

Meat Product Labeling and Marketing: What Do All Those Words Really Mean?



Consumers often are overwhelmed and confused by the number of choices offered in today's meat case. In addition to choosing from different cuts, packaging types, weights, and prices, consumers are faced with numerous marketing claims presented directly on the label or at the point of sale. All of these claims are designed to give the consumer more information about the product so they can make the purchasing decision that best suits their needs. But what do these different marketing claims mean and what are the differences? The list below provides information on several common marketing claims to better assist consumers with their meat purchasing decisions. Note that unless otherwise indicated, the listed labeling terms are regulated by the United States Department of Agriculture (USDA).

Animal Production Claims

Many marketing claims found on meat labels provide information about how the animal that produced the product was raised, including the following:

Natural/Naturally Raised

Many consumers believe that meat labeled as *"Natural"* is synonymous with meat labeled as

"Naturally Raised"; however, these claims have different meanings. The term "Natural" refers only to how a meat product was processed and



does not refer to how an animal was raised. To be labeled as *"Natural*," a product must be minimally processed, cannot contain any artificial ingredients, and cannot contain preservatives. The label must also include a statement clarifying the intended meaning, such as: "no artificial ingredients" or "minimally processed." Almost all fresh meat sold meets the requirements for the *"Natural"* claim. The product may be sliced, ground, frozen, or even cooked and still meet the *"Natural"* claim definition.

The term "*Naturally Raised*" refers to how the animal was produced. Products labeled as "*Naturally Raised*" are required to be from animals raised entirely without growth promoting products, antibiotics, and never fed animal or fish by-products. However, animals are allowed to be vaccinated and given products to control parasites.

Organic

The USDA oversees the National Organic Program



(NOP), which is the governing body responsible for administering standards for all organic agricultural products, including meat. All meat labeled as *"Certified Organic"* or *"USDA Organic"*

must be certified to have met all of the requirements stipulated by the NOP:

- Have been raised under organic management techniques from the last third of gestation; for poultry, since the second day of life.
- Have been fed a 100 percent USDA Organic grain or forage diet.
- Have never received growth promotants, hormonal implants, parasiticides, or antibiotics.
- Have been given access to the outdoors for all livestock and access to pasture for cattle.

Additionally, organic meat products must be processed in a facility certified to process organic products. Organic meats must be kept separate from non-organic meats throughout processing and must be processed at a different time from conventional product. Also, all equipment must be washed thoroughly between processing of organic and conventional product.

All organic meat products must be inspected for wholesomeness by federal or state inspection agencies, the same as conventional products. No documented differences in food safety or presence of any foodborne pathogens (such as *E. coli* O157:H7 or *Salmonella*) exist between organic and conventional meats. Moreover, there is no scientific evidence to suggest any nutritional differences between conventional and organic meat products.

Animals that become sick during production must be administered appropriate medications and removed from the organic program. All meat products that meet the "*Certified Organic*" claim are labeled with the official USDA Organic seal.

Raised Without Antibiotics

Antibiotics are commonly used in livestock production for many of the same reasons they are used in human medicine. Antibiotics are commonly used to treat, control, and prevent disease in livestock. Additionally, certain antibiotics can be used to modify the types of bacteria found in the animal's gut and can help the animal more efficiently convert feed to muscle and improve growth. However, in 2012 the FDA asked livestock producers to begin phasing out the use of antibiotics for the sole purpose of improved animal growth.

Meat items labeled as "*Raised without antibiotics*" or "*No antibiotics administered*" were produced from animals that never received antibiotics throughout their lifetime. The claim "*Antibiotic free*" is not approved for use in meat products. This is because the USDA tests all meat products and prevents the sale of any meat found to have antibiotic residues. Thus, all meat sold in the U.S. is "*Antibiotic free*."

Raised Without Added Hormones

Hormones are produced by the cells in all animals and plants.

Therefore, they are naturally occurring in all meat and many other agricultural food products, regardless of production methods. Because of this, the term *"Hormone Free"* is not approved for use on labels.

Often, hormones are administered to cattle during feeding to improve



their ability to convert feed into muscle and allow for the production of more beef with fewer resources. The hormones used are the same as, or may be synthetic versions of, the hormones produced naturally by the animal, such as estrogen. Additionally, the amount of estrogen found in a 3-ounce serving of beef from cattle administered an estrogen implant is less than the amount naturally found in the same size serving of potatoes, cabbage, eggs, soybeans, or ice cream, and is only a very small fraction (0.001 to 0.0004 percent) of the amount naturally produced daily by men, women, and children.

