

Natural and Organic Beef

Tom R. Troxel
Professor and Associate
Department Head -
Animal Science

What is “natural” or “organic” beef? As naturally and organically grown cattle become more common in the marketplace, so do questions from beef producers and consumers. Beef producers are asking questions about the production of natural and/or organic beef and the marketing opportunities that may be available. Consumers are asking questions about the healthfulness and advantages of natural and/or organic beef.

What Is Natural Beef?

The natural beef market has developed into a legitimate marketing option with incentives attractive enough to justify consideration. Generally, “certified natural” cattle have received premiums ranging between \$0.25 to \$15.75 per cwt on a live-animal basis. This variation is likely due to the absence of an official, standardized definition for cattle that are “naturally produced.” The average premium being offered by marketing companies is \$5.79 per cwt, while feedyards are paying \$4.76 per cwt. Although the increase in selling price is considered a “premium,” often this premium is necessary to offset losses in productivity associated with required management practices to produce natural beef. In some cases, these premiums have been consistent and high enough to exceed losses in productivity, making cattle producers take notice.

Before a cattle producer participates in a natural beef program, it’s important to have an

understanding of the natural beef requirements for the branded program they are interested in. Over a dozen natural beef programs are in existence, each with its own set of production requirements. Natural programs are very different than organic programs in several ways. Although a natural beef program may qualify for USDA process verification, such programs are actually administered and regulated by the company or organization that owns the brand name, not the USDA. Natural beef is produced to fit into a specific branded beef program, and therefore, the owner of the brand sets the requirements and is responsible for regulating compliance. This makes the natural beef program’s integrity extremely important.

To use the term “natural” on a food label, the USDA requires only three simple things: (1) the product must be minimally processed, (2) the product cannot contain any artificial ingredients and (3) the product cannot contain any preservatives. The USDA has no specific restriction on management practices during the life of the animal.

Table 1 on page 2 lists the general production and certification requirements for a natural beef program. If a beef producer is considering a natural beef program, it is advisable that specific program requirements be reviewed. For example, some natural beef programs only restrict antibiotic and implant use during the last 100 to 120 days prior to harvest.

*Arkansas Is
Our Campus*

Visit our web site at:
<http://www.uaex.edu>

Table 1. Requirements of Natural and Organic Beef Programs^a

	Typical Natural Beef Program	USDA Certified Organic Beef
Antibiotic use	Not Allowed	Not Allowed
Ionophore use (such as Rumensin)	Typically Not Allowed	Not Allowed
Implant use	Not Allowed	Not Allowed
Feed containing mammalian protein or by-products	Not Allowed	Not Allowed
Feed from non-organic sources (such as fertilized pastures)	Typically Allowed	Not Allowed
Other restrictions	Each Program Varies	Extensive
Certification	Producer Signs an Affidavit	USDA Certification
Regulation/auditing	Branded Program	USDA Audits

^aSource: Cattle-Fax

What Is Organic Beef?

The U.S. Department of Agriculture has put in place a set of national standards that food labeled “organic” must meet, whether it is grown in the United States or imported from other countries. Organic meat, poultry, eggs and dairy products come from animals that are not given antibiotics or growth hormones. Organic food is produced without using most conventional pesticides, fertilizers made from synthetic ingredients or sewage sludge, or bio-engineering or ionizing radiation. Before a product can be labeled “organic,” a government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards. Companies that handle or process organic food before it gets to your local supermarket or restaurant must also be certified. Farms and handling operations that sell less than \$5,000 per year are not required to be certified by USDA. Although exempt from certification, these producers and handlers must abide by the national standards for organic products and may label their products as organic.

USDA makes no claims that organically produced food is safer or more nutritious than conventionally produced food. Organic food differs from conventionally produced food in the way it is grown, handled and processed.

Along with the national organic standards, USDA has developed strict labeling rules to help consumers know the exact organic content of the food they buy. USDA developed the *USDA Organic* seal (Figure 1)



Figure 1. USDA Organic Seal

that tells the consumer a product is at least 95 percent organic. Other truthful claims, such as free-range, hormone-free and natural, can still appear on food labels, but only certified organic food can use the *USDA Organic* seal. For more information on the USDA organic standards, go to <http://www.ams.usda.gov/AMSV1.0/>.

