Beef Tips

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Upcoming Events

Tri-State Cow/Calf Symposium
January 27, 2007
Benkelman, NE

KOMA Beef Conference
February 15, 2007
Fort Scott Sale Barn
Fort Scott, KS

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Natural and organic beef; similar, but not the same

Sandy Johnson, livestock specialist

While natural and organic beef products are not likely to ever dominate the US market, demand for organic products has been growing at the rate of about 20% annually since the early 1990's. The market is estimated to be at $25 billion plus in annual sales, with large specialists such as Whole Foods and Wal-Mart supercenters competing for customers. Certified Angus Beef is now offering natural products. Given the growth in this area, there may be opportunities for producers to participate and benefit. The first step in exploring that option is to understand the differences between natural, organic and other marketing claims of these specialized products.

Organic

Organic beef meets the standards put in place by the USDA and these standards apply to product grown in the USA or imported from other countries. To be labeled as "organic" the entire production system, from farm to processor, must be inspected by a government approved certifier to make sure all rules are followed. This certification process allows producers to use a "certified organic" seal. Products can be labeled as "100% organic", "organic" (not less than 95% organic material) or "made with organic" (at least 70% organic ingredients). Details of the requirements can be found at: http://www.ams.usda.gov/nop.

Organic meat, eggs and dairy products come from animals that have not received antibiotics or growth promoting hormones. Conventional pesticides, synthetic fertilizers, sewage sludge, genetically modified products or ionizing radiation cannot be used in production. Livestock must receive organically produced feed and the land used to produce the feed cannot have had prohibited substances for at least three years before the harvest of the organic crop. Vaccination and other preventative management practices are used to keep animals healthy. A sick or injured animal must be treated; however, if treated with a prohibited medication it cannot be sold as organic.

Operations selling less than $5,000 per year are not required to be certified by USDA. These producers and handlers must abide by the national standards and may label their products as organic even though they are exempt from the certification. These products would have an "organic" but not "certified organic" label.

Natural

USDA's Food Safety and Inspection Service (FSIS) regulates the term "natural" on meat and poultry products. There are three requirements for use of the term "natural" on food labels. The product must be minimally processed. The product cannot contain any artificial ingredients or colors and the product cannot contain any preservatives. There are not requirements on the management practices during the life of the animal. While organic claims are certified by the USDA, natural programs are administered and regulated by the company or organization that owns the brand name (for example, Colemen Natural Beef or Painted Hills Natural Beef). Each natural program may have slightly different requirements. For example some programs do not use implants or ionophores such as rumensin, while others restrict their use during the last 100 to 120 days prior to harvest.

Other labeling terms regulated by FSIS

NO HORMONES (pork or poultry): Hormones are not allowed in raising hogs or

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poultry. Therefore, the claim "no hormones added" cannot be used on the labels of pork or poultry unless it is followed by a statement that says *"Federal regulations prohibit the use of hormones."*

NO HORMONES (beef):
The term *"no hormones administered"* may be approved for use on the label of beef products if sufficient documentation is provided to the Agency by the producer showing no hormones have been used in raising the animals.

NO ANTIBIOTICS (red meat and poultry): The terms *"no antibiotics added"* may be used on labels for meat or poultry products if sufficient documentation is provided by the producer to the Agency demonstrating that the animals were raised without antibiotics.

Non-hormone treated cattle

The Non-Hormone Treated Cattle (NHTC; http://www.ams.usda.gov/lsg/arc/nhtc.htm) program has been in effect since 1989, when the European Union (EU) and the U.S. agreed to control measures to facilitate the trade of non-hormone treated beef. Cattle for this program must be produced under an approved USDA Quality System Assessment (QSA) Program. The QSA Program ensures that the specified product requirements are supported by a documented quality management system. Any farm, ranch, feedlot, or other entity interested in producing animals for slaughter and subsequent shipment to EU must have their control system approved in advance. The documented system will be audited by USDA to assure conformance with these conditions. This is the same process used to provide age and source verification to export markets.

