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ISSUE



Are Organic Foods Better Than Conventional Foods?

YES: Ed Hamer and Mark Anslow, from "10 Reasons Why Organic Can Feed the World" *The Ecologist* (2008)

NO: Mark Bittman, from "Eating Food That's Better for You, Organic or Not?" *The New York Times* (2009)

Learning Outcomes

After reading this issue, you will be able to:

- List the factors that make organic foods superior to conventionally grown foods.
- Outline the benefits that eating an organic, locally grown plant-based diet will have on the environment and our health.
- Describe the trends in organic food consumption by Americans and people of the United Kingdom.

ISSUE SUMMARY

YES: Ed Hamer and Mark Anslow indicate that organically produced foods use less energy, water, and pesticides and produce less pollution while producing foods that taste better and contain more nutrients.

NO: Mark Bittman says that eating organically offers no guarantee of eating well, healthfully, sanely, even ethically. He points out that people may feel better about eating an organic Oreo than a conventional Oreo, and sides with Marion Nestle who says "Organic junk food is still junk food."

For centuries, organic farming was all that existed. During the first few decades of the 1900s, farmers began to use fertilizers, pesticides, and herbicides to increase crop production. Then, use of antibiotics, vaccinations, and hormones to improve the quality of livestock and other farm animals became widespread throughout the world. And handpicking was replaced with large machines. The organic movement, as we know it today, began when a few environmentally conscious people objected to this "industrialized agriculture."

One of the first people to speak out against the new way of farming was British botanist Sir Albert Howard, who is often thought of as the father of organic farming. He wrote several books about farming practices in India where he used compost as a natural fertilizer and promoted that compost is superior to modern fertilizers. In the United States, Jerome Irving Rodale published the

magazine *Organic Farming and Gardening* that focuses on how to grow food without using chemicals. The magazine, which began publication in 1942, is one of the most highly read gardening magazines.

In 1962, environmentalist Rachel Carson's book *Silent Spring* was published. Her book is credited with further increasing awareness of organics. She describes how the insecticide dichlorodiphenyltrichloroethane (DDT) destroys not only malaria-spreading mosquitoes, but also birds and other wildlife. She was concerned that chemicals were being used with "little or no advance investigation of their effect on soil, water, wildlife, and man himself." Her book was instrumental in the formation of the Environmental Protection Agency (EPA) and the ban of DDT in 1972.

Another factor that stimulated awareness of organics was the hippy movement of the 1960s. Hippies rebelled against the established ways of life, opting for a more

natural lifestyle. Females burned their bras, stopped wearing makeup, and were among the first to return to breast-feeding. Men let their hair grow long and quit shaving. They formed communes where they lived off the land. Part of their return to nature included organic gardening. By the early 1970s, people who preached “organic and natural” were considered by most of mainstream America to be hippies.

Farmers of California led the nation in organic agriculture and founded the California Certified Organic Farmers (CCOF) association in 1973. The organization is still considered a leader in organic certification in North America. California was first to pass its “Organic Food Act” in 1979. Members of CCOF were instrumental with the passage of the Federal Organic Foods Production Act of 1990.

Even after the federal act was passed, there was still no way that a person could look at food in a local grocery store and know the product was organic or not. Therefore, in 2004, the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA) developed the USDA-certified

labeling. Organic-related definitions allowed on food labels are listed below.

- **100 percent organic.** Products that are completely organic or made of all organic ingredients.
- **Organic.** Products that are at least 95 percent organic.
- **Made with organic ingredients.** These are products that contain at least 70 percent organic ingredients. The organic seal can’t be used on these packages.
- **All-natural, free-range, or hormone-free.** These descriptions *do not* mean the food is organic.

More and more of us are grabbing organic foods. According to Ed Hamer and Mark Anslow, organic foods can feed the world, if we farm and eat differently. They say organically produced foods are more nutritious than conventionally grown foods and are earth friendly. Mark Bittman disagrees and insists that eating organically offers “no guarantee of eating well, healthfully, sanely, even ethically.” After you read their articles, decide if organic foods are better than conventionally grown ones.

