

# Organic Foods

## Understanding Organic Food Labels, Benefits, and Claims



Organic food has become very popular. But navigating the maze of organic food labels, benefits, and claims can be confusing. Is organic food really healthier? Is it more nutritious? What do all the labels mean? Why is it so expensive? This guide can help you make better choices about which organic foods are healthier for you and better for the environment, and how you can afford to incorporate more organic food into your diet.

Making a commitment to healthy eating is a great start towards a healthier life. Beyond eating more fruits, vegetables, whole grains, and good fats,

however, there is the question of food safety, nutrition, and sustainability. How foods are grown or raised can impact both your health and the environment. This brings up the questions: What is the difference between organic foods and conventionally grown foods? Is “organic” always best? What about locally grown foods?

### What does “organic” mean?

The term “organic” refers to the way agricultural products are grown and processed. Specific requirements must be met and maintained in order for products to be labeled as "organic".

Organic crops must be grown in safe soil, have no modifications, and must remain separate from conventional products. Farmers are not allowed to use synthetic pesticides, bioengineered genes (GMOs), petroleum-based fertilizers, and sewage sludge-based fertilizers.

### What are Genetically Modified Organisms (GMOs)

Genetically Modified Organisms (GMOs) are plants or animals whose DNA has been altered. These products have undergone only short-term testing to determine their effects on humans and the environment.

In most countries, organic products do not contain GMOs.

Organic livestock must have access to the outdoors and be given organic feed. They may not be given antibiotics, growth hormones, or any animal-by-products.

## Is organic food more nutritious than non-organic food?

The evidence is unclear. Some studies suggest that, on average, organically grown fruits and vegetables may contain slightly higher levels of vitamin C, trace minerals, and antioxidant phytonutrients than conventionally grown produce. However, other studies have found no nutritional differences between organic and non-organic foods.

## The benefits of organic food

Organic foods provide a variety of benefits. Some studies show that organic foods have more beneficial nutrients, such as antioxidants, than their conventionally grown counterparts. In addition, people with allergies to foods, chemicals, or preservatives often find their symptoms lessen or go away when they eat only organic foods. In addition:

- **Organic produce contains fewer pesticides.** Pesticides are chemicals such as fungicides, herbicides, and insecticides. These chemicals are widely used in conventional agriculture and residues remain on (and in) the food we eat.

## Why do pesticides matter?

- **Children and fetuses** are most vulnerable to pesticide exposure due to their less-developed immune systems and because their bodies and brains are still developing. Exposure at an early age can cause developmental delays, behavioral disorders, and motor dysfunction.
- **Pregnant women** are more vulnerable due to the added stress pesticides put on their already taxed organs. Plus pesticides can be passed from mother to child in the womb, as well as through breast milk. Some exposures can cause delayed effects on the nervous system, even years after the initial exposure.
- Most of us have an **accumulated build-up** of pesticide exposure in our bodies due to numerous years of exposure. This chemical "body burden" as it is medically known could lead to health issues such as headaches, birth defects, and added strain on weakened immune systems.
- **Organic food is often fresher.** Fresh food tastes better. Organic food is usually fresher when eaten because it doesn't contain preservatives that make it last longer. Organic produce is often (but not always, so watch where it is from) produced on smaller farms near where it is sold.
- **Organic farming is better for the environment.** Organic farming practices reduce pollution (air, water, soil), conserve water, reduce soil erosion, increase soil fertility, and use less energy. In addition, organic farming is better for birds and small animals as chemical pesticides can make it harder for creatures to reproduce and can even kill them. Farming without pesticides is also better for the people who harvest our food.
- **Organically raised animals are NOT given antibiotics, growth hormones, or fed animal byproducts.** The use of antibiotics in conventional meat production helps create antibiotic-resistant strains of bacteria. This means that when someone gets sick from these strains they will be less responsive to antibiotic treatment. Not feeding animal

byproducts to other animals reduces the risk of mad cow disease (BSE). In addition, the animals are given more space to move around and access to the outdoors, both of which help to keep the animals healthy. The more crowded the conditions, the more likely an animal is to get sick.

## Organic farming and locally grown produce

Organic farming refers to the agricultural production systems that are used to produce food and fiber. Organic farmers don't use synthetic pesticides or fertilizers. Instead, they rely on biological diversity in the field to naturally reduce habitat for pest organisms. Organic farmers also purposefully maintain and replenish the fertility of the soil. All kinds of agricultural products are produced organically, including produce, grains, meat, dairy, eggs, fibers such as cotton, flowers, and processed food products.

Essential characteristics of organic systems include:

- Design and implementation of an "organic system plan" that describes the practices used in producing crops and livestock products.
- Detailed recordkeeping systems that track all products from the field to point of sale.
- Maintenance of buffer zones to prevent inadvertent contamination by synthetic farm chemicals from adjacent conventional fields.

