

# To bio or not to bio?

# Allegato 2 – 14 Meaningful Advantages and Disadvantages of Organic Food

Organic foods refer to vegetables, fruits, fish, dairy products and meats that are grown naturally or through organic farming, and are not processed or refined. It is one of those food sources that promote ecological balance, biodiversity conservation, and recycling of resources. In terms of chemical composition, it has 17% higher concentrations of polyphenols compared to conventional grown crops, 69% higher content in other nutrients, such as flavonols, phenolic acids and anthocyanins. It also has 69% higher flavanones.

In terms of chemical composition, studies showed that it has higher concentrations of nutrients, lower levels of anti-nutrients, and reduced detectable pesticide residues. Overall, it is not only environment friendly, but also healthy. Despite of all these, some people still question the advantages that organic foods offer. Nothing is perfect, after all. Moreover, certain countries, such as the United States, European Union and Canada, require farmers and producers to obtain certification before they can grow or market their products, which are both good and bad, depending on who you are asking. So anyone who wish to switch to organic food must weigh their advantages and disadvantages before making a decision.

#### **List of Pros of Organic Food**

#### 1. Healthier to consume

Proponents may claim that organic foods are more nutritious than the non-organic variety, but scientific studies showed that there is little difference in nutrient content, except for phosphorus and total polyphenols, which are significantly higher. Organic chicken also contains higher levels of omega-3 fatty acids than its non-organic counterparts. So what makes naturally grown foods healthier? It is the fact that they are organically farmed, free from any pesticides and herbicides that may have harmful effects. This results in a more energetic and stronger body, with a reduced risk of disorders, illness and disease.

# 2. Better tasting

Some non-organic foods contain additives that can alter the taste, nutritional value and may even lead to weight gain. All of these are not found on naturally grown food items, which mean taste is better and more natural. Recent studies also showed that organic food has more healthy chemicals and mineral salts that increase nutritional value and quality.



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### 3