Distinctions Between Conventional and Organic Farming

Conventional Farming	Organic Farming
Apply chemical fertilizers to promote plant growth.	Apply natural fertilizers, such as manure or compost, to feed soil and plants.
Spray insecticides to reduce pests and disease.	Use beneficial insects and birds, mating disruption or traps to reduce pests and disease.
Use chemical herbicides to manage weeds.	Rotate crops, till, hand weed, or mulch to manage weeds.
Give animals antibiotics, growth hormones, and medications to prevent disease and spur growth.	Give animals organic feed and allow them access to the outdoors. Use preventive measures—such as rotational grazing, a balanced diet, and clean housing—to help minimize disease.

Source: <http://usda-fda.com/Articles/Organic.htm>.

TIMELINE

- Early 1900s** Industrialized agriculture begins.
- 1942** J.I. Rodale publishes *Organic Farming and Gardening*.
- 1962** Rachel Carson’s book *Silent Spring* is published.
- 1972** DDT banned in the United States.
- 1973** California Certified Organic Farmers (CCOF) is formed.
- 1979** California Organic Food Act is passed.
- 1990** Federal Organic Foods Production Act is passed.
- 2002** USDA and FDA begin organic foods labeling.

YES

Ed Hamer and Mark Anslow

10 Reasons Why Organic Can Feed the World

Can organic farming feed the world? Ed Hamer and Mark Anslow say yes, but we must eat and farm differently.

1. Yield

Switching to organic farming would have different effects according to where in the world you live and how you currently farm.

Studies show that the less industrialised world stands to benefit the most. In southern Brazil, maize and wheat yields doubled on farms that changed to green manures and nitrogen-fixing leguminous vegetables instead of chemical fertilisers. In Mexico, coffee-growers who chose to move to fully organic production methods saw increases of 50 per cent in the weight of beans they harvested. In fact, in an analysis of more than 286 organic conversions in 57 countries, the average yield increase was found to be an impressive 64 per cent.

The situation is more complex in the industrialised world, where farms are large, intensive facilities, and opinions are divided on how organic yields would compare.

Research by the University of Essex in 1999 found that, although yields on US farms that converted to organic initially dropped by between 10 and 15 per cent, they soon recovered, and the farms became more productive than their all-chemical counterparts. In the UK, however, a study by the Elm Farm Research Centre predicted that a national transition to all-organic farming would see cereal, rapeseed and sugar beet yields fall by between 30 and 60 per cent. Even the Soil Association admits that, on average in the UK, organic yields are 30 per cent lower than non-organic.

So can we hope to feed ourselves organically in the British Isles and Northern Europe? An analysis by former *Ecologist* editor Simon Fairlie in *The Land* journal suggests that we can, but only if we are prepared to rethink our diet and farming practices.

In Fairlie's scenario, each of the UK's 60 million citizens could have organic cereals, potatoes, sugar, vegetables and fruit, fish, pork, chicken and beef, as well as wool and flax for clothes and biomass crops for heating. To achieve this we'd each have to cut down to around 230g of beef (½ lb), compared to an average of 630g (1½ lb) today, 252g of pork/bacon, 210g of chicken and just under 4kg (9lb) of dairy produce each week—considerably more than the country enjoyed in 1945. We would probably need to supplement our diet with home-grown vegetables, save our food scraps as livestock feed and reform the sewage system to use our waste as an organic fertiliser.

2. Energy

Currently, we use around 10 calories of fossil energy to produce one calorie of food energy. In a fuel-scarce future, which experts think could arrive as early as 2012, such numbers simply won't stack up.

Studies by the Department for Environment, Food and Rural Affairs over the past three years have shown that, on average, organically grown crops use 25 per cent less energy than their chemical cousins. Certain crops achieve even better reductions, including organic leeks (58 per cent less energy) and broccoli (49 per cent less energy).

When these savings are combined with stringent energy conservation and local distribution and consumption (such as organic box schemes), energy-use dwindles to a fraction of that needed for an intensive, centralised food system. A study by the University of Surrey shows that food from Tolhurst Organic Produce, a smallholding in Berkshire, which supplies 400 households with vegetable boxes, uses 90 per cent less energy than if non-organic produce had been delivered and bought in a supermarket.

Far from being simply 'energy-lite', however, organic farms have the potential to become self-sufficient in energy—or even to become energy exporters. The 'Dream

Farm' model, first proposed by Mauritius-born agroscientist George Chan, sees farms feeding manure and waste from livestock and crops into biodigesters, which convert it into a methane-rich gas to be used for creating heat and electricity. The residue from these biodigesters is a crumbly, nutrient-rich fertiliser, which can be spread on soil to increase crop yields or further digested by algae and used as a fish or animal feed.

