

# Large Animal Newsletter

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cull cow market and sell when the supply of slaughter cows is at their lowest and prices are typically the highest, and 2) Market cows into a higher grade by increasing weight and dressing percentage.

**Table 1. Cow-calf operations main reason for culling (NAHMS, 1997)**

Reason	Percent
Age or bad teeth	39.8
Pregnancy status	24.3
Economics	18.5
Producing poor offspring	5.7
Other reproductive problem	2.9
Other	2.9
Physical soundness	2.1
Udder problem	1.5
Temperament	1.3
Bad eye(s)	0.8
Respiratory problem	0.2
Digestive problem	0.0



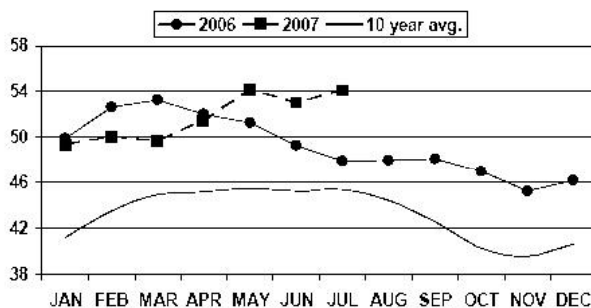
## Adding Value to Culls

Preg checking time is upon us and no doubt, many of you will have some cull cows to contend with. Cow-calf producers cull cows for many reasons. The top two reasons as reported by the National Animal Health Monitoring System (1997) are cow age and pregnancy status (Table 1). Since cull cows can account from 15 to 30% of a cow-calf operations revenue, cow-calf producers should consider options to optimize their value.

There are two main ways to increase the value of cull cows: 1.) Take advantage of the seasonality of the

The cull cow market is historically seasonal and producers who cull in the spring automatically take advantage of this seasonal price increase. Figure 1 shows the 2006 and 2007 monthly prices for utility grade cows compared to the 10-year average. As you can see, the higher prices usually start in the spring and drop during the fall when most producers are preg checking cows and making their culling decisions. The 2006 monthly averages followed the same general trend as the 10-year average but there was a larger seasonal difference.

Figure 1. Average monthly Utility cow price (adapted from Cattle-Fax 2007)



The monthly averages for up to July of 2007 seem to be taking a little different trend. What will happen the rest of this year and the next is unknown and producers should be

aware of yearly differences and plan accordingly.

Another way to add value to cull cows is to improve their quality grade. Research has shown that feeding cows to higher weights increases their chance to obtain a higher grade. By increasing body weight, the amount of fat and lean tissue that may have been depleted are replenished.

Cows are graded as Commercial, Utility, Cutter, and Canner quality grades with most falling into Cutter or Utility grades. For the last 7 years there has been an average difference of \$5.25 per hundred between cows grading Utility and cows grading Cutter or Canner. The seasonal difference within a grade can be as much or greater.

Some studies have shown that increasing a cull's weight can be accomplished fairly quickly by feeding a high concentrate ration due to their lower maintenance requirements. The optimal length to feed depends on the amount of weight and condition that needs to be added to the cow to potentially classify for a higher grade.

If cattle are going to be fed or held over for more favorable prices, a breakeven price and budget should be calculated to make sure that it will be economically feasible to take this strategy.

Cull cows can be fed a variety of different diets and still gain the necessary weight to potentially move up in grade. Grain based diets seem to work the best but may not be economical depending on grain prices. Forage based diets such as dormant winter range can be used effectively but supplementation will be necessary to properly do so.

Only cows that are healthy and free from injury should be retained and fed. All cows with structural problems and other ailments should be marketed at the time of culling.

Thinner cows will typically feed more efficiently than heavier, better-conditioned cows throughout the feeding period.

Feeding cull cows is not a common practice in the cow-calf industry, but it can be a viable way for producers to maximize their income. Cows culled in the fall can be kept and fed over the winter to allow for weight, quality grade, and prices to increase. The economic feasibility of feeding cull cows varies from year to year and operation to operation, especially with the volatility of the current grain market.

Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic

## Putting a Dollar on Pharmaceutical Values

An innovative study puts dollar values on the use of pharmaceutical technologies in the beef industry. These technologies—parasite control, growth implants, subtherapeutic antibiotics, ionophores and beta-agonists—save cattlemen an estimated \$360/head during an animal's lifetime.

The "Economic Analysis of Pharmaceutical Technologies in Modern Beef Production" shows selling prices would have to increase 36 percent to cover the increase in production costs without these technologies. Iowa State University economists John Lawrence and Maro Ibarburu oversaw the study.

