

LOW FOOD PRICES

The Real Story on the Affordability of Organic Food

By Stephanie Davio,
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It is often said that organically produced food has higher prices at the store because it takes more time and energy to produce than its chemical-intensive counterpart. Compared to so-called conventional chemical-intensive farming, organic farmers pay closer attention to the health of their agricultural ecosystems and the potential results of their farming practices for both humans and the natural world, and this more intensive management does come with a pricetag. However, this is only part of the story, as it overlooks the glaring fact that conventional farm operations do not incur the total cost of their production. Chemical-intensive agriculture has countless negative effects on our health and natural resources, which are not accounted for in most traditional farm business models, but are passed on to society nevertheless. Some researchers calculate the adverse impacts to health and the environment to be as much as \$16.9 billion a year. (Tegtmeier and Duffy 2004) We still pay these costs, just not at the grocery check-out counter. Instead, we see these costs in the form of higher taxes and medical bills, and decreased quality of life due to environmental pollution. Conversely, organic farmers take steps to ensure that they do not create these effects, which result in external costs. Instead, they internalize them and take care not to damage and deplete natural resources or create public health problems. The question, then, should not be, "Can we afford to buy organic food?," but rather, "Can we afford not to?" The following data suggest that we are

going to go broke cleaning up after conventional agriculture.

How Much Does it Cost?

The costs and benefits of agriculture, whether organic or conventional, can be broken down into two basic categories: public health and the environment. The food we eat and the ways in which it is grown have strong and lasting effects on not only our own personal health, but also the health of farmworkers and farm families, surrounding communities, and our natural resources.

Health

Nutrient Density

In terms of health, food provides us with the essential vitamins and nutrients which our bodies require in order to sustain themselves. But is the food that we eat adequately providing these nutrients? And is it delivering anything else to our systems that

might do them harm? The chemical industry likes to point out that there are few to no studies in this area that show the value of organic produce. There is some new mounting evidence that indicate otherwise, but studies largely do not exist because they are not required under the current regulatory system.

A growing number of consumers are choosing organic foods, believing them to be healthier for themselves and the environment. Particularly noteworthy is a recent study conducted by researchers at Washington State University that compares the

"Conventional?"

We have come to differentiate organic from chemical-intensive agricultural practices by referring to the latter as "conventional." Of course, it is conventional only in the sense that it is the most commonly practiced form of agriculture in the U.S. From an ecological and environmental health perspective, however, it must be said that these chemical-intensive practices defy conventions of what we know to be healthful practices that support soil biology, biodiversity, plant health, and protection of human health and the environment.

nutrient content of organically and conventionally grown strawberries. The researchers find that organically produced strawberries, while slightly smaller than conventional, have higher antioxidant activity, longer shelf life, and fare better in taste tests. Specifically, the organic berries are found to have higher levels of antioxidants, Vitamin C, and phenolics (Reganold et al. 2010). They also have a longer shelf life and greater resistance to post-harvest fungal rot. Consumer sensory panels show a preference for the taste of organic strawberries, as well.

Food Contamination

Environmental illness can result in serious hardship on every level,

from physical to psychological. It also burdens us, both personally and as a society, with seemingly insurmountable economic costs. Children are particularly susceptible to chemical exposure in the environment and studies have shown significant financial costs associated with protecting children from hazards and treating chemical-induced diseases. A 2010 study estimates that families in Michigan spent \$5.85 billion coping with just four environment-related childhood diseases –lead poisoning, asthma, pediatric cancer, and neurodevelopmental disorders. (“The Price of Pollution” 2011)

A 2008 nationwide study by researchers at the Mount Sinai School

Who Eats Organic?

The chemical-intensive agriculture and food industry likes to characterize organic as elitist. In reality, this is far from the truth.

An analysis published in *Choices Magazine* finds that households with income levels of less than \$25,000/year actually spend about the same or slightly more on organic than higher income groups. The magazine concludes, “Contrary to popular opinion, we do not find any consistent positive association between household income and expenditures on organic produce.”

Another poll conducted by *Thomson Reuters* and *National Public Radio* (NPR) shows that a majority of Americans prefer to buy organic food when given the chance. The survey asked five questions of respondents:

- (1) Given a choice, would you prefer to eat organic or non-organic foods?
- (2) What are your reasons for preferring organic food?
- (3) What are your reasons for preferring non-organic food?
- (4) Given a choice, where would you most prefer to get your produce?
- (5) In a restaurant, would your ordering decision be influenced by the availability of organic options?