3. Greenhouse Gas Emission and Climate Change

Despite organic farming's low-energy methods, it is not in reducing demand for power that the techniques stand to make the biggest savings in greenhouse gas emissions.

The production of ammonium nitrate fertiliser, which is indispensable to conventional farming, produces vast quantities of nitrous oxide—a greenhouse gas with a global warming potential some 320 times greater than that of CO₂. In fact, the production of one tonne of ammonium nitrate creates 6.7 tonnes of greenhouse gases (CO₂^e), and was responsible for around 10 percent of all industrial greenhouse gas emissions in Europe in 2003.

The techniques used in organic agriculture to enhance soil fertility in turn encourage crops to develop deeper roots, which increase the amount of organic matter in the soil, locking up carbon underground and keeping it out of the atmosphere.

The opposite happens in conventional farming: high quantities of artificially supplied nutrients encourage quick growth and shallow roots. A study published in 1995 in the journal *Ecological Applications* found that levels of carbon in the soils of organic farms in California were as much as 28 per cent higher as a result. And research by the Rodale Institute shows that if the US were to convert all its corn and soybean fields to organic methods, the amount of carbon that could be stored in the soil would equal 73 per cent of the country's Kyoto targets for CO₂ reduction.

Organic farming might also go some way towards salvaging the reputation of the cow, demonised in 2007 as a major source of methane at both ends of its digestive tract. There's no doubt that this is a problem: estimates put global methane emissions from ruminant livestock at around 80 million tonnes a year, equivalent to around two billion tonnes of CO₂, or close to the annual CO₂ output of Russia and the UK combined. But by changing the pasturage on which animals graze to legumes such as clover or birdsfoot trefoil (often grown anyway by organic farmers to improve soil nitrogen content), scientists at the Institute of Grassland and Environmental Research believe

that methane emissions could be cut dramatically. Because the leguminous foliage is more digestible, bacteria in the cow's gut are less able to turn the fodder into methane. Cows also seem naturally to prefer eating birdsfoot trefoil to ordinary grass.

4. Water Use

Agriculture is officially the most thirsty industry on the planet, consuming a staggering 72 per cent of all global freshwater at a time when the UN says 80 per cent of our water supplies are being overexploited.

This hasn't always been the case. Traditionally, agricultural crops were restricted to those areas best suited to their physiology, with drought-tolerant species grown in the tropics and water-demanding crops in temperate regions.

Global trade throughout the second half of the last century led to a worldwide production of grains dominated by a handful of high-yielding cereal crops, notably wheat, maize and rice. These thirsty cereals—the 'big three'—now account for more than half of the world's plant-based calories and 85 per cent of total grain production.

Organic agriculture is different. Due to its emphasis on healthy soil structure, organic farming avoids many of the problems associated with compaction, erosion, salinisation and soil degradation, which are prevalent in intensive systems. Organic manures and green mulches are applied even before the crop is sown, leading to a process known as 'mineralisation'—literally the fixing of minerals in the soil. Mineralised organic matter, conspicuously absent from synthetic fertilisers, is one of the essential ingredients required physically and chemically to hold water on the land.

Organic management also uses crop rotations, undersowing and mixed cropping to provide the soil with near-continuous cover. By contrast, conventional farm soils may be left uncovered for extended periods prior to sowing, and again following the harvest, leaving essential organic matter fully exposed to erosion by rain, wind and sunlight.

In the US, a 25-year Rodale Institute experiment on climatic extremes found that, due to improved soil structure, organic systems consistently achieve higher yields during periods both of drought and flooding.

5. Localisation

The globalisation of our food supply, which gives us Peruvian apples in June and Spanish lettuces in February, has seen our food reduced to a commodity in an increasingly volatile global marketplace.

Although year-round availability makes for good marketing in the eyes of the biggest retailers, the costs to the environment are immense.

Friends of the Earth estimates that the average meal in the UK travels 1,000 miles from plot to plate. In 2005, Defra released a comprehensive report on food miles in the UK, which valued the direct environmental, social and economic costs of food transport in Britain at £9 billion each year. In addition, food transport accounted for more than 30 billion vehicle kilometres, 25 percent of all HGV journeys and 19 million tonnes of carbon dioxide emissions in 2002 alone.

