



A NEWSLETTER OF DAKOTALAND FEEDS

Grazing Transition and Embryo Retention

With the weather warming, it won't be long before we are going to haul cattle to pasture and be into breeding season. Particularly when it comes to getting cattle bred, there are a few things that we can do when making the transition to pasture to help ourselves in terms of embryo retention and breed up.

Why is embryo retention important? When cattle are bred, maternal recognition of pregnancy happens around day 15 post-ovulation. That is the point in time when the body recognizes they need to start producing more progesterone to maintain the pregnancy. If an animal quits getting that signal from the uterus, the pregnancy is lost. If a heifer loses a pregnancy at day 30, she doesn't cycle back and get bred on day 31. It will be another 21 days at least before she has another chance to get bred. That means that those heifers and cows that lose an embryo from their first cycle are likely to end up in the 3rd cycle (or later) depending on how long your breeding season lasts.

All of this makes the time between insemination and implantation critical to holding the pregnancy. When we put cattle to grass, the transition in rations and feed composition is massive. Most of the time, we are going from a ration that was probably 60% dry matter to pasture grass that may be 25% dry matter or less. Consider that a replacement heifer eating 18 lbs of dry matter in the lot would have to consume 72 lbs of pasture grass to be on

the same level of dry matter. That isn't happening on the day they are put on grass. The as-fed intake amount for cows is even higher. Data from South Dakota State showed that beef heifers that were naïve grazers in the spring lost over 3 lbs/d over the first week of grazing compared to those with previous grazing experience gaining 1.9 lbs/d. After 27 days of grazing, gains for the remainder of the study weren't different between the two groups.

What can we do to help cattle make the transition? One thing that we have had success with is using Accuration Blocks to help us through that first 2-3 weeks. It is an energy dense source that helps supplement energy and make that energy gap a little smaller so they don't lose as much weight or lose as long. Intakes are typically higher early on when cattle need the added energy and then taper off as they get acclimated to grazing and their intake can meet their energy demand. Many times, we do not replace the blocks after they are gone but that can depend on the quality of the grass and the condition of the cattle.

In a Nutshell:

- Embryo loss means cows get bred later in the season
- Naïve grazers lose weight when transitioning to grass
- Accuration blocks can supply extra energy
- Availa-4 mineral programs increase embryo retention
- Improving embryo retention can increase calf weights
- Reproductive momentum generates more dollars long-term

ADG of experienced or naïve grazing heifers after being moved to spring forage from day 0-7 and 7-27 post-turnout

	ADG, lbs/d	
	d 0-7	d 7-27
Naïve Grazers	-3.52	1.62
Experienced Grazers	1.93	2.11

GA Perry et al, 2013

One other factor is your mineral program. SDSU did research on retaining replacement heifers and feeding them a control diet or one that included Availa-4. All were synchronized and inseminated on the same day. At day 17, blood tests identified those that were pregnant. On day 60, all heifers were ultrasound for pregnancy determination. The heifers that received Availa-4 had 11% greater embryo/pregnancy retention than those on the control diet. Feeding Cow Balancer right now gives you the Availa-4 mineral program as will Availa-4 mineral tubs, Stress Tub, or the Wind & Rain or RL Pro mineral with Availa-4.

We often focus on average daily gain, but weight per day of age is something that can be a useful tool also. You know the earlier calves are typically heavier than the later born calves on the same day, but maybe if we look at both of their 205 day weights, they would be equals. If we have 11 more calves born in the first cycle than the third cycle, that could add up to another 900 lbs of calf weight at weaning time (figuring 2 lbs of weight per day of age and an additional 42 days of age). That is kind of like having another calf and ½ to sell. That adds up.

Having cattle on a level or increasing plane of nutrition at the time of breeding can help us front-load our calving season. This helps us generate more weight per calf simply by virtue of their birthdate. It can also help us consolidate our labor for calving season. It gives our herd reproductive momentum meaning those that calve within the first 21 days of the calving season are more likely to stay in the herd long-term and generate more dollars over her lifetime than if she calves at any point after that. Quality nutrition programs are worth the effort. Ask your Dakotaland Feeds consultant if you have questions about getting the best plan in place for the upcoming breeding season

Roxanne Knock, PhD

What do you need to be thinking about this time of year?

- Use a good mineral program for breeding season- ask about Ultimate Breeder 8 or Availa-4 Tub
- Get a **high magnesium mineral** to prevent grass tetany during early season grazing
- Implant cattle going to grass
- Start feeding **Altosid** to prevent horn fly populations
- Order wasps for feedlot fly control or add **Clarifly** to your feedlot supplement
- Ask about using **Diamond V Yeast Culture for heat stress mitigation** for feedlot cattle during summer months
- Get the bulls in good body condition- they should be a BCS 5 or 6 at 60 d prior to breeding
- Make sure the bulls have mineral too! Stress Tub or Ultimate Breeder mineral provide Availa-4 mineral

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