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## **New Rules for Animal ID**

K. Scott Jensen  
UI Extension Educator, Owyhee County

Beginning March 11, 2013 beef producers will be required to follow new federal guidelines when shipping certain classes of cattle. These new rules were published in the federal register on January 9, 2013 and are aimed at improving animal disease traceability.

The new rules are designed to be more flexible than the National Animal Identification System of a few years ago. They affect only a relatively small percentage of cattle marketed. Only animals that are moved interstate are required to be officially identified. Also, most animals less than 18 months of age are exempt. Animals shipped directly to slaughter are exempt. Any collected data will be maintained by states and tribes.

Here are the new rules in a nutshell:

1. Unless exempt, livestock moved interstate must be officially identified by:
  - A. Official eartag, or
  - B. Group lot ID or
  - C. Brands (registered with a recognized brand inspection), or
  - D. Breed registry ID, tattoos (accompanied by a breed registration certificate), or
  - E. Backtags in lieu of official ID for direct shipment to slaughter
  - F. Must be accompanied by an interstate certificate of veterinary inspection (ICVI)
2. Required for:
  - A. All sexually intact cattle and bison 18+ months of age
  - B. Female dairy cattle of any age
  - C. Cattle and bison of any age used for rodeo, recreation, and shows.
3. Movement documentation
  - A. ICVI required unless:
    - i. Moved directly to an approved livestock facility
    - ii. Moved for veterinary examination or treatment and returned without change of ownership
    - iii. Moved directly from one state through another state and back to the original state
    - iv. Moved as a commuter herd with herd agreement
    - v. Moved with documentation other than ICVI as agreed upon by both the shipping and receiving states.
4. Commuter herd agreement

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## Early Weaning Calves

Jim Church  
UI Extension Educator

**Why Now?** Cattle producers are facing some interesting times in the cattle business these days. Nationally the cow herd is as small as it has been in 60 years. Severe drought has caused many producers in the mid-west and south to liquidate herds. Hay supplies are critically low across the country, which is causing hay prices to skyrocket. In addition, corn prices are high due to the drought reducing production last year and the amount of corn being used to produce ethanol.

The cost of inputs are high but currently we are covering these costs with high calf prices.

With these high feed costs, it makes sense to maintain as much body condition on the cows as possible without having to buy expensive feed stuffs. One way to accomplish this is to wean early before cows lose too much body condition.

**Advantages and Disadvantages.** Greg Lardy, Extension Beef Cattle Specialist from North Dakota State University published a paper entitled, *Early Weaning Beef Calves*. In his paper he outlined advantages and disadvantages of early weaning which are listed below:

### Advantages:

- Reduced nutrient demands on the cow herd and improved body condition.
- Reduced forage demand on the pasture. Dry cows eat less and the calves will not be grazing.
- Can reduce forage demand by 50%.
- Early weaning conserves forage resources for the cow herd.
- Reproductive performance of the cow herd may be improved if calves are weaned early.
- Cull cows can be marketed before the seasonal market lows.
- Quality grade of the calf may be improved, depending on management after weaning.

### Disadvantages:

- Increased labor requirement.
- Requires facilities to background or feed calves.
- Higher nutritional requirements of weaned calves will require special rations.

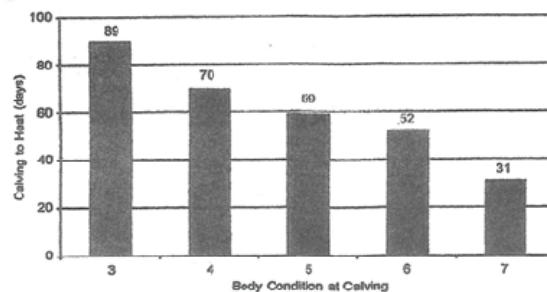
- Increased focus on vaccinations and health program is required.

In another paper written by Utah State University Extension Specialists summarizing a research project they conducted on early weaning, (Clell Bagley, et al.,) the number one reason for early weaning is to help the nursing cows maintain body condition and reduce feed costs. In this study, the cowherd was divided into three groups; two groups of spring born calves were weaned the first of August and 1 group was weaned in October.

