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Grass-Based Health

Peter Ballerstedt
Barenbrug USA

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Grass-based health

Peter Ballerstedt

Barenbrug USA, www.barusa.com

Contact email: pballerstedt@barusa.com

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Introduction

A true discussion of sustainability must focus on improving the condition of humanity. Too often, however, such a discussion is a "dialogue of values that defies consensual definition" (Ratner 2004), with participants implicitly accepting as true numerous foundational beliefs that are factually incorrect or unproven. Dietary policies recommending carbohydrate-based diets are one example. Falsehoods persist despite decades of contradictory research results and clinical findings, contaminating a variety of diverse disciplines and discussions. A rational, objective discussion of sustainability in grassland agriculture must confront the issue of public health policy, consider our physical health, the fiscal health of our communities, and promote the role of animal products from ruminants in human diets.

Discussion

The following paragraph from the "Food" section of the Wikipedia sustainability page supports this assertion (Wikipedia 2011):

"Concerns about the environmental impacts of agribusiness and the stark contrast between the obesity problems of the Western world and the poverty and food insecurity of the developing world have generated a strong movement towards healthy, sustainable eating as a major component of overall ethical consumerism."

The belief that prosperity, overeating and sedentary behaviour cause obesity is proven false by the observation that obesity and under-nutrition have frequently been observed simultaneously in extremely poor populations (Taubes 2011). The archaeological record and anthropological research establishes that the human diet has been and should be based upon animal products (Wrangham 2009). The mistaken belief that the healthiest human diet is a plant-based, high-carbohydrate one has produced an epidemic of chronic disease in the United States and worldwide (Taubes 2008). Any conversation about "sustainability" that does not address this failure is fatally flawed and pointless.

Explicit guidance to restrict red meat consumption has been part of the official US dietary guidelines from their inception (Select Committee 1977). The official advice to restrict intake of cholesterol, total fat and saturated fat is promoted to reduce the risk of obesity and a number of chronic diseases. Both implicitly and explicitly, the consumption of the product of grassland agriculture – high quality animal protein and animal fat – is discouraged. This

has a number of policy implications in the US and in other countries.

The obesity rate in US adults has doubled over the last 20 years. It has almost tripled in kids ages 2-11. It has more than tripled in children ages 12-19 (CDC 2011). Chronic diseases such as diabetes, heart disease, stroke, obesity, cancer, gastroesophageal reflux disease (GERD) and Alzheimer's disease are taking a heavy human toll and an increasing portion of health care spending. The unsustainable crisis we face is this epidemic of chronic illnesses and its spiralling cost. US health care expenditures surpassed \$2.3 trillion in 2008, more than three times that spent in 1990, and over eight times that spent in 1980 (CDC 2010). The share of the U.S. economy that Americans spend on health care has increased from 7.2% of the Gross Domestic Product (GDP) in 1970 to 17.6% of GDP in 2009 (CDC 2010). Chronic diseases account for \$3 of every \$4 spent on healthcare (CDC 2010). Chronic diseases such as diabetes, cancer, and heart disease are the leading causes of disability and death in the US (CDC 2010). One third of babies born today will develop diabetes in their lifetime (ADA 2011). Similar trends are observed around the world.

Official dietary policy states that obesity increases the risk of developing conditions such as diabetes and heart disease. Research suggests, however, that obesity is a metabolic disorder and is associated with other conditions of metabolic syndrome, like diabetes and heart disease. Obesity is not a cause of metabolic syndrome; it is one of metabolic syndrome's conditions (Taubes 2008). Metabolic syndrome is likely caused by eating diets high in carbohydrate (Taubes 2008). It's most effectively treated by adopting a low-carbohydrate, high-fat diet (Volek & Feinman 2005). Until these facts are officially accepted by the massive disease treatment industries and public health agencies, health care costs will continue to increase and will threaten the long-term viability of communities worldwide.

When the Dietary Goals for the United States were first formulated in 1977, there was a vigorous scientific debate about the diet-heart hypothesis. "Two strikingly polar attitudes persist on this subject, with much talk from each and little listening between" (Blackburn 1975). Three years later, the year after Dietary Goals was released, Thomas Dawber wrote: "It must still be admitted that the diet-heart relation is an unproved hypothesis that needs much more investigation" (Dawber 1978). Indeed, the Committee didn't even know if their recommendations would work. The first entry on their list of "Important questions, which

are currently being investigated” was “Does lowering the plasma cholesterol level through dietary modification prevent or delay heart disease in man?” (Select Committee 1977) The research available at the time suggested it would not. Subsequent research has refuted their hypothesis. Today the available evidence suggests that the optimal human diet should be based on animal products, especially from ruminants, instead of cereal products.

Conclusion

In light of the proceeding discussion, truly sustainable food production looks different than the common perception. “Sustainable” production of grains, pulses, starchy vegetables and sugary fruit begs the question “Who cares if we can produce these sustainably if we can’t sustain the health impacts of consuming them?” And the issue of “sustainable” production of animal products begs the question “How can we produce enough of them to provide an optimal diet for the world?” This latter question should animate the efforts of the International Grassland Congress.

References

- American Diabetes Association (2011) Diabetes Statistics. <http://diabetes.org/diabetes-statistics/dangerous-toll.jsp>. Accessed July 19, 2011.
- Blackburn H (1975) Contrasting Professional Views on Atherosclerosis and Coronary Disease. *New England Journal of Medicine* **292**(2), 105-7.
- Centers for Disease Control and Prevention (2010) Chronic Disease Overview: Costs of Chronic Disease. <http://www.cdc.gov/nccdphp/overview.htm>. Accessed July 15, 2011.
- Centers for Disease Control and Prevention (2011) Overweight and Obesity. <http://www.cdc.gov/nccdphp/dnpa/obesity/trend/index.htm>. Accessed July 15, 2011.
- Dawber TR (1978) Annual Discourse – Unproven Hypothesis *New England Journal of Medicine* **299**(9), 452-8.
- Ratner BD (2004) Sustainability as a Dialogue of Values: Challenges to the Sociology of Development. *Sociological Inquiry* **74**(1), 50–69
- Select Committee on Nutrition and Human Needs of the United States Senate (1977) Dietary goals for the United States. 2nd ed. Washington, DC: US Government Printing Office.
- Taubes G (2008) ‘Good Calories, Bad Calories: Challenging the Conventional Wisdom on Diet, Weight Control, and Disease.’ (Anchor Books, New York, NY)
- Taubes G (2011) ‘Why We Get Fat and What To Do About It.’ (Alfred A. Knopf, New York, NY)
- Volek JS Feinman RD (2005) Carbohydrate restriction improves the features of Metabolic Syndrome. Metabolic Syndrome may be defined by the response to carbohydrate restriction. *Nutrition and Metabolism* **2**, 31.
- Wikipedia. Sustainability. <http://en.wikipedia.org/wiki/Sustainability>. Accessed July 19, 2011.
- Wrangham R (2009) ‘Catching Fire: How Cooking Made Us Human.’ (Basic Books, New York, NY)