Editor's Note: *The following article is reprinted with permission from the Rodale Institute. The Rodale Institute is a non-profit organization dedicated to pioneering organic farming through research and outreach. Demand Organic is a campaign to raise awareness about the benefits of organic food and farming and to recruit your help in advocating for an organic world. Rodale Institute's co-chair and CEO of Rodale Inc, Maria Rodale is the keynote speaker at Beyond Pesticides' 29th National Pesticide Forum, Sustainable Community, April 8-9, 2011 at the Colorado School of Public Health in Aurora, CO.*

If there is one thing we can do to feed the world, protect our health and cool the climate it is switching from chemical-based agriculture to organic farming. According to Rodale's Farming Systems Trial, the longest running side-by-side comparison of chemical versus organic agriculture, our organic yields match those of our conventionally grown crops. Organic consistently does better in dry years. Organic is a viable solution for feeding the world while protecting our health and the environment.

We are not the only ones studying organic. Numerous organizations, from land grant universities to the USDA, are finding similar results. Scientific studies show that organic foods are more nutritious. Organic farming protects our land and waterways. The chemicals sprayed on conventional food crops have been linked to numerous diseases, including birth defects, Parkinson's, numerous cancers and diabetes. [See Beyond Pesticides' Pesticide-Induced Diseases Database, www.beyondpesticides.org/health]

New research is showing that organic soils sequester carbon at a higher rate, so organic farming is a powerful tool for mitigating climate change. If there is one thing we can do to protect our health and the future of our planet, it's going organic.

The organic movement has come far—from a good idea to a comprehensive way of farming backed by nationwide certification—but we still have a long way to go. We can't do it alone. Join us in demanding a better, safer, healthier future.

What does organic really mean?

Broadly defined, organic is a method of farming and gardening that relies on natural systems and products, and is free of virtually all synthetic and toxic chemicals, fertilizers and pesticides. The United States Department of Agriculture has strict regulations farmers must follow to be certified organic.

Here's what certified organic is not: chemical fertilizers and pesticides, GMO seeds, biosolids (sewer sludge), or irradiated food. Certified organic meat, eggs and dairy are free of antibiotics and growth hormones. They are produced in environments where animals are fed 100 percent organic feeds and have access to outdoors and pasture.

When you buy an organic product—or grow your own!—you can be confident that it was grown in a way that protects the health of you, your family and the planet. [See "Grow Your Own Organic Food," in the Spring 2010 issue of *Pesticides and You*]

What's better, organic or local?

These food movements stem from the same hopes: to give consumers the freshest, most nutritious foods that directly support family farmers and local economies.

Buying local provides an opportunity to know your farmers and see their practices first hand—many do grow by organic methods and aren't certified, but some do not. When buying food not raised in your region, USDA organic certification is a sound way to be assured of growing practices.

Choose organic if you want to reduce farmer and consumer exposure to toxic chemicals and negative effects on the environment and wildlife. The more local the organic purchase, the more you will support the economy and natural systems (land, air, water, biodiversity) where you live. Local can be good, but organic is great and local organic is the ideal.

Can organic farming feed the world?

YES! Organic farming can feed the world and it's our best option for providing healthy food for everyone while improving the environment. Organic farming also improves the quality of life for people, particularly in developing countries. Despite all the resources and trade advantages given to chemical based agriculture, the United Nations estimates that about one billion people are malnourished or starving in today's world.

When political and economic powers choose to make feeding people—and not just producing crops—a priority, organic systems have many advantages. For example, organic systems:

- Increase soil quality, water retention and crop nutrition;
- Use composts and reuse seeds so farmers have fewer expenses each planting season;
- Re-integrate crops and livestock in ways that help the plants and animals to do better;
- Expand employment opportunities in growing, processing and marketing; and,
- Encourage diversity by expanding the number of crops grown on each farm, so that if one crop has a bad season, no one will go hungry.

United Nations: Organic Farming Can Feed Africa

Organic farming can feed Africa and bring higher incomes to poor, rural farmers, according to a United Nations report focusing on food security and sustainability issues. The report, compiled by the UN Conference on Trade and Development (UNCTAD) and the UN Environmental Programme (UNEP), contradicts a popular myth that organic-farming methods can't produce enough food to feed the world.

