



The Goal: Pregnant Cows

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Pregnancy Confirmation

Embryonic mortality can vary from herd to herd, but studies have shown that a rate of 10 to 20% after the first early pregnancy check (28-40 days) is not unusual. Gone undetected, these pregnancy losses are very costly as it delays rebreeding and eventual successful pregnancies, or even worse, leads to the involuntary culling of cows.

The Milk Test is a Convenient Option

Producers have many options when it comes to which cows to milk preg test. They can select specific cows on test day, (as early as 28 days bred) or have cows selected automatically based on days bred.

For example, if a producer would like all cows automatically rechecked at so many days bred (70, 80, etc.), they simply have to indicate the recheck days bred to their DHI staff and the computer will then automatically flag those cows that qualify on each test day, to be milk preg tested.

Likewise as a dry-off check, DHI calculates (based on each herd's testing frequency), the days since last bred to use to ensure that all pregnant cows get a final recheck on their last DHI test before they are due to be dried off.

Of course, complete breeding and pregnancy confirmation information must be provided to your DHI staff in order for the automatic enroll options to function properly. The enrollment only needs to be done once, and then cows will be selected automatically on each test day. The auto-generated list of cows can then be reviewed quickly by the customer to ensure accuracy and to add or remove cows as needed. It's that easy!

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 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.

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British Columbia 2016 Reproduction Benchmarks for DHI Herds

Percentile	Pregnancy Rate %	Heat Detection Rate %	Conception Rate %	DIM at 1st Bred	% Cows Pregnant at 150 DIM	Cows Times Bred	% Cows Pregnant to 1st Bred	Days Open	Calving Interval (Months)	Age @ First Calving (Months)
25th	12	32	34	103	35	2.1	34	134	14.2	26.0
50th	15	42	39	92	48	1.9	39	123	13.7	25.0
75th	18	49	45	82	55	1.7	46	113	13.3	24.2
90th	21	56	52	75	62	1.5	54	108	13.0	23.6

For more information about how DHI can help you manage your herd for increased profitability, call us today at 1-800-549-4373.