Texas Dairy Matters

Higher Education Supporting the Industry

OPEN – WHAT NOW?

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It is very common to hear a veterinarian calling a cow "not pregnant" during vet check. Unfortunately, this reality has become more frequent over the last decade. Based on data collected through the National Animal Health Monitoring System (NAHMS – USDA), reproductive failure has become the number one reason for culling dairy cows.

Several reasons exist for reproductive failure in dairy cows. However, decline in fertility probably results from a combination of physiological and management factors that have an additive effect to suppress reproductive efficiency. Among possible causes are the detrimental effects of postpartum diseases on fertility. Diseases such as ketosis, milk fever, retained placenta, displaced abomasum, uterine infection or any other metabolic disorder decrease the likelihood of pregnancy not only at first artificial insemination (AI), but during subsequent services. Failure to become pregnant in a timely manner increases the risk for culling.

Most postpartum diseases are related to the transition period, which links back to reproductive performance in the previous lactation. Cows that only became pregnant after repeated attempts are more likely to be over-conditioned or even obese at subsequent calving. The excess body condition significantly increases the chance of postpartum problems and subsequent reproductive failure.

Some management factors also play an important role on this declined fertility. With more

milk production, cows increase their intake to support the higher production level. The elevated intake leads to an increased metabolism, consequently speeding the clearance of reproductive hormones. A study from the University of Wisconsin indicates that cows producing over 99 pounds of milk daily have shortened duration of estrus and lower levels of estradiol, the hormone involved in estrous expression.

One management strategy to overcome poor estrous expression is the synchronization program. These programs allow animals to be bred by appointment without the need for estrous detection. The protocols utilize GnRH and prostaglandin treatments in a prescribed sequence. For these programs to be successful, compliance with the exact protocol is critical.

Basic recommendations to improve reproductive outcome include:

- Improve the transition period to minimize postpartum diseases;
- Identify cows with special needs during the early postpartum period and provide them the support and treatment needed;
- Work with breeders to improve their ability to identify cows with reduced estrous expression;
- Apply a synchronization program properly, striving for 100 % compliance; and
- Avoid over-conditioned or obese cows at dry-off. Ideally body condition score at dry off should not be more than 3.5 or 3.75.

Work closely with your consultants and veterinarian to monitor reproductive performance of the herd. Cooperate as a team to determine the best protocol on your dairy when your veterinarian calls a cow "open." Remember the best protocol is the one with which you can attain 100 % compliance.