

A FACT CHECK OF GRAIN AND GRASS FED BEEF



Harris Feeding Company

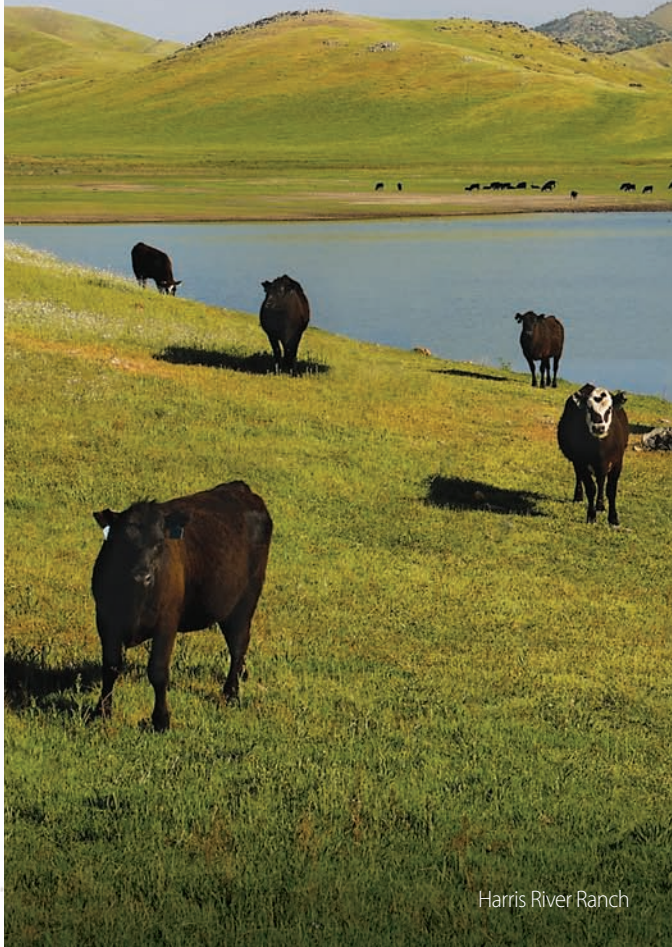
At Harris Ranch, we believe that raising cattle and environmental stewardship go hand-in-hand. For us, as well as our ranching partners, the land is not just where we raise our cattle; it's also where we raise our families. We have a personal stake in the quality of the environment and are always looking for ways to improve it. For those that raise cattle, sustainability means ensuring that the land will provide for the next generation by focusing on the well being of not only our livestock but also by maintaining the natural resources of the land.



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Consumers today are bombarded with information on various beef products from grass-fed and grain-fed to natural and organic. As a result, many are confused about grain-fed beef compared with grass-fed beef. The cattle used to produce Harris Ranch beef typically spend the majority of their lives grazing on grass. In fact, our cattle spend approximately 80% of their lives eating grass before being finished on a nutritionally balanced diet consisting of corn and other feed grains, plus alfalfa hay, vitamins and minerals. The following Q&A compiles information from various scientific researchers and published papers and will hopefully enable consumers to make informed, fact-based dietary decisions for themselves and their families.

Is corn an unnatural diet for cattle? Is it fed because it's cheap?

No. Cattle can get the nutrients they need from a wide variety of plants, including a variety of grains and grasses. Most beef raised in the U.S. (95%) comes from cattle which spend most of their lives on pasture eating grass before going to a feedlot for four to six months. While at the feedlot, cattle are fed a combination of grain and hay usually formulated by a nutritionist to ensure a well-balanced and nutritious diet.

Grain feeding isn't new. In the U.S. cattle have been fed grain for at least 200 years. Grains, like corn, are fed to cattle because they are nutritious, energy rich and can be stored for use in any season. Since grass doesn't grow in abundance year-round in most of the U.S., feeding grains helps ranchers raise a consistent, year-round supply of nutritious beef.

A recent United Nation's report stated that feeding corn to cattle increases deforestation, CO₂ emissions and greenhouse gas emissions when compared to grass-fed beef. Is this true?