Still, some consumers prefer to purchase beef from animals never administered additional hormones. The terms "Raised without added hormones" or "No Hormones Administered" indicate that the beef was produced from animals that were never given any additional hormones throughout their life. Hormones are only approved for use in beef and lamb production in the U.S. Therefore, all pork, poultry, and veal animals are raised without added hormones. To clarify this for consumers, pork or poultry products labeled as "Raised without added hormones" must be immediately followed by "Federal regulations prohibit the use of hormones in poultry/pork." The additional wording is required to prevent companies from misleading consumers into believing the product was raised differently from a competitor's product and thus warrants a higher price.

Grass-Fed

Almost all cattle are grass-fed for a majority of



their lives. Calves normally graze on grass pasture alongside their mother for several months prior to weaning. Following weaning, many cattle will remain on pasture consuming grass or other forages for an additional amount of time in order to increase weight prior to placement in a feedlot. In the

U.S., the majority of cattle are placed in a feedlot and fed a balanced, high-energy diet for the final 4 to 6

months of their lives. This diet often includes corn, soybeans, forage, and is fortified with vitamins and minerals required by the animals for proper health.

Some beef, however, is produced from animals that were fed an all-grass diet their entire lives. The USDA requires beef labeled as "*Grass-Fed*" to be from cattle whose diet, post-weaning, was comprised entirely of forage from a pasture or harvested forage and that animals were given continuous access to pasture during the growing season.

Grass-fed beef is typically much leaner and darker in color than beef from grain-finished cattle. This leanness often results in beef that is tougher and drier than grain-finished beef. Grass-fed beef has a unique flavor profile desired by some consumers. The flavor of grass-fed beef is often much stronger than grainfinished beef and is more similar to the flavor of wild game meat.

Free-Range

The label claim "Free-range" or "Free-roaming"

indicates the animal had access to an outdoor area during production. For poultry, these claims are regulated by the USDA and require the animals to have daily access to an outdoor area. The outdoor area may be fenced and/ or covered with a netting material for protection. The term is not regulated by the



USDA for beef, pork, and lamb production. If the term is used, however, it must be limited to animals that were never confined to a feedlot.

Not fed Animal By-Products/Fed an all Vegetarian Diet

"Not fed animal by-products" and "Fed an all vegetarian diet" are labeling claims most commonly associated with poultry. Some poultry feed rations will include processed protein and fats and oils from meat and poultry by-products. Meat labeled as "Not fed animal by-products" is from animals whose feed rations did not include products derived from the harvest



process or rendering of cattle, pigs, chickens, or turkeys. However, feeding fish by-products are allowed in most programs.

"Fed an all vegetarian diet" indicates that the animal's diet included no products from an animal source. Both claims are commonly *"USDA Process Verified"* indicating that the USDA has reviewed these claims and verifies that the company has

quality control points in place to ensure the accuracy of the specified claim.

Cage Free

Products labeled "*Cage free*" indicate that the animals were able to freely move around a large building, enclosure, or pasture without restriction and with access to food and fresh water throughout their production cycle. Almost all poultry, cattle, and pigs used for meat production in the U.S. are raised "*Cage free*."

Humanely Raised/Humanely Handled

The USDA currently does not have a definition for, nor regulate, the claims "*Humanely raised*" or "*Humanely handled*." Many meat products sold with these claims are from producers that have enrolled in a private certification program administered by a non-governmental third-party, which may also be listed on the label. These certification programs often have standards that are set and overseen by a scientific animal welfare committee. Just because the product is not labeled as "*Humanely raised*" does not mean the animal was not produced in an environment where good animal welfare practices are followed.

Sustainably Raised/Locally Grown

Similar to humane handling claims, the USDA currently does not have a definition for, nor regulate, "Sustainably raised" or "Locally grown" claims. These terms are used by producers to represent a variety of meanings. For these label claims to be meaningful, they should be accompanied by a definition to clarify, such as what area would be considered as "local" for the product.

Product Claims

A number of claims that appear on labels give consumers information about the characteristics of the meat product itself. These claims often give consumers an indication of the quality or expected eating experience of the product.

USDA Grade

The most common product-related marketing claim found on meat labels is the USDA grade. For beef, USDA grade plays a large role in eating satisfaction. Prime, Choice, and Select are termed "quality grades" and are used to segregate beef into categories of expected eating satisfaction. These grades are determined by official USDA graders who evaluate the beef for several factors. Marbling (the flecks of fat within the meat) is the most important factor considered for grading. The more marbling the cut has, the higher the grade and the better the expected eating experience.