The average body weight gained by cows that had the calves weaned early was 33.1 pounds and their body condition score improved from 4.9 to 5.4.

The cows that had their calves weaned in October showed an average loss of 7.9 pounds and their body condition score stayed the same. The average difference in net pounds of body weight was 41 pounds between the early weaned versus the later weaned cows. This is equal to one half of a body condition score.

**Does Cow Body Condition Really Matter?** Yes, definitely. Clay Mathis and Manny Encinias, Extension Livestock Specialists from New Mexico State University summarized data developed by Dr. Houghton, et al., in a bulletin entitled, *Early Weaning Beef Calves*. The data showed the effect of body condition at calving on postpartum anestrus. In other words, how long it took cows to return to estrus after calving. The table below outlines the results:



*Effect of body condition at calving on postpartum anestrus duration. (Houghton et al., 1990, Mathis et al., New Mexico State, 2010)*

As you can see by the data, cows that are a condition score 3 at calving will take 89 days to return to estrus, while a cow with a

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## Steer-Heifer Price Spread

Ron Torell  
Long-Standing Educator and Advocate of Agriculture

Why do heifer calves sell so far back from their steer mates? Regardless of the similarities between the cost of production with steers and heifers, steer calves generally demand up to a dime more per pound at weaning than their heifer mates. One would expect the steer-heifer spread to narrow as the demand for replacement females increases. If expansion of the national beef cow herd accelerates as anticipated the question may become: *Why do steer calves sell equal to or behind their heifer mates?*

Historically problems associated with heifer purchases are revealed as these animals progress through the production chain. Some of the following scenarios may offer clarification motivating the price spread between genders.

- Ranchers generally retain the top end of their females as replacements and market the remainder realizing the likelihood of reduced performance on the bottom end. At the same time 100% of the steers are sold with a higher expectation of overall performance because of gender expression for growth and muscle deposition.
- Heifers generally gain weight slower and convert feed less efficiently. This results in higher break-even costs for both the stocker and the feedlot operator. These higher break-even costs warrant the wider price spread. Increases in corn and feedstuff costs reinforces the need for efficient cattle during the growing and finishing phase.
- Heifers bound for the feedlot and rail are terminal market. Stocker operators must deal with the challenge of keeping heifers open and guaranteeing them as such upon delivery to the feedlot operator. Pregnant heifers on a finished ration in a feedlot may cause huge problems with dystocia or the unexpected delivery of calves under unfavorable conditions.
- Carcass yield grades and carcass sale weights favor steers while heifers may excel in quality grade. In isolated cases light-weight carcasses from smaller framed heifers may result in a discount on the end product. A higher percentage of dark cutter carcasses are seen on the rail with females compared to males which may also result in discounts.
- Transportation restrictions across state lines limits and/or adds input and management costs when marketing heifers over steers. Restrictions

related to reproduction and animal health issues in some states include brucellosis and tuberculosis. Restrictions in the movement of heifers often require blood testing or vaccination prior to shipment so that an interstate health certificate may be secured. Working facilities and additional labor is often required at the point of shipping in order to meet the regulations required by law.

At birth body weight between steers and heifers is very narrow with heifers usually weighing a few pounds less than steers. As cattle age their genetic and gender potential is expressed provided their feed ration is of sufficient quality and quantity for growth. At harvest steers may weigh 100-150 lbs more than their heifer mates resulting in a bigger paycheck.

An increase in body weight spread between genders is expected as animals age along with a narrowing of the steer-heifer price spread. A gender price spread of 10 cents/lb as a weaned calf may be as narrow as 4 cents/lb as a heavy yearling and at par at time of harvest on the rail. As heifers grow closer to the end-market many of the risks associated with their production are behind them suggesting a narrow end-market steer-heifer price spread.

There are a few management procedures often applied to heifers in an effort to narrow the steer-heifer price spread. These procedures include but are not limited to spaying, aggressive implant programs, and genetic selection of larger framed, heavier muscled, terminal-cross sires.