The organic movement was born out of a commitment to provide local food for local people, and so it is logical that organic marketing encourages localisation through veg boxes, farm shops and stalls. Between 2005 and 2006, organic sales made through direct marketing outlets such as these increased by 53 per cent, from £95 to £146 million, more than double the sales growth experienced by the major supermarkets. As we enter an age of unprecedented food insecurity, it is essential that our consumption reflects not only what is desirable, but also what is ultimately sustainable. While the 'organic' label itself may inevitably be hijacked, 'organic and local' represents a solution with which the global players can simply never compete.

6. Pesticides

It is a shocking testimony to the power of the agrochemical industry that in the 45 years since Rachel Carson published her pesticide warning *Silent Spring*, the number of commercially available synthetic pesticides has risen from 22 to more than 450.

According to the World Health Organization there are an estimated 20,000 accidental deaths worldwide each year from pesticide exposure and poisoning. More than 31 million kilograms of pesticide were applied to UK crops alone in 2005, 0.5 kilograms for every person in the country. A spiralling dependence on pesticides throughout recent decades has resulted in a catalogue of repercussions, including pest resistance, disease susceptibility, loss of natural biological controls and reduced nutrient-cycling.

Organic farmers, on the other hand, believe that a healthy plant grown in a healthy soil will ultimately be more resistant to pest damage. Organic systems encourage a variety of natural methods to enhance soil and plant health, in turn reducing incidences of pests, weeds and disease.

First and foremost, because organic plants grow comparatively slower than conventional varieties they have thicker cell walls, which provide a tougher natural barrier to pests. Rotations or 'break-crops', which are central to

organic production, also provide a physical obstacle to pest and disease lifecycles by removing crops from a given plot for extended periods. Organic systems also rely heavily on a rich agro-ecosystem in which many agricultural pests can be controlled by their natural predators.

Inevitably, however, there are times when pestilence attacks are especially prolonged or virulent, and here permitted pesticides may be used. The use of organic pesticides is heavily regulated and the International Federation of Organic Agriculture Movements (IFOAM) requires specific criteria to be met before pesticide applications can be justified.

There are in fact only four active ingredients permitted for use on organic crops: copper fungicides, restricted largely to potatoes and occasionally orchards; sulphur, used to control additional elements of fungal diseases; Rote-none, a naturally occurring plant extract; and soft soap, derived from potassium soap and used to control aphids. Herbicides are entirely prohibited.

7. Ecosystem Impact

Farmland accounts for 70 per cent of UK land mass, making it the single most influential enterprise affecting our wildlife. Incentives offered for intensification under the Common Agricultural Policy are largely responsible for negative ecosystem impacts over recent years. Since 1962, farmland bird numbers have declined by an average of 30 per cent. During the same period more than 192,000 kilometres of hedgerows have been removed, while 45 per cent of our ancient woodland has been converted to cropland.

By contrast, organic farms actively encourage biodiversity in order to maintain soil fertility and aid natural pest control. Mixed farming systems ensure that a diversity of food and nesting sites [is] available throughout the year, compared with conventional farms where autumn sow crops leave little winter vegetation available.

Organic production systems are designed to respect the balance observed in our natural ecosystems. It is widely accepted that controlling or suppressing one element of wildlife, even if it is a pest, will have unpredictable impacts on the rest of the food chain. Instead, organic producers regard a healthy ecosystem as essential to a healthy farm, rather than a barrier to production.

In 2005, a report by English Nature and the RSPB on the impacts of organic farming on biodiversity reviewed more than 70 independent studies of flora, invertebrates, birds and mammals within organic and conventional farming systems. It concluded that biodiversity is enhanced at every level of the food chain under organic management practices, from soil micro-biota right through to farmland birds and the largest mammals.

8. Nutritional Benefits

While an all-organic farming system might mean we'd have to make do with slightly less food than we're used to, research shows that we can rest assured it would be better for us. In 2001, a study in the *Journal of Complementary Medicine* found that organic crops contained higher levels of 21 essential nutrients than their conventionally grown counterparts, including iron, magnesium, phosphorus and vitamin C. The organic crops also contained lower levels of nitrates, which can be toxic to the body.