They examined what would happen to 2005 prices if a ban on pharmaceutical technologies were enacted five years earlier. Their analysis showed the number of beef cows would be unchanged, but there would be 14 percent fewer calves weaned and carcass weights would decline. This reduces beef production 18 percent—or 4.5 billion pounds annually. Net imports of beef would increase dramatically—180 percent or nearly 2.2 billion pounds annually.

Per capita consumption would decrease by 8.5 percent and retail prices would increase 13 percent. The study stated Nebraska fed-cattle prices would increase 20 percent, approximately \$17/cwt. Oklahoma City 600-650 pound steer prices would increase 23 percent—\$26/cwt. Cull cow prices would go up \$13/cwt.

The high feeder cattle and cull cow prices however would only partially offset the higher cowherd cost from the reduced weaning rate. The report said cowherd returns would be approximately 8 percent—or \$5 per head—lower without the use of pharmaceutical technologies. "The beef industry would be expected to have the same number beef cows, but fewer calves would be weaned, leading to fewer total cattle, reduced slaughter and more beef imports.

For cow-calf operations, removing implants, dewormers and fly control increased the breakeven price by nearly 47 percent or \$225/head. The biggest impact would be eliminating dewormer, which would increase production costs by \$165/head. Elimination of implants and fly control would add \$28 and \$15 respectively to breakeven costs.

With feedlots, implants have the biggest cost savings. An implant ban would cause the breakeven price to rise by \$68/head. Dewormers provided the second largest cost savings at \$22/head, while ionophores and beta-agonists reduced costs by \$12-\$13/head.

By Nancy Carver Singelton, Feedlot Magazine, August 2007

## 10 Vaccination Tips

Vaccinations are an important key to proper animal health, and herd health management. And, to ensure that vaccination is as effective as possible, proper vaccine handling and administration is very important. The following tips from Dale Grotelueschen, DVM and veterinarian with Pfizer Animal Health, will help

get you on the right path to better herd health management:

1. Consult your veterinarian to develop a protocol that fits the health goals of your operation.
2. Select a quality product. Consult your veterinarian to ensure you are selecting the right products for your use. It is important to purchase only federally licensed vaccines from a reliable source.
3. Carefully read the label to maximize the value and effectiveness of the vaccine. It is important to understand precautions so vaccines are given at the right stage of the animals' lives, to animals of the right age, in the proper dosage and at the appropriate intervals if more than one dose is needed
4. Store the vaccines according to label directions, paying particular attention to ensure correct temperature and light conditions.
5. When transporting vaccines to chute side, store them in a cooler with an ice pack. Keep the cooler and products in the shade.
6. Always use a sterile transfer needle or disposable syringe when rehydrating products.
7. Mix only one vaccine bottle at a time prior to administration. A good rule of thumb is not to mix more vaccines than will be used in 1 hour.
8. Subcutaneous injections are the preferred route whenever label instructions allow. All injections should be given in the neck.
9. Make sure to use new, sharp needles and the correct gauge size for the vaccine being used and the size of the animal. Change needles every 10–15 animals, and never re-enter a vaccine bottle with a used needle.
10. Always properly clean equipment and syringes after vaccinating. Grotelueschen suggests using the

following steps to assure your equipment is sterilized: Reusable syringes should be washed in hot, distilled water. First wash the outside and then take the syringe apart to wash it thoroughly. Fill the syringe with water and cover with damp paper towels. The wrapped syringe should be placed in an open resealable plastic bag and placed in the microwave on high for five minutes. The damp paper towels prevent the metal parts from sparking.

Transfer needles also should be sterilized in the microwave; wrap in damp paper towels, place in an open resealable plastic bag and microwave on high for 30 seconds.

AmericanCowman.com, August 27, 2007

## **Mixing Drier, Bulkier Materials with Wet Ethanol Byproducts Increases Storage Life, Flexibility of Feed**

Wet byproducts from ethanol production are tricky to store for later use as cattle feed because of their high moisture content and threat of spoilage, but mixing them with drier, bulkier feeds improves storability, IANR research shows.

UNL animal scientists' research resulted in formulas for mixing several widely available dry forages with wet distillers grains. Their findings could help feedlot managers and cow-calf producers purchase wet distillers grains during the summer when their plentiful supply can mean lower prices and safely store them for use later in the season or for winter-feeding.

The relatively short shelf life of wet distillers grains has been a key obstacle to their use as feed in some situations. Feedlots need to have the material delivered frequently and use it within a few days to avoid spoilage; for smaller operations, that's not economically feasible. Cow-calf

operators, meantime, have greatest use for the feed during the winter, but that's when supplies tend to be lower than during the summer.