Organic vs. Non-organic Produce	
<b>Organic produce:</b> <b>No Pesticides</b> <ul style="list-style-type: none"><li>■ Grown with natural fertilizers (manure, compost).</li><li>■ Weeds are controlled naturally (crop rotation, hand weeding, mulching, and tilling).</li><li>■ Insects are controlled using natural methods (birds, good insects, traps).</li></ul>	<b>Conventionally grown produce:</b> <b>Pesticides used</b> <ul style="list-style-type: none"><li>■ Grown with synthetic or chemical fertilizers.</li><li>■ Weeds are controlled with chemical herbicides.</li><li>■ Insecticides are used to manage pests and disease.</li></ul>

### Locally Grown Fruits and Vegetables

What is local food? Unlike organic standards, there is no specific definition. Generally local food means food that was grown close to home. This could be in your own garden, your local community, your state, your region, or your country. During large portions of the year it is usually possible to find food grown very close to home at places such as a farmer's market.

#### Why people buy locally grown food:

Financial benefits: Money stays within the community and strengthens the local economy. More money goes directly to the farmer, instead of to things like marketing and distribution.

Transportation issues: In the U.S., for example, the average distance a meal travels from the farm to the dinner plate is over 1,500 miles. This uses a lot of fossil fuels and emits carbon dioxide into the air. In addition, produce must be picked while still unripe and then gassed to "ripen" it after transport. Or the food is highly processed in factories using preservatives, irradiation, and other means to keep it stable for transport and sale.

Fresh produce: Local food is the freshest food you can purchase. Fruits and vegetables are harvested when they are ripe and thus full of flavor

Small local farmers often use organic methods but sometimes cannot afford to become certified organic. Visit a farmer's market and talk with the farmers. Find out how they produce the fruits and vegetables they sell. You can even ask for a farm tour.

Fruits and vegetables where the organic label matters the most	
<p>According to the Environmental Working Group, a nonprofit organization that analyzes the results of government pesticide testing in the U.S., the following 12 fruits and vegetables have the highest pesticide levels on average. Because of their high pesticide levels when conventionally grown, it is best to buy these organic:</p>	
<ul style="list-style-type: none"> <li>■ Apples</li> <li>■ Bell Peppers</li> <li>■ Carrots</li> <li>■ Celery</li> <li>■ Cherries</li> <li>■ Grapes (imported)</li> </ul>	<ul style="list-style-type: none"> <li>■ Kale</li> <li>■ Lettuce</li> <li>■ Nectarines</li> <li>■ Peaches</li> <li>■ Pears</li> <li>■ Strawberries</li> </ul>

Non-organic fruits and vegetables with low pesticide levels	
<p>These conventionally grown fruits and vegetables were found to have the lowest levels of pesticides. Most of these have thicker skin or peel, which naturally protects them better from pests, and which also means their production does not require the use of as many pesticides.</p>	
<ul style="list-style-type: none"> <li>■ Asparagus</li> <li>■ Avocado</li> <li>■ Broccoli</li> <li>■ Cabbage</li> <li>■ Corn (sweet)</li> <li>■ Eggplant</li> <li>■ Kiwi</li> <li>■ Mango</li> </ul>	<ul style="list-style-type: none"> <li>■ Onion</li> <li>■ Papaya</li> <li>■ Pineapple</li> <li>■ Peas (sweet)</li> <li>■ Sweet Potatoes</li> <li>■ Tomatoes</li> <li>■ Watermelon</li> </ul>

## Does washing and peeling get rid of pesticides?

Rinsing reduces but does not eliminate pesticides. Peeling sometimes helps, but valuable nutrients often go down the drain with the skin. The best approach: eat a varied diet, wash all produce, and buy organic when possible.

Source: *Environmental Working Group*

## Organic meat and dairy

Organic meat, dairy products, and eggs are produced from animals that are fed organic feed and allowed access to the outdoors. They must be kept in living conditions that accommodate the natural behavior of the animals. Ruminants must have access to pasture. Organic livestock and poultry may not be given antibiotics, hormones, or medications in the absence of illness; however, they may be vaccinated against disease. Parasiticide (a substance or agent used to destroy parasites) use is strictly regulated. Livestock diseases and parasites are controlled primarily through preventative measures such as rotational grazing, balanced diet, sanitary housing, and stress reduction.

