

# In praise of the organic environment

The benefit of eating organic food is not so much what it does for you, says **Marion Nestle**, but what it does for the environment

**D**espite being a long-time analyst of the politics of nutrition, I must confess to a rather late interest in organic foods. Ironically, my epiphany came as a result of an encounter with General Mills, a Minneapolis-based leading global manufacturer and marketer of consumer foods products. In 2003, I was invited to give a talk on my book, *Food Politics*, at a meeting of the Organic Trade Association (OTA) in Texas. With "organic" in the title, I assumed I would be speaking to an audience of counterculture farmers. Wrong. I was introduced by a vice-president of General Mills. At that moment, I understood that organic foods are no mere fad; they are big business.

Just how big is a matter of debate. By some estimates organics brought in \$20 billion in the United States alone in 2004. Corporations like General Mills know that organics constitute the fastest-growing segment of the food industry. Since 1990, sales have gone up by about 20% a year – a gigantic rate by industry standards. Organics may amount to just a tiny fraction of total food sales – estimates range from 1% to 8% – but that fraction is rising. Most important of all, Americans are willing to pay more for organic foods. No wonder every big food company wants to get into this business.

To consider organics a passing fancy would be a serious error. Organic farming methods constitute a principled and fundamental critique of the current system of industrial agriculture. This system wastes resources, pollutes the environment, raises animals under insidious and inhumane conditions, externalizes every possible cost and is based on only one rationale – producing the largest amount of food possible at the lowest possible cost, regardless of consequences for health or the environment. At a time when rising rates of obesity are a worldwide public health problem, the accumulation of vast quantities of inexpensive, high-calorie foods may no longer be in any country's best interest.

#### Certified Organic

The Certified Organic label on a food means that the producers of the food followed these rules: they did not use any synthetic pesticides, herbicides, or fertilizers to grow crops or

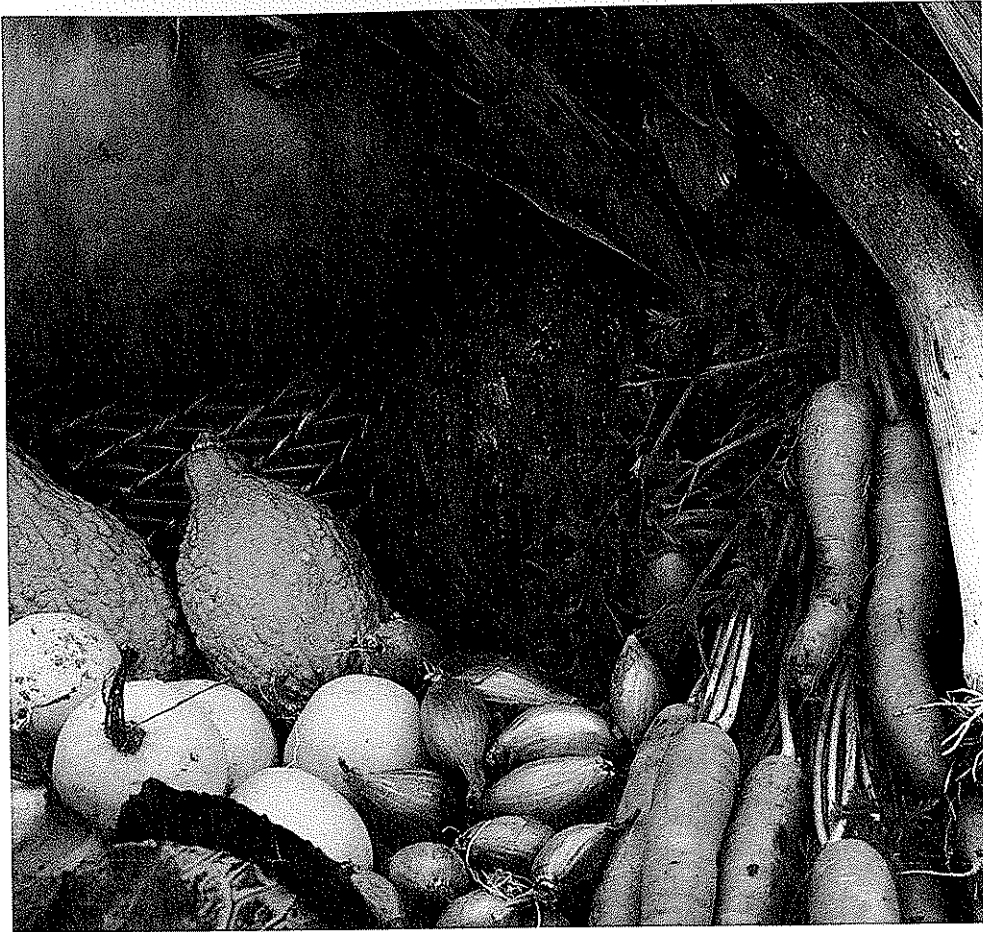
feed for animals; they did not use crops or feed that had been genetically modified, fertilized with sewage sludge or irradiated; they did not feed animals the by-products of other animals; they gave animals access to the outdoors and treated them humanely; and they were inspected to make sure they followed the rules in letter and in spirit.

