



September 5, 2009 – Grand Rapids, MI

Organic Food – Part 3

In the first two parts to this series on organic foods, I addressed nutrient content and pesticide contamination. To finish this series, there are still some issues that need to be addressed. Remember where we started: I commented on a United Kingdom study that reported that there were no differences in nutrient content between conventional and organically grown foods. Once again, a reminder that I wasn't agreeing with the study, I was pointing out what was wrong with it. This third segment will wrap up the Saturday messages on organic food—but certainly not the discussion.

Other Issues

Eating organic versus conventional doesn't end with nutrient content or pesticides, although that's where I spent most of the space in these messages. Here are several more factors to consider. Because there's no good research on most of these issues, there are no absolute answers.

Transportation

What costs more per pint of blueberries? Transporting thousands of pints via one tractor-trailer a thousand miles or having dozens of farmers drive 100 pints of blueberries 10 or 50 miles to farmers markets several days a week? There's efficiency in numbers that must be considered. Shipping large quantities of produce by train may be kinder to the environment than Ralph driving 200 miles in his 20-year-old pick-up with a faulty muffler several days a week. There's not a simple answer to this question, and I couldn't find any studies that answered it effectively.

Fuel

Conventional farming is purported to use more fuel—up to 25% more according to organic-advocacy websites. But they also report that organic farming is more labor intensive—that's one of the reasons it costs more. But what is the cost of more people driving their vehicles to the farms to work? And chances are they're not driving hybrids—farm work doesn't pay that well.

Number of Organic Farms

If fuel isn't a factor because the organic farms are smaller and the people tend to live on the farms, that supports one of my major points. We have over 307,000,000 people to feed in the U.S. Unless more people are going into organic farming at a very fast rate, there's no way at this time we can support that population with organic farming—there just aren't enough farmers, let alone fieldworkers.

Costs of Organic Farming

Organic is still a small part of our food industry. According to the Organic Trade Association, U.S. sales of organic food and beverages were expected to reach \$23.6 billion by the end of 2008, growing an impressive 17.1 percent over 2007 sales despite tough economic times. To keep that in perspective, McDonalds—just McDonalds—had sales of \$23.5 billion.

To make organic food more available, we would need many changes in not only that industry but in others as well. When organic pioneer Gene Kahn, founder of Cascadian Farm organic foods, was asked in a May 2006 *Fast Company* article about making organic farming more widespread, he pointed out that first we'd need to find a way to greatly increase the amount of organic micro- and macro-nutrients available. If we're not going to use fossil fuel to make synthetic fertilizer, he suggests we'd need a whole new composting infrastructure across the U.S. requiring cooperation between many municipalities.

Kahn also points out that weed control is the single largest cost factor that differentiates organic from conventional farming, and if you're not going to spray the fields, you must weed them by hand:

If you looked at the current process and extrapolated that to 100% of the agriculture in the U.S., there would have to be an order-of-magnitude increase in the number of people who were essentially hand-weeding and doing the more labor-intensive forms of agricultural work. Are there people who want to do this work? What are the societal implications of having hundreds of thousands of people involved in stoop labor?

A lot of progress can be made short of the unrealistic dream of making all U.S. food production organic, Kahn says. One way is to make the use of integrated pest management (IPM) more widespread—IPM optimizes the efficiency of agro-chemicals and minimizes their use. One estimate is that pesticide use would be reduced 60% if IPM were widely used.

Conventional farms use chemicals because that's the most cost-effective way to grow food. That's one reason a typical family's food budget went from 31% of household spending in 1950 to less than 15% now. Many farmers live on their land and would be happy to decrease the use of chemicals literally in their backyards if they could still make a living. But how much more are we as a country willing to spend for food in order to make the environment healthier? I don't think we've answered that question yet.

Trust

My favorite grocery is Meijer, and not just because they're headquartered in the Grand Rapids area—they just do a great job at about everything. Ralph at the farmers market says his produce is organically grown, but Ralph's no dummy—he knows you'll pay more for organic, and if it's not really organically grown, how would you know? A presidential task force has recommended new regulations, but of course that raises the cost of compliance, which makes organic food more expensive to grow, especially for small farms.

In the past, Meijer has run ads about their farm inspectors, and whether the produce is from Fresno or Santiago, a Meijer inspector had visited there and checked out farming practices. I assume they're still doing that and that other large grocery chains have similar programs but couldn't find any confirmation. I feel confident that if Meijer says it's organic, it is, but maybe I just need to spend more time getting to know the people at the farmers market.