Other studies have found significantly higher levels of vitamins—as well as polyphenols and antioxidants—in organic fruit and veg, both of which are thought to play a role in cancer-prevention within the body.

Scientists have also been able to work out why organic farming produces more nutritious food. Avoiding chemical fertilizer reduces nitrates levels in the food; better quality soil increases the availability of trace minerals, and reduced levels of pesticides mean that the plants' own immune systems grow stronger, producing higher levels of antioxidants. Slower rates of growth also mean that organic food frequently contains higher levels of dry mass, meaning that fruit and vegetables are less pumped up with water and so contain more nutrients by weight than intensively grown crops do.

Milk from organically fed cows has been found to contain higher levels of nutrients in six separate studies, including omega-3 fatty acids, vitamin E, and beta-carotene, all of which can help prevent cancer. One experiment discovered that levels of omega-3 in organic milk were on average 68 per cent higher than in non-organic alternatives.

But as well as giving us more of what we do need, organic food can help to give us less of what we don't. In 2000, the UN Food and Agriculture Organization (FAO) found that organically produced food had 'lower levels of pesticide and veterinary drug residues' than non-organic did. Although organic farmers are allowed to use antibiotics when absolutely necessary to treat disease, the routine use of the drugs in animal feed—common on intensive livestock farms—is forbidden. This means a shift to organic livestock farming could help tackle problems such as the emergence of antibiotic-resistant bacteria.

9. Seed-Saving

Seeds are not simply a source of food; they are living testimony to more than 10,000 years of agricultural domestication. Tragically, however, they are a resource that has suffered unprecedented neglect. The UN FAO estimates

that 75 per cent of the genetic diversity of agricultural crops has been lost over the past 100 years.

Traditionally, farming communities have saved seeds year on year, both in order to save costs and to trade with their neighbours. As a result, seed varieties evolved in response to local climatic and seasonal conditions, leading to a wide variety of fruiting times, seed size, appearance and flavour. More importantly, this meant a constant updating process for the seed's genetic resistance to changing climatic conditions, new pests and diseases.

By contrast, modern intensive agriculture depends on relatively few crops—only about 150 species are cultivated on any significant scale worldwide. This is the inheritance of the Green Revolution, which in the late 1950s perfected varieties Filial 1, or F1 seed technology, which produced hybrid seeds with specifically desirable genetic qualities. These new high-yield seeds were widely adopted, but because the genetic makeup of hybrid F1 seeds becomes diluted following the first harvest, the manufacturers ensured that farmers return for more seed year on year.

With its emphasis on diversity, organic farming is somewhat cushioned from exploitation on this scale, but even Syngenta, the world's third-largest biotech company, now offers organic seed lines. Although seed-saving is not a prerequisite for organic production, the holistic nature of organics lends itself well to conserving seed.

In support of this, the Heritage Seed Library, in Warwickshire, is a collection of more than 800 open-pollinated organic varieties, which have been carefully preserved by gardeners across the country.

Although their seeds are not yet commercially available, the Library is at the forefront of addressing the alarming erosion of our agricultural diversity.

Seed-saving and the development of local varieties must become a key component of organic farming, giving crops the potential to evolve in response to what could be rapidly changing climatic conditions. This will help agriculture keep pace with climate change in the field, rather than in the laboratory.

10. Job Creation

There is no doubt British farming is currently in crisis. With an average of 37 farmers leaving the land every day, there are now more prisoners behind bars in the UK than there are farmers in the fields.

Although it has been slow, the decline in the rural labour force is a predictable consequence of the industrialisation of agriculture. A mere one per cent of the UK workforce is now employed in land-related enterprises, compared with 35 per cent at the turn of the last century.

The implications of this decline are serious. A skilled agricultural workforce will be essential in order to maintain food security in the coming transition towards a new model of post-fossil fuel farming. Many of these skills have already been eroded through mechanisation and a move towards more specialised and intensive production systems.

Organic farming is an exception to these trends. By its nature, organic production relies on labour-intensive management practices. Smaller, more diverse farming systems require a level of husbandry that is simply uneconomical at any other scale. Organic crops and livestock also demand specialist knowledge and regular monitoring in the absence of agrochemical controls.