Much of the study data comes from East Africa, where an organic-agriculture project was put into place in 2004. Organic and near-organic crop yields in the 24 countries studied increased by 116% since the start of the project. In 11 of 13 cases, food production rose—and sometimes doubled—when farmers switched from chemical methods to more sustainable, organic growing methods. The report's authors argue this will feed millions more and bring much more food security to the continent.

Initiated in 1981, the Rodale Institute Farming Systems Trial is the longest-running side-by-side comparison of organic and conventional farming systems in the US, and one of the oldest in the world.

Organic methods are the best way to help the people of the world to feed themselves in ways that bring the most benefit to the producing communities (be they rural, suburban or urban), and the environment.

How does organic farming reduce everyone's carbon footprint?

Organic farming has two advantages over chemical-intensive farming when it comes to mitigating climate change:

1. The pesticides and synthetic fertilizers used by chemical farming practices are manufactured, shipped and applied with fossil fuels. By not using these additives, organic uses far less fossil fuels, and thus has fewer greenhouse gas emissions.

2. All plants take CO_2 from the air (where it can be harmful at excessive levels) and, through photosynthesis, store it in the soil (where it does good) in a process known as biological carbon sequestration. Organically farmed soil holds more carbon than chemically farmed soil.

Organic farming not only uses fewer petroleum-based chemicals, but even captures and stores CO_2 in a safe place, so it's a major tool for cooling our climate.

How is organic healthier for people and the planet?

For people: Organic farmers do not spray the usual conventional pesticides to kill insects and weeds, which have been linked to wide-spread human health impacts, such as birth defects, diabetes, auto-immune disorders, such as allergies and asthma, and some cancers. Not only does going organic decrease the risks, many studies have shown greater nutrient density in organic foods, and higher levels of polyunsaturated fats (the good fats) in grass-based, organic livestock.

For the planet: Hundreds of synthetic chemicals used in conventional farming, and virtually excluded from organic production, have a wide range of negative impacts on our environment, even when used as directed. They degrade soil health, limit biodiversity, pollute water systems, drift to non-sprayed areas and are causing worsening weed and pest problems as they become resistant to the current chemicals. These chemicals poison all life on our planet.

How is organic different from natural?

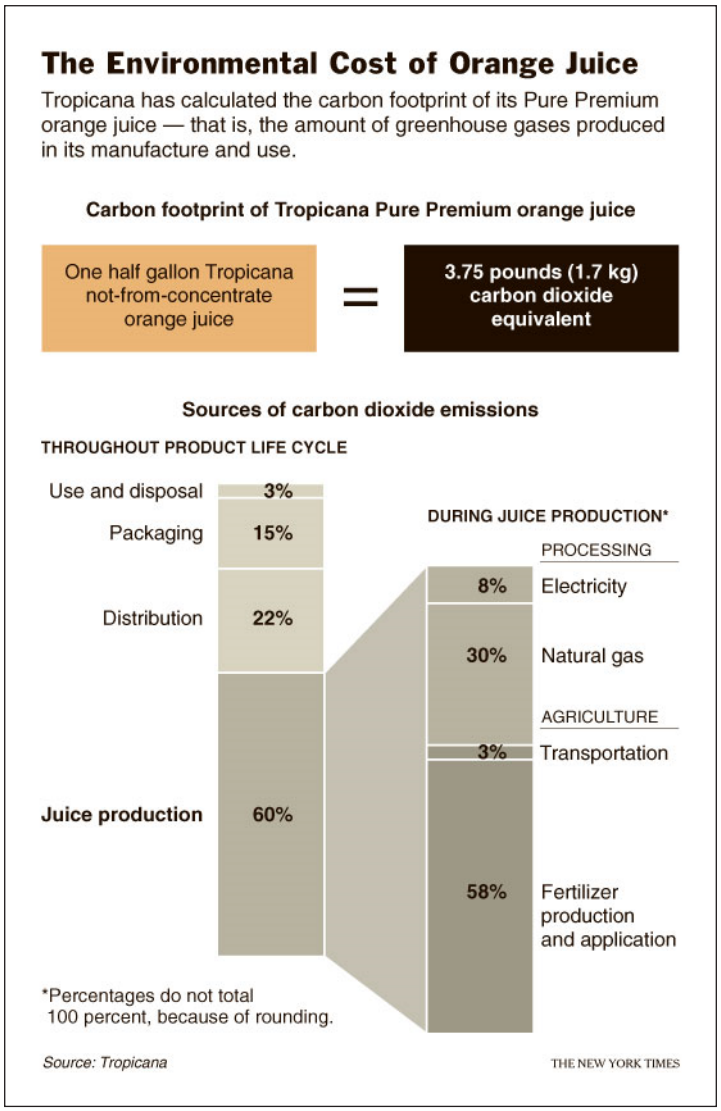
In the United States, products bearing the "USDA certified organic" label come through a detailed and comprehensive production process that is inspected on the farm, then verified as meeting all requirements by a third-party certifier accredited by the U.S. Department of Agriculture. All phases from field to processing to retail handling are covered.