Prime is the highest quality grade and produces the most tender, juicy, and flavorful eating experience. About 4 percent of beef produced in the U.S. qualify for this grade. Because of this, Prime beef receives the highest price and is often only sold at premium steak houses. Prime beef is rarely sold at retail in grocery stores or meat markets.

Choice and *Select* are the two quality grades of beef most commonly sold at retail. Choice is a higher grade than Select and will produce a more consistently satisfying eating experience. Most retailers offer a premium beef line that is typically USDA Choice. Much of the lower priced beef at retail is Select grade. Select beef can produce a satisfying eating experience, but is inconsistent and more likely to be dry and tough if the meat is overcooked.



Many times retailers will not label their products with the USDA grade for various reasons. This does not mean that the beef is ungraded or has a lower grade. You can always ask the meat department personnel and they should be able to tell you the grade. Selecting beef cuts with a greater amount of marbling will result in a more tender, juicy, and flavorful eating experience.

Grading standards are used for other meat products as well. However, unlike beef, these grades are not commonly seen at retail. All poultry sold at retail is grade "A," the highest grade for chicken and turkey. All lower-grade poultry is used for further-processed products that are cut-up, ground, or chopped.

No Additives

Food additives are commonly added to foods to improve taste, texture, shelf-life, nutritional value, or appearance of a product. Common additives include salt, sugar, and corn syrup. All additives must be included on the ingredient statement of food products, including meat. Because of this, the claim *"No additives"* may be used on meat labels, but has not been defined by the USDA or FDA.

Many meat products, specifically poultry and pork, are injected with a saline solution to improve eating quality. The additional moisture helps produce a more tender and juicy eating experience and helps maintain palatability if meats are overcooked. Meats enhanced with such a solution must be clearly stated on the label. Statements may include "Enhanced with up to 10% chicken broth" or "Contains up to 8% of a solution of water, salt, and spices to enhance tenderness and juiciness." The USDA estimates that up to 30 percent of poultry, 15 percent of beef, and 90 percent of pork sold at retail contain added solutions. In addition to being clearly stated on the label, the ingredients of these solutions must be included on the ingredients panel.

Fresh, Never Frozen

Many meat products, both in retail and foodservice (restaurants, cafeterias, etc.), are marketed as "*Fresh*, *Never Frozen*." Products labeled with this claim have never been frozen from the time the animal was harvested. Though freezing has no adverse effects on food safety and quality, some consumers prefer to purchase meat items that have never been frozen.



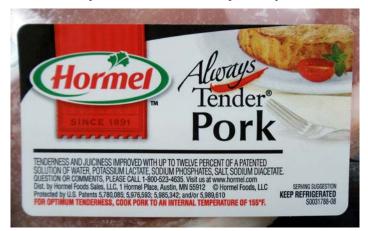
Breed Claims

Often a product label will include the breed of the animal that produced the product. Different breeds within each species have different quality characteristics and produce different eating experiences. In beef, common breeds marketed include Angus, Hereford, and Wagyu; and in pork, Duroc and Berkshire are common. Each of these breeds are associated with high quality products that produce a superior eating experience.

Breed claims are verified by the USDA to ensure that all products receiving the claim meet breedspecific requirements. Additionally, most products identified with a breed claim must meet other specifications, including marbling, muscling, fat, and age requirements. These additional requirements help guarantee consumers will receive an eating experience indicative of the labeled breed.

Tenderness Claims

Tenderness is the most important trait affecting overall beef eating satisfaction. In order to help consumers identify beef products that will meet their tenderness expectations, the USDA has approved the claims "*Certified Tender*" and "*Certified Very Tender*."



Products labeled with these claims are tested and certified by USDA to meet national tenderness standards. These claims allow consumers to have confidence in the tenderness of the product before purchasing. Beef labeled as "*Certified Very Tender*" is required to be more tender than beef eligible for only the "*Certified Tender*" claim. Currently, no such standards exist for pork or poultry products.

Aging Claims

Some meat products, specifically beef, are labeled with various aging claims. Most commonly these claims identify the amount of time the product has been "aged." The term aging describes the amount of time a product is held, under refrigerated conditions, in a fresh state prior to freezing or cooking. As meat ages, naturally occurring enzymes in the product breakdown structural proteins and improve tenderness. In general, longer-aged meat products will have improved eating characteristics. Aging times of retail beef range from 7 to 35 days. Product with an aging claim typically would state "aged for at least 21 days" or similar.