The results find that 58% of respondents say they choose organic over conventionally produced foods when they have the opportunity; this number spikes higher among both young and highly educated respondents. Those who most prefer organic food include respondents under the age of 35 and respondents with a bachelor’s degree or higher, at 63% and 64% respectively.

Across income brackets, preference for organic food is relatively even, with 56% of those earning less than \$25k per year, 61.2% earning in the \$25-\$49.9k bracket, 59% in the \$50-\$99.9k bracket, and 60% of those earning more than \$100k per year expressing preference for organic food.

Is Organic Elite?

In a question and answer column of the June 21, 2009 edition of the *San Francisco Chronicle*, food expert and nutritionist Marion Nestle succinctly countered this myth, echoing Eric Schlosser’s sentiments in the book *Fast Food Nation*. Social movements have to start somewhere, and sometimes they start with elites. As supply and demand for organic foods increase, the prices should eventually level out. “But please don’t blame organic producers for the high prices,” she writes, describing the many obstacles that organic producers have faced in terms of lack of federal support.

She goes on to write, “Dealing with the elitism implied by the higher cost of organics means doing something about income inequities. If we want elected representatives to care more about public health than corporate health, let’s work to remove the corruption from election campaign contributions. If Congress were less beholden to corporations, we might be able to create a system that paid farmers and farm workers decently and sold organic foods at prices that everyone could afford.”



Pesticides and Disease

Pesticides are one of the most dangerous and toxic parts of our food system. For more information on the health impacts of these chemicals, the *Pesticide-Induced Diseases Database*, managed by Beyond Pesticides, facilitates access to epidemiologic and laboratory studies based on real world exposure scenarios that link public health effects to pesticides. The scientific literature documents elevated rates of chronic diseases among people exposed to pesticides, with increasing numbers of studies associated with both specific illnesses and a range of illnesses. With some of these diseases at very high and, perhaps, epidemic proportions, there is an urgent need for public policy at all levels—local, state, and national—to end dependency on toxic pesticides, replacing them with carefully defined green strategies in order to save lives and bring down our medical costs. Visit www.beyondpesticides.org/health to examine the data.

of Medicine calculates \$76.6 billion as the aggregate annual cost of such afflictions as lead poisoning, childhood cancer, asthma, autism, and attention deficit hyperactivity disorder. This estimate includes direct medical care as well as indirect costs, such as parents' lost work days and lost economic productivity caring for their children. (Trasande and Liu 2011)

Of course, not all environmental illnesses result from chemical-intensive agricultural production. However, with nearly one billion pounds of pesticides used in agriculture annually, it is without a doubt a significant contributor to exposure, poisoning, and the onset of chronic illnesses. Pesticide-related medical expenses alone have been shown to cost patients \$1.2 billion dollars annually. (Pimentel 2005) This was also as a result of hospital and medical bills and loss of work, as well as treatment of pesticide-induced cancers and even fatalities.

Though pesticides are the most significant contributor to public health costs in the food system, other factors such as foodborne pathogens are also an all too common side effect of industrial farming. The costs of treating illnesses resulting from *campylobacter*, *salmonella*, and *E. coli* total \$375 million every year. The administrative and compliance costs associated with food safety regulations amount to as much as \$65 million a year. (Tegtmeier and Duffy 2004)

Not only does organic farming eliminate the need to use dangerous pesticide chemicals, it also represents the opportunity, through more humane management systems, to reduce the danger and prevalence of microbial pathogens in the food system. According to a report from the University of Florida's Emerging

Pathogens Institute, salmonella is the leading disease-causing pathogen found in foods throughout the country. Compiling data from the costs of doctor's visits, hospitalization, prescriptions, lost wages, and estimated economic value of a premature death, the researchers found that total salmonella contamination resulted in a financial burden to society of \$3.3 billion. (Batz, Hoffman, and Morris 2011)

Here again, organic fares much better. A study, released by the University of Georgia's Center for Food Safety, documents the comparative rates of salmonella contamination in both feces and feed at organic and conventional broiler poultry farms in North Carolina. The researchers found that, in examining fecal samples, 38.8% of poultry from conventional farms contain salmonella, compared with only 5.6% from organic farms. For feed, the results were similar: 27.5% of feed on the conventional farms have salmonella, while only 5% of organic feed is contaminated. (Alali et al. 2010)

The study also examines the prevalence of salmonella that is resistant to antibiotic treatment and compares the results across organic and conventional. The results show that resistance to the antibiotic streptomycin is 36.2% at conventional farms, compared to 25% at organic. Perhaps even more significant, multidrug resistance to six different antibiotic treatments (ampicillin, streptomycin, amoxicillin, cephalothin, ceftiofor, and ceftioxin) is at 39.7% on the conventional farms, whereas none of the organic birds show resistance to this combined treatment. Antibiotic and antimicrobial resistance is a serious public health issue, since it can lead to infections that are expensive and difficult or impossible to treat.



