You Are What Your Animals Eat

by Jo Robinson

In my on-going investigation into pasture-based farming, I've stumbled upon an alarming void: few animal scientists care about the link between the diet of our livestock and the nutritional content of their products. "Feed animals anything you want," the research suggests, "and it makes no difference to their meat, milk, or eggs."

Browse through the animal science journals, for example, and you'll see that the goal of most feeding experiments is to increase production and minimize costs. Period. As long as the feed is cheap and the animal gets fat, anything goes.

Here's a glaring example. A 1999 study published in *The Journal of Animal Science* explored the desirability of feeding stale chewing gum *still in its wrappers* to cattle. Wonder of wonders, the article concluded that a bubble gum diet was a net benefit. I quote:"Results of both experiments suggest that [gum and packaging material] may be fed to safely replace up to 30% of corn-alfalfa hay diets for growing steers with advantages in improving dry matter intake and digestibility." In other words, feed a steer a diet that is 30 percent bubble gum and wrappers, and it will eat more. Needless to say, there was no mention in the article of the nutritional content of the resulting meat. When I first read these articles, I assumed that no one would actually feed bubblegum to their animals, despite the "positive" results of the studies. Then a professor of animal science drove me by a Beechnut gum factory in upstate New York where dairy farmers used to buy truckloads of bubblegum to feed to their cows. The only reason the farmers stopped coming is that the factory closed down.

Researchers studying *human* nutrition have been just as slow to see the connection between animal diets and human diets. To virtually all dieticians, beef is beef, eggs are eggs, and milk is milk. Few pay any attention to what the animals were fed or how they were raised. Thus, when the USDA guidelines say "eat less red meat," the edict applies to all red meat, whether it's a fatty steak from a grainfed cow, or a lean steak from a grassfed cow with its invisible bounty of omega-3s, vitamin E, and CLA.

I have spent the past three years searching for studies that compare the nutritional differences of products from grassfed and grainfed animals. It's been arduous work. One of the main problems is that there is scant research about grassfed animals. For the past 50 years, virtually all the studies have focused on grainfed animals. To learn about grassfed products, I've had to search through yellowing journals published before the advent of factory farming, extrapolate from small studies financed by individual farmers, and

rely on studies based in Ireland, Australia, or New Zealand—parts of the world where pasture-based farming still survives.

Finding the amount of vitamin E in grassfed beef has been my biggest challenge. I began to search for the data as soon as I learned that grass has 20 times more vitamin E than corn or soy. Given the magnitude of this difference, I reasoned that meat from grassfed animals *must* have an extra helping of vitamin E.

Diligently, I searched the scientific record. At long last, I located one American study that had some data. The impetus for this rare study came from disgruntled Japanese buyers who were complaining that the meat from American feedlot cattle spoiled more quickly than the meat from Australian free-range cattle. To find out why, the Americans measured the vitamin E levels in the two types of meat. (They knew that antioxidants such as vitamin E helped prolong shelf life.) Their tests revealed that the meat from the Australian grassfed cattle had three to four times more vitamin E, thanks to all that vitamin E-rich grass. What did the American researchers do with this finding? True to form, they began studying how much synthetic vitamin E to add to feedlot diets. I doubt that it even occurred to them to take a closer look at the Australian model.

A main reason for this lack of interest in the pasture-based model is that much of our animal research is funded by commercial interests—specifically the grain, chemical, pharmaceutical, farm equipment, and meat-packing companies. Together, these vertically integrated behemoths have a multi-billion dollar stake in perpetuating factory farming. The USDA, meanwhile, aids and abets by focusing its efforts on tweaking the feedlot system. The Meat and Animal Research Center (MARC) in Lincoln Nebraska is more willing to spend $100,000 researching how quickly feedlot manure seeps into the water table than to spend a similar amount exploring pasture-based farming.

What will it take to change the priorities of the research community? An enlightened public. And what will it take to enlighten the public? A sustained media campaign. But since there is no money to fund such a campaign, the breakthrough will have to come from investigative journalism. I have a fantasy about how that might happen. First, a journalist from a major TV show such as "60 minutes" or "Dateline" or a prestigious newspaper such as *The New York Times* or *The Washington Post* will decide to explore the stunning differences between factory farms and pasture-based farms. Building on this ground-breaking work, an award-winning TV producer will create a one-hour documentary showing the vivid contrasts. The program will conclude—as it must—-that raising animals on pasture is better for consumers, the animals, the environment, and small-scale farmers. Before long, dozens of TV shows, newspapers, and magazines will launch their own investigations.

All of a sudden, grassfarming will be the talk of the town. Serving organic meat won't win points in Los Angeles anymore unless it's grassfed as well.

Meanwhile, Ted Turner will have stopped sending all of his bison calves to feedlots to be fattened like cattle, and by 2005, his "Turner Reserve Grassfed Bison" will be the thing to serve at celebrity gatherings. Propelled by this groundswell of interest, investors and institutions will finally devote more time, money and energy to supporting pasture-based farming.

Will grassfarming really become the darling of the media? Only time will tell. But even if it doesn't, there is evidence that grassfarming is gathering momentum the old fashioned way—word of mouth. Friends are telling friends about the health benefits of pastured animal products, and they're turning the curious into converts by inviting them over to share in a feast. I've gotten calls from quite a few grassfarmers this year who say they're having trouble keeping up with demand. The good news about grassfarming seems to be spreading---one satisfied customer at a time!

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