Organic vs. Conventional Meat and Dairy	
Regulations governing meat and dairy farming vary from country to country. In the U.S., these conventionally grown meats and dairy products were found to have the lowest levels of pesticides.	
<b>Organic meat and dairy:</b> <b>No antibiotics, hormones, or pesticides are given to animals</b> <ul style="list-style-type: none"><li>■ Livestock are given all organic feed.</li><li>■ Disease is prevented with natural methods such as clean housing, rotational grazing, and a healthy diet.</li><li>■ Livestock must have access to the outdoors.</li></ul>	<b>Conventionally raised meat and dairy:</b> <b>Typically given antibiotics, hormones and feed grown with pesticides</b> <ul style="list-style-type: none"><li>■ Livestock are given growth hormones for faster growth.</li><li>■ Antibiotics and medications are used to prevent livestock disease.</li><li>■ Livestock may or may not have access to the outdoors.</li></ul>

## What's in American meat?

It is helpful to understand what the U.S. government allows in feed or to be used in conventional production:

- **Dairy cows** – antibiotics, pig & chicken byproducts, hormones (for growth), pesticides, sewage sludge
- **Beef cows** – antibiotics, pig & chicken byproducts, steroids, hormones, pesticides, sewage sludge
- **Pigs** – antibiotics, animal byproducts, pesticides, sewage sludge, arsenic-based drugs (growth hormones are prohibited)



- **Broiler chickens** – antibiotics, animal byproducts, pesticides, sewage sludge, arsenic-based drugs (growth hormones are prohibited)
- **Egg laying hens** – antibiotics, animal byproducts, pesticides, sewage sludge, arsenic-based drugs

Source: *Meat, dairy, and eggs buying guide*

## Understanding organic food labels

What do the food labels such as “organic,” “natural,” “free-range,” and “non-GMO” really mean? Understanding this terminology is essential when you’re shopping for organic foods.

**The most important point to remember is that "natural" does not equal organic.** "Natural" is an unregulated term that can be applied by anyone, whereas organic certification means that set production standards have been met. These production standards vary from country to country—in the U.S., for example, only the "USDA Organic" label indicates that a food is certified organic. Similar certification labels are also offered on organic products in other parts of the world, including the European Union, Canada, and Australia.

### USDA Certified Organic Food Labels in the U.S.

When you’re shopping for organic foods in the U.S., look for the “USDA Organic” seal. Only foods that are 95 to 100 percent organic can use the USDA Organic label.



- **100% Organic** – Foods that are completely organic or made with 100% organic ingredients may display the USDA seal.
- **Organic** – Foods that contain at least 95% organic ingredients may display the USDA seal.
- **Made with organic ingredients** – Foods that contain at least 70% organic ingredients will not display the USDA seal but may list specific organic ingredients on the front of the package.
- **Contains organic ingredients** – Foods that contain less than 70% organic ingredients will not display the USDA seal but may list specific organic ingredients on the information panel of the package.

### Certified Organic Food Labels in other countries



European Union



Australian



Canadian

## Meat and dairy labels: other terms you need to know

The organic label is the most regulated term, but when it comes to meat, we often see many other terms used. In order to make informed choices, it is helpful to know what some of these terms mean, although their use can often vary from country to country.

- **Natural** – In the U.S., this label means “minimally processed” and that the meat can’t have any artificial colors, artificial flavors, preservatives, or any other artificial ingredients in it. Animals can still be given antibiotics or growth enhancers. For example, this term can be applied to all raw cuts of beef since they aren’t processed.
- **Grass fed** – This term means that the animals are fed solely on a diet of grass or hay. These animals have access to the outdoors. Cattle are naturally ruminants that eat grass, so they tend to be healthier and leaner when fed this way. In addition, grass fed beef has been shown to have more of the healthy omega-3 fatty acids.
- **Free range** – Again the term “free range” means slightly different things in different parts of the world. Broadly, it means that the animals weren’t confined to a cage and had access to the outdoors. Unfortunately, in the U.S. at least, the animal density can still be very high and the animals may have only short periods outside in an area that’s quite small. Therefore, it is difficult to tell exactly what free range means when you see it on meat packaging in the U.S. You can contact the producer directly for clarification.
- **No hormones added** – In the U.S. and some other countries where the use of growth hormones is permitted, this term indicates that animals are raised without the use of any added growth hormones. For beef and dairy products it can be helpful, but by law, poultry and pigs cannot be given hormones, so don’t pay extra for chicken or pork products that use this label.

## What does "Certified Organic" mean in the U.S.?

Keep in mind that even if a producer is certified organic in the U.S., the use of the USDA Organic label is voluntary. At the same time, not everyone goes through the rigorous process of becoming certified, especially smaller farming operations. When shopping at a farmers’ market, for example, don’t hesitate to ask the vendors how their food was grown.

Source: *Organic.org*

## Tips for keeping the cost of organic food within your budget

Organic food is often more expensive than conventionally grown food. But if you set some priorities, it may be possible to purchase organic food and stay within your food budget. Purchase the organic versions of the foods you eat the most and those that are highest in pesticides if conventionally grown.