Given all the negatives relative to the sale and purchase of heifers over steers which historically justify a wide steer-heifer price spread, the bottom line is if our national cow herd numbers are lower than they've

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# Measuring Reproductive Performance

Stephanie Etter  
UI Extension Educator, Canyon County

For a profitable cow-calf operation good reproductive rates are critical. The first step to evaluating reproductive performance on your operation is to develop goals. Not every operation will have the same goals because of differences in management and marketing.

First let's start by reviewing some of the reproduction records you could be keeping. Calving season is busy but note taking is essential for later organization into a permanent record keeping system. These records should supplemental to other information such as health and animal inventory already being kept. Here are some measures that could be beneficial:

## Birth records

- Birth weight
- Birth date
- Identification
- Parentage
- Calving ease/problems

## Weaning records

- Weaning weight
- Weaning date

## Cow reproduction

- Breeding dates or day bulls turned out
- Preg check results
- Number of services per conception

Next let's look at some measures of reproductive efficiency that can be determined if we have records. **Pregnancy Rate** = *Number of cows diagnosed pregnant/number of cows exposed to breeding x 100*. This is a measure of breeding season success.

Live calving rate = *Number of live calves born/(number of cows exposed to breeding-number of cows sold or died + number of pregnant cows purchased) x 100*. Live calving rate is a measure of the collective results of the breeding and calving seasons. Cows must not only conceive, but they must also give birth to live healthy calves.

**Weaning rate** = *(Number of calves weaned + Number of calves sold preweaning)/(Number of cows exposed to breeding-Number of cows sold or died + Number of pregnant cows purchased) x 100*. Weaning rate is a measure of the herd reproductive performance. It evaluates conception, pregnancy, calving and pre-weaning success or failure.

**Calving Interval** = *(Age in days at first calving - Age in days at last calving)/Number of calving*. Calving interval is the number of days between successive calvings. It measures reproductive success over the last year. The ideal calving interval would be 365 days or less and not average more than 365 days over multiple years to maintain the desired calving season and produce a marketable calf on an annual basis.

Ideally, these measures should be figured as soon as you have all the necessary data. This

way any problems can be quickly identified and corrected. High levels of reproductive losses between breeding and calving should be investigated. These may be due to a number of reasons such as poor nutrition, plant toxicities, high nitrate feeds, or reproductive diseases. Keeping good records and closely monitoring cattle reproductive efficiency can help you achieve the goals you have set to have a profitable cow herd.



## Handling Impacts Beef Quality

J. Benton Glaze, Jr., Ph.D.  
Extension Beef Cattle Specialist, UI Animal & Veterinary Science Department

With beef's consumer market share having been threatened over a period of years, beef industry leaders found it necessary to devise a plan that would improve the quality and consistency of beef and beef products, and improve beef's position in the marketplace. In 1991, the National Beef Quality Audit (NBQA) was initiated. The goal of this endeavor was to conduct a quality audit of slaughter cattle (carcasses, cuts, etc.) and provide baseline figures for present product quality. The audit also provided direction/recommendations to the industry that were aimed at improving beef quality and value. Subsequent audits have been conducted approximately every five years to assess how the beef industry is doing in delivering quality beef and beef products to consumers. The most recent audit was conducted toward the end of 2011.

As part of the 2011 NBQA, a survey was conducted to document management practices used by producers and quantify the adoption of beef quality assurance (BQA) oriented management practices. Almost 3,800 surveys were completed and came from participants in 45 states. Seventy-five percent (75%) of survey respondents represented the cow-calf sector of the beef industry. Survey participants were asked to define quality. The two definitions that rose to the top were: (1) producing safe and wholesome beef, and (2) raising cattle that are healthy. Almost all (96%) of the survey participants noted they influence quality with various farm and ranch activities. When asked how they influence quality, 93% of respondents indicated they influence quality through stockmanship and animal handling skills. To ensure that good stockmanship and animal handling skills are being used on farms and ranches, some principles of cattle behavior (flight zone, and herding instinct) and the use of movement aids should be considered.

