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When Buying Organic Makes Sense -- and When It Doesn't

By BETSY MCKAY
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Grocery-store shelves are increasingly crowded with pricey organic versions of everything from milk and eggs to hot dogs and beer. But some of the options pitched as healthier may not always be worth their higher price tags.



Patrick Conlon

Paying the Premium: Why spinach may be worth buying organic, but bananas may not.

Born as an environmentally friendly alternative to conventional farming methods, the organic-food industry has mushroomed into a juggernaut with nearly \$14 billion in sales in 2005 and annual growth of roughly 20%.

Food empires like **Dean Foods Co.** and **Danone SA** now churn out organic products, and **Wal-Mart Stores Inc.** has become a major seller of organic food.

One big reason food makers and retailers are scrambling into the business: Shoppers often are willing to pay a fat premium for anything with the word "organic" on the box.

Organic Valley brand low-fat milk, marketed by the Organic Family of Farms/CROPP cooperative in La Farge, Wis., costs \$3.69 per half gallon at a Publix Super Markets Inc. store in Atlanta, for instance, compared with \$1.99 for a store-brand carton of nonorganic milk.

The term "organic" refers to farming methods that eschew pesticides and other chemicals in an effort to protect the environment. But while some consumers do buy it to support the environmental goals, increasingly people seek out organic food for the perceived health benefits and to avoid chemical residues. More than 70% of Americans buy organic at least occasionally, according to marketing firm Hartman Group Inc.

Since 2002, the U.S. Department of Agriculture has imposed strict standards on which foods can say "organic" on their labels. Fruits, vegetables and grains must be grown on land free of prohibited synthetic fertilizers or sewage sludge, and genetic engineering and irradiation are not allowed. Meat, poultry and milk must come from animals that are free of the growth hormones and antibiotics that are given to conventionally raised animals to boost production, and must be

YOUR SHOPPING CART

If you are interested in organic food, here's a look at what's probably worth paying extra for to get organic, and what probably isn't:

To buy...	Or not to buy...
<p>Apples, peaches, bell peppers, strawberries, imported grapes, spinach, lettuce, potatoes, carrots: Conventional versions have higher levels of pesticides than other produce, although still well within safe limits.</p> <p>Milk and dairy products: Free of the growth hormones that are given to conventionally raised cows.</p> <p>Meat and poultry: Free of growth hormones and antibiotics.</p> <p>Baby food: Free of pesticide residues found in vegetables and fruits.</p> <p>... and foods you eat a lot of.</p>	<p>Broccoli, bananas, frozen sweet peas, frozen corn, asparagus, avocados, onions: Levels of pesticides are low even in conventional versions of these.</p> <p>Seafood: No USDA organic certification yet exists for seafood. Even seafood raised in the wild can contain mercury, PCBs and other contaminants.</p> <p>Some processed foods such as breads, chips, pasta, oils: They often do have whole grains or other healthful ingredients, but processed foods may also contain non-organic ingredients, and processing in general removes many nutrients</p> <p>...and foods you eat only occasionally.</p>

Source: WSJ research

fed organic feed. They also must have access to the outdoors -- although that doesn't mean they always get to roam free.

But organic food isn't necessarily more healthful than conventionally produced food, say many scientists. Some conventional foods are already low in chemicals and high in nutrients. For instance, most of any chemical residue on a nonorganic banana or orange gets thrown away with the peel, anyway, nutrition and environmental experts say. So careful consumers who want food that packs a health benefit in addition to supporting a cleaner environment may want to consider what organic foods are really worth the higher prices.

Here's a look at some of the research behind the potential benefits of organic foods:

Fruits and Vegetables

A shopper's guide issued last fall, based on U.S. government data, ranked pesticide levels in 43 conventionally grown fruits and vegetables. The guide, from the Environmental Working Group, a nonprofit organization that raises concerns about pesticides, found that many were already low in residues, including broccoli, asparagus, avocados and onions.

Among fruits and vegetables that were found to be higher in residues than other produce are peaches, apples, sweet bell peppers, strawberries and imported grapes. The effects of multiple pesticides on the body at once aren't known, says Richard Wiles, EWG's executive director.

It's important to note that even those fruits and vegetables that ranked higher in residues have pesticides still within levels permitted by the government.

The levels of pesticides in the produce on the EWG's list are "orders of magnitude" below those levels deemed safe by the EPA and the USDA "after years and years of study," says Shannon Schaffer, a spokesman for the U.S. Apple Association, a trade association for apple growers, shippers and packers in Vienna, Va.

Conventional produce is "perfectly safe," says Mike Stuart, president of the Florida Fruit & Vegetable Association in Maitland, Fla., which represents 250 growers of organic and conventional produce, and its purchase is "a personal decision by individual consumers."



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In terms of nutrition, some studies, some of which are funded by the organic-food industry, have found higher levels of antioxidants and other nutrients in organically grown corn, strawberries, peaches, tomatoes and other produce. But even if organic produce does have more antioxidants, it's not clear that they offer nutrition benefits to humans, says Alyson Mitchell, associate professor and food chemist at the University of

California, Davis, who has conducted some of the studies.

Recent E. coli outbreaks have made some consumers wonder if eating organic baby spinach or other produce might reduce their risk. Food-safety experts say that's not the case. "There are issues about growing produce whether it's organic or conventional," says Robert Tauxe, a food-borne-diseases official at the Centers for Disease Control and Prevention.



