



Enjoy Your Breakfast Again

Try delicious grass-fed alternatives: real butter, real eggs that have less fat, less cholesterol. The amount of fresh grass in a cow's diet has been found to have a direct relationship to butter and milk composition. A ruminant's fresh grass diet decreases saturated fat, and increases unsaturated fats, including Omega-3s. Grass-fed butter spreads more easily because unsaturated fats are softer.^{xii}

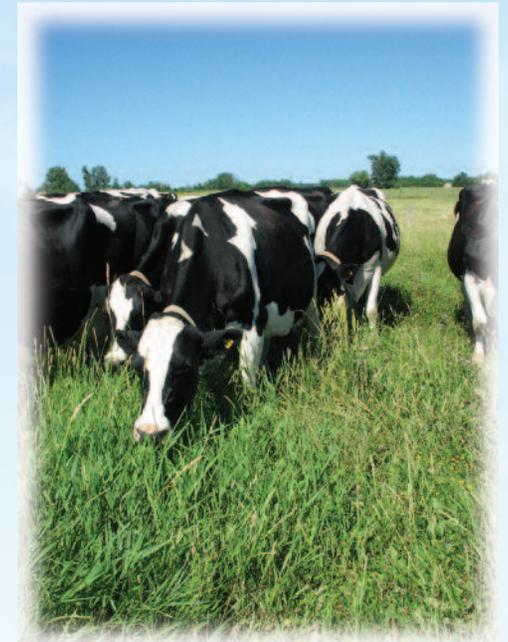
It makes sense that foods with more CLA and Omega-3s are better for you. To take a step toward better health for yourself and your family, ask your grocer or co-op manager about grass-fed meat, eggs and dairy products. Find more information and search for grass raised products near you at www.grassworks.org.

GrassWorks is a membership organization that provides leadership and education to farmers and consumers for the advancement of managed grass-based agriculture to benefit present and future generations. For more information: www.grassworks.org

- i See The Omega Diet by Simopoulos and Robinson, HarperCollins 1999.
- ii Ibid
- iii See Mother Earth News (Oct/Nov) 2007 or (www.motherearthnews.com/eggs.aspx)
- iv Lopez-Bote, C. H. et al. 1998. "Effect of free-range feeding on Omega-3 fatty acids and alpha-tocopherol content and oxidative stability of eggs." Animal Feed Science and Technology 72: 33-40.
- v Buzby, J. and F. Hodan. 2006. "Chicken Consumption Continues Long-run Rise." Amber Waves www.ers.usda.gov/AmberWaves/April06
- vi Paine, L. at al. 2009 Consumer Guide to Grass-Fed Beef. University of WI Extension: Madison, WI.
- vii Miller, G. J. 1986. "Lipids in Wild Ruminant Animals and Steers." Journal of Food Quality 9: 331-343.
- viii Ip, C., Scimeca, J. A. et al. 1994 "Conjugated Linoleic Acid. A Powerful Anti-Carcinogen from Animal Fat Sources." Cancer 74(3 suppl):1050-4. See also, Ip, C., S. Banni, et al. 1999. "Conjugated Linoleic Acid-Enriched Butter Fat Alters Mammary Gland Morphogenesis and Reduces Cancer Risk in Rats." Journal of Nutrition 129(12): 2135-2142.
- ix Aro, A., et al, Kuopio University, Finland; Bougnoux, P, Lavillonniere F, Riboli E. 1999. "Inverse Relation Between CLA in Adipose Breast Tissue and Risk of Breast Cancer." Inform 10(5):S43. Also, Aro, A., S. Mannisto et al. 2000. "Inverse Association between Dietary and Serum Conjugated Linoleic Acid and Risk of Breast Cancer in Postmenopausal Women." Nutrition and Cancer Journal 38(2): 151-7.
- x Dhiman, T. R., G. R. Anand, et al. 1999. "Conjugated Linoleic Acid Content of Milk from Cows Fed Different Diets." Journal of Dairy Science 82(10): 2146-56.
- xi Butler, G. et al. 2008. "Organic Milk is Cream of the Crop" Journal of Science of Food and Agriculture.
- xii Couvreur, S et al. 2006. "The Linear Relationship Between the Proportion of Fresh Grass in the Cow Diet, Milk Fatty Acid Composition, and Butter Properties" Journal of Dairy Science. 89: 1956-1969

Less Saturated Fat, More Omega-3 Fatty Acids

How Grass Farmers Make Quality and Nutritious Food Using Managed Grazing



If you are trying to watch your waistline, take care of your heart or teach your children healthy eating habits, you may be concerned about the quantity and quality of fat in your family's diet. Fat is high in calories (9 cal/gram compared to 4 cal/gram for carbohydrates).



Managed Grazing

A new generation of family farmers is producing food by raising animals on pasture using a method called managed grazing. In managed grazing, cattle, hogs, sheep, poultry, goats and/or bison are rotated through paddocks of high-quality grasses and legumes that are then allowed to rest for re-growth. This method allows animals to forage for food as they might in the wild. Because animals graze the nutritious leafy parts of pasture plants, grass-fed animal products are richer in color, texture and flavor. **Grass-fed meat, eggs and dairy products are also leaner and contain higher levels of important Omega-3 fatty acids.**

Understanding Fatty Acids

There are two types of fatty acids essential for human health: Omega-6 and Omega-3. Omega-3s are “good fats” that play a vital role in every cell and system in the human body. Unfortunately, the American diet is deficient in Omega-3s and overloaded with Omega-6s, which increases the risk of obesity as well as cancer, cardiovascular disease, depression and autoimmune disorders.ⁱ

But fresh pasture contains twice as much Omega-3s as Omega-6s. Grass-fed animal products contain significantly higher levels of Omega-3 fatty acids, which can restore critical balance and improve health.ⁱⁱ Grass-fed eggs are leaner and contain a healthier fatty-acid ratio. One study found that pastured eggs had 1/4 less saturated fat, 1/3 less cholesterol and 2 times as much Omega-3s.ⁱⁱⁱ Eggs from pastured hens can contain 10 times as much Omega-3s.^{iv}

Have Your Steak and Eat It Too

Red meat has received a lot of bad press, so much that per capita consumption of beef has dropped significantly since the 1970s, while consumption of chicken has more than doubled.^v According to a



University of Wisconsin study, grass-fed beef loin is lower in fat and higher in protein.^{vi}

Grass-fed beef is also higher in Omega-3 fatty acids and is more comparable to wild game in its Omega-6: Omega-3 ratio. One study found that grass-fed beef had a ratio of 2:1, which was lower than that of even wild ruminants.^{vii}

Conjugated Linoleic Acid (CLA)

Another kind of polyunsaturated fat, conjugated liquid acids or CLA has been proven to be a potent defense against cancer, and even a small percentage greatly reduces tumor growth in laboratory animals.^{viii} Research suggests that CLA also reduces the risk of cancer in humans. In one



recent study, women with the highest levels of CLA in their diet had a 74% lower risk of breast cancer than women with the lowest levels of CLA.^{ix}

Meat and dairy products from pastured ruminants are rich sources of CLA. Grass-fed meat, egg and dairy products have CLA levels 3 to 5 times higher.^x However, when pasture grass is fed as hay, CLA levels drop as much as 60%. For maximum CLA content, animals need to eat living plants.^{xi}