

The Goal: Pregnant Cows

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The goal on any dairy should be to get cows pregnant. The metric we need to evaluate to determine if we are reaching this goal is the 21-day pregnancy rate (PR). All too often, dairy producers concentrate on conception rate (CR) and fail to recognize the economic value of pregnancy rate.

So, what are the differences? CR can be mathematically expressed as the number of cows confirmed pregnant divided by the total number of cows inseminated. So, if we breed 100 cows and 35 are pregnant, our CR is 35 percent. Pretty simple.

Pregnancy rate is expressed as the number of cows confirmed pregnant divided by the number of cows eligible to be inseminated in a 21-day period. It is the efficiency by which we get cows inseminated and confirmed pregnant. If we confirm 25 pregnancies and there were 100 cows eligible to be bred in a 21-day period (for this calculation we do not care how many we actually did breed), then our PR is 25 percent.

Of course, we want to optimize the conception rate. However, if our goal was to maximize conception rate, then we would only breed cows that were in an absolutely obvious standing heat and forget about any synchronization programs. We need to get cows inseminated. That is the bottom line.

The key concept we must concentrate on is decreasing the interval between inseminations. We need to identify open cows in a timely manner and get them rebred. Obviously, excellent heat detection is one very important aspect to attain this. Regular herd health pregnancy/open exams and a consistent resynchronization program are the others.

When utilizing synchronization programs, it is important to keep the cow's natural estrus cycle in mind. I still find many programs that are not combining examination for pregnancy and resynchronization at the most biologically opportune time. We need to work with Mother Nature, not against her.

Through all of these decisions, we must remain conscious of the significant impact reproduction has on the economics of the dairy. By increasing pregnancy rate, we:

- Increase milk production (Increase the time a cow is in the higher production portion of her lactation curve.) This holds true even with the use of bST.
- Increase herd replacement opportunities. Every dairy has cows that should be replaced.
- Increase lactation number. Second-lactation cows produce more milk than first-lactation cows, as do thirds over seconds.
- Increase the number of calves born per year. Although the near-term economic impact of this is

small, eventually these heifers can replace suboptimal cows or be sold as springers (assuming the dairy can raise heifers better or less expensive than they can purchase them).

Dairy-specific goal-setting can be useful in the evaluation of your reproductive program. Obviously, these values may vary depending on your management style. The following are some useful reproductive goals which apply to most dairy herds:

- Recent pregnancy rate is greater than 20 percent.
- 50 percent of the herd is confirmed pregnant at any given time.
- First service percent pregnant is greater than 30 percent.
- Average days to first breeding is $\frac{1}{2}$ estrous cycle (about 10 days) greater than your voluntary waiting period (VWP). (In a herd with a VWP of 60 days, the average days to first breeding should be 70 days).
- Heat detection rate is greater than 50 percent. Research shows that most high-producing cows are in heat for about seven hours and will show three to 12 standing events during that period. This only gives us a very small window to detect heat and breed. Work with your dairy team to develop a simple, but effective, protocol to optimize the reproductive performance of your herd.

Monitoring Reproduction in Dairy Comp 305

Reproductive performance is an important factor in the future profitability of all dairy farms. Therefore, a huge part of dairy herd management revolves around getting cows pregnant as soon as possible after the waiting period. To achieve this goal, herd managers need to effectively monitor and measure the reproductive performance of the herd.

The BREDSUM module of Dairy Comp is an effective tool that monitors and analyzes reproductive performance of a dairy herd. BREDSUM can provide a dairy manager with pregnancy rates, heat detection rates and conception rates to help them measure the effectiveness of the dairy's reproduction program.

With a click of a mouse, a producer can see the herd's overall Pregnancy Rate for the last twelve months, as well as a Pregnancy Rate broken out into 3-week intervals. This is useful to identify trends in reproductive performance over the last year and can allow the producer to monitor changes in the reproductive program. Your veterinarian can assist with the interpretation of your herd's Pregnancy Rate and come up with goals specific to your herd.

Users can also look at conception rates for individual technicians and analysis can be done for cows bred based on an observed standing heat, cows bred based on an ovsynch program or cows implanted with an embryo. This analysis provides answers as to the effectiveness of programs used to get cows bred.

Dairy Comp can be a great tool to help monitor reproduction in your herd. It allows for informed, timely management decisions. Installing a herd management software at the farm is an investment in both dollars and time, but having the ability to easily retrieve and analyse data for improved herd performance will pay off.

ReCheck⁶⁰

Pregnancy Confirmation Milk Test

The new milk test from DHI provides another tool to help find open cows.

IT'S ACCURATE!

The test kit has been validated by the manufacturer at 35 days+ post breeding, with high sensitivity and specificity. In a Canadian study, targeting cows 60 days+ post breeding, the milk test kit using routine DHI samples performed very well with similar results.

IT'S EASY & COST-EFFECTIVE!

ReCheck 60 is based on simple, cost-effective ELISA technology. Sample collection is already done as part of regular DHI service, so there is no need to handle cows.

The test is best suited for 60+ days in gestation, making it an ideal test for rechecks, as a supplement to early diagnosis by the herd veterinarian, and for dry off checks.

IT PAYS!

As a Recheck:

- Reduce days Open and save dollars per day
- Rebreed cows before they are too late in lactation, which means fewer culls and lower replacement costs

As a Dry Off check:

- Save dry cow treatment costs
- Save feed costs during dry period (\$3 to \$5 per day)
- Milk the cow for a period of time and generate significant milk revenue, or sell her without delay
- Have the peace of mind that cows have been reconfirmed pregnant prior to moving to the dry area

IT'S FLEXIBLE!

Producers have the ability to either:

- Test selected cows *or*
- Enroll on an automatic Recheck and/or Dry-Off option, whereby on each test day, cows that meet a herd specific criteria for days since last breeding will be pregnancy tested.