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Bottom line: It may not make much difference to spend money on organic versions of foods already low in residues. Generally, say organic experts, it makes the most sense to buy organic versions of foods that you -- and especially your growing children -- eat a lot of. But if your main concern is nutrition, it's unclear whether organic is more healthful.

Meat and Dairy

Organic milk and meat don't contain residual pesticides because the animals they come from must be given pesticide-free organic feed or graze on land on which pesticides haven't been used for at least three years. The animals also can't be given antibiotics, which critics say can contribute to the spread of drug-resistant bacteria. Nor can they be fed animal byproducts -- leftovers from the slaughter and processing of other livestock that some fear might help spread mad-cow disease.

In addition, many organic farmers feed their cattle grass instead of feed in their last five days of life to reduce the acidity in their stomachs in which E. coli bacteria can thrive, says Tedd Heilmann, general manager of Organic Prairie, Organic Valley's meat processor. Michele Peterson Murray, a spokeswoman for the National Cattlemen's Beef Association, the Denver-based trade association for U.S. beef producers, says conventionally produced beef is safe. Steps the industry has taken in recent years have helped reduce incidences of E. coli contamination by more than 80% in ground beef, and studies have shown that the type of feed given to cows doesn't affect the presence of E. coli, she says. Association guidelines also stipulate that producers shouldn't overuse antibiotics and should avoid those commonly given to humans, she says.

The risk of transmission of bovine spongiform encephalopathy, known as mad-cow disease, is

also low because cattle can't be fed parts from other cattle, the association says.

Consumers are also increasingly buying organic milk and meat because it is free of recombinant bovine growth hormone, a substance given to conventionally raised cows to boost milk



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production. Some scientists believe the substance poses risks to human health by stimulating another hormone linked at high levels to breast, prostate and colon cancers. Known as rBGH, the growth hormone hasn't been linked to an onset of early puberty in girls, however, as some consumers fear. It is banned in the European Union and some other countries, but the U.S. government approves it as safe.

Ms. Peterson Murray of the National Cattlemen's Beef Association says, "Our belief is that there is no safety difference between certified organic and conventional beef. An adult woman produces 253,000 times more estrogen every day than what is found in a 3-oz. serving of beef."

Milk doesn't have to be organic to be hormone-free. Responding to consumer demand, a growing number of dairies are producing nonorganic rBGH-free milk that is cheaper than organic milk. Dean Foods sells a nonorganic hormone-free milk in eight U.S. markets, including the Tuscan brand in New York and Alta Dena in Los Angeles, and the company is evaluating other markets, a spokeswoman says.

The company, which has a large conventional-milk business in the U.S., still defends regular milk from cows that may have been given hormones. "The FDA has approved it as safe," says Marguerite Copel, a Dean Foods spokeswoman, adding, "We continue to watch the science as it evolves."

Also, not every organic steak or carton of milk hails from a bucolic family farm, where cattle roam on grassy meadows. As bigger companies have entered the organic market, an increasing percentage of food comes from large, industrial-style facilities. It still fits government standards for organic, produced without chemicals or bioengineering. But beef touted as "grass-fed" may in fact come from cattle that spent only a small portion of their lives in a pasture, some critics say.

The USDA required that chickens must have access to the outdoors, but doesn't stipulate how much. Organic Prairie requires its farmers to provide five square feet of outdoor access for each bird, Mr. Heilmann says.

Bottom line: Risk of mad cow or E. coli is probably low in both organic and conventional meat. Organic may be worth buying if you are concerned about antibiotic use. If you are concerned about growth hormones, there may be cheaper alternatives to organic. And if it's farming methods that most concern you, read the labels: Some companies tout their production techniques to explain what they mean by terms such as "grass fed" or "free range."



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Packaged Foods

Processed foods labeled as organic contain pesticide-free ingredients. But they still lose much of their nutrient value in cooking and processing, just like conventionally produced foods. For instance, the UC Davis researchers didn't find nutrient differences between organic and conventional pasta sauces.

And the growing plethora of organic chocolate-chip cookies, crackers and other baked goods and treats are of limited health value. Some have more fats than conventional equivalents. "Eating processed organic food is not the road to health," says Ronnie Cummins, director of the Organic Consumers Association, a nonprofit group in Finland, Minn.



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Watch for the way the term "organic" is used. Products with 95% or more organic ingredients may use the USDA organic seal. A product that is touted as "made with" organic ingredients" needs to contain just 70% organic content.

Still, organic processed foods may be more healthful than their conventional equivalents if they are made with ingredients such as whole grains or healthier oils, and have fewer preservatives or additives.

The bottom line: The real benefits to organic are in fresh foods, organic experts agree, and some organic processed foods may be worth the extra money for their whole grains or other healthier ingredients. If you do buy packaged foods, read the label, so you can see what ingredients the food really contains.

Seafood

There is no official "organic" label for seafood. Some seafood purveyors tout that their fish is "wild," which some consumers may perceive as more natural and healthful than farmed. But as waters become increasingly polluted it has become harder to make sure they are free of contaminants, experts say.

The USDA is discussing organic-labeling rules for seafood, and a big question is how to ensure that fish get an organic diet. That can be done with farm-raised fish, which are in captivity, but not with all wild fish.

Bottom line: Consumers who want organic seafood will have to wait.

Write to Betsy McKay at betsy.mckay@wsj.com