Opponents of organic methods – and there are many – work hard to cast doubts on the reliability of organic certification, to weaken the standards (so there really will be something to doubt), and to make consumers question whether organics are better than industrially grown foods and worth a higher price.

I cannot count the number of times I have been asked whether the "organic seal" really means anything. It does. Ask any organic inspector, produce manager, farmer, or meat, egg or strawberry producer, and you immediately realize how hard they work to adhere to standards. Trust is essential, and they earn it. As for attempts to weaken the organic standards, think relentless. My take: if organic standards require eternal vigilance to protect, they must be good and worth defending.

Given the potential size of the organic market, it is easy to understand why critics are enraged by the idea that producing foods organically might be better for you or the planet. They say that organic methods reduce productivity, are elitist, threaten food security, are an environmental disaster and are unsafe. Because research on these charges is limited, they are easy to make but hard to refute.

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grown on poorer soils. They also show that organic peaches and pears have somewhat higher levels of vitamins C and E, and organic berries and corn have higher levels of protective antioxidants. In general, the studies all point to slightly higher levels of nutrients in organically grown foods. This may be helpful for marketing purposes, but is not really the reason why organics are important.

Are foods better if they are organic? Of course they are, but not primarily because of nutrition. Their true value comes from what they do for farm workers in lower pesticide exposure, for soils in enrichment and conservation, for water supplies in less fertilizer runoff, for animals in protection against microbial diseases and mad cow disease, for fish in protection against contamination with organic hydrocarbons, and for other such environmental factors.

My guess is that researchers will eventually be able to prove organic foods marginally more nutritious than those grown conventionally, and such findings might make it easier to sell them. In the meantime, there are plenty of other good reasons to choose organic foods, and I do. ☐

### Less is more

But some questions about organics have been researched and do have clear answers. One is productivity. As early as the mid-1970s, studies questioned the idea that agricultural efficiency depends on inputs of fertilizers and pesticides. In 1981, a careful review of such studies concluded that farmers who converted from conventional to organic methods experienced small declines in yields, but these losses were offset by lower fuel costs and better conserved soils. More recent studies confirm these results. Overall, investigations show that organic farms are nearly as productive, leave the soils healthier and use energy more efficiently than conventional methods. The productivity issue seems settled. Organics do less well, but the difference is small.

If crops are grown without pesticides, you would expect fewer pesticides to get into the environment, foods to contain less of them, and adults and children who eat organic foods to have lower levels of pesticides in their bodies. Research confirms these connections. Pesticides are demonstrably harmful to farm workers and to “non-target” wildlife, and they accumulate in soils for ages. These are reasons enough to eat less of them.

Critics question the safety of organic methods that use manure as fertilizer. But organic standards require farmers to treat manure to make sure harmful microbes are destroyed, and they are inspected to make sure they do so. Growers of conventional vegetables do not have to follow such rules, nor are they held to them. I am aware of only one study that compared levels of micro-

bial contaminants on foods grown organically and not. This found evidence of faecal contaminants on 2% of conventionally grown produce, 4% of Certified Organic produce and 11% of produce said to be organic, but not certified. The difference between the first two was not significant. The higher levels on the third suggest that certification means something. I know of no reason why Certified Organic foods should be less safe, and several why they would be safer.

### Better for you?

Do organic methods confer special nutritional benefits? If organic foods are grown on better soils, you would expect them to be more nutritious, and you would be right. This is easily shown for minerals because plants take them up directly from the soil. But plants make their own vitamins and phytonutrients, and those levels depend on genetic strain or treatment post-harvest. The idea that organic soils improve nutritional values has much appeal, and organic producers would dearly love to prove it. I cannot think of any reason why organically grown foods would have fewer nutrients than conventionally grown foods, and I have no trouble thinking of several reasons why they might have more, but it is hard to demonstrate that the difference has any measurable effect on health.

Nevertheless, a few intrepid investigators have compared the nutrient content of foods grown organically and conventionally. These show, as expected, that organic foods grown on good soils have more minerals than foods



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