

**Here are dates of upcoming events:**

February 27<sup>th</sup> – Last day to update your yields and base acres with FSA

March 2<sup>nd</sup>-8<sup>th</sup> – North Dakota Winter Show; Valley City

March 3<sup>rd</sup> – Steele County Private Pesticide Re-certification Training, \*Registration 8:30am, Finley Legion

March 19<sup>th</sup> – Steele County Private Pesticide Re-certification Training, \*Registration 8:30am, Hope Legion

March 24<sup>th</sup> – Steele/Traill Private Pesticide Re-certification Pesticide Training, \*Registration 8:30am, Galesburg Memorial Hall

*\*Pre-registration is required for all re-certification trainings. Testing will be available for first time certifiers following the training. Contact the office at 701-524-2253 to pre-register.*

March 23<sup>rd</sup>, 24<sup>th</sup>, 30<sup>th</sup>, & 31<sup>st</sup> – Spring Fever Garden Forums; 6:30pm-8:30pm, Steele County Courthouse, Finley (*Please pre-register*)

As much as we would like to, we *really* can't complain about the winter we've had. However, I am looking forward to turning the calendar over to March, as these last few weeks in February have been BRUTAL. I still cannot figure out how it can be -20 below one day, and the next it's 20 above! How can our bodies handle this dramatic change in temperature?

This brings up a good point that needs to be addressed when getting ready for livestock births during this time of year. Our bodies partake in a process called thermoregulation. Thermoregulation is a process that allows our body to maintain its internal core temperature independent of the surrounding environment. Humans and animals maintain this process by sweating and shivering to establish homeostasis (balance) within the body. When animals are born, they are covered in placental fluids and mucus that have kept them safe and alive for the duration of its dam's gestation period. These fluids are great for the duration of gestation. However, they can amplify the onset of hypothermia during the cold winter months.

Once the calf is fully expelled from the dam during parturition (the birthing process), the shock of cold air from the calf's new environment "jumpstarts" the calf to take its first breath. This is good! Since the calf's new environment is colder than its previous environment of a nice warm uterus, shivering begins to take place in order to balance its internal body temperature in regards to its new environment. Once again, this is good. A problem arises when the dam cannot dry off the calf fast enough in accordance to the environment outside. At this point in time, it is crucial to know what the weather is predicted to be so that the producer can plan and prepare for a newborn calf.

Temperature and wind play a huge role in the onset of hypothermia in newborns. Hypothermia sets in when an animal's body temperature drops below normal. A typical beef cow will have a normal body temperature of 101.0 degrees Fahrenheit. With that being said, the newborn is not only wet, but is now exposed to temperatures that are -20 below to even -30 below, and wind chills that can exceed -40 below. The calf will now use up its energy to try and stay alive, rather than trying to nurse.

At this point, it's time to bring the newborn calf inside. Warming the calf is the number one priority. There are many methods to try when warming a calf. You can place the calf in warm water, use an electric blanket, heat lamps, or hair dryers. However, it's extremely important to warm the calf slowly to avoid skin burns and hypovolemic shock (taking blood away from the body's system to the skin).

In extreme cases, the destruction of living tissue due to the cold environment known as frostbite, can occur. The calf's extremities are most affected by frostbite. These include the ears, tails, feet, and genitals. In frostbite cases, the calf needs to be warmed. However, it is important not to rub the affected areas, as rubbing can cause more damage to the tissue.

If the calf is still too weak to get up and nurse from its dam, you must be ready to replace and supplement the calf's energy needs by providing it with colostrum. Colostrum replacers or frozen colostrum are recommended if the calf has not received any colostrum from the dam. When preparing the colostrum, do not microwave it. Microwaving can cause the immunoglobulins within the colostrum to become weak or even destroyed. This results in a poor immune system.

Watch the weather so that you can plan ahead. Monitor your cows that are close to calving by watching her behaviors. Is she agitated? Vigorously switching her tail or holding her tail out? If so, she may be just getting started with labor. Be ready by having a clean, dry place for the cow to give birth. Provide enough bedding, so that the calf can nestle within the bedding and stay warm.

For more information, call the Extension office at 701-524-2253, e-mail Angie at [angela.b.johnson@ndsu.edu](mailto:angela.b.johnson@ndsu.edu) or "Like" us on Facebook at [www.facebook.com/steelecountyextension](http://www.facebook.com/steelecountyextension). NDSU is an equal opportunity institution.