Timing

It's everything. I talked two weeks ago about how water-soluble vitamins degrade quickly in only a few days. When you can buy produce at the farmers market that was picked that day or the day before, you're getting the most nutrition for your dollar. But if Ralph, that sneak, picked the beans on Monday that he's selling as fresh on Saturday, you might get more nutrition from produce at your local chain grocery that was shipped from distant fields overnight. I don't know how you determine when the stuff was picked—you'll just have to play detective and see what you can find out on your own.

Local Support

If there's one really great reason for buying local organic foods, it's that it supports the farmers in your community. Farming, whether conventional or organic, is a tough business. The margins are low and the probability of something going wrong is high—last year, there was a late frost that pretty much destroyed the crop of Empires, my favorite apples. They were available for about a week because that's all that made it through the frost. I think supporting your local farmers is important to promote community, and most large grocery chains have greatly increased their purchases from local farmers. But in the end your decision may come down to that—all the other arguments aside, you'll buy organic foods at the local farmers market because that keeps your grocery dollars in your state.

The World View

One of the most interesting responses I've gotten on this series was from a reader volunteering at ARI, an international training center in Japan that invites 25 to 30 grassroots rural leaders from developing countries in Asia, Africa, and the Pacific to study at Nasushiobara, Japan, every year—people who then return home to work with individuals and small communities to help them recover from starvation, war and poverty. For nine months, they study sustainable, organic agriculture techniques, leadership, and community development. Learn more online at <http://friends-ari.org>. Here's part of her response:

I've learned that the use of chemicals in farming is pervasive worldwide. After reading your article, I do agree that there are many, many billions of people around the world who have been fed by chemical farming, which was needed during the "green revolution" when a majority of the world was starving.

Not only do big commercial farms throughout the world use chemicals, but small farmers are pushed/forced to use them. We believe that the food and soil is healthier without the use of chemicals, but one of the big reasons for these people to help their communities stop using them is because they are expensive—they keep the farmers in debt and, therefore, poverty. I say forced because farmers cannot sell their products if they do not look as good as the chemically-grown product, and for the first several years, an organic farm's yields are low while the farmer is improving the soil and learning to combat pests and disease naturally. The labor to fight weeds and disease and to make and apply organic fertilizer is greater than applying chemicals.

Also many times the farmers cannot sell their products due to the weather (too little or too much rain, hurricanes, etc.) or the markets are too hard to get to, because these people live in remote areas and if the weather is bad, roads are washed out. The areas are not too remote, however, for the chemical companies to take their products to the farmers. Yes, the weather affects chemical farmers, too, but if the farmer cannot get to market, he does not owe a chemical company.

And the chemicals seriously affect the health of the farmers and their children. The farmers are not told of the harmful effects of the chemicals, are not given protective masks, etc., and can't read labels. Many farmers bring their children to the fields with them when they work because there is no one else to care for them. I have heard several heart-wrenching stories about chemicals causing health issues, such as that of the little boy in China who used empty bags from the pesticides used on the farm to take snacks to school to share with his friends; he and the other boys died the following day.

And just to keep our problems in perspective, here's a bit of ARI's newsletter that highlights a really big pest-control issue:

We once had a participant from Liberia who raised this question, "Wild elephants came into my carrot field and completely destroyed the crop. What can I do to keep elephants out of my field?" With all the collective knowledge of ARI staff, including extensive work overseas, we simply had no way to respond to such a question. But in ARI the staff is not the only resource. To everyone's surprise, one participant from Sri Lanka quickly replied, "Oh, yes, we have that problem too. We just plant sesame around the field. The sesame grows just tall enough that it tickles the elephant's stomach, so elephants don't like to walk through it."

Wonder if sesame would keep the deer away from my hibiscus?

The Bottom Line

I hope you've enjoyed this series on organic foods. I think I've laid out the research on the two most important considerations, nutrient content and chemical exposure, and touched on many of the peripheral issues. As you can see, it's not as simple as people on both sides of the issue make it seem, but as I've said before, if you can afford to buy organic, do it.

For me, here's the bottom line. We still only eat three to four servings of fruits and vegetables per day instead of the eight to ten we're supposed to eat. That makes the argument of organic versus conventional virtually irrelevant because most of us don't eat enough of either type of produce to do ourselves any good or harm. I think we have more to fear from eating too much of the wrong high-fat, highly-refined foods than from eating conventionally grown fruits and vegetables—whether your deep-fried potato chips and French fries are organic is not the biggest issue there. So let me leave you with this question:

Are you prepared to eat your fruits and vegetables today?

One More Thing

Just a reminder that my NPR radio show, *Straight Talk on Health*, is now on FM. Catch it at 7 p.m. Sunday in the Eastern Time Zone on WGVU-FM 88.5 or 95.3.

Dr. Chet

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