RETURN Over FEED
ONTARIO DHI
Information to improve the bottom line!

CANWEST DHI

WINTER ISSUE, 2004

Using Records to Maximize Profit

Bill Grexton, Manager, Herd Management Services

To improve herd profitability, most dairymen are looking to 'fine-tune' their day to day management. The main reason for this is that a well run operation has the basic herd management practices as part of their normal operating procedure. Control of items like balanced nutrition, herd health and basic reproductive practices allow the 'fine-tuning' to reap large dividends.

The term 'fine-tune' assumes that we can make minor changes to individuals or sub groups of the herd. That means we need to know the current status as well as history of individuals in order to find the common link and measure the results of the change. It also assumes that there is a method to cross reference health, reproduction, production and other events of these individuals. This means good records. It also means that ALL INFORMATION is recorded to allow proper analysis, Finally, it assumes that the record keeping system can retrieve the information easily and will give you the comparisons you need.

While I may sound like a computer salesman when I say this, the solution to the above requirements is tailor made for a computerized herd management program. All Canadian dairy farmers in Ontario and western Canada currently have a lot of their information already in a computerized software program - Dairy COMP 305. Each test day, your information is entered into the program waiting to be retrieved and used. You can use this database in the following ways; Get the DHI employee to put everything into the program, and; Get the DHI employee, your nutrition advisor, or veterinarian to create some useful reports of your information. A better method would be to purchase the SCOUT program so you can get the reports daily or as needed.

What type of reports would you use?
I'd like to suggest that your report be based on an economic measure that shows the value of a cow's productivity. You should also have a measure of the various aspects that contribute to the value. For example, you could have a report that shows 305 milk value along with 305 milk, fat and protein (production), SCC (udder health), DIM at first breeding, DIM at conception, days pregnant (reproduction), along with a list of events that have happened to the animal in the last month.

Knowing what the acceptable levels are for each of these measures will immediately identify which animals are needing 'fine-tuning' in what area.You can then effectively make changes and measure the result of the change.

What are useful measures?
I mentioned some above but I think you need to measure the following areas: economics, health, reproduction and your heifer program. What measures do you use? Everyone will have their own preferences but here are some suggestions. You may come up with others. Just make sure they show you exactly what you want to know.

Economics: Test day milk, kg fat, kg protein, 305 milk, 305 fat, 305 protein, 305 milk value, mature equivalent milk value
Health: New SCC infections, SCC , linear score, list of metabolic or other health events that happened to an animal
Reproduction: Days open, times bred, days in calf, projected calving interval

Heifer Program: Age at 1st calving, weight at calving, 305 milk, fat and protein for first lactation

The challenge is this - list your criteria for determining whether or not an animal needs you to intervene. Create your report format. And for a final convenience, have the report show only the animals whose values were outside your acceptable levels. Use this 'exception' report to 'fine-tune' your herd to more profits.

ROF Has Changed

The ROF program had undergone a number of changes this year. Below is a short summary of these changes and the impact it will have on the ROF members. For more details see the various documents available on the Canwest DHI website (www.canwestdhi.com).

ROF is available via the internet (for details, see the Canwest DHI website)
- Members can enter data whenever they want
- Members can print their own reports
- Pricing is based on use. Registration base fee is $136.00/yr and includes 12 ROF analysis if you do all the entry via the internet

Regional Clubs have been established for people who want to take part in the ROF analysis but have no traditional club close to them
- Anyone in the world can take part. Once registered you will be assigned to closest regional club for comparison purposes
- DHI will hold meetings in four regions of province where no current clubs exist. Members are encouraged but not required to attend meetings

Additional Cost Analysis is available
Can calculate cost of Heifers, Dry Cows, and other dairy expenses
- Results are compared to milking cow ROF to show Net Enterprise Return (NER)
- Allows estimate of how much a cow contributes to over all farm profit after all costs have been considered

New clubs are welcome to start
- Will have the basic program of three meetings to provide understanding of ROF
- Need minimum of 12 interested dairymen and a leader
- Group discussion in the meetings as to what affects ROF results in positive changes in the member herds
- Cost is $175.00/member which includes 12 ROF analysis
- Additional costs such as hall and meals are extra

Existing ROF Clubs will focus on herd management issues
- Need minimum of 12 interested dairymen and a leader
- Cost is $136.00/member includes six ROF analysis (12 if you enter information via the internet). Additional analysis are available at $6.00/analysis ($3.00 if via the internet)
- Additional costs such as hall and meals are extra

ROF Benchmarks (based on based on 5800 tests in 2002 - 2003)

Below are tables showing the amount of change in the various factors that make up ROF that was experienced by members since January 2002 . In addition to showing the ROF averages, there are also some benchmarks based on herd management practices.

