

INPUT DATA FOR DAIRY MANAGEMENT DECISIONS

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Dairying is big business in Florida. Our state had the highest production per cow of any state in the southeast during 1971 (9,201 pounds). Milk produced in Florida during January, February and March of 1972 was valued at over 38 million dollars.

Florida's dairy situation is unique in several ways. With 420 cows per herd, Florida's average dairy herd size is among the largest in the nation. Herds characteristically are highly automated with group feeding and handling commonly practiced. Managers seek maximum utilization of labor and machinery. We often hear of operations where cow-man ratios exceed 50-60 cows per man per hour in the milking parlor. Feed supplies are characterized by shortage of high quality forage and widespread use of by-product feeds. Concentrates provide over 70% of the total energy intake of Florida's dairy herd.

Artificial insemination is widely practiced, with 75% of the state's cows inseminated through A.I. in 1970. More herd replacements are purchased than are raised on the farm. Over 65% of the dairy replacements entering a Florida milking barn for the first time during 1970 were purchased from outside the state.

The dairy situation in Florida may be unique but dairymen here share many of the same concerns as do dairymen everywhere. They have breeding problems, mastitis and leucocytes. They constantly strive to keep milk free of pesticides and antibiotics. Feed supply and demand for milk are recurring concerns. Of paramount importance is maximization of returns for effort and investment -- making a profit.

Of course profit refers to the desired balance of monetary input and output. The main factors that determine profit in a milking herd operation are:

- Milk Production Per Cow
- Price of Milk
- Production Costs
 - feed
 - labor
 - cow replacements
- Miscellaneous Income
 - calf sales, etc.

Increase the average production of your cows and your profit is likely to go up.

An area where effective management can pay high dividends is in the pursuit of high reproductive efficiency. Generally the objective is to have cows conceive as soon as feasible after calving. While this may be a worthwhile goal, evaluation of the reproductive status and identification of specific problems from an analytical viewpoint has merit. To properly evaluate the situation, historical information is needed -- complete accurate records. When did the cow calve? When was the first heat period? Is the reproductive tract normal? When should she have first service? When is she expected in heat again if not pregnant? etc.

There are several measures of reproductive efficiency that may be used to evaluate herd reproductive efficiency.

<u>Per cent Cows in Milk</u>	- indicates the proportion of total cows milking and dry
<u>Average Calving Interval</u>	- measures the length of time from one calving to the next
<u>Days Open</u>	- refers to the interval of time between calving and subsequent conception
<u>Days from Parturition to First Breeding</u>	- is self-explanatory
<u>Days from First Breeding to Conception</u>	- measures the days elapsed from first service after calving until conception. If conception occurs on first service, its value is zero.
<u>Services Per Conception</u>	- The number of breedings required for conception. On a herd basis, this figure would include only services of cows that eventually conceived.
<u>Services Per Cow</u>	- a similar figure indicating services per cow in the herd whether conceived or not. This figure would include services to cows that never conceived or that were eventually sold.

This kind of data is necessary to identify reasons for poor reproductive efficiency. Reproductive records are important not only for active management but for evaluation of past performance. If the desired results have not been

obtained, then it is necessary to discover the problem and correct it.

Goals should be set for reproductive performance as well as for milk production. In considering reproductive goals, we know that a twelve-month calving interval results in maximum production. When cows do not settle on time, income is reduced by decreased milk production, prolonged feeding of dry cows and fewer calves born.

Here are some goals for optimum reproductive efficiency:

Per Cent Cows in Milk	85-87
Average Calving Interval (months)	12½-13
Average Days Open	100
Days from Parturition to First Breeding	50-60
Days from First Breeding to Conception (less than)	21
Services per Conception	2.0
Services per Cow	2.5

Although good management is an essential input in the dairy business for which there must be adequate compensation, this compensation can be earned by higher profits resulting from its use. If the operator's management was good, profit is earned; if not, costs may not be recovered. With the current situation of large herds, management is a more important input than labor, capital and other tangibles.

Management consists of three major phases: planning, implementation and evaluation.

To achieve excellence in any endeavor, one must start out with a clear objective. The dairyman should utilize the planning phase to set objectives and goals. The next step is to consider the methods of achieving those goals or implementation. What steps will be taken to accomplish the desired result? Thirdly, one must evaluate his results. If the desired results did not occur, it is important to discover why. Are the goals realistic? Is the implementation procedure adequate?

As we look at the evaluation phase we see the need for a record system. Records are needed in the management system -- to discover changes that can be made and to furnish valid information for the many administrative decisions.