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Sublette County Ag. & Natural Resources Extension Newsletter

9660 US Highway 191
Pinedale, WY 82941
(307) 367-4380 dmontgo8@uwyo.edu

University of Wyoming

Extension
Sublette County

Newsletter Highlights and Upcoming Events

SUBLETTE COUNTY AG. AND NATURAL RESOURCES EXTENSION

Wildfire Preparation and Resources Please Share!

-Barnyards and Backyards Wildfire Page

-OSU Preparing the Ranch and Farm

-Watch Duty Wildfire App

-Wyoming State Forestry Division

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Sublette County Extension Webpage

UTILIZING IMPLANTS TO IMPROVE CALF GAINS

For ranchers looking to increase output from their herds, several modern means to improve efficiency and profit are available. Whether running a cow-calf, stocker or feeder operation, these opportunities often involve increasing weight gain in market cattle with as little extra feed and other resources as possible. In the feeder sector of the beef industry, the use of growth implants is one common method for improving gain and feed efficiency.

"Implants" refer to growth stimulants inserted into a growing animal. These stimulants contain compounds that cause a physiological response that leads to greater muscle accumulation. Growth implants work by slowly releasing a pelletized compound that replicates the effects of the natural hormones estrogen, testosterone, or progesterone. These lead to an increase in growth hormone in the body, which contributes to muscle development. Implants have been used to great effect in feedlots, where a calf's ability to grow efficiently and in a timely manner is critical.

Implants are not restricted to feedlot operations. They are also available for cow-calf and stocker programs for the same purpose: to increase growth without major increases in feed quantity and quality. However, implants have not become nearly as popular in the stages of production leading up to the feedlot. Even though implants have been in production for more than 60 years, it's estimated that less than half of cow-calf operations nationwide utilize growth implants.

Growth implants are available for use in all three sectors of the beef industry: nursing calves, stocker calves and feedlot calves. As per FDA regulation, a specific implant may only be approved for use in specific stages of production or sexes, so always read the product label and follow recommendations.
Consumers have expressed concerns regarding the use of implants in beef cattle. To those who don't understand the process or how it affects the end product, this is understandable. As beef producers, it is important to know the facts so we can reassure customers and the general public that we produce a safe and nutritious product despite the use of modern innovations.

Most consumer concern stems from the assumption that implanted beef will have higher hormone levels than non-implanted beef, and that these hormones could go on to have negative impacts on human health. However, this is not the case. Both the FDA and the World Health Organization, among other groups, have concluded that implanted beef poses no health risk to people.

The increase in hormone activity between implanted and non-implanted calves is minimal. Beef from implanted cattle has about 2.5 nanograms (ng) of estrogenic activity per 4-oz. serving compared to 1.8 ng from non-implanted beef. To put this into perspective, in a 4-oz. serving, eggs have about 3,968 ng of estrogen, peas have 453 ng, cabbage has 2,721 ng, and soybean oil contains 226,757 ng. This is not to suggest that any of these other foods are dangerous, simply that the hormones introduced by implanted beef are negligible. Non-pregnant adult women produce naturally about 5,000,000 nanograms of estrogen/day, and even adult men produce about 100,000 ng/day.

Several implants are available for use in nursing calves and are typically administered between two and four months old. No implants are approved for calves less than 30 to 45 days old. Nursing calf implants typically have a lower dose of active ingredient compared to those meant for older calves.

Research shows that one implant given to nursing steer calves increases average daily gain by about 0.10 lbs./day and can increase weaning weights by 15 to 30 pounds. It is worth noting that implants do not make up for poor quality feed. Implanted calves must receive adequate nutrition to make use of the added growth potential. Most research that shows a significant increase in gain on implants assumes all calves are well supplemented with high-quality feed.

Implants are only effective for about 120 days, and since many calves aren't weaned until seven to eight months old, reimplanting can help increase gains to 0.13 lbs./day during this period.