Producing Organic Beef

To produce, market, label or advertise beef using the term “organic,” producers and processing companies must each be certified by the USDA as organic producers. This is a highly involved process that requires tremendous time, effort and documentation. To qualify for an organic label, all USDA organic regulations must be met. Here is a list of a few requirements:

- Animals have to be produced and processed by a USDA-certified organic farm and processor.
- The animals must be free of any antibiotics or growth hormones.
- They must be free of mammalian or poultry protein or by-products. Feed must not have been exposed to pesticides, fertilizers made from synthetic ingredients or bioengineering.
- Animals for slaughter must be raised under organic management from the last third of gestation.
- Producers are required to feed livestock agricultural feed products that are 100 percent organic but may also provide allowed vitamin and mineral supplements.
- In order to produce 100 percent organic feed, the land will have no prohibited substance applied to

it for at least three years before the harvest of an organic crop.

- The use of genetic engineering, ionizing radiation and sewage sludge is prohibited.
- Soil fertility and crop nutrients will be managed through tillage and cultivation practices, crop rotation and cover crops and the application of plant and animal materials.
- Preference will be given to the use of organic seeds and other planting stock, but a producer may use nonorganic seeds and planting stock under specified conditions.
- Crop pests, weeds and disease will be controlled primarily through management practices including physical, mechanical, biological controls and grazing. When these practices are not sufficient, a biological, botanical or synthetic substance approved for use on the National List may be used.
- Preventive management practices, including the use of vaccines, will be used to keep animals healthy.
- Producers are prohibited from withholding treatment from a sick or injured animal; however, animals treated with a prohibited medication may not be sold as organic.
- All organically raised animals must have access to the outdoors, including access to pasture for ruminants. They may be temporarily confined only for reasons of health, safety, the animal's stage of production, inclement weather or to protect soil or water quality. Continuous total confinement of any animal indoors is prohibited.
- Livestock used as breeder stock may be brought from a nonorganic operation onto an organic operation at any time provided that, if the offspring are to be raised organic livestock, the breeder stock must be brought onto the facility no later than the last third of gestation.
- Livestock or edible livestock products that are removed from an organic operation and subsequently managed on a nonorganic operation may not be sold, labeled or represented as organically produced.
- Breeder stock that has not been under continuous organic management since the last third of gestation may not be sold, labeled or represented as organic slaughter stock.
- The producer of an organic livestock operation must maintain records sufficient to preserve the identity of all organically managed animals

and edible and nonedible animal products produced on the operation.

- The producer of an organic operation must not feed rations containing urea or manure.
- The producer of an organic operation can perform physical alterations as needed to promote the animal's welfare and in a manner that minimizes pain and stress.
- Manure must be managed in a manner that does not contribute to contamination of crops, soil or water by plant nutrients, heavy metal or pathogenic organisms and optimizes recycling of nutrients, and the producer must manage pastures and other outdoor areas in a manner that does not put soil or water quality at risk.
- Operations must use organic seeds and other planting stock when available.

Handling Standards

All nonagricultural ingredients, whether synthetic or nonsynthetic, must be included on the National List of Allowed Synthetic and Prohibited Non-Synthetic Substances. Handlers must prevent the commingling of organic with nonorganic products and protect organic products from contact with prohibited substances. In a processed product labeled as "organic," all agricultural ingredients must be organically produced, unless the ingredient(s) is not commercially available in organic form.

Summary

Natural Beef

- Natural beef programs are largely defined and regulated by the company that owns the brand.
- USDA requirements for natural beef are relatively simple – minimum processing, no artificial ingredients and no preservatives.
- USDA has no specific restrictions on management practices during the life of the animal.

Organic Beef

- Producers and processing companies must be certified by the USDA, which requires much time, effort and documentation.
- Production and handling guidelines and restrictions must be followed for products to carry the *USDA Organic* seal.

The natural beef and, to a lesser extent, the organic beef markets will continue to grow in the

market share for at least the next few years. The opportunity for some producers to capture greater value for their beef cattle by modifying their management practices to meet certain certified natural beef requirements will continue. Beef cattle producers must carefully weigh the advantages and disadvantages of participating in a natural program or a certified organic program for their own operation.

Reference

- U.S. Department of Agriculture, The National Organic Program, www.ams.usda.gov/AMSV1.0/.
- Premiums Being Offered for Natural Beef Cattle. The Samuel Roberts Noble Foundation, Inc. <http://www.noble.org/ag/economics/naturalbeef/index.html>.

Printed by University of Arkansas Cooperative Extension Service Printing Services.

DR. TOM R. TROXEL is professor and associate department head - animal science with the University of Arkansas Division of Agriculture, in Little Rock.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension Service, University of Arkansas. The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.