Questions to Consider When Picking a TAI Protocol

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Over the past decade reproductive tools used to get cows pregnant have evolved tremendously. Automated activity monitoring technology has developed to deliver accurate detection of heats. While several different Timed A.I. (TAI) systems have also evolved, to give dairy producers flexibility to choose a protocol that meets their operation's needs, while also providing reliable conception rates.

The question often comes up, which protocol will work best? The answer is easy, the protocol that provides your herd with the best results. Every timed A.I. protocol has strengths and weaknesses, which can reflect differently from herd to herd. For example, Double Ovsynch with a second shot of prostaglandin is one of the best protocols for first service conception currently available. But, you need to ask yourself some fundamental questions such as, can you deliver this program effectively? Is it taking advantage of my other capital investments around the dairy?

Here are some big picture questions to ask yourself when choosing a timed A.I. protocol for your dairy. After thinking these questions through, work with your veterinarian and other industry representatives to figure out which protocol is best for your herd.

Why are cows getting synched in your herd? Are cows being synched because they are truly problem breeders that are not cycling, are they simply missed heats, or are they being synched to manage labour requirements? It is important to identify the population of cows being synched, since it impacts which hormones will be used, and length of protocol. For example, if it's a small percentage of the herd that are problem breeders that have not been found in heat by the activity monitor, you may want to consider using a progesterone release device as a part of a CIDR synch protocol as a treatment. If the majority of cows are being bred timed A.I., a more lengthy first protocol is the better choice.

How much timed A.I. are you doing now, and does the performance meet your expectations? Too often, herds that utilize a mix of visual and timed A.I. don't monitor the percentage of cows bred by each detection method. The assumption is that only a handful of cows are getting

synched at herd health, when in reality it's often a much larger percentage. If consistently more than 40% of your first service breedings come from timed A.I., you will want to consider using a presynch, ovsynch, or double ovsynch type protocol to maximize your conception. The extra set up shots that those protocols provide boost fertility by ensuring more cows are in the right stage of the estrus cycle when breeding occurs.

What other tools and facilities has your dairy already invested in, and what is required?
Assessing other technologies on the dairy is also important part of selecting a timed A.I. program. If an investment in a reputable activity monitoring has an occurred, you want to look at protocols that maximize that value. As mentioned above, cows not found by these systems are often true problem breeders. These animals can benefit from a timed A.I. protocol that will improve their reproductive health status.

Your ability to handle cows is also very important consideration. The more complex the timed AI protocol, the more room for error. Being 90% accurate in your delivery on a 3 shot protocol, 27% of the cows synched would not be synched correctly. The same accuracy on a 7 shot protocol would lead to half of the cows not being correctly synchronized. That's why headlocks or a palpation rail system is required for the more complex protocols such as Double Ovsynch. If you do not have proper handling, you will not see the results you desire.

Who is delivering the program and when are the shots being delivered? Great results have been seen using Double Ovsynch with a second prostaglandin shot over the past 2 years, making it currently one of the most effective first service protocols available. But as mentioned above, the accurate delivery of shots is critical to getting the desired performance. That means you have budget for the right labour to be available at the right time to deliver the shots appropriately. You have to be honest and ask, will a shot scheduled to be delivered on a Sunday afternoon, be delivered with the same precision as one delivered on a Tuesday? Too often, more complex timed A.I. protocols fail to meet expectation simply because operations don't budget the appropriate time to deliver it.

Does the performance meet your expectations? An opportunity for many herds to assess and improve timed AI is to simply track the protocol used and measure its performance over time. For many reasons, the performance that occurs in a research paper doesn't always achieve the same results on your dairy. So it's always good to track your own performance and make decisions from those numbers. Most herd management software packages allow you to track conception by assigned breeding code. For an example, a herd that uses two different timed AI protocols along with breedings identified by the activity system would have three codes. Ovsynch, CIDR and activity. Assigning different breeding codes for each timed A.I. protocol allows for quick assessment and adjustments if one protocol is outperforming the others.