Hay belly nation

Contributed by Deborah Rich
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Mum's the word among federal officials about the health benefits of eating organic foods.

The Department of Health and Human Services defers questions about organic foods to the Food and Drug Administration. But the FDA has no policy on organics because it says they're the domain of the Department of Agriculture, which will admit to using the "o-word," but says its mandate is simply to regulate use of the certified organic label, not to judge the relative benefits of organic versus conventional foods.

While the agencies entrusted with safeguarding our food and health pass the potato, a fast-growing body of scientific literature suggests that the connection between farm practices and the healthfulness of our foods merits attention. Organic foods don't come out ahead of conventionally grown foods in 100 percent of comparative tests, but they rise to the top often enough to suggest that organic farming can increase, sometimes dramatically, the nutrient density of what we put in our mouths.

Even a cursory look at recent peer-reviewed studies should be enough to get public health officials talking.

Researchers at the University of California at Davis found that 10-year mean levels of quercetin were 79 percent higher in organic tomatoes than in conventional tomatoes, and that levels of kaempferol were 97 percent higher. Quercetin and kaempferol are flavonoids that studies suggest protect against cardiovascular disease, cancer and other age-related ills.

Another Davis study compared organic and conventional kiwis and found that "all the main mineral constituents were more concentrated in the organic kiwifruits, which also had higher ascorbic acid (a precursor of vitamin C) and total phenol content, resulting in a higher antioxidant activity."

A Spanish study measured 1.5 times more carotenoids -- associated with reduced risk of cardiovascular disease and some cancers -- in peppers grown organically.

And Swiss researcher Lukas Rist found that mothers consuming at least 90 percent of their dairy and meat from organic sources have 36 percent higher levels of rumenic acid in their milk. Research suggests rumenic acid may deter cancer and diabetes, and preserve and improve immune system functions.

These and other studies give hope that organic farming can reverse the nutrient decline of fruits and vegetables that appears to accompany the widespread use of agricultural chemicals and produce varieties selected primarily for yield. And while it's true that nutrition science is still a long way from understanding what the amount of a specific nutrient in a tomato, kiwi or glass of milk means for overall health, ignoring the opportunity to improve the nutrient density of foods at the foundation of the USDA's food pyramid seems foolhardy.

Based on a review of data collected by the Centers for Disease Control, Brian Halweil, senior researcher at the Worldwatch Institute, says, "Thirty percent or more of the U.S. population ingests inadequate levels of magnesium, vitamin C, vitamin E and vitamin A, all nutrients we get from plants."

In a paper he published in the Proceedings of the National Academy of Sciences, Bruce Ames, professor of Biochemistry and Molecular Biology at the University of California-Berkeley, noted that vitamin and mineral deficiencies are common in the United States, and that these deficiencies may accelerate degenerative diseases.

Even our ever-expanding waistlines may be due in part to nutrient declines in our foods. Paul Hepperly, director of research at the Rodale Institute, thinks we may be responding like cattle do.

"Cattle will eat more of hay that's been rained on and had most of its nutrients leach out than they normally would," he says. "The animals get these big bellies, and they're unhealthy, but they're just trying to get their nutrients. Ranchers know that if they have animals with hay belly, they have poor quality food. What we've done with the erosion of nutrient content in our foods -- what we've done with additives, processing and artificial agriculture production methods -- is that we have basically produced a hay belly nation."

Refusing to enter the discussion about how farming methods affect the nutrient density of our food helps our government duck the question of why it lends so much support to the status quo of conventional, nonorganic agriculture. But failing to acknowledge the connection between what happens on the farm and the healthfulness of foods may be enough to make a nation sick.

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Deborah Rich grows olives near Monterey, Calif., and writes about agriculture for the San Francisco Chronicle and other publications. She wrote this comment for the Land Institute's Prairie Writers Circle, Salina, Kansas, released June 11, 2008. Used by permission. The Land Institute's founder Wes Jackson is a national treasure. Check out the group's website:

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