At 65 percent moisture content, wet distillers grains alone cannot be stored in silage bags or bunkers like corn silage or bulkier feeds. Compressing them in bags to push out air and prevent spoilage splits the bags, and they're too wet to be compacted by tractors in bunkers.

UNL animal scientists experimented with mixing grass hay, alfalfa hay and wheat straw with the wet distillers grains to determine how much dry material would be needed for successful storage.

When bagging silage, IANR researchers found the following minimal levels of dry material: 15 percent for grass hay; 22.5 percent, alfalfa hay; and 12.5 percent, wheat straw.

Researchers also experimented with mixing dry distillers grains and wet corn gluten feed, another ethanol byproduct, with the wet distillers grains. A 50-50 blend of dry and wet distillers grain bagged up well, while a 60-40 mixture of wet corn gluten and wet distillers grains seemed to work. Endeavors, University of Nebraska-Lincoln, 2006-2007

## **Understanding Feed Tags**

Feed costs make up the largest portion of a livestock producer's expenses. Therefore it is very important to consider the feed sources available and to determine their ability to meet your animal's requirements. This can be determined on harvested feedstuffs by taking a sample and having it analyzed by a lab. Commercial feedstuffs on the other hand are required by the FDA to be labeled with a feed tag. Understanding the information that is listed on the feed tag is crucial for determining if a

feedstuff will provide the nutrients necessary to their livestock.

The feed tag must include, the manufacturer's name, name of the feed product, purpose statement, name and concentration of medication if included, guaranteed analysis, ingredients used, feeding/mixing directions, warning statement if medicated, manufacturer's address, disclaimer, manufacturer's code and the unit weight of the product.

The purpose statement indicates the class of animals that the product is intended to be used, i.e. "For maintenance and mature horses". The purpose statement may also include the desired result, for example, "For improved feed efficiency in cattle fed in confinement for slaughter".

The guaranteed analysis includes a listing of nutrient concentrations in the feed. The specific nutrients that must be listed varies with the type of feed that is in consideration. However, nutrients that are typically listed are crude protein, crude fat, crude fiber, calcium, phosphorus, salt, zinc, copper, vitamin A, vitamin D, and vitamin E. Often, the concentrations of nutrients are listed in terms of ranges. For example, Calcium in a particular feedstuff may be listed as a maximum concentration of 12% and a minimum concentration of 10%. The FDA requires that the concentration of the Calcium in this feedstuff fall between these ranges.

It is important to remember that while the product in question may have a

guaranteed analysis of nutrients listed, the nutrients will not be 100% digestible or available to the animal. The availability of the nutrients in the feedstuff depends on the quality and type of ingredients used in the feedstuff.

Most complete feeds like sweet feeds or horse feeds list the Total Digestible Nutrients (TDN), which gives us an idea of the availability of the feed to the animal during digestion. Protein and mineral supplements however, do not. Thus it is important to be aware of the ingredients used in the feedstuff.

The feed tag must also include the feed ingredients used in making the product. The ingredients can be listed as specific names for the ingredient or as collective terms. Some examples of specific and collective terms are listed in table 1.

**Table 1 Examples of feedstuffs and their corresponding collective terms**

<u>Feedstuff</u>	<u>Collective Term</u>
Corn	Grain Products
Dried Distillers Grains	Processed grain By-Products
Fish meal Animal	Protein Products
Soybean Meal	Plant protein products
Soy Hulls	Roughage Products
Alfalfa hay	Forage products
Limestone	Calcium Carbonate
Zinc Oxide	Zinc Oxide

As mentioned earlier, it is important to be aware of the ingredients being used. An idea of availability can be found from the actual name of the ingredient used. Most mineral sources are in the form of chelates, sulfates, or oxides. Typically chelates

are more available than sulfates, sulfates are more available than oxides. Chlorides, and carbonates are also used and will have availabilities similar to sulfates.

**Table 2 Examples of copper source availability**

<u>Source</u>	<u>Availability</u>
Copper Chelate	High
Copper Sulfate	Medium
Copper Oxide	Low

Additionally, feed tags are required to have feeding and/or mixing directions that are relevant to the commercial feed in question. Inclusion rates, feeding rate and a description of the appropriate feeding method must be included. Sometimes, exact mixing instructions are included.

As mentioned previously, if the product is medicated, the active ingredient and its concentration must be listed above the guaranteed analysis. The feed tag must also include a warning statement. The warning statement may include things like the amount and concentration of the medication to be fed, adverse reaction information if the feed is misused, specific species information, and additional mixing information.

In conclusion, labels are required on feedstuffs for the buyer's protection. If read correctly, and understood, feedbags can assist producers in making informed and profitable management decisions when selecting commercial feedstuffs.

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