No. Here is a fact check on these criticisms:

- Deforestation for feed production and grazing does not occur in the United States. In fact, according to the U.S. Forest Service, the U.S. actually has 16 million more acres of forestland than 100 years ago. Furthermore, the most significant land use change that affects carbon levels in the U.S. is the conversion of agricultural land to urban development. Urban development decreases the amount of plants available to capture carbon.
- Based on the United Nation's own conversion factor, there is nearly 7 times LESS CO₂ being produced than what is estimated in their report.
- According to a University of New South Wales study published in the journal Environmental Science and Technology, plus corroborating studies conducted by Jude L. Capper, Ph.D., Washington State University, beef produced in feedlots actually has a smaller carbon footprint than meat raised exclusively on grasses. The study found that feedlot, grain-fed beef production generated less greenhouse gasses than the same beef produced in a grass-fed operation. Grass-fed beef energy usage was 2.5 times higher, methane emissions were increased 2.8 times, and land use was 12.6 times greater to produce the same amount of beef. According to these studies, the feedlot was found to produce meat more efficiently, offsetting the impact of additional transportation and feed production. Also, beef cattle digest grains easier, thereby decreasing methane emissions.
- Finally, according to the EPA, overall U.S. methane levels declined 5.1% from 1990 to 2007. Moreover, according to Frank Mitloehner, PH.D.

with UC Davis, livestock production in the U.S. accounts for just 4.2% of all greenhouse gasses (GHG). Comparing the 4.2% GHG contribution from livestock to the 27% from the transportation sector, or the 31% from the energy sector in the U.S. brings all contributions to GHG into perspective.

Is it true that if I eat grass-fed beef rather than grain-fed beef that I am nourishing my body with higher levels of Vitamin A, conjugated linoleic acid (CLA) and omega-3 fatty acids – all proven to have health benefits?

According to science, there is a slight increase in the amounts of Vitamin A, CLA and omega-3 fatty acids in grass-fed beef compared to grain-fed beef. However, the small increases do not provide any significant dietary benefits. Here's what the scientists say:

Vitamin A – While beef muscle is considered an excellent source of zinc, iron and protein, it is not a good dietary source of Vitamins A and C, and calcium. Studies show that an average adult female would need to eat 16.7 lbs. of cooked, grain-fed beef or 9.2 lbs. of grass-fed beef to obtain her daily requirements for Vitamin A (Ensiminger et al., 1986; Daley et al., 2005).

CLA – Studies indicate that allowing cattle to graze on pasture longer slightly increases the amount of CLA in the beef (Grzeskiewicz et al. (2001), Fresnch et al., 2000, Noci et al., 2005). However, a person would have to consume 9.36 lbs. of grass-fed beef each day to provide them with any health benefit. Fortunately, CLA is found in other animal products, including beef, and a person would need to have a diet consisting of multiple servings of meat, cheese, whole milk, butter, shortening and eggs daily to supply 1,000 mg of CLA.

Omega-3 fatty acids – According to scientists, grass-fed beef is higher in omega-3 (2.9%) than grain-fed beef (0.64%) (Rule et al., 2002; Smith 2003). However, the amount in beef from grass-fed cattle is far too low to have any health benefits. Also, to meet the daily adequate intake recommendation (1.6 grams/day) of omega-3 fatty acids, a person would have to eat 14 lbs. of grain-fed beef or 12 lbs. of grass-fed beef each day.

Isn't grass-fed and organic beef "safer" than grain-fed beef because of less pesticide exposure?

No. There is no evidence to show there is any difference in the health and safety of organic versus conventional foods (Carl Winter, UC Davis). Also, according to the USDA, organically produced beef is neither safer nor more nutritious than conventionally produced beef.

Isn't beef produced from cattle that have been fed genetically modified corn unsafe to eat?

No. There is no difference in the composition or safety of meat from cattle that have been fed GM corn. A survey of 12 research studies conducted throughout the world by the Federation of Animal Science Societies (2004) shows that feeding GM corn to livestock had no negative effect on cattle productivity or the chemical make-up of the beef.

Do feedlots and modern beef production methods encourage the emergence of E.coli O157:H7 as a foodborne illness?

No. Bacteria like E.coli are found naturally in the environment as well as within the intestinal tract of healthy animals, whether in a feedlot or grazing on pasture. Additionally, E.coli bacteria can be found naturally in many different animals including wild pigs and deer and can be spread through eating uncooked foods such as lettuce, alfalfa sprouts and even unpasteurized milk, juice or cider.