Venture beyond the grocery store. Consider the following ideas for finding organic food:

- **Shop at farmers' markets.** Many cities, as well as small towns, host a weekly farmers' market, where local farmers bring their wares to an open-air street market and sell fresh

produce direct to you. Often you will find items for less than you'd pay in the grocery store or supermarket. Bonus: it's a great opportunity to socialize and get to know like-minded people in your neighborhood who might want to join a Community Supported Agriculture (CSA) farm or start a buying club with you.

- **Join a food co-op.** Find out whether there is a natural foods co-op, also called a cooperative grocery store, in your area. Co-ops typically offer lower prices to members, who pay an annual fee to belong. However, you do not need to be a member to shop at a food co-op.
- **Join a Community Supported Agriculture (CSA) farm,** in which individuals and families join up to purchase "shares" of produce in bulk, directly from a local farm. Local *and* organic!

### **Organic food buying tips**

- **Buy in season** – Fruits and vegetables are cheapest and freshest when they are in season. You can also find out when produce is delivered to your market. That way you know you're buying the freshest food possible.
- **Shop around** – Compare the price of organic items at the grocery store, the farmer's market and any other venue (even the freezer aisle!). Purchase the most economical ones.
- **Remember that organic doesn't always equal healthy** – Junk food can just as easily be made using organic ingredients. Making junk food sound healthy is a common marketing ploy in the food industry but organic baked goods, desserts, and snacks are usually still very high in sugar, salt, fat, or calories.

### **Why is organic food often more expensive?**

Organic food is more labor intensive since the farmers do not use pesticides, chemical fertilizers, or drugs. Organic certification and maintaining this status is expensive. Organic feed for animals can cost twice as much. Organic farms tend to be smaller than conventional farms, which means fixed costs and overhead must be distributed across smaller produce volumes. Most organic farms are too small to receive government subsidies.

### **Enjoying the benefit of fish without harmful side effects**

There is a lot of confusion surrounding the healthfulness of seafood. Fish is low in saturated fat and can be a good source of high-quality protein, omega-3 fatty acids, and other essential nutrients. Yet common toxins such as mercury are also found in fish. What does this mean? How much is okay? Which fish are safe?

Each year dangerous quantities of mercury are emitted into the air (an aspect of widespread industrial pollution). When it rains, this pollution goes into our lakes and oceans where it contaminates the fish and shellfish that live there. Seafood can contain harmful chemicals such as mercury, PCBs, chlordane, dioxins, and DDT. This is a problem because eating fish contaminated with mercury, a poison that interferes with the brain and nervous system, can cause serious health problems. The top predators, such as sharks, contain the highest levels of these contaminants. Nursing mothers, pregnant women, women who may become pregnant, and young



children have the highest risk, so are advised to avoid all large fish (shark, swordfish, king mackerel, tilefish, etc.).

In recent years there has been a huge decline in many species of fish, caused by unsustainable fishing and farming practices. This means that if changes are not made soon, many wild populations of fish may become extinct.

### **Sustainable seafood choices**

Seafood can be part of a healthy diet if you know what type of fish to choose. There are a number of smartphone apps and downloadable wallet-cards for you to keep on hand to use in the grocery store or a restaurant. These guides are updated often and contain the latest information on healthful and sustainable seafood choices. Find links in the Resources section below.

## **Coco for Coconuts! Health benefits of the Coconut**

Coconuts can add flavor, variety and--best of all--healthy nutrients to your diet. Coconuts are rich in lauric acid, which is known for being antiviral, antibacterial and antifungal, and boosts the immune system.

Fresh coconut juice is one of the highest sources of electrolytes known to man, and can be used to prevent dehydration, for instance in cases of diarrhea or strenuous exercise, instead of a sports drink. Some remote areas of the world even use coconut juice intravenously, short-term, to help hydrate critically ill patients and in emergency situations.

### **Other health benefits of coconuts and coconut oil include:**

Help you lose weight, or maintain your already good weight

Reduce the risk of heart disease

Lower your cholesterol

Improve conditions in those with diabetes and chronic fatigue

Improve Crohn's, IBS, and other digestive disorders

Prevent other disease and routine illness with its powerful antibacterial, antiviral and antifungal agents

Increase metabolism and promotes healthy thyroid function

Boost your daily energy

Rejuvenate your skin and prevent wrinkles

**Dr. Botts says:**

You are so far ahead of the average American after reading this. If you choose to utilize this information that we give you, you will undoubtedly soar, not only in health, but in your daily life. Thank you for being a part of our family. I commend your thirst for knowledge. We are so thankful to have someone like you as our patient.

Warmest Regards,

*Dr. Trevor Botts*