If implanting all calves, note that only certain implant recommendations are approved for heifers without hurting reproductive performance. If replacement heifers are identified early on, it is generally recommended to not implant them. No implant regiment is approved for bull calves that will be used for breeding.

For those who buy and background stocker calves, as well as those who market yearlings or maintain ownership through to the slaughterhouse, implanting can be even more effective at this stage of production. Not only are more implants available to stockers then to nursing calves, but implanting stocker calves has shown to improve daily gains by 10 to 20% over those that have not been implanted. Improved gains from implants can be maximized with the use of ionophores.

More aggressive implants are typically used as animals progress through the stages of production. Depending on the implant, stocker calves can be reimplanted every 90 to 100 days as the initial effects wear off from the first implant. When calves are stocked or backgrounded for longer than 130 to 140 days, reimplanting can be an economical way to further improve gain.

Research conducted at UW's James C. Hageman Sustainable Agriculture Research and Extension Center (SAREC) near Lingle has shown that implanting weaned calves in the winter can lead to a $12 to $22 increase in calf value on a per head basis. This was an 80-day study from a few years back, conducted on a dry lot feed program before calves went back onto grass in the spring. Feed efficiency and average daily gain was significantly better in implanted weaned calves, which required 5.41 lbs. of feed per pound of gain versus 5.89 pounds of feed per pound of gain needed for calves that weren't implanted.

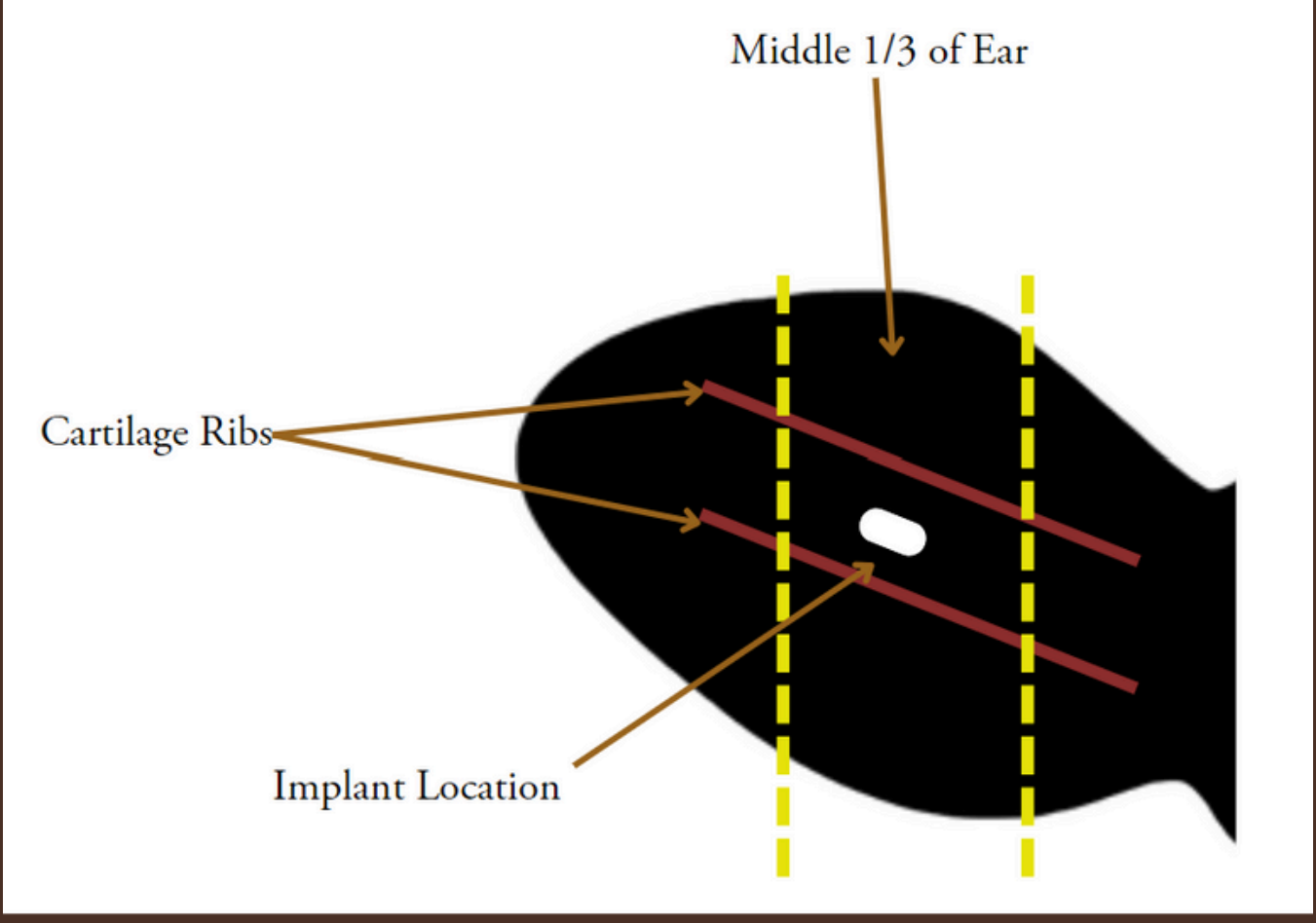
When implanting calves at any phase of production, it is essential to follow Beef Quality Assurance and FDA guidelines. Proper technique will also ensure the implant is working effectively and not simply a waste of time and expense. The first step should be reading the label to ensure you are using the correct dosage and that you are applying it to the right class of animals.

