



DAIRYINFO

W-S Feed & Supplies, Ltd.
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Taking service to another level

Lameness and Fertility

It's a well-known fact that lame cattle can experience reduced milk production and increased disease incidence, but the effects of lameness can also negatively affect fertility and reproduction. Jeff DeFrain, research nutritionist at Zinpro, says the link between lameness and fertility is what he considers to be a "hidden transaction" in the profitability equation. "Cheques are either written or cashed when it comes to milk income, hoof trimming and culling," he says. "However, the true cost of poor fertility, especially as it relates to lameness, becomes difficult to assess in most cases." When compared to healthy, non-lame herd mates, research indicates that lame cows have decreased conception rates, more services per conception, increased presence of ovarian cysts and an overall decrease in pregnancy rate.

Physiological effects: "Lameness is a chronic stressor. Once a stress is detected by the animal, chemical signals are sent to the brain in the form of pro-inflammatory mediators," DeFrain says. The brain is constantly interpreting these signals and directing metabolic processes such as the release of reproductive hormones. In essence, the animal goes into "conservation mode" and puts strict limits on nutrient use until the problem is eliminated. "Therefore, until the stressor is removed, levels of hormones such as progesterone will not return to normal," DeFrain says. Because of this, poor reproductive performance should be expected if one chooses to inseminate lame cows. Research shows that severely lame cows have lower maximum progesterone concentrations (responsible for maintenance of pregnancy) compared to non-lame cows. Research has also found:

- Cows with abscesses/sole ulcers or with two or more claw disorders had more days open than cows without claw disorders.
- Cows that were clinically lame due to a claw disorder in the first 30 days postpartum had a 58.9% decrease in first service conception rates, a 125% increase in ovarian cysts, and an 8.2% decrease in pregnancy rate at 480 days postpartum.
- Low pregnancy rates in lame cows appear to be associated with failure of ovulation.

Investigating lameness

Just managing lame cows isn't enough. Getting to the root of the problem is critical to reducing lameness. DeFrain says investigating lameness involves these three steps:

1. **Locomotion scoring:** Everyone on the dairy should be trained in locomotion scoring dairy cattle. This scoring system forms the foundation for visual identification and recruitment of lame cows to be assessed by a qualified hoof trimmer. Hoof-trimming records, which include proper claw lesion diagnosis and recording, should be reviewed routinely during management meetings. "It should be noted that measurable success in reducing lameness and improving reproductive performance has been realized

on dairies approaching lameness as a team of people including management/owner, veterinarian, nutritionist, hoof trimmer and breeding team," DeFrain says. Locomotion scoring and hoof-trimming records should be used together to formulate a plan to address the trigger factors causing lameness. Incorporating this approach on a routine basis will provide for greater levels of reproductive performance.

2. **Analysis of claw lesions present in the herd:** Proper diagnosis of claw lesions at the trim chute forms the foundation for a solid investigation into lameness and reproductive performance. The veterinarian and/or hoof trimmer should work to establish a baseline of current levels of claw lesions present within your herd and make changes to address the lesions expressed in greatest quantity. Lastly, with the veterinarian and nutritionist's help, monitor your herd's reproductive performance.
3. **Assess management practices on the dairy:** Historically, mistakes in nutritional formulations may have played a significant role in lameness on dairies, DeFrain says. "Today, it seems the majority of claw lesions present are not directly related to nutrition. Most of the nutritionally-related factors become manifested through how we group and manage cows and how feed deliveries are managed." The majority of diets fed today are well-balanced; however, the eating and resting/ rumination behavior of the cows becomes affected by how the feed is mixed, delivered and pushed up and how pen stocking densities are managed — all of which significantly affects how the cow consumes the diet and ultimately contributes to compromised rumen function. Lame cows should be addressed immediately. This includes proper functional and corrective trimming technique and isolating these cows to a pen which has a soft, forgiving walking/resting surface, is not overstocked, has ample water supply and a pen which is close to the milking center, DeFrain recommends. "Typically, the diet for this pen is formulated for a reduced level of intake and is fortified with key nutrients known to affect the growth, healing and repair of the claw such as highly bioavailable forms of trace minerals."

(Edited from an article by Geni Wren, Dairy Herd Management)

SOLUTIONS FOR SUCCESS!

THE TEAM FOR RESULTS

Celebrating Dairy Month

NEED SEED & PRESERVATIVE? CALL ME!

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call me!

My goal is to help you. That's Renaissance's commitment!

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THE TEAM FOR RESULTS

Celebrate Dairy!

We all need to support and encourage our dairy industry! That's what I do every day, working with you to feed your cows efficiently and effectively. Join me in supporting the dairy industry locally and nationally... encouraging people everywhere

to take advantage of the many available dairy products, which are among the safest and most nutritious foods you can eat. Our dairy industry is helping to feed Canada... and the world!

I am proud to serve dairy producers with quality nutrition, products and services, management insights and information, agronomic support... all the tools needed for maintaining the health, productivity and profitability of dairy animals.

**SUPPORT THE DAIRY INDUSTRY
TODAY & EVERY DAY!**

Thanks... for all your efforts.

Dealing with economics...

Many dairy producers are looking for ways to cut back on feed costs these days, with the often volatile and variable prices for feed ingredients and supplements that impact a cow's ability to maintain her body and produce to an optimum level that has a positive impact on your profitability. *"There is a limit to how much feed costs can be reduced without having a negative effect on animal performance,"* warns Virginia Ishler, nutrient management specialist and manager of the Penn State Dairy Research Complex (USA). Monitoring your income over feed costs (IOFC) is an important task, but is also a proven way to evaluate your dairy's profitability. When IOFC is monitored on a monthly basis, it can be a good barometer to gauge when your herd is profitable, when it is not, and when changes need to be made. This can help you in making a wide assortment of management adjustments and changes in order to continually improve your IOFC. The challenge comes in knowing how to monitor your IOFC – what elements need to be factored into this equation and how to best interpret the results. However, not knowing your IOFC can put you at a disadvantage. It is important to learn and monitor your farm's IOFC, so you can plan ahead and maximize your farm's efficiency. I would be happy to work with you to learn more about your farm's IOFC, and then to help you develop strategies that can improve your income over feed costs month by month. You'll appreciate the results, when you can put the "whole picture" together!



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CHECK IT OUT!