ROF changes all the time. Most times we do not realize the magnitude and impact of the change. Some of the reasons for change are outside of the herdsman's control. However, there are many things that you can influence. In both 2002 and 2003, more than three-quarters of the members had variations from high month to low month greater than 2 kg milk /cow and $2.00 ROF with more than one-third having variation greater than 4 kg milk /cow per day and $3.00 in ROF ($3.00 / cow /day = $4,500.00 / 50 cow herd / month)

ROF, COST & REVENUE

This table shows definite variation from winter to summer in the past two years. The table below shows the feed cost, revenue and milk production for the months with the highest and lowest ROF in that year.There are two things to note: In both years, September was the lowest month. The months February to May are all very close in terms of ROF. In 2002, May was the highest month, while in 2003, March was the highest. It is also worth noting that there is always less people measuring ROF in the summer. I would assume those who do are the more aggressive herd managers and based on that, I would expect a greater difference if more people did ROF analysis during the summer. As it stands there is almost $1.00 /cow per day difference in 2003 and $1.75 difference in 2002. I'm sure there are things that can be done to recoup some of that difference (for example protection from the heat).

Table 1	ROF		Feed Cost		Revenue		Milk/Cow	
	2003	2002	2003	2002	2003	2002	2003	2002
Provincial Average	$12.70	$12.79	$4.01	$3.85	$16.71	$16.64	29.2	29.2
Winter (high ROF)	$12.86	$13.41	$3.98	$3.78	$16.84	$17.19	29.2	30.3
Summer (low ROF)	$11.95	$11.66	$3.95	$3.99	$15.90	$15.65	28.2	28.1

COMPARISON BY PRODUCTION

It has been said that profitability follows production. ROF has shown that production, not cost of production, is what drives profit. When all the tests were put into groups based on production, the following trend appeared. There was a very direct link between production and ROF, and while the cost was higher for each higher production group, the return was always greater (in 2003, an average of $0.12 increase in cost resulted in a return of $1.22 for a 10:1 return) One of the more important things is the number of cows it took to fill a 50 kg quota. ROF measures only the return over feed costs. Having additional animals incurs additional costs not measured by ROF.

Table 2	ROF		Feed Cost		Revenue		Milk/Cow		# Cows /50 kg	
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
Provincial Average	$12.70	$12.79	$4.01	$3.85	$16.71	$16.64	29.2	29.2	43.5	44.0
20-24 kg Milk	$ 9.66	$10.21	$3.77	$3.43	$13.43	$13.64	22.3	22.4	53.2	52.3
24-28 kg Milk	$11.42	$11.50	$3.79	$3.70	$15.21	$15.20	26.3	26.4	47.6	48.0
28-32 kg Milk	$13.05	$13.07	$4.03	$3.88	$17.08	$16.95	29.9	29.9	42.5	43.3
32-36 kg Milk	$14.55	$14.58	$4.25	$4.09	$18.80	$18.68	33.6	33.5	39.0	39.5
Diffence	$4.89	$4.37	$ .48	$ .66	$5.37	$5.04	11.3	11.1	14.2	12.8

ADDITIONAL COMPARISONS

Comparisons have been made by grouping the tests and looking at a number of other items. Below are some of the findings with comments.

- ROF DIFFERENCES BASED ON COST
  In both years the lowest cost herds had the lowest production and lowest ROF. In each level of cost, the production and ROF increased to not only cover the cost but provide additional ROF as well. Even the highest cost group still had enough production to produce a ROF in excess of the additional cost. However, there is not the dramatic differences as seen when comparing by production or ROF.

- ROF DIFFERENCES BASED ON MILK RATIO
  One of the concepts is to raise the Protein: Fat ratio to create more income from a fixed fat quota - usually accomplished by lowering the fat. This may work for a while, but it has rumen health (acidosis) implications. In both 2002 and 2003, over 85% of the ROF tests had a ratio between .78 and .93, which is where you would normally expect cows to be. The range in ROF in these herds was only $0.10/cow/day. One unique item was that 2002 had the highest ROF in the .83 -.98 ratio but in 2003, it was in the .78 -.93 range. Was this something like the fibre of forages in 2003 being higher than 2002 that caused this? One thing that was evident however, was that grain use and total feed cost increased as ratio increased.

- ROF DIFFERENCES BASED ON FREQUENCY OF MILKING
  In each time this comparison has been run, there is a definite advantage to 3X/day milking (over 2X) of about 3.5 - 4 kg more milk and $1.35 to $1.70 /cow/day higher ROF. The feed cost was $0.07 - $0.25 higher as extra feed is needed to produce the extra milk. For smaller herds, the labor and other costs of the extra milking may not make this a feasible option but for herds over 100 cows, that amounts to $150.00 or more per day and may be worth considering.

- There were no differences found based on the use of automatic take-off's, or consistency of production within a herd over time. Herds with sand bedding or mattresses had higher production and ROF when compared to those with straw or other bedding material.