Farmworker Safety

Farm work is one of the most dangerous jobs in the country, due to harsh working conditions, heavy machinery, and exposure to hazardous substances. To help explain the urgent need for a major shift to organic food production and consumption, Beyond Pesticides launched the *Eating with a Conscience* database, which evaluates the impacts on the environment and farmworkers of the toxic chemicals allowed for use on major food crops grown domestically and internationally. Certain foods are often identified in the media as being “clean” due to a lack of pesticide residues. While it is helpful to alert consumers to hazardous residues on food, food residues are only part of the story. It turns out that those very same “clean” food commodities may be grown with hazardous pesticides that get into waterways and groundwater, contaminate nearby communities, poison farmworkers, and kill wildlife, while not all showing up at detectable levels on our food.

Farmworkers are put at particularly high risk by the use of toxic substances. While taking hazardous pesticides out of food production reduces hazards on the farm, farmworkers often face a lot of hardships that are not addressed by this guide. Farmworkers have long fought for better working conditions, wages and labor practices. *To learn more about how our food choices affect workers and the environment, visit www.EatingWithAConscience.org.*



(Alali et al, 2010)

Environment

One of the chief reasons given for practicing organic farming and buying organic food is the protection it offers the environment. And, in the long run, taking care to preserve natural resources and prevent toxic pollution actually does save money. It may not be as immediately satisfying as paying less for food at the grocery counter, but organically produced food has the ability to save us from such future expenses as pollution cleanup, replenishment of soil fertility, water sanitation, and erosion control, among many other impacts. These may seem like abstract concepts on the surface to which it is difficult to assign a monetary value. But there are significant sums of actual money that have been spent in the remediation of the natural environment from these impacts.

A research team at Iowa State University (Tegtmeier and Duffy 2004) evaluated actual money spent on cleanup of air, soil, and water, the damage to human health from pesticides and food borne pathogens, and the regulatory costs, and concluded that as much as \$16.9 billion is spent in accounting for the external costs of agricultural production in the U.S. every year. The comprehensive cost from pesticide damages alone total more than \$2.2 billion per year when factoring in such costs as water treatment to remove residues, loss of pollination services from insects, and medical treatments for pesticide poisonings.

The same Iowa State University study finds that the costs of environmental cleanup alone, resulting from chemical-intensive agriculture, amounts to as much as \$15 billion annually. Additionally, a World Resources Institute evaluation shows that the average farmer in 1991 that generated a profit of about \$80/acre actually

would have suffered a \$26/per acre loss if the calculations factored in the costs of the environmental degradation that resulted from conventional farming practices, in the form of soil erosion and fertility loss. (Faeth et al. 1991) Industrial farming operations, however, do not have to account for these costs. Instead, the bill is picked up by the taxpayers, translating into expenditures to protect natural resources that are not captured in the price of conventional food.

One of the more visible forms of environmental cleanup costs comes in the form of the EPA Superfund program. Through this program, EPA designates sites throughout the country that have been seriously contaminated with hazardous substances and implements a cleanup program to remediate the damages. These sites can often be associated with manufacturing facilities producing chemicals for agricultural use, such as a plant operated by the Dow Chemical Company in Midland, Michigan that produces pesticides. Over many years, the plant has polluted nearby waterways with toxic substances such as pesticides and their contaminants, dioxins, and furans.

Under ideal circumstances, EPA makes the company responsible for the pollution and pay the costs of the cleanup. However, because many companies are bankrupt or have gone out of business at the time of cleanup, EPA often pays the bill from public funds. According to a 2010 report from the Government Accountability Office, EPA spent as much as \$267 million dollars a year on Superfund projects for the years 2000-2009. However, the agency estimates that by the year 2014, it could be spending as much as \$681 million annually on Superfund sites. (GAO 2010)

None of these costs are currently factored into production by con-

ventional farmers and so they are not passed on to consumers in the form of food prices. Instead, they are most often picked up by public utilities and government cleanup efforts, which are funded with taxpayer dollars. It is clear from this data that organic food does not actually cost more to produce, it simply puts the costs of production up front rather than ignoring them.