Grass-fed

The proposed standard for a grass (forage) fed marketing claim will be part of the voluntary USDA grade standards used in conjunction with the USDA Process Verified Program. The wording of that claim is under reconsideration and USDA was taking comments on the claim proposal until Aug 10, 2006. Initially the grass-fed claim indicated that grass, green or range pasture, or forage shall be 80% or more of the primary energy source throughout the animal's life cycle. The new claim proposal under review stated: Grass (forage) fed--grass (annual and perennial), forbs (legumes, brassicas), browse, forage, or stockpiled forages, and post-harvest crop residue without separated grain shall be at least 99 percent of the energy source for the lifetime of the ruminant specie, with the exception of milk consumed prior to weaning. Routine mineral and vitamin supplementation may also be included in the feeding regimen. Grass (forage) fed claims will be verified by a feeding protocol that confirms a grass or forage-based diet that is 99 percent or higher.

Summary

While many may think that natural and organic mean basically the same thing, they are defined and regulated differently. Use of the terms organic, non-hormone treated and grass-fed all use some type of audit-based system for which all participants must have documentation and programs in place to ensure the integrity of the claim. The use of the term natural has much simpler requirements and owner of the brand is responsible for regulating compliance. A more detail comparison of "natural" and "organic" can be found at: http://www.uaex.edu/Other_Areas/publications/PDF/FSA-3103.pdf.

Until the standardizations were put in place by USDA in 2002 for organic food, the use of the term organic was not nearly as clearly delineated as it is now. As efforts grow to provide products for other specialized markets, expect the terminology and requirements to evolve with them.

2006 KSU Stocker Field Day Proceedings

Topics for this year's Stocker Field Day included "Forces Shaping Change in the U.S. Beef Stocker Industry" and "Impact of Added Value Programs on Beef Stocker Producers" and more. A copy of the proceedings is available at www.beefstockerusa.org. If you would like a printed version, please contact Lois (785-532-1267; lschrein@ksu.edu).

Distiller's grains used properly can contribute to high performance, low-cost rations

Chris Reinhardt, feedlot specialist

Distiller's grains, either wet or dry, can make a valuable contribution to beef cattle diets, regardless of the animals' stage of production. However, there are various factors which need to be considered when determining their potential value in your production system.

It is important to understand that during the distillation process, the starch component of cereal grains (normally 60-70%) is fermented out of the grain to ethanol. By removing this fraction, the remaining nutrients are concentrated, roughly, 3-fold. For beef producers this can be beneficial, resulting in an affordable protein supplement containing roughly 30% crude protein. Also, after removal of the starch component and concentration of the fat and fiber fractions, distiller's grains are a good source of energy in the form of digestible fiber and fat.

However, some of the nutrients which become elevated in distiller's grains may limit their potential use in beef cattle diets. The phosphorus content (~0.8-0.9%) of distiller's grains may require the addition of more calcium in order to maintain a proper calcium to phosphorus ratio. Excess phosphorus in the diet will also result in increased excretion in the manure and the associated need to dispose of this phosphorus. Sulfur content of distiller's grains (~0.5-1.2%) may limit their potential use because excessive sulfur in the final diet may cause trace mineral imbalances, health problems, reduced intake, and possibly death.

The fat content of distiller's grains is beneficial to growing and finishing cattle as a concentrated energy source. But excessive fat in the diet of forage-fed animals can reduce forage digestibility resulting in lower net energy consumption and lost body condition.

One additional benefit of feeding distiller's grains in the wet form (WDG) is the conditioning factor this wet ingredient brings to an otherwise dry diet. This may stimulate consumption by growing and finishing cattle, particularly if all the other ingredients in the diet are dry and/or dusty. The moisture added helps tie the loose, fine particles together.

Conversely, dried distiller's grains (DDG) may actually contribute to dustiness of an already dry diet, due to the fine particle size. A dusty ration may not be palatable, particularly for stressed calves. This dustiness can be alleviated if even a small amount of some other wet ingredient, such as silage, is fed.

Handling is also an important consideration. Wet distiller's grain stored outside during the summer is subject to spoilage within three to five days. If the operation is not large enough to use a full load within this brief time frame, the product can be stored in sealed plastic bags to limit oxygen content and potential of mold development. Another benefit of sealed storage may be to improve the opportunity to purchase an excess supply of wet distiller's grain at a lower price.

Using dried distiller's grains reduces the risk of spoilage, but because of dustiness, they cannot be stored long-term outdoors. Also, due to high fat content, dried distiller's grains may bridge up in a gravity-flow bin. Ideally, the dried product would be stored in a concrete-floored commodity bay.