According to a 2006 report by the University of Essex, organic farming in the UK provides 32 per cent more jobs per farm than comparable non-organic farms. Interestingly, the report also concluded that the higher employment observed could not be replicated in non-organic farming through initiatives such as local marketing.

Instead, the majority (81 per cent) of total employment on organic farms was created by the organic production system itself. The report estimates that 93,000 new jobs would be created if all farming in the UK were to convert to organic.

Organic farming also accounts for more younger employees than any other sector in the industry. The average age of conventional UK farmers is now 56, yet organic farms increasingly attract a younger more enthusiastic workforce, people who view organics as the future of food production. It is for this next generation of farmers that Organic Futures, a campaign group set up by the Soil Association in 2007, is striving to provide a platform.

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Mark Bittman

Eating Food That's Better for You, Organic or Not

In the six-and-one-half years since the federal government began certifying food as “organic,” Americans have taken to the idea with considerable enthusiasm. Sales have at least doubled, and three-quarters of the nation’s grocery stores now carry at least some organic food. A Harris poll in October 2007 found that about 30 percent of Americans buy organic food at least on occasion, and most think it is safer, better for the environment and healthier.

“People believe it must be better for you if it’s organic,” says Phil Howard, an assistant professor of community, food and agriculture at Michigan State University.

So I discovered on a recent book tour around the United States and Canada.

No matter how carefully I avoided using the word “organic” when I spoke to groups of food enthusiasts about how to eat better, someone in the audience would inevitably ask, “What if I can’t afford to buy organic food?” It seems to have become the magic cure-all, synonymous with eating well, healthfully, sanely, even ethically.

But eating “organic” offers no guarantee of any of that. And the truth is that most Americans eat so badly—we get 7 percent of our calories from soft drinks, more than we do from vegetables; the top food group by caloric intake is “sweets”; and one-third of nation’s adults are now obese—that the organic question is a secondary one. It’s not unimportant, but it’s not the primary issue in the way Americans eat.

To eat well, says Michael Pollan, the author of “In Defense of Food,” means avoiding “edible food-like substances” and sticking to real ingredients, increasingly from the plant kingdom. (Americans each consume an average of nearly two pounds a day of animal products.) There’s plenty of evidence that both a person’s health—as well as the environment’s—will improve with a simple shift in eating habits away from animal products and highly processed foods to plant products and what might be called

“real food.” (With all due respect to people in the “food movement,” the food need not be “slow,” either.)

From these changes, Americans would reduce the amount of land, water and chemicals used to produce the food we eat, as well as the incidence of lifestyle diseases linked to unhealthy diets, and greenhouse gases from industrial meat production. All without legislation.

And the food would not necessarily have to be organic, which, under the United States Department of Agriculture’s definition, means it is generally free of synthetic substances; contains no antibiotics and hormones; has not been irradiated or fertilized with sewage sludge; was raised without the use of most conventional pesticides; and contains no genetically modified ingredients.

Those requirements, which must be met in order for food to be labeled “U.S.D.A. Organic,” are fine, of course. But they still fall short of the lofty dreams of early organic farmers and consumers who gave the word “organic” its allure—of returning natural nutrients and substance to the soil in the same proportion used by the growing process (there is no requirement that this be done); of raising animals humanely in accordance with nature (animals must be given access to the outdoors, but for how long and under what conditions is not spelled out); and of producing the most nutritious food possible (the evidence is mixed on whether organic food is more nutritious) in the most ecologically conscious way.

The government’s organic program, says Joan Shaffer, a spokeswoman for the Agriculture Department, “is a marketing program that sets standards for what can be certified as organic. Neither the enabling legislation nor the regulations address food safety or nutrition.”

People don’t understand that, nor do they realize “organic” doesn’t mean “local.” “It doesn’t matter if it’s from the farm down the road or from Chile,” Ms. Shaffer said. “As long as it meets the standards it’s organic.”

Hence, the organic status of salmon flown in from Chile, or of frozen vegetables grown in China and sold in the United States—no matter the size of the carbon footprint left behind by getting from there to here.

Today, most farmers who practice truly sustainable farming, or what you might call “organic in spirit,” operate on small scale, some so small they can’t afford the requirements to be certified organic by the government. Others say that certification isn’t meaningful enough to bother. These farmers argue that, “When you buy organic you don’t just buy a product, you buy a way of life that is committed to not exploiting the planet,” says Ed Maltby, executive director of the Northeast Organic Dairy Producers Alliance.