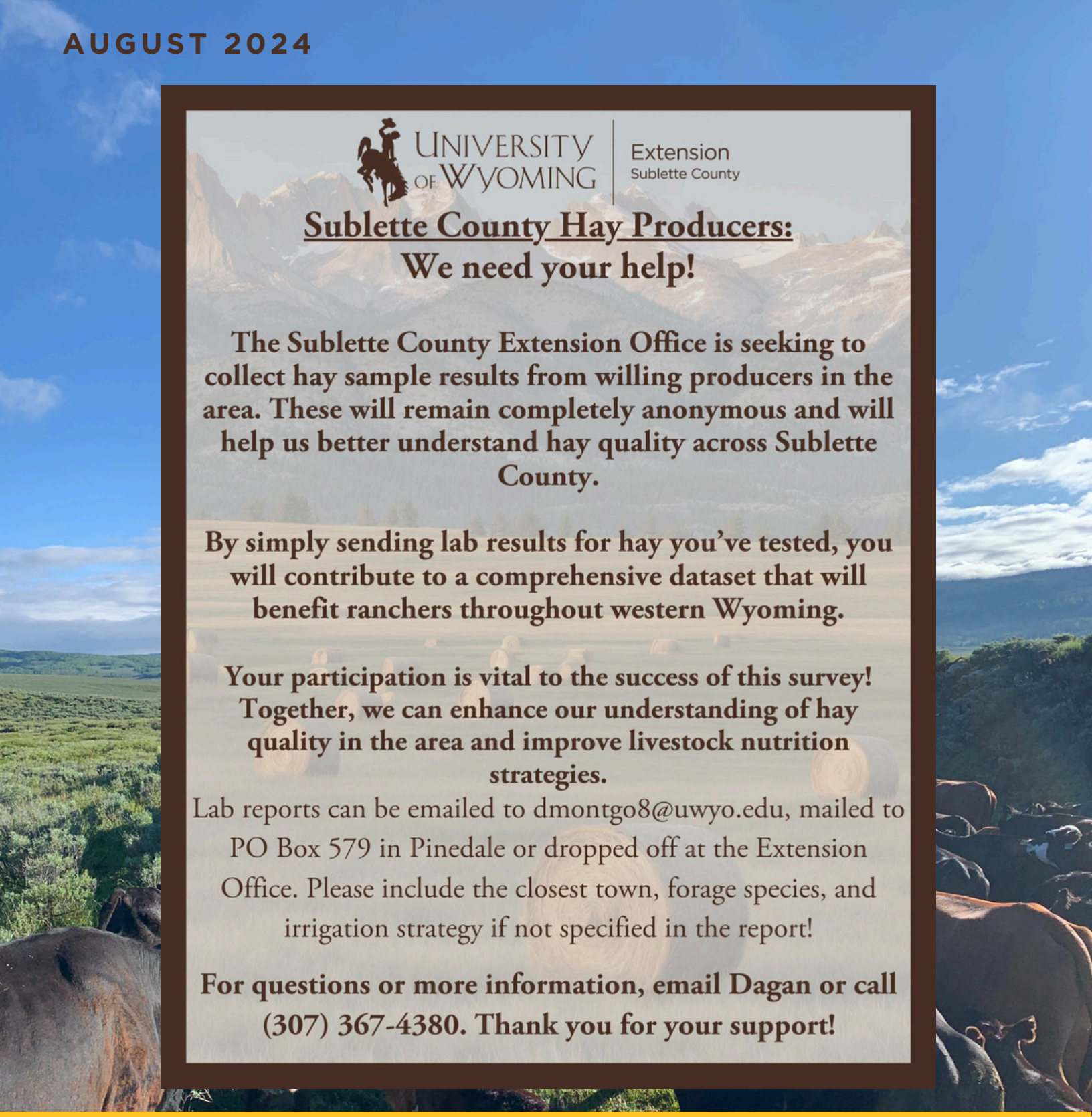
The only approved location for all implants is subcutaneously in the middle of the back of the ear. This placement allows a steady release of the product. The calf should be properly restrained so the area of implant can be properly sterilized and to avoid injury to yourself or the animal. The needles on implant guns are very

