

## Lack of research limiting promotion of health benefits for grass-fed milk, beef

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Although a segment of the consumer public perceives health benefits from grass-fed dairy foods and meats and is willing to pay a premium for them, and despite the research that backs those beliefs, existing research isn't sufficient yet to allow any claims about health in the advertising and labeling of those products.

Those points were made by Tera Johnson, a peer network facilitator for Wisconsin's nonprofit Dairy Business Innovation Center (DBIC), during a program sponsored by Grass Point Farms, which is in the early stages of manufacturing and nationally distributing the first certified humane line of dairy products from grass-fed dairy cows, and expects to have its cheeses, butter and fluid milk in up to 5,000 retail outlets by the end of 2006. Johnson is the former chief executive officer of White Clover Dairy at Hollandtown (rural Kaukauna) and is president of Steele Ventures, a business development services firm specializing in food and bio-ag sector entrepreneurship.

Speaking to a crowd of reporters, a majority of the nine current Grass Point Farms milk shippers and other guests on the Joe Tomandl II farm, Johnson said one of the inherent problems in trying to establish the right to make legal claims about health benefits from those dairy products is the lack of firm definitions for terms such as "grass-fed" and "pasture-raised." She noted they are often used interchangeably and can apply to both meat and dairy, but do not have the specificity that the organic food sector has developed for itself.

"We're going to need more documentation to help the Food and Drug Administration to set some standards," Johnson stressed. "We don't have the data yet for it to do so."

"What you will be allowed to say on the labels" of dairy products from grass-fed or pasture-raised cows faces at least one question that does not pertain to the labeling of many other foods, Johnson cautioned. The levels of the ingredients, mainly fatty acids, vary throughout the year and are definitely highest during the primary grazing season, she pointed out.

"It's going to be interesting with the labeling" as research continues on proving whether scientifically valid claims can be made for health benefits pertaining to cancer, heart disease, acute and fatal heart attacks, and the immune system can be replicated in humans, following favorable findings



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in research on animals, Johnson remarked. She noted that the U.S. Department of Agriculture has formed a working task force on the topic, but warned that its attention is on meats, not dairy products.

The nutrition and health benefits commonly associated with grass-fed or pasture-raised are linked to the higher concentrations of omega-3 fatty acids – particularly alpha-linolenic acid (ALA) and conjugated linolenic acid (CLA) – in the milk from grass-fed cows compared to that from conventionally raised and fed cows and in the meat from those dairy and beef cattle, Johnson indicated.

"Omega-3s are available in only trace amounts in dairy foods, but they are prominent in meat," Johnson stated. "So you need to care and get involved because there has been more research so far with meats than with dairy," she told the Grass Point dairy farmer members in the crowd.

Within the omega family, the omega-6 fatty acids are listed as bad fats while omega-3s are viewed as good fats in dairy products and meats. While an approximately 2- or 3-to-1 ratio of omega-6s to omega-3s is considered to be an appropriate balance in a diet, the average diet today has a 10-to-1 ratio of omega-6s to omega-3s instead, Johnson noted. "Those ratios are not absolute values and they create confusion."

CLA is a natural transfat found only in meats and dairy foods and is not the same as the hydrogenated transfat additives about which health problems have been proven, Johnson stated. She said a remaining task in the research is to identify why hydrogenated transfats can cause health problems and CLA apparently provides health benefits, particularly in

preventing cancer or even in destroying cancer cells, according to the research that so far has been confined to animals.

Another consistent finding in the analysis of milk from grass-fed cows is a lower portion of saturated fats while the overall fat content is in line with that in milk from cows fed in conventional ways, Johnson reported.

Johnson also referred to a June 2006 review of 25 English language reports by the Union of Concerned Scientists (UCS) on studies of nutrition benefits of milk from pasture-raised animals. Report writer Kate Clancy stated that the important point is the consistency in how animals raised and fed on pastures produce the highest levels of fatty acids in their meat and milk.

An analysis of 16 studies since 1998 indicated that 11 of them found significantly higher CLA in the milk from pasture-raised dairy cattle while three of them found no significant difference. Less conclusive was the finding of a significantly lower omega-6 to omega-3 ratio in only five of 14 studies, while three had no difference and the remaining six had a lower ratio when comparing milk from pasture-raised and conventionally fed cows. With the preferred ratio being 2-to-1 (omega-6 to omega-3) for health benefits, UCS concluded there is no overall significance between the milk from the two groups of cows.

Studies with animals and clinical and epidemiological studies on humans conducted since 1993 yielded mixed results on the health effects of CLA and three types of omega-3 acids. Both CLA and ALA were evaluated for six health factors (cancer and coronary heart disease being the only overlapping factors) while EPA/DHA (omega-3's docosahexaenoic and eicosapentaenoic acids that are the virtual equivalent of fish oils) were evaluated on 10 points of health. What remains in the research is to duplicate the results from the animal studies in humans.

What's not in doubt is that public awareness about the perceived link between the various fatty acids in grass-fed dairy products and meat has exploded in recent years, Johnson said. She cited 2002 research by Lori Greenberg, of the University of Wisconsin's Center for Integrated Agriculture Studies, which found that eight of nine respondents were not aware of the potential for health benefits.

However, through her work with the DBIC, which is an offshoot of Wisconsin's Value-Added Dairy Initiative, Johnson was involved with focus group projects 18 months ago and another in May 2006. While she admitted that the members of the latest focus group did not represent a valid cross-section of society, Johnson learned that every member of the group that was convened to gain input about the market appeal of grass-fed cheese was aware of health benefits linked to the source of foods – something she described as "an astounding change in awareness."

While this is likely to translate into consumer purchase decisions, Johnson acknowledges that appealing to consumers on the basis of proven human health claims and accompanying labeling is not likely to happen soon.

But, based on a White Clover Dairy research project of feeding batches of calves milk replacer and comparing them to calves that suckled on their grass-fed nurse cows, Johnson is confident that the claims can be validated. That's because, when slaughtered at 5 months, the calves getting the cows' milk consistently had higher CLA and omega-3 and omega-6 in their meat, she stated.

What those studies with the calves also proved, Johnson said, is that the fatty acids were derived from the milk from the grass-fed nurse cows and not directly from eating grass. Although it is yet to be scientifically proven and legally established specifically for the grass-fed niche, she said there is no doubt about the claim that what both cows and humans eat "matters to them."