Soil and Water

Soil health is arguably the most important factor in growing healthy crops. Topsoil—the top several inches of nutrient-rich soil—is one of the most precious natural resources on the planet. It is the very basis on which we grow and sustain our population and society. Healthy fertile topsoil contains all of the nutrients necessary to produce healthy plants, which provide us with nutritionally-rich diets. It was Thomas Jefferson who said, “Civilization itself rests upon the soil.” Sadly, however, we are contaminating and eroding our topsoil at staggering rates through conventional, chemical-dependent agricultural systems. A 1995 study published in the journal *Science* estimated that an average of 17 tons of soil per hectare per year were being lost in the U.S. due to erosion, with that amount reaching 30 tons for the even more precious topsoil. (Pimentel 1995) The conventional model essentially sees the soil as simply a medium to physically prop up the plants as they grow, and fertility is supplied through synthetic petroleum-based fertilizers which give the plants a direct shot of nutrients, but do nothing to sustain their long-term health and lead only to a cycle of chemical dependence. With little to no soil organic matter to hold onto the nutrients, these fertilizers then leach into ground water or erode into waterways along with the soil, damaging natural ecosystems and leading to algae blooms and dead zones.

Organic farmers, by contrast, take great care to create rich, fertile soil full of essential plant nutrients, so that crops growing on the land will have a steady supply of fertility. The organic farmer’s motto is “feed the soil to feed the plant.” The *Organic Foods Pro-*

duction Act (OFPA), which establishes production standards for food certified and labeled “USDA Organic,” identifies soil health as a central principle. OFPA requires the development of an organic system plan for every farm that, under the law, is required to “foster soil fertility, primarily through the management of the organic content of the soil through proper tillage, crop rotation, and manuring” [7 U.S.C. § 6513(b)(1)]. The creation of healthy soil makes synthetic fertilizers unnecessary, and higher organic matter in the soil makes it better able to absorb nutrients and water, reducing erosion and runoff. Water usage is also lessened, as research has shown that organic soils retain as much as 20% more water than conventional soils. (Pimentel et al. 2005) Although this kind of diligent management may seem at first to be more resource intensive, the aim is to create a more self-sustaining and resilient system and reduce overall inputs, while preserving and nurturing the natural resources. In the long run, this does save money. A team of university researchers studying agricultural activities in Oregon’s Willamette Valley found that when all of the off-site costs of soil erosion are taken into account, such as keeping navigation channels clear and treating municipal water supplies, the total cost amounts to as much as \$5.5 million annually—not accounted for in the price of food produced on eroded land. (Moore and McCarl 1987)

Biodiversity

Another natural resource which is essential for the production of food but has been drastically undervalued and overlooked is biodiversity, especially as it relates to pollinators and beneficial wildlife. According to rural sociologist Doug Constance, PhD of Sam Houston State University, in order for a system to be sustainable, it must be resilient and able to adapt to change. Resilience, in turn, depends in large part on the diversity of the system and the ways in which it can respond to challenges. (Constance 2011) This is especially true of biological systems, such as agriculture. Diversity is essential for the system to survive—diversity of crops to reduce



