

Texas Dairy Matters

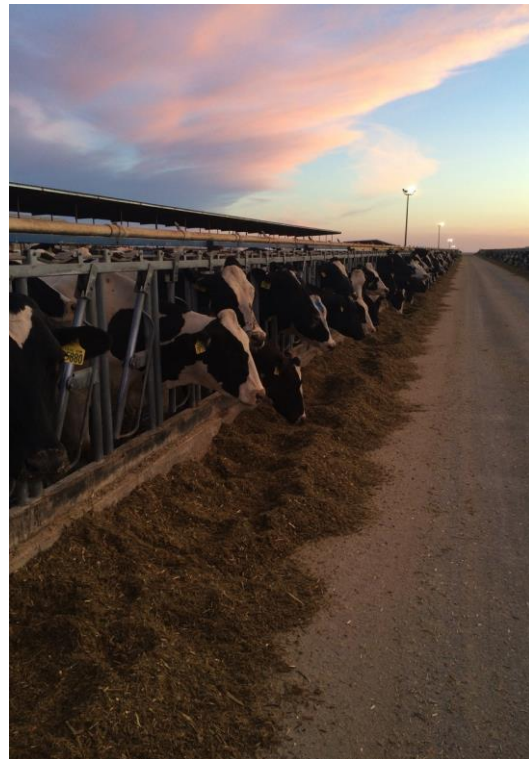
Higher Education Supporting the Industry

REPEAT BREEDERS: THE CHALLENGES AND OPPORTUNITIES

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It is well known that approximately 60% of dairy cows during the first 100 days will fail to conceive to the first insemination, and therefore, will be subjected to additional management such as resynchronization and subsequent inseminations. A cow that has failed to conceive after at least three inseminations is known as a “repeat breeder”. A repeat breeder can become frustrating for dairymen as it increases labor requirements and costs associated with reproduction. In fact, repeat breeders have a large impact on profitability. For every day that a cow remains open past the optimal time (i.e. 120 days) it is a \$2.00 loss, however, the monetary loss can increase to \$5.00 or \$7.00 per day as days open extend beyond 150 days in milk (De Vries, 2012; Hutjens, 2013). Therefore, a repeat breeder that fails to conceive or maintain pregnancy is a financial burden to the economic profitability of the farm.



Multiple factors contribute to the low reproductive efficiency observed in repeat breeders, including but not limited to the environment, management, genetics, and physiology. These multi-factorial influences create challenges, however, there are some opportunities that can help to improve the fertility of repeat breeders.

Resynchronization protocols: Questions that often arise when deciding what breeding protocol to use can become cumbersome. Is she showing normal reproductive cycles? Did she experience embryonic loss? More importantly, where is she at in the estrous cycle? There are many resynchronization protocols that are effective in improving the fertility of repeat breeders, and consulting with your reproductive management team, you can figure out the right protocol and management to return these cows in track.



Estrous detection: Traditionally, estrus detection is one of the most important factors that affect the overall pregnancy rate of the farm and consequently the reproductive efficiency of the animals. Unfortunately, estrus detection is less than 60% on many dairy farms. Educating employees about estrus detection can help to improve the percentage of animals seen in heat. Also, it is necessary to consider that some cows just do not show estrus well are they show “weak heats”. Therefore, by using estrus detection aids and precision technology, the number of cows that are accurately detected in estrus can be improved.

Insemination techniques: Training and retraining AI technicians can have a huge impact on improving your herd reproductive performance. By making sure that your AI technicians are properly handling semen and using the best storage techniques as well the proper procedures to thaw the semen, prepare the AI gun and deposit the semen in the uterine body of the reproductive tract. For training and retraining courses, you can find great resources online or by contacting your semen distributing company. Additionally, county agents and dairy extension specialists would be willing to hold training sessions if there is a need.

Heat abatement & cow comfort: Oftentimes, repeat breeders are managed differently because they fall into the late lactation period without getting pregnant. During this time, cows are often moved to pens that may have reduced cooling, poorer enclosure conditions, and even different rations which are not ideal for breeding, thus decreasing the chances of them becoming pregnant. By determining where your repeat breeding cows are and evaluating their environment, it will give you the best indicator on what can be done to improve their chances of becoming pregnant.

Preventing transition diseases: Many transition diseases such as retained placenta, metritis, and endometritis among other diseases can negatively affect the fertility of dairy cattle. Cows that experience transitional diseases have longer days open, a 4 to 10% reduced conception rate to first service, and a higher risk of being culled due to reproductive inefficiencies (Fourichon et al., 2000). Record keeping can help to monitor for transition problems as well as keep track of cows that may have reduced fertility and have a higher risk for becoming repeat breeders. Additionally, by maintaining a clean calving facility you can reduce the risk of transitional diseases such as retained placenta, metritis, and endometritis. (Picture courtesy of Dr. Maquivar)



Record keeping and reproductive benchmarks: It is extremely important to keep accurate records of the animals in terms of calving dates, voluntary waiting period (VWP) date, health events during the fresh period and after the VWP, veterinary records (fresh checks), vaccinations, to assess and possibly determine the risk of the cows to become repeat breeders. Additionally, it is necessary to consider the reproductive goals and benchmarks of the farm to keep a healthy reproductive performance. For this, it is necessary to establish achievable goals and clear parameters to determine what is going to be the management of the repeat breeding cows. You can consult your extension agent, or semen provider company to determine and evaluate the procedures for this type of animals.

The fact is that repeat breeders exist, and it is important to recognize them amongst the herd, and then work on incorporating strategies to maximize the chance of pregnancy in repeat breeders.

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