Some product sold at retail is labeled as "*dry-aged*" and often sells for a premium price. These products have been aged for a period of time (typically 28 to 35 days) without packaging, to expose the meat surface to open air. This process allows for moisture loss and surface dehydration. The result is a product with a unique flavor profile described as nutty, buttery, and rich. Many of the top steak houses across the country only serve "*dry-aged*" product to give their customers this unique beef-eating experience.

Branded Products

Historically, meat was sold as a commodity item. This allowed for a large amount of variation in product quality between similar items. In more recent years, an increasing amount of meat has been marketed under specific brand names. Certified branded programs allow for improved consistency, predictability, and reduced variability among products. Each has a set of specifications the product must meet to be sold under the brand. The USDA oversees these programs and verifies that all products meet the brand requirements. Common criteria include animal breed type, marbling level, fat thickness, and muscle size. These criteria allow for branded programs to create a uniform, consistent product that consumers can rely on for repeatable and expected eating results.



Religious Harvest Claims

Two product categories relating to religious harvest are commonly found in meat products. Meat products labeled as *"Kosher"* are from animals that were harvested under rabbinical supervision and meet all requirements according to Jewish law. Products labeled as *"Halal"* were harvested and processed according to Islamic law and under Islamic authority. In addition to fresh meat products, processed meat products meeting these requirements may also be labeled accordingly.

References and other resources:

Corn-fed versus grass-fed beef fact sheet. American Meat Institute (AMI). 2013. Available from: http:// www.meatami.com/ht/a/GetDocumentAction/i/93607.

The facts about antibiotics in livestock and poultry production fact sheet. American Meat Institute (AMI). 2014. Available from: http://www.meatami.com/ht/d/sp/i/102248/pid/102248.

National Organic Program. USDA Agricultural Marketing Service (AMS). 2014. Available from: http://www.ams.usda.gov/AMSv1.0/nop.

Chickens Do Not Receive Growth Hormones: So Why All the Confusion?. T. Tabler, J. Wells, and W. Zhai. 2013. Mississippi State University. Available from: http://msucares.com/pubs/publications/p2767.pdf.

United States Standards for Livestock and Meat Marketing Claims. 2002. USDA Agricultural Marketing Service (AMS). Available from: http://www.ams.usda.gov/AMSv1.0/ getfile?dDocName=STELDEV3102210.

Inspection & Grading of Meat and Poultry: What Are the Differences?. USDA Food Safety and Inspection Service (FSIS). 2014. Available from: http://www.fsis. usda.gov/wps/portal/fsis/topics/food-safety-education/ get-answers/food-safety-fact-sheets/production-andinspection/inspection-and-grading-of-meat-and-poultrywhat-are-the-differences_/inspection-and-gradingdifferences.

Meat and Poultry Labeling Terms. USDA Food Safety and Inspection Service (FSIS). 2014. Available from: http://www.fsis.usda.gov/wps/portal/fsis/topics/ food-safety-education/get-answers/food-safety-factsheets/food-labeling/meat-and-poultry-labeling-terms/ meat-and-poultry-labeling-terms.

Prepared by:

Travis O'Quinn, Ph.D. Meats Extension Specialist Kansas State University 247 Weber Hall Manhattan, KS 66506 785-532-3469 travisoquinn@ksu.edu Londa Nwadike, Ph.D. Food Safety Specialist Kansas State University/University of Missouri 22201 W. Innovation Dr. Olathe, KS 66061 913-307-7391 Inwadike@ksu.edu

Reviewed by:

Dr. Sandy Johnson, Livestock Production Extension Specialist, Kansas State University Karen Blakeslee, Rapid Response Center Coordinator, Kansas State University Denise Dias, Family and Consumer Sciences Agent, K-State Research and Extension-Sedgwick County

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available at www.ksre.ksu.edu

Publications are reviewed or revised annually by appropriate faculty to reflect current research and practice. Date shown is that of publication or last revision. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit Londa Nwadike and Travis O'Quinn, *Meat Product Marketing and Labeling: What Do All Those Words Really Mean*?, Kansas State University, May 2015.





University of Missouri, Lincoln University, U.S. Department of Agriculture, and Local Extension Councils Cooperating. MU Extension is an equal opportunity/ADA institution.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF3209

May 2015

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John D. Floros, Director.