

## Two Keys to Achieving High Milk Yields & Pregnancy Rates

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With more herds achieving outstanding milk yields, more questions are raised about how these high yields impact reproductive performance.

If your herd is achieving a high milk yield average per cow, do you need to change the way you manage your cows reproductively?

One myth is that having high production means your herd will be stuck with mediocre reproductive performance. To achieve sustainable high milk yields, a herd must manage to meet the needs of cows through nutrition, environment and health. These same requirements are also needed to achieve sustainable pregnancy rates above the industry average.

High milk production is always relative to the management system, environment and region the cow lives. For example, what a grazing herd considers to be a high milk yield, a conventional North American dairy may consider to be low to medium performance.

When discussing impacts of high milk production on reproduction, we are really discussing the fact that reproduction tends to be the first area to drop when changes occur in the dairy herd. I suggest paying especially close attention to two areas to give cows the best opportunity for breeding back efficiently while maximizing milk production:

## 1. Transition cow management

The core focus for many of the herds that achieve both high yields and pregnancy rate is transition cow management. For most, the outcome of a well-run transition cow program is high peak milk yields and a low incidence of metabolic disease.

Conception rate in early to mid-lactation should also be viewed as an outcome of the transition cow program.

Both clinical and subclinical metabolic diseases are likely a source of conception issues for



high-production herds. Herds that follow a blood  $\beta$ -hydroxybutyric acid (BHBA) monitoring program should ensure the results are recorded in herd management software so they can be reviewed by their herd advisers.

High-producing herds are adopting automated health monitoring technologies such as rumination tags, which assess transition cow performance. This technology is providing accurate automated data collection and can be used in real-time or months later to gain perspective to help improve pregnancy rates in the future.

## 2. Voluntary waiting period

Recently, more discussions have been centered on modifying the voluntary waiting period in herds achieving high yields and first-service conception rates.

Over the past two decades, successful reproductive protocols have been focused on getting all cows bred by a set days in milk. Average days in milk at first breeding is frequently targeted for 63 to 78 days.

Reproductive protocols such as Ovsynch, Presynch and Double Ovsynch have effectively helped herds yield pregnancy rates above 20 percent by minimizing the risk that the cow will not get bred.

With protocols and activity monitoring technologies available, combined with higher milk yields, is it a good time to re-examine the voluntary waiting period?

Some questions arise around voluntary waiting period and first-service protocols when herds start to achieve higher yields. Does getting a large portion of cows pregnant that are yielding well early in lactation impact subsequent lactations? How does it impact transition and reproduction in the next lactation?

With some herd management software, you can generate reports to monitor previous lactation days in milk at conception. Using this information, you can review current projected milk yields, conception rates and other data against how early in the previous lactation.

You can look for trends to see if cows getting pregnant less than 70 days in milk from the previous lactation are meeting milk, reproduction and health performance expectations in the current lactation.

If production and reproduction are reduced, it is time to examine this group with the people who advise your herd. Altering the voluntary waiting period of your herd is not a



decision that should be taken lightly, as it can have negative impacts on other areas of your dairy.

As more information is collected on cows through automation in parlour and robotic systems, tools will be developed to help make voluntary waiting period decisions on an individual cow level.

With advancements in activity tracking and milking technologies, individual herds will be able to track data on how transition cow management and voluntary waiting period practices impact reproductive performance, as well as milk production. Looking into the future, the sky is the limit for what a successful herd can achieve.