But the organic food business is now big business, and getting bigger. Professor Howard estimates that major corporations now are responsible for at least 25 percent of all organic manufacturing and marketing (40 percent if you count only processed organic foods). Much of the nation’s organic food is as much a part of industrial food production as midwinter grapes, and becoming more so. In 2006, sales of organic foods and beverages totaled about \$16.7 billion, according to the most recent figures from Organic Trade Association.

Still, those sales amounted to slightly less than 3 percent of overall food and beverage sales. For all the hoo-ha, organic food is not making much of an impact on the way Americans eat, though, as Mark Kastel, co-founder of The Cornucopia Institute, puts it: “There are generic benefits from doing organics. It protects the land from the ravages of conventional agriculture,” and safeguards farm workers from being exposed to pesticides.

But the questions remain over how we eat in general. It may feel better to eat an organic Oreo than a

conventional Oreo, but, says Marion Nestle, a professor at New York University’s department of nutrition, food studies and public health, “Organic junk food is still junk food.”

Last [year], Michelle Obama began digging up a patch of the South Lawn of the White House to plant an organic vegetable garden to provide food for the first family and, more important, to educate children about healthy, locally grown fruits and vegetables at a time when obesity and diabetes have become national concerns.

But Mrs. Obama also emphasized that there were many changes Americans can make if they don’t have the time or space for an organic garden.

“You can begin in your own cupboard,” she said, “by eliminating processed food, trying to cook a meal a little more often, trying to incorporate more fruits and vegetables.”

Popularizing such choices may not be as marketable as creating a logo that says “organic.” But when Americans have had their fill of “value-added” and overprocessed food, perhaps they can begin producing and consuming more food that treats animals and the land as if they mattered. Some of that food will be organic, and hooray for that. Meanwhile, they should remember that the word itself is not synonymous with “safe,” “healthy,” “fair” or even necessarily “good.”

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EXPLORING THE ISSUE



Are Organic Foods Better Than Conventional Foods?

Critical Thinking and Reflection

1. Define what is meant by “organic and local.”
2. Describe how both the articles compare the way organic foods are grown today to the way the early organic farmers originally intended them to be grown.
3. List the benefits that organic foods provide to people, the environment, and society.
4. Ed Hamer and Mark Anslow say that organic farming can feed the world if we “farm and eat differently.” Explain what they mean by this.
5. Design a program that will ensure all people in your city have access to affordable organic foods.

Is There Common Ground?

Both Hamer and Anslow are U.K.-based journalists and look at the influence that conventional farming has on the global environment. They begin by acknowledging that the yield from organic foods will vary depending on current farming practices of the country. They point out that less fossil energy, water, and pesticides are used by organic practices and that organic results in less greenhouse emissions. And organic practices are kinder to wildlife. They cite several studies that claim organic foods and beverages provide more nutrients than conventionally grown foods.

In contrast, Mark Bittman says that eating organically “offers no guarantee” that the foods are healthier or even grown more ethically. He points out that “most Americans eat so badly . . . that the organic question is secondary.” Bittman agrees with Michael Pollan’s recommendation that we should avoid “edible food-like substances” and eat real foods with the least processing as possible. He also agrees that eating more from the plant kingdom and less animal products is better. Changes like this would reduce the amount of land, water, and chemicals used. Bittman says the foods don’t necessarily need to meet the USDA definition of “organic” to improve health.

Bittman criticizes current practices of organic food production and points out that the current practices are not what the original organic crusaders wanted. Currently, major food corporations are responsible for 25 percent of all organic food manufacturing and marketing. This makes it difficult for small local organic farms to thrive. There are differences between “locally grown” and “organic.” He criticizes the carbon footprints that organic foods leave behind that are flown to America

from around the world and says they defeat the purpose of the organic movement. He concludes by applauding the garden Michelle Obama planted on the lawn of the White House. The garden educates Americans about the benefits of fresh fruits and vegetables and encourages less reliance on overly processed foods. He concludes that we all need to eat better, some of the foods may not meet the definition of “organic,” but we can all strive to eat foods that are less processed and grown in a manner that is easier on the environment.

Additional Resources

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www.ofrf.org/organic-faqs

United States Department of Agriculture

www.usda.gov

