Specialty Meat Marketing Claims: What's the difference?[1]

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American consumers are confused about the differences between meat products with special marketing claims (i.e., organic, natural, naturally raised, and grass-fed) and regular or commodity meat products. The following report will discuss these production/marketing claims as defined by the USDA and address the differences between these products for food safety, human health, and eating quality.

USDA Organic

The US Congress passed the Organic Foods Production Act (OFPA) in 1990. The OFPA and the National Organic Program (NOP) are housed within the Agricultural Marketing Service of the USDA and collectively serve as the governing body of administering the standards for Organic agricultural products. A USDA-accredited state or private organization often serves as the on-site certifier at the farm and/or production site. The homepage for the National Organic Program is http://www.ams.usda.gov/AMSv1.0/nop. The following subheadings and bullets will address some of the most important points of the NOP.

Organic Crop Production

The regulations for organic livestock production are dependent upon the regulation for organic crop production. The USDA Organic crops production standards are as follows:

- Crops must be raised without most conventional pesticides, petroleum-based fertilizers, or sewage sludge-based fertilizers.
- Crop land must have no prohibited substances applied to it for at least 3 years before the harvest of an organic crop.
- The use of genetic engineering (hybrid corn) and ionizing radiation (irradiation) is prohibited.
- Soil fertility will be managed through tillage and cultivation practices, crop rotations, and cover crops, and will be supplemented with animal and crop waste materials and allowed synthetic materials.

Organic Livestock and Poultry Production

The USDA Organic livestock and poultry production standards are as follows:

- Meat animals must be raised under organic management from the last third of gestation, or no later than the second day of life for poultry.
- Meat animals and poultry must be fed 100 percent USDA Organic grain and/or forage diets. The standards will allow certain vitamin and mineral supplements.
- Meat animals and poultry may not be growth-implanted, fed growth promotants, fed diets containing urea, or given or fed antibiotics for any reason.
- Meat animals and poultry may not be given paracitices (i.e., de-wormer) for any period of production.

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Additionally, dams may not be given paraciticides during the last third of gestation or during lactation.

- Meat animals and poultry may be vaccinated.
- All animals must have access to the outdoors, including access to pasture for ruminants.

The National List of Allowed and Prohibited Substances is available online at: https://www.ams.usda.gov/rules-regulations/organic/national-list.

Who needs to be certified?

All operations whose gross income from organic sales is greater than $5,000 must be certified by USDA-accredited agents to label products as USDA Organic.

Packaging and Labeling Products as USDA Organic

Guidelines for labeling and packaging include the following:

- The USDA Organic seal can only be advertised on products that have at least 95 percent organic ingredients.
- Processors must prevent organic and non-organic products from commingling and should protect organic products from contacting prohibited substances.
- Other products can state that they were made with organic products but cannot display the USDA symbol.
- If USDA officials find that someone knowingly sells or mislabels an ineligible product as USDA Organic, the penalty can be up to $11,000.

Figure 1. USDA Organic seal.

Natural

Defining Natural

In 1982, the USDA Food Safety Inspection Service (FSIS) determined it should develop a definition of a "natural" meat or poultry product to guarantee the accuracy of product labels and advertising. FSIS defined a "natural" product as follows:

- "Any product which is not more than minimally processed and does not contain artificial flavor or coloring, chemical preservatives, or any other artificial ingredient."
- Minimal processing "does not alter the raw product, but only separates the food into component parts" (for example, grinding or chopping).

This definition only addresses the processes and ingredients used to make the meat or poultry product. Essentially all fresh meat would be termed "natural" under this definition. The FSIS definition of "natural" processing is getting confused with the numerous products that claim to come from "naturally raised" or "naturally produced" livestock.

The USDA-AMS developed marketing claims for both Grass-Fed and Naturally-Raised in the late 2000's, but eliminated those claims in January 2016. Since then, raising claims such as grass-fed, raised without antibiotics, and raised without the use of hormones, has been reverted back to USDA-FSIS labeling.

Documentation Needed

1. A detailed written description explaining controls to ensure animals that are supposed to be raised 100% grass fed are not fed grains, to ensure animals that are supposed to be raised without growth promotants and/or antibiotics are not exposed to them.