Cattle have a flight zone. An animal's flight zone is similar to a human's personal space. As people, unfamiliar animals, or objects enter the flight zone, cattle begin to move away. As you move out the flight zone, cattle will begin to stop moving. The size of the flight zone is dependent on the wildness and tameness of the animal. Wild cattle have larger flight zones than tame cattle.

Cattle that have been handled quietly have smaller flight zones than animals that have been handled roughly. Flight zones are usually increased when approaching cattle head-on, as opposed to other angles. Flight zone size is determined by factors such as, frequency and quality (quiet vs. rough) of people contact and genetics.

Cattle possess a herding instinct. Cattle prefer to follow a leader and are motivated to maintain visual contact with each other. Handling facilities should be designed so that as animals make their way through, they are able to see the preceding animals. Dead ends and solid blocking gates should be avoided to prevent balking. Cattle also prefer to remain in groups. Animals left alone in crowding pens often become agitated and may make various attempts to rejoin the group. Additional animals may have to be added to get lone animals to move to a desired location.

Another area of stockmanship and animal handling to consider is the use of movement aids/tools (whips, canes, electric prods, etc.). Cattle have long memories. If handled roughly in the past, cattle tend to be more stressed and more difficult to work when handled in the future. A study at Pennsylvania State University compared three different movement aids: 1) electric prods, 2) oars with rattles (rattle paddles), and 3) manual urging. Data was collected on the time necessary for animals to make their way through the chute, and how many times a movement aid had to be applied. Results showed that the use of electric prods differed considerably from the other methods. Electric prods moved the cattle through the chute more rapidly and had to be applied less frequently when compared to other methods. The use of electric prods caused animals to stumble and make contact with chute sides more often. This could lead to increased bruising and injury of the animals.

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## ***Handling Impacts Beef Quality . . . continued from page 5***

Beef producers have different preferences for the types of movement aids that are to be used on their cattle. In the 2011 NBQA survey, participants were asked to identify their primary cattle movement aid or driving tool. Table 1 shows the majority of respondents preferred sorting sticks. Whichever movement aid or driving tool is used, it should be used properly. For example, if tail twisting is used to move cattle through a chute system, the tail should be released when the animal begins to move. This gives the animal a sense of reward for moving. An encouraging note from the survey was that more than 98% of respondents did not chose an electric prod as primary movement aid or driving tool.

On beef cattle operations, it is impossible to avoid handling and moving cattle at least a few times a year. To make those times less stressful for both the producer and cattle, and to maintain the highest level of beef quality, it is important to do some prior planning. Handling and working facilities (corrals, pens, chutes, alleys, etc.) should be built, or adapted, keeping in mind various aspects of animal behavior and the use of movement aids/driving tools should be kept to a minimum.

**Table 1. Survey participants' primary driving tool when moving or sorting cattle<sup>a</sup>**

Tool	% of survey responses
Sorting stick	51.9
No driving tools	15.3
Rattle paddle	14.7
Flag	6.0
Cane	4.6
Other	4.6
Electric prod	1.6
Multiple	1.4

<sup>a</sup>NBQA, 2011



## ***New Rules for Animal ID. . . continued from page 1***

- A. A written agreement between livestock owner(s) and animal health officials for states of origin and destination specifying conditions required for the interstate movement from one premises to another in the course of normal livestock operations and specified time period.
- B. Involves no change of ownership
- C. Can be renewed annually

The bottom line is that most cow/calf producers should experience minimal changes under the current new rules. Official eartags may be obtained by contacting the Idaho State Department of Agriculture. Regular dangle tags are not a form of official ID. Brands are now recognized as an official form of ID as long as they are accepted by the receiving state. Please contact Dr. Barton at the state vet's office at ISDA if you have any questions.

## ***Steer-Heifer . . . continued from page 3***

been since the 1940's, the only way to increase this inventory is through the retention of replacements. This is a simple function of supply and demand. During the herd building phase there is going to be an increase in the demand for heifers. This justifies the narrower or at par price spread compared to steers that may be forthcoming.