By contrast, the term "natural" may be used by anyone without any reference to quality rules. Its only technical application is a voluntary post-harvest processing standard, but it has no inspection or other quality assurance system. If this provision is used, the label should explain what "natural" means in the specific product labeled. So the "natural" label may not really mean much.

Why does organic cost more?

It costs more to raise better crops and livestock, in general. Organic farmers work within rules based on the sustainability of natural systems. They can't use chemical and GMO (genetically modified organisms) shortcuts that help to make non-organic crops cheaper to bring to market, even though they have devastating costs to human and environmental health.

Carefully auditing organic growing, handling and processing rules take more care and effort. While it continues to grow as a share



A Conventional Carbon Footprint: In the production of Tropicana's Pure Premium orange juice, the largest source of CO_2 emissions is the production and application of synthetic nitrogen fertilizer –more than production, packaging and transportation.

A Defined System vs. a "Feel-Good" Claim

Organic

In the United States, only farms and businesses that meet federal U.S. Department of Agriculture standards of the National Organic Program can market their products using the word "organic." Certified organic farmers follow strict rules and are monitored closely to ensure that the standards are being upheld.

Organic farmers have a formal "organic systems plan" to document how they improve soil, manage animals, and use only natural materials or synthetics allowed on the "national list" as alternatives to synthetic pesticides, chemical fertilizers, and pharmaceuticals that are forbidden from use. Their farms are inspected annually by accredited certification agents to guarantee they are following their approved system plan. Non-organic farmers have no such requirements.

Every organic acre reduces the use of toxic chemicals and fossil-fuel based fertilizers, improving watersheds, decreasing pesticide residue and promoting biodiversity. When you buy organic foods you can feel safe knowing they have been produced in ways that put your family's health first.

Natural

The USDA's guidelines for natural are voluntary and have no clear definition. The word "natural" can be also used without reference to any standard. Generally, a "natural" product is one that is minimally processed, does not contain artificial preservatives, and does not have artificial colors, flavors, sweeteners, preservatives, additives or artificial or synthetic ingredients.

The USDA "natural" label is a processing description for meat and poultry items, and has nothing to do with how the food was grown, whether it is healthy or was produced in an environmentally responsible way. The USDA states that any natural claim based on this definition "should be accompanied by a brief statement which explains what is meant by the term natural…directly beneath or beside all natural claims." Again there is no certification, inspection, or compliance required by these regulations.

Long story short: The only legal requirement for these products would be the general regulations and health codes that all foods must pass in the United States.

of all food sold in the U.S., organic products are only about 2.5% percent of the U.S. food market, and have far fewer economies of scale than non-organic food. Expanding production of organic food through home and community gardens and buying from local organic farmers is helping to meet this supply-and-demand challenge.

Is organic just about food or farming?

Organic is about more than just food! The products we use in our homes, personal care products, and the clothes we wear can all be organic. The U.S. National Organic Program also certifies natural care products, plant fibers (cotton), livestock and alcoholic beverages if they're grown and processed according to the national standards. Choosing these products is another way to decrease your exposure to harmful chemicals.

How can I find organic produce where I am?

Many organic farms and retail spots that carry organic items have registered with Local Harvest so you can find a nearby location. Or search local food directories. The national grocery store Whole Foods reliably carries organic produce and products.

Organic foods and products are also sold to consumers online through sources like Diamond Organics and Door to Door Organics. Amazon.com also carries organic items.

Last but not least—if your local stores don't carry organics, ask for it!

Learn More

In addition to serious health questions linked to actual residues of toxic pesticides on the food we eat, our food buying decisions support or reject hazardous agricultural practices, protection of farmworkers and farm families, and stewardship of the earth. For more information on the importance of eating organic food whenever possible, see Beyond Pesticides' Organic Food: Eating with a Conscience webpage, www.EatingWithAConscience.org.