2. A signed and dated document describing how the animals are raised (e.g., without feeding grain, use of antibiotics, etc.) to support that the claims are not false or misleading;

3. A written description of the product tracing and segregation mechanism from time of slaughter or further processing through packaging and wholesale or retail distribution; and

4. A written description for the identification, control, and segregation of non-conforming animals/product.

Third Party Certification

FSIS accepts animal raising claims verified by third-party auditing or certifying program including a USDA Process Verified Program, administered by AMS, Certified Organic by the USDA National Organic Program, or Global Animal Partnership (GAP). Documentation needed includes 1. A

current copy of the certification should be provided; and 2. Standards for acceptance of the third-party certifier.

This would be a link to the updated FSIS document https://www.fsis.usda.gov/wps/wcm/connect/6fe3cd56-6809-4239-b7a2-bccb82a30588/RaisingClaims.pdf?MOD=AJPERES

USDA Process Verification

Many producers rely on USDA-AMS personnel to provide validation of these various on-farm specialty production practices via the USDA's Process Verified Procedure (PVP) program or Quality System Verification Program (QSVP).

USDA process verification has been around since 1978, when Certified Angus Beef became the first USDA certified program. A USDA certification program is very similar to a PVP or QSVP program. Certification only addresses parameters which can be which can be determined by evaluating the live animal or its carcass whereas a PVP program assesses traits which cannot be determined by evaluating the animal or carcass, such as using an antibiotic or growth promoting treatment. Any process or operation associated with livestock production or meat processing can be part of a Process Verified Procedure.

Process verification requires:

- Producers or processors to submit a documented quality management program covering all aspects of their system which must be approved by AMS to be declared "USDA Verified."
- The verified portions of the process to be periodically audited by AMS.

The AMS has developed a PVP which is widely used for naturally raised products titled "Never Ever 3". More information about this specific program can be found at http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5066028.

Additional info about process verification can be found at http://www.ams.usda.gov/AMSv1.0/processverified.

Differences Between Specialty and Commodity Products

Food Safety and Human Health

The USDA requires honest labeling and advertising. Meat products from USDA Organically raised, "naturally raised," or "grass-fed" animals were definitely raised differently than products from regular animals. Additionally, USDA Organic meat products were definitely processed independent of non-organic products. Very little scientific research has been conducted comparing the safety, nutritional value, or eating quality of specialty products and commodity products. Even so, the research that has been conducted has no evidence that specialty meat products are safer or more nutritious than commodity meat products (Honikel 1998). Therefore, the USDA makes no claims stating that these specialty products are different.

Grass-Fed vs. Grain-Fed

Diet affects how much fat an animal will deposit. Since grass and hay are much less energy dense than grain:

- Grass-fed beef is normally leaner, both externally and within the muscle (marbling) and has less saturated fat and cholesterol (Hedrick et al. 1983).
- However, if animals are fed the same feedstuffs (i.e., Organic corn vs. commodity corn), those products will not be different relative to fat content.

Eating Quality

If animals are fed the same feedstuffs, there will be very little if any difference in eating quality of meat products of animals raised conventionally, organically, or naturally. However, since grass-fed animals are leaner than grain-fed animals this affects eating quality. Generally, cooked products from grass-fed animals as compared to grain-fed animals will:

- Taste distinctly different or have a higher incidence of "off-flavors"—because of the association of fat with desirable flavor.
- Tend to be tougher—because marbling contributes to tenderness and grass-fed animals grow slower and are generally older than grain-fed animals.
- Tend to be less juicy—because when marbling melts during cooking it contributes to juiciness.

All of these findings are well established and cited by numerous authors (Regan et al. 1977; Hedrick et al. 1983; Crouse et al. 1984).

Conventionally Raised vs. Organically or Naturally Raised

Anything an animal is fed or administered can exist in its body tissues. However, the Food and Drug Administration requires all animals to be withdrawn from antibiotics for a specified period prior to harvest. Even so:

- Commodity products can have slightly higher residual antibiotic levels than organic or naturally raised products; however, research shows this minimal increase will not lead to human antibiotic resistance.

The USDA allows ruminant animals (cattle, sheep, and goats) to be implanted with hormonal growth promotants. Therefore:

- Commodity products can have higher residual estrogen levels than organic or naturally raised products; however, all research shows this minimal increase has no effect on human health (Kuipper-Goodman 1998; Kouba 2003).

Conclusions

Unquestionably, the US meat industry provides consumers the safest products in the world, regardless of production method, and consumers should feel overwhelmingly confident as they make their purchasing decisions.

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