*Editor's note: This is Ron Torell's final contribution to this newsletter. He is heading into a new chapter in his life as the Nevada Cattlemen's Association president. We sincerely appreciate his thought-provoking articles and wish him the best in his term as NCA President!*



**THANK YOU!**

## ***Early Weaning Calves . . . continued from page 2***

condition score of 5 at calving will take 59 days to return to estrus.

How does this relate to early weaning? If you wean early in the fall and are able to maintain or gain body condition while still on fall pasture, it is much cheaper than letting a cow lose a body condition score or two and then trying to gain it back by feeding her in the winter prior to calving. On average it takes 75–100 pounds of body weight to gain a body condition score.

Fall calving cows lose a great deal of body condition over the winter while nursing a calf. Early weaning may not be as critical because the cows have the summer grazing period to gain body condition prior to calving. However, if feed quality is low or if feed supply is limited, it may pay to wean fall calves early.

***How Old Should the Calves be to Early Wean?*** Calves can be weaned as early as six weeks of age but most beef producers wanting to early wean should consider weaning at 4 to 5 months of age. At this age the calf is old enough to do well in a drylot or on a high quality pasture without a great deal of extra care. This also allows enough time to provide the advantages to the cows.

***Does It Pay?*** In the Utah State University study conducted by Bagley et al., where they divided the calves into three groups; one group early weaned and fed in a drylot; one early weaned and turned out on good quality pasture; and the third group left on the cows until the normal weaning date of October. The weight gains for all three groups of calves showed no statistically significant difference.

The cows in the study were grazing native meadow pastures, and the researchers indicated that the summer pasture was adequate but the feed was limited in late summer. They did acknowledge that the limitation was mild.

The big difference they noticed was in the body condition of the cows as was mentioned earlier in this letter.

Their conclusion from this study was that the decision to wean early should be placed on the availability and cost of the feed that will be fed to the early weaned calves, quality and quantity of pasture forage if the calves are left on the cows and the benefit to the dams in regards to body condition saved if the calves are weaned early.

In our area, spring born calves grazing local pastures have a very difficult time meeting their nutrient requirements eating the dried up pasture grasses in August and September. I think in our region, there is a need to look at the performance of calves weaned early and fed good quality feed in a drylot versus leaving them on the cows.

So does it pay? Well, it looks like the answer is "it depends."

***Summary.*** It appears that early weaning should be considered when range or pasture forages are short in supply and low in quality. The early weaned calves will need to be fed high quality feeds that will allow them to grow adequately. This forage will have to be competitively priced.

In addition, the research shows that the biggest advantage of weaning calves early is the benefit it provides in maintaining cow body condition. If cows are losing body condition each year and it is causing reproduction problems. Early weaning should be used.

***Contact Information.*** Jim Church, 320 West Main, Grangeville, Idaho 83530; jchurch@uidaho.edu; 208-983-2667.

### ***References.***

Bagley, Clell V., Stenquist, Norris J., and Snyder, Donald L., Early Weaning Of Calves May Be Economical. Utah State University Extension Animal Health Fact Sheet #AH/Beef/14. July 1997.

Lardy, Greg., Early Weaning Beef Calves. North Dakota State University Research Extension Center Annual Report, 2002.

Mathis, Clay P., and Encinias, Manny., Early Weaning Beef Calves. New Mexico State University Cooperative Extension Service, Guide B-126, 2010.



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## **Upcoming Events in 2013 . . .**

- |                     |  |
|---------------------|--|
| June 11-14          | Lost Rivers Grazing Academy, Salmon  |
| July 27 (tentative) | Owyhee Cattlemen's Association<br>Summer Meeting, Silver City                                      |
| August 5-7          | Owyhee County Fair Horse Show  |
| August 7            | Beef, Sheep, Goat and Swine Weigh-in at Fair   |
| August 7-10         | Owyhee County Fair and Rodeo!  |
| August 10           | Owyhee County Junior Livestock Sale — Buyer's Lunch at<br>Noon with the Sale immediately following |
| September 9-12      | Lost Rivers Grazing Academy, Salmon  |