Federal Agricultural Subsidies

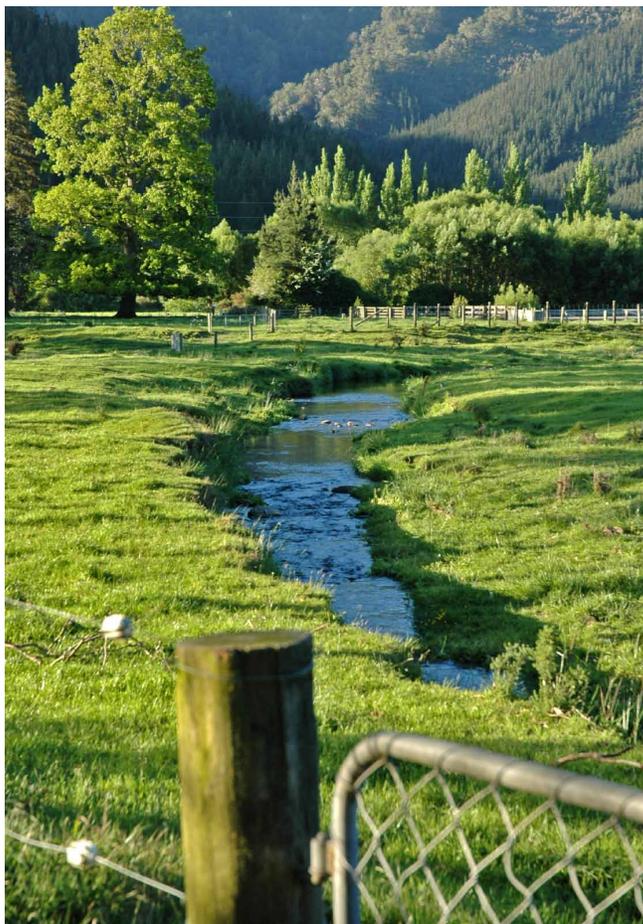
Most of our federal agricultural subsidies are provided to only a few commodity crops –corn, cotton, wheat, rice, and soybeans– with most of the money going to large-scale, corporate farms. In the 2008 Farm Bill alone, the amount of funding for commodity crop programs was estimated at \$41.6 billion by the Congressional Budget Office. This amount dwarfs the \$402 million for organic agriculture. U.S. agricultural policy encourages massive monocultures that provide the perfect breeding grounds for pests and disease and require heavy inputs of toxic pesticides and synthetic fertilizers to maintain and preserve productivity. There are very few federal incentives for farmers to adopt organic practices, such as crop rotation, soil building, and erosion control. Several fledgling programs do offer support for organic farmers and enhance their ability to provide us with a safe and sustainable food supply, but they are often neglected in federal budgets as they struggle to make a difference. Until these policies are reformed, it is going to remain difficult for the vast majority of Americans to have easy access to food that is produced in ways that do not pollute their environment or put their health at risk.

pests and disease, as well as wild plant species to foster populations of beneficial insects, like pollinators and pest predators. Each of these pieces plays a key part in supporting natural systems and makes possible the growth of healthy plants and food. The estimated economic costs of losses to biodiversity in the form of pollinator services, beneficial predators, birds, and aquatic life amount to more than \$1.1 billion every year. (Tegtmeier and Duffy 2004)

Pollution

Pollution is, of course, one of the most significant and easily recognizable effects of the environmental degradation caused by conventional agriculture, and pesticides are one of the chief sources.

The total cost of pollution and remediation from the contamination of the natural environment by pesticide chemicals is valued at \$1.3 billion annually. Erin Tegtmeier, PhD and Michael Duffy, PhD (2004) of Iowa State University estimate that, with an average of approximately 447 million kilograms of pesticide active ingredients applied in a year, external costs amount to about \$2.55 for every kilogram of active ingredient applied. This does not include medical costs as a result of human exposure to pesticides, as cited above. The financial impact is broken down into areas such as the costs borne by public water utilities treating municipal water supplies to remove pesticides, as well as damage to natural resources and ecosystems that result. When natural cycles are disrupted and ecosystem services such as natural pest predators are killed, more money must



be spent in controlling a ballooning pest population robbed of its natural “pesticides.” This is just one example of the unintended impacts that can occur from a system that ignores natural processes, and the unnecessary costs that can result.

Cornell researcher David Pimentel, PhD estimates the external costs of pesticides to be much higher, at almost \$10 billion a year. The costs of environmental contamination and resulting damages account for \$8.5 billion alone, with the remaining costs going to public health impacts. Dr. Pimentel’s team breaks down the environmental costs into the categories of animal deaths and poisonings, loss of natural pest enemies, pests evolving pesticide

resistance, honey bee and pollination losses, crop losses, fishery losses, bird losses, groundwater contamination, and government regulations to prevent damage. (Pimentel 2005)

Pollution also comes from sources such as nitrates from fertilizers and manure from industrial livestock operations. Excess nitrogen in waterways often results in algae blooms as the organisms feed on the increased supply of nutrients. Large algae populations, however, require large amounts of oxygen to sustain themselves and algae blooms tend to deplete much or all of the dissolved oxygen from an aquatic environment, killing most other aquatic life in the area. The estimated combined costs of water treatment to remove nitrates and wildlife losses due to manure runoff from intensive livestock operations amount to over \$200 million annually.

