



Simply  
telling a client  
to watch for heats  
isn't enough anymore

# Reproduction

WHENEVER WE POLL PRODUCERS on topics for an education meeting, they always ask for reproduction to be included on the agenda.

I think this is because we all understand that open cows hurt your bottom line. Having said that, most farms still have opportunity for large financial gains by improving reproduction.

As with any area you hope to improve, it's important to come up with a plan of attack. You need to be able to measure your starting point, implement a program and then measure the change.

In the past, we have used calving interval to measure reproductive success or failure. Unfortunately, this number is very slow to change and does not

accurately account for culling.

Instead, most of the dairy industry in North America has switched to using Pregnancy Rate (PR). This measure is quick to change and is useful for comparing across different herds. In a nutshell, the pregnancy rate is the heat detection rate times the conception rate.

The average PR in Ontario for 2009 was 12.5 per cent. Much like milk production, every producer should know their current PR. For those on DHI testing, this number is available from Dairycomp 305 through your Customer Service Representative.

Many veterinary clinics are also banking reproductive data and can provide you with this number.

**Making a plan and sticking to it until it can be evaluated is a good way to start changing pregnancy rate**

[ The writer is a bovine veterinarian with Tavistock Veterinarians ]

Other on-farm software can also provide a value for PR, but the data is often calculated slightly differently. Using this non-DHI data to compare change over time works well, but beware when comparing it directly to a DHI-based PR.

Once you know what your current PR is, you can compare to the provincial average to decide if there is room for improvement. As a rule, anyone under 20 per cent will see big financial returns on improved PR (See ODF March 2009 "Putting a value on pregnancy").

The next step is picking a tool that will help improve the PR. Tools can aim at increasing heat detection, conception rate - or both. An important first step before picking a tool is to understand your own likes and limitations.

For those that do not like needling cows, a hormone based needle program would not make sense. For those with limited labour and capital, installing activity meters would not yield optimum results. If you are honest with yourself, you will be more likely to pick the proper tool.

Historically, veterinarians and researchers have simply told producers to watch more closely for heats. Unfortunately, we are all busy and this recommendation can often be difficult to implement.

This has led to the inclusion of more practical aids like activity meters. Regardless of the brand, meters are a tool that will only work if they are checked regularly. This may seem basic, but for parlour based meters, someone is required to check them at every milking, and act accordingly.

Some producers using these aids have decided to disregard the rule of breeding 12 hours after the start of estrus, and instead breed cows only once a day, for simplicity. These farms will still benefit from improved heat detection over no meters, but will not achieve their potential PR, due to a

decrease in conception rates caused by inaccurate timing of insemination.

Another important consideration with meters is the initial cost. Parlour based units have a somewhat fixed cost depending on parlour size. Larger herds can spread the expense over more cows, making for higher returns per cow.

The cost of the stand alone units are more closely tied to the neck strap, making them a more economical choice for smaller farms.

In the United States, many freestall herds have moved to tail chalking in an effort to find cows in heat. In Ontario, this "assisted breeding" service is now offered by most semen companies and some independent operators (see ODF - December 2009- "Contracting out reproduction").

For a fee, the technician will visit the herd daily to perform heat detection and breeding. This service is great for those short on time or labour.

It also saves on the up front capital cost of the activity meters. Though this service initially targeted freestalls, a number of tie-stall herds are now employing these technicians with great success as well.

For those that have proper facilities, time and labour, the hormone based needle programs still remain very popular. There is little up-front investment in product, so the producer is not married to it if it does not suit the farm. The cost is also cow specific, so smaller herds can have the same economic returns as a larger herd. There are many programs available, depending on how much gain you hope to achieve (see ODF - August/September 2009 - "Double Synch, Double success").

These programs have the advantage of targeting both heat detection (all cows are bred) and conception rate. You can discuss the various programs with your veterinarian to find the one that will suit your goals and your farm

the best. Your veterinarian will also be able to help you generate accurate needle lists from Dairycomp 305 to help the program be more successful.

Recently, we used Dairycomp 305 information to compare the economics of each of the above programs for our clients. According to our calculations, for every dollar invested, the intensive needle programs returned seven dollars. The parlour-based activity meters averaged a 4:1 return, and the assisted breeding had a 3:1 return. Of course, we also have farms with lower initial PRs that have realized a 10:1 return with each of the various programs.

Finally, the basis for any reproductive program is finding open cows in a timely manner. Unless you are exceptional at heat detection (and therefore find all the open cows yourself), any size herd can benefit from a routine herd health

performed by your veterinarian at least every two weeks.

This allows open cows to be identified and rebred as soon as possible.

Once you have identified your starting PR and get comfortable with a program, remember to monitor its progress over time. If after six months there is no improvement, you should re-assess the system and meet with your herd's team (veterinarian and nutritionist) to see if there are other bottlenecks affecting reproduction.

Good reproduction is the basis of every successful herd. It is important to know where you stand, and then have a plan to improve.

Remember, "whenever you lose interest in being better at something, chances are you have already stopped being good at it". 

## REPRODUCTION PLAN OF ATTACK

- Step 1: Find your PR
- Step 2: Compare Your PR to the Provincial average
- Step 3: If necessary, pick a tool to improve PR
  - Needle Programs - Activity Meters - Assisted Breeding
- Step 4: Biweekly Herd Health
- Step 5 Monitor your PR for change
- Step 6: Reassess every 6 months