Variability can be an issue when feeding either the wet or dry product. Particularly, moisture level in wet distiller's grains between loads can vary greatly, affecting the actual amount of dry matter fed. Also, nutrient content may fluctuate over time, between loads, and between suppliers. There are also notable differences in nutrient content between distiller's grains originating from corn, sorghum, or a blend of the two.

In summary, factors to consider when formulating rations with distiller's grains include:

- Protein
- Fat
- Phosphorus
- Sulfur
- Moisture
- Storage options

If these factors are optimized and rations are properly balanced, distiller's grains can contribute to high-performance, low-cost production for beef producers.

"…during the distillation process, the starch…is fermented out… concentrating the remaining nutrients 3-fold."

Bovine Leukosis – an increasing problem in Kansas

Larry Hollis, D.V.M., M.Ag, extension veterinarian

More Kansas beef producers are reporting problems with Bovine Leukosis in their cow herds. Bovine Leukosis is not a new cattle disease, but is caused by the Bovine Leukosis Virus (BLV), a virus that has been around since the 18th century. Dairy producers have contended with the problem for years; however, major problems with the disease in beef herds have seemed to be on the increase in recent years. The most frequent complaint is that individual cows suddenly start going downhill and die. The loss rate in some Kansas herds has reportedly approached 5% per year.

"Infected cows may exist as carriers in the herd for several years before becoming sick."

The disease-causing virus infects white blood cells (lymphocytes) and is transmitted by any mechanism that allows the transfer of blood from one animal to another. This includes biting flies, ticks, needles, tattoo pliers, ear tagging equipment, castration and dehorning equipment, etc. In a small number of instances, the virus is also transmitted from the cow to the fetus *in utero* or in colostrum.

Infected cows may exist as carriers in the herd for several years before becoming sick. Most of the time the first sign observed is a cow that starts losing body condition when compared to other similar-aged animals in the herd. This may occur gradually or rapidly. In some cases, swollen lymph nodes will occur that are externally visible as tumors. There is no treatment for the disease, and the cow will eventually die. Cows detected early may possibly be salvaged; however, if there are any lesions observed at slaughter the animal will be condemned and not be allowed to enter the human food chain.

The best management strategy to control the effects of the disease depends upon the level of disease incidence in the herd. Blood tests of suspicious animals should lead to herd-wide testing if suspected animals are found to be positive. If the incidence in the herd is low, culling all positive individuals will quickly rid the carriers from the herd. If the incidence is high, sorting the herd into 2 herds (BLV negative and positive herds) and maintaining them as separate herds will allow the producer to stay in business while working their way through the diseased animals in the positive herd.

To help prevent transmission of the disease, especially when trying to maintain a negative herd in proximity to a positive herd, several different management procedures should be implemented. Disinfect needles between animals (except those used to administer modified live or live vaccines, in which case disposable needles should be utilized and changed between every animal). Disinfect all tattoo pliers, ear tagging equipment, and surgical equipment between animals. Follow recommended management procedures for fly and tick control. If you lose a cow to Bovine Leukosis Virus, do not keep her calf for a replacement animal without first testing the calf for the disease at weaning time. Test all retained replacements before adding them to the herd. If you buy replacements, buy only animals that come from Bovine Leukosis Virus tested-negative herds or herds that have tested free of Bovine Leukosis Virus.

If you have cows (or bulls) that start going downhill unexpectedly, have your veterinarian test suspect animals. If Bovine Leukosis Virus is in the herd, producers can test to find and remove infected animals, utilize management procedures to reduce transmission of the disease, and ultimately free the herd of the disease.

Historical charts now available for Focus on Feedlots

Monthly closeout reports from various feedlots in Kansas have been collected and made available since 1990. In addition to the monthly report, additional historical tables and charts are now available. Yearly data tables summarize the individual monthly observations and are available from 1990 to 2006. Charts of yearly data from 2003 to 2006 are available for head marketed, days on feed, market weight, average daily gain, feed efficiency, cost of gain, death loss and corn and alfalfa prices. Three-year average charts of the same variables are provided from 1990 to 2005 data. Data can be found at http://www.oznet.ksu.edu/swao/livestock/focusonfeedlots/. If you have questions contact Ron Hale at rhale@oznet.ksu.edu or 620-275-9164. To receive the monthly closeout data via e-mail contact Linda Siebold at lsiebold@ksu.edu or 785-532-1281.