(Tegtmeier and Duffy 2004)

A large scale evaluation was recently completed in Europe that attempts to analyze the costs to society of nitrogen pollution. Of course, not all nitrogen pollution is a result of agriculture, but the researchers for the project, called the European Nitrogen Assessment, estimate that 75% of Europe's synthetic nitrogen is for agricultural fertilizers. Evaluating the various effects that excess nitrogen has on water, air, and soil quality, as well as atmospheric balance, biodiversity, and natural ecosystems, the team found that excess nitrogen in the environment results in costs as high as \$460 billion a year for the European continent. (Sutton et al. 2011) Research has shown that organic systems can retain significantly higher percentages of nitrogen in the soil. A year after fertilizer applications, organic soil retained 47% of the nitrogen, while con-

ventional soil retained only 17%. (Pimentel et al. 2005)

Climate Change

Most economic studies fail to account for agriculture's contribution to global climate change. Since we are just now beginning to see the effects of this phenomenon, it is difficult to tag them with a dollar value. However, it is abundantly clear that industrial agriculture contributes great amounts of greenhouse gases to the atmosphere while paying for none of the consequences that will result. It is left to consumers to handle and mitigate these consequences. Industrial producers who emit thousands of tons of carbon dioxide and methane into the atmosphere pay none of the costs of an increasingly volatile global climate, causing unpredictable weather patterns and exacerbating the scarcity of natural resources. According to the latest report from the Intergovernmen-

Feeding the World. . . Safely

Although it is often said by advocates of industrial farming that organic farming will never produce sufficient yields to adequately feed the growing global population, research has consistently proven this claim false. Over a span of 30 years, the Rodale Farming Systems Trial has repeatedly shown comparable yields in organic, as compared to conventional, systems. In times of resource or climate stress, such as floods or drought, organic significantly outperforms the conventional system. In unusually dry years, the organic corn systems produce yields 28%-34% higher than the conventional corn systems. (Pimentel et al 2005) High performance under stress is an important consideration in making marginal lands more productive, especially as climate is predicted to grow more volatile and unpredictable.



In addition to the Rodale data, numerous other studies have demonstrated the ability of organic to produce equal amounts of food as conventional systems. A 2006 study performed by researchers at the University of Michigan found that global yields of organic compared with conventional systems are equal on average. In the developing world, organic yields are even higher. The team also estimated that "organic methods could produce enough food on a global per capita basis to sustain the current human population, and potentially an even larger population, without increasing the agricultural land base." (Badgley et al. 2007)

Perhaps most significantly, a report issued at the end of 2010 by the United Nations Special Rapporteur on the Right to Food came to the conclusion that widespread adoption of "agroecological" food production systems, such as organic, would be the best way to effectively feed the growing global population. (UN General Assembly 2010) These kinds of systems, the report finds, actually have the capacity to double current levels of food production in areas of the developing world.

Despite claims by proponents of industrial agriculture, conventional approaches are not adequately feeding the current global population, making it hard to anticipate that they would do so in the future. As was noted by the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), "Although global production of food calories is sufficient to feed the world's population, millions die or are debilitated every year by hunger and malnutrition..." (McIntyre et al. 2009) It is, of course, true that as the population increases food production will have to increase as well, but without reform to global food distribution systems, hunger will persist, no matter the production methods employed. Here again, organic systems provide a path forward. Due to the reduced need for inputs and lower startup costs, it is much easier for small scale farmers around the world to start a farm using organic methods. Since small scale farms tend to have more localized distribution networks, they can support rural or isolated communities in areas that globalized markets cannot reach.

tal Panel on Climate Change (IPCC), world agriculture as a whole contributes as much as 12% of global greenhouse gas emissions. (Smith et al. 2007) This figure does not include secondary effects of agriculture, such as the fossil fuel intensive production of synthetic fertilizers, or the vast amounts of carbon emissions that result from deforestation and soil degradation when wild areas are converted to farmland.

Organic agriculture, however, has proven to be a powerful response to this problem. Not only do organic practices emit much fewer greenhouse gasses, they actually present the potential to sequester significant amounts of carbon in the soil. According to the Rodale Institute's Farming Systems Trial, which began in 1981, an organic system of corn production requires 30% less energy on average to produce yields comparable to a conventional system. (Pimentel et al. 2005) The savings are accounted for not only in direct production practices such as reduced machinery use, but also in the fact that production of synthetic nitrogen fertilizers for conventional systems requires significant amounts of fossil fuels. Organic systems, by contrast, get their nitrogen from natural sources such as nitrogen fixing plant species, cover crops, compost, and manures.

