GRASS-FED V.S. GRAIN-FED ANIMALS

Over the last decade there has been much debate about the consumption of factory-farmed, grain-fed beef versus free-range, grass-fed beef. Many factors such as health risks and benefits, quality, nutrition and safety play a major role in this debate. Some think that grass-fed beef is ecologically and ethically better than livestock that is fattened in feedlots. Others say that grain-fed beef is tenderer and tastes significantly better than grass-fed beef. A majority of consumers, on the other hand, believe that beef is beef; however, studies have shown that an animal's diet can have a major influence on the nutritional content of its products.

Benefits of Eating Grass-Fed Animal Products

Grass-fed farming or ranching involves raising livestock on open pasture – free to roam about. There is no caging or confinement for these animals, and their diet consists of natural grasses, legumes and plants. These animals are free of antibiotics, steroids, hormones, pesticides and other foreign substances. Research has shown that grass-fed animals may be safer than food from conventionally-raised animals. According to a study published in the Journal of Animal Science in 2002, grass-fed beef may offer these benefits:

- **Lower in Fat and Calories**: Meat from grass-fed cattle, sheep and bison is lower in total fat. Lean meats may have as much as one-third the fat as a similar cut from a grain-fed animal. Grass-fed beef can have the same amount of fat as skinless chicken breast, wild deer or elk. Consuming lean beef can also help lower LDL (the "bad" cholesterol) levels. Because it is lower in fat, grass-fed beef is also lower in calories. Fat has approximately nine calories per gram, so the more fat a cut has, the greater number of calories it will have. Even fatty cuts of grass-fed beef are lower in fat and calories than beef from grain-fed cattle.

- **More Omega-3 Fatty Acids**: Grass-fed animals can contain as much as two-to-four times more omega-3 fatty acids than grain-fed animals. Omega-3 fatty acids are fats that are essential to our health (they are "good" fats). One reason grass-fed animals are full of these good fats is because omega-3s are formed in the chloroplasts of green leaves and algae. Sixty percent of the fatty acids in grass are omega-3s. For more information on omega-3 fatty acids, **click here** .

- **More Vitamins**: Studies have shown that grass-fed beef can have as much as four times more vitamin E than grain-fed beef. Grass-fed beef even contain twice as much vitamin E as grain-fed beef that are given vitamin E supplements!

- **Good Source of Conjugated Linoleic Acid (CLA)**: Products from grass-fed animals are the richest known source of conjugated linoeic acid (CLA), which is another type of good fat. CLA is stored in fat cells and has been shown to reduce cancer risks in humans. Grass-fed animals contain as much as three-to-five times more CLA than grain-fed animals.

The Problem with Grain-Fed Animal Products

As the mass production of meat, poultry, eggs and dairy products has proven to be more convenient and profitable for farmers, factory farming (or feedlot farming) has become increasingly popular over the last 40 years. Small family-owned farms throughout the nation have been replaced by large feedlots and confinement facilities that are capable of producing year-round supplies of meat, chicken,

eggs, and dairy products at a decent price. But the benefits of increased production and profit often come at the cost of quality and safety. According to Eat Wild (a Web site dedicated to educating consumers about the benefits of grass farming), factory farms and feedlots often pose these problems:

- **Lower Nutritional Value**: Meat and dairy products from animals that have had their diets switched from grass to grain often have lower nutritional value. Studies have shown that meat from animals raised in feedlots often contain more total fat, saturated fat, cholesterol and calories. Products from grain-fed animals also contain less vitamin E, beta-carotene, vitamin C and omega-3 fatty acids.

- **Unnatural Diets**: Animals that are raised in feedlots are given diets that are specifically designed to fatten them up, which help the farm boost productivity and lower costs. Genetically modified grain and soy are the main components of these animals' diets. To cut costs even more, animal feed may also contain by-products such as municipal garbage, stale pastry, chicken feathers and candy.

- **Stress on the Animals**: Cud-chewing animals such as cows, goats, buffalo and sheep are designed to eat fibrous grasses, plants and shrubs. When they are fed starchy, low fiber grain a number of problems can arise. Subacute acidosis is a very common condition that affects cattle. This condition causes cattle to kick at their bellies, stop eating feed and begin to eat dirt. These animals are often given chemical additives along with a constant, low-level dose of antibiotics to prevent reactions from becoming fatal. When the antibiotics are overused in the feedlots, bacteria become resistant to them. When humans consume cattle that were fed these antibiotics, they often become infected with the new, disease-resistant bacteria, which means there are fewer medications available to treat them.

- **Cages Create Problems**: When animals are raised in cages (including chickens, turkey, and pigs), it can create even more problems. When confined, these animals cannot practice their normal behaviors such as rooting, grazing and roosting. Often times there isn't even enough room for all of the animals to sit down at one time. Research has found that meat and eggs from these animals are often lower in a number of important vitamins and omega-3 fatty acids.

- **Ground and Water Pollution**: When animals are raised in confinement, they deposit large amounts of manure in small spaces. The right thing for the farmers to do is to collect and transport this manure far away from the area; however, this can be a very expensive task. More increasingly, farmers collect the manure and to cut costs, dump it as close to the feedlot as possible. As a result, the soil becomes over packed with nutrients, which can lead to ground and water pollution.

Sources: *J Animal Sci 80(5): 1202-11, 2002*; **Eat Wild**

Reference website: http://www.nwhealth.edu/healthyu/eatWell/grassfed.html