large and sharp, and it is easy to accidentally jab oneself, especially with a thrashing calf. Remove any dirt or manure and scrub with disinfectant as needed before injecting. Be sure the needle is sharp and not crooked or barbed.

The needle should go in at the back of the ear, in the middle third between the skin and cartilage, staying between the two cartilage "ribs" that run the length of the ear. As the trigger is pulled and the implant is pushed out, gently withdraw the gun. You should be able to feel the capsule under the skin at this location. If possible, clean the needle between calves with a solution such as chlorohexidine.

Implanting calves is a very underutilized but proven method to increase weight gain in beef production systems. If properly used, implants can increase weaning weights in nursing calves, and enable yearlings in stocker programs to reach the feedlot with higher average daily gains on the same amount of feed as non-implanted calves. This consumer-safe strategy can greatly improve profit on growing cattle with relatively little cost to the producer. If you are interested in implanting your herd and have any questions, contact a local University of Wyoming Extension office.





SUBLETTE COUNTY EXTENSION VOLUNTARY HAY ANALYSIS SURVEY

The Sublette County Extension Office is still conducting a survey of hay analysis results from anyone that has had hay grown in the county tested for quality. With hay season wrapping up, anyone interested in having their hay sampled for testing can contact the extension office. We would greatly appreciate producer's who would also be willing to share their results with us. This would remain anonymous and would help us better understand hay quality variation in the area! Thanks!

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PRESERVING FOOD IN WYOMING AT HIGH ALTITUDE

Interested in preserving food to store from your garden or the store? Canning and other methods can be difficult at high altitudes. UWE has a publication available that goes into detail on canning, freezing, drying and fermenting food in high altitude conditions in a safe manner. Click the jars at left to be taken to a PDF of the publication.

UWE GROWING INTERNSHIP

The UW Growing AG internship provides hands-on experience on farms and ranchers across Wyoming to students seeking practical knowledge of varying forms of agriculture. If you are interested in hosting or know someone that may be interested in applying, click the icon! A brief article on the program can be seen here

WYOMING WOOL GROWER'S RAM SALE, DOUGLAS

The WWGA will be hosting the 96th annual ram test and sale in Douglas on September 10th. Visit the site by clicking the image to view the sale catalog and requirements of this event

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