Organic practices not only present the potential for minimizing the

problem, they can also contribute to an active solution. According to the International Federation of Organic Agriculture Movements (IFOAM), organic farming could potentially sequester up to 32% of man-made greenhouse gasses in the soil. (IFOAM 2009) The Rodale Farming Systems Trial shows that organic systems can sequester 2.3 tons of atmospheric carbon in the soil per hectare per year. (Pimentel et al. 2005) Through reduced tillage, incorporation of plant residues, and fostering a diverse population of soil life, the soil and plants can become carbon storage sinks, instead of releasing the gasses into the atmosphere.

External Costs Conclusion

External factors and costs add up. Farming operations do not have to account for them, so they do not pass on the costs through the price of food. But make no mistake, the costs are passed on to the consumer as a taxpayer. We are paying for the costs of health impacts, farmland erosion, pollution cleanup, water treatment, climate adaptation, and so much more through our public funded institutions. Organic farmers, in putting these costs up front, rather than passing them on in secret, actually save us money in the long run. A key to addressing our nation's urgent health and environmental problems is the shift to organic production. Although it is tempting to continue buying conventional food with deceptively cheap prices, we just can't afford it.



Eating Organic on a Budget

By Stephanie Davio

More and more people of all income groups have access to organic food. At the same time, it's true that there is a premium price on organic products at the grocery store. Unfortunately, the price of chemically grown food does not include the externalities, such as pollution cleanup costs and treatment for the poisoning of farmers and farmworkers. However, buying organic does not mean you have to burn a hole in your wallet each time you set out to buy groceries. It may take some extra planning and commitment, but considering all the benefits of organic food, it is well worth the extra effort. Consider the options that follow and insist on organic.

■ **Eat Seasonally and Locally.** Though it is a widely held notion that fruits and vegetables from the farmers market are more expensive than its big-box grocery store counterpart, there has been little research to back up this claim. In fact, a report by the Northeast Organic Farming Association (NOFA) of Vermont finds that just the opposite is true: organic produce from farmers markets consistently costs less than produce from grocery stores. This corroborates findings in other parts of the country. A cost

Federal Assistance

There are a few different federally funded nutrition assistance programs that help increase access to food for low-income children and families. One program is the Supplemental Nutrition Assistance Program, also known as SNAP, formerly known as food stamps, and the other is the Women, Infants and Children program, or WIC. With SNAP benefits, consumers can choose whatever food items they want, up to the amount available to them in their account, provided that the retailer has applied to the program to accept these benefits. WIC recipients, on the other hand, receive coupons for specific products or types of food products that vary by state. State agencies determine what brands and types of foods to authorize on their own state food list.

Some organic forms of WIC-eligible foods meet the requirement; however this is not usually the case. Most of the requirements specify to purchase the cheapest brand and sometimes it specifically states that organic is not allowed. With SNAP benefits, there are no restrictions in place for or against organic food, however each recipient only gets a set dollar amount each month based on income qualifications.

There are special coupons administered through the WIC office that are specifically for use at farmers markets, called the Farmers Market Nutrition Program (FMNP). These can only be spent at farmers markets in the recipient's designated state on fresh fruit and vegetable items. These coupons differ from normal WIC coupons in that they are for a set dollar amount for produce —there are no requirements for a specific type of produce or brand. Farmers must apply through the state and receive training in order to accept these. Recipients of FMNP coupons may choose to spend these coupons on either organic or conventionally grown produce at the farmers market from qualified farmers.

SNAP benefits are also increasingly welcomed at farmers markets across the country. Though there is not always an incentive to purchase high quality food with SNAP, the growing local and organic food movement is working to change that. Thanks to new initiatives through private foundations, many farmers markets are able to “double” the value of SNAP benefits and FMNP vouchers. This greatly increases the incentive to shop locally, however, since local does not always equal organic, it does not necessarily support organic practices. Though, as mentioned in this article, it is often cheaper to buy organic produce at a farmers market while it's in season, and that certainly is a step in the right direction.



survey by Stacey Jones, an economics professor at the University of Seattle, found that farmers markets are slightly less expensive than a nearby grocery store. Another study by the Leopold Center for Sustainable Agriculture found that farmers market prices are often equal to or lower than prices at grocery stores in four different Iowa cities.

When you consider the cost of shipping produce across the country and all the middle-men involved in the process, it just makes sense that something produced locally will be cheaper. It's much more economical to buy food when it's in season and there is ample supply.

In addition to economic benefits, local, organic produce has generally been harvested recently and is grown for its taste and nu-

tritional qualities, not its durability. Taste alone is a compelling enough reason to buy local, organic produce, but the benefits go beyond the palette. Local, organic farms do not contribute to pesticide contamination in communities.

- *Stock up on organic produce when it's at its cheapest. Can or freeze what you won't eat in the short term so you can enjoy summer's bounty all year long.*
- *Producer-only farmers markets only sell fresh food that is in season. Not sure about your local market? Find out what the criteria is for selling at the market to be sure they are not selling produce shipped in from across the country.*

■ **Choose Simple Recipes and Preparations.** Frozen dinners, restaurant meals, packaged foods, and other con-

venient options quickly add up. Limit spending on value-added products and stick with simple recipes that are quick and easy to prepare. If you purchase high quality organic ingredients (especially if they're in season, as discussed above), you usually need nothing more than a little heat and touch of olive oil along with some salt and pepper to make something delicious.

- *There is a plethora of information available on easy, simple, and delicious recipes online or in cookbooks.*
- *Ask your farmers if they have any suggestions for preparing their produce. Farmers are busy and they work very hard—if anyone knows how to eat well and simply, it's likely to be the person who grew your food.*
- *Mark Bittman, a food journalist and cookbook writer, is a master of simple cooking who understands the importance of knowing where your food comes from and eating sustainably. Look for his cookbooks at your local library or bookstore or find his columns at www.markbittman.com.*

■ **Community Supported Agriculture.** Commonly referred to as CSA's, this arrangement is between community members and a local farmer. Members pay the farmer at the beginning of the season or in installments throughout the year and receive a weekly share of whatever produce is available at the time. Membership can seem like a large sum of money up front, however, when you divide it by the amount of weeks you receive your share, the savings are well worth it. This benefits farmers because the guaranteed payment helps with cash flow, cuts marketing costs, and also mitigates any risks they may face from a natural disaster that may damage their crops. It benefits you as a consumer because you get a box of fresh food each week and a chance to sample veggies that you may not have tried before.

- *Ask a farmer at your local farmers market if they offer a CSA program.*
- *Check out www.localharvest.org for more information on CSAs, as well as a list of resources in your area.*

■ **Food Co-ops or Buying Clubs.** A food cooperative is a member-owned and controlled organization which generally provides high quality goods at low prices. There are a number of different styles of food

co-ops, however all cooperatives share a core set of principles, including democratic decision making, mutual financial benefit, open membership, and are not for profit.

While purchasing "prepared" goods from co-ops is often possible, the real money-saving occurs when bulk goods are purchased. Processed, packaged, and prepared foods generally cost more. You do not have to be a member to shop at a co-op.

Buying clubs have similar principles as food co-op, but are usually smaller and less formal, comprised of a couple of households or a small neighborhood group. Members place an order for bulk grains, flour, beans, oils, and even canned goods, which can then be divided and distributed among club members. This often reduces packaging significantly as well. If you don't have a neighborhood food co-op or are reluctant to join a CSA because you don't know what you'll do with a box of produce, this might be the option for you.

- *Read "How-To Get Access to Organic Food, Economically," www.beyondpesticides.org/organicfood/purchasing, from the Winter 1995-96 issue of *Pesticides and You* for more information.*

■ **Grow Your Own.** Not only is gardening a rewarding experience, but you can save money by growing some of your own vegetables. Herbs are extremely easy to grow and are almost always more expensive to buy fresh from the market. Whether you live in the city and only have room for a few window pots of herbs, or you live in the country where you can set up a backyard garden to provide nearly all your produce needs, growing your own food organically is worth a try.

- *For a how-to guide on getting started, read our factsheet, "Grow Your Own Organic Food" printed in the Spring 2010 issue of *Pesticides and You*, www.beyondpesticides.org/info/services/pesticidesandyou.*

■ **Rethink Your Food Budget.** How much do you spend on food for yourself or your family? Perhaps you can give up one restaurant meal a month, or replace a couple of the products you eat the most with organic versions. A small change in your budget to allow for more organically grown food can have significant benefits for the health of your family, farmworkers, and the environment.

