervisors.

Free trade will make dairy farming a business worldwide. Protected markets have allowed it to be " a way of life " in many countries. The protections through quotas, base plans and various structures did keep the farm in the family. The disadvantages are that it also keeps outsiders and their new ideas out. Often the quota would cost more than the farm.

Dairy farming appeals to those of us who enjoy blending the biological with the mechanical. The challenge of maneuvering nature to make a profit commits the gullible when much easier alternatives usually exist. Opportunities for innovation are always there. The secret is to not " bet the farm ", but to try the new ideas on just a small piece of the business to see if it really works.

Successful dairy farms are those that do a lot of things well. Good record keeping is important. Being able to accurately track all the various details is the path to improvement. The balance needs to be between keeping the maximum quantity of records that one can effectively utilize. Unutilized records are a waste of time and money. Operating without information as to the effect of ones decisions or management practices creates missed opportunities.

A return that does not exceed the cost of borrowed funds leaves little opportunity for leverage. Year in and year out, our return should be equal to other uses of the funds. Generally, risk should yield higher returns. Balancing ones desire for security, with ones choice for income is all part of running a business. The choice of which way to lean is often reason for conflict between the various generations on the

farm. Harmony is created when the older and younger principles find a level of risk that satisfies the needs of all.

Large dairy farms and free markets tend to make succession more similar to medium sized, closely held corporations. Succession from generation to generation becomes less common, as the level of talent and effort required increases. Passing to a family member without the ambition, desire or talent is a path to disaster.

For cattle to perform at their best, they must be happy and healthy. Our goal is to provide a clean, cool, comfortable environment that includes an easily accessible place to lay down with a ready supply of a palatable, fresh balanced ration and good, clean reasonably cool water. Plenty of room to move around with a surface that prevents slippage and encourages healthy feet and legs is critical.

Heat with humidity is a huge challenge for us. Cooling cows for seven months of the year beyond the normal providing of shade is necessary for profitable production. The major methods used are fans, with direct cooling from water or some form of evaporative cooling.

An area of major importance is where cows are waiting to be milked in the holding area. The most effective cooling at this point is a combination of soaking cows with large droplet sprinklers and blowing them with high volume, high velocity fans. A sprinkler with a mist that just coats the hair may actually hold heat in plus increase the humidity.

Some success with cooling over free stalls and bedded packs has been had with an evaporative cooling system that sprays a fine mist in front of a fan. The intent is to use the maximum volume of water that will evaporate yet not get the bedding wet. A major problem with these systems is their high maintenance.

Spraying over the feed bunk has been done with considerable success. The trick is to soak the cow without soaking the feed. Typically the sprinkler is on for one minute and off for four minutes.

Determining how much one can justify spending on cow comfort is a challenge. This can vary a great deal with climate, cow value and milk price. Anything that reduces

cow turnover through reduced injuries, increased fertility, lower veterinary costs and higher production deserves investigation.

The major roughages grown for dairy cows in Florida would be corn silage, ryegrass silage and various Bermuda and other tropical grasses. Substantial alfalfa is imported from western states. The lower quality fiber from the local grasses may be included in the milk cow rations when large quantities of concentrate type grains and byproducts are in the ration. This is because high quality fiber is frequently our most expensive nutrient. In order to make maximum use of the lower cost concentrates the higher fiber but lower quality roughage may be needed to insure enough fiber is in the ration.

Concentrates readily available to us are citrus pulp, hominy (a corn byproduct similar to cornmeal) wet brewers grain, soybean meal, and whole cottonseed. Most dairymen feeding a total mixed ration would include yeast and a buffer in their vitamin-mineral premix.

A potential genetic advantage that large herds have is that no one feeding them and no one milking them knows one from another. This removes a considerable amount of human bias. Taking the human factor out and selecting by survival of the fittest can result in major improvement of the species. In the past, too much of our livestock selection has been done by someone from behind a desk. In some cases, this has resulted in various breeds becoming economically impractical.

The only manipulation we have is in sire selection and the choice of individual cows we choose to flush. If we let ourselves pick from the top of the fittest, considerable opportunity exists for improvement.

Every dairyman making milk for a living should breed toward the type of cow that is most profitable for him and his conditions. For us, the major factor that affects profitability is the number of loads of milk we send out the driveway everyday. We milk 3000 to 3100 cows 3 times per day in a double 40 parallel parlor. Each eight-hour shift milks for 7½ hours and cleans up for ½ hour. That means we have to milk over 400 cows per hour and average less than 12 minutes per cycle (turn each side of the parlor over more than 5 times per hour). In a double 40 parlor with 75+ cycles of cows (3000 divided by 40), if we lose 1 minute a group or 75 minutes, 500 cows don't get milked or we are able to milk 500 less cows. Therefore, a poor walking and/or low uddered cow with wide teat placement loses us money due to lost production time, no matter how much milk she gives.

The high costs of maintaining animals that are non-performing or trouble prone make identification an economic necessity. Every animal has a plastic flap tag, plus metal tags. All are in the computer system.

In the United States, essentially all large herds have tags in the cow's ears to identify one from another. The problem with many herds is that no information is available as to the genetic background of the individual cows. This loses many opportunities for them and the industry as follows:

1. No bull proving is possible.
2. Losses from inbreeding can be high.
3. Knowing which bulls have performed in the herd and which have failed is not possible.
4. Herd improvement that results from being able to identify superior cow families is not possible.

A big plus to having identities is that it is easier to obtain and retain people with superior cow skills. These individuals are interested in and take pride in superior genetics. They like to discuss the subject and enjoy the visits from people in the field who come to see the herd and review its genetic makeup. A herd without identity significantly lowers their personal satisfaction from their employment.

Our milking cows carry a transponder on their front leg, which identifies them while they are in the parlor. The transponder contains a pedometer to aid in heat detection. We have milk weights on each cow at each milking, plus an electrolysis reading on the milk that is a big part of our mastitis detection program.

The system allows us to analyze each individual cow, each group of cows and the herd daily. We know how much dry matter each group gets, allowing us to vary the ration between groups, to compare which is the best.

The daily weights help us catch sick cows and weigh heavily on culling decisions. The system is a huge help in crisis management because problems tend to be caught earlier and are dealt with sooner.

Another function in the ID, computer and meter system is the ability to time how long it takes for each cow to milk out. This allows us to put the slower cows in the same herd.



Milking large numbers of high producing cows requires systems that are reliable, healthy for the cow and people friendly.

Our goal is to send five tanker loads of milk daily. A tanker load is about 53,000 pounds. This means the 3000 milking cows need to average 85 pounds per day. We are able to meet or exceed this goal in the winter but fall below the goal in the summer.

Internationally, successful large dairy farms have people in control that emphasize cow care. Concerned people have to be out and among the cattle and paying heed to their well being. Typically these people are innovative and adaptable. Factors such as climate, feedstuffs available, value of product and government regulations may vary...but conscientious people and quality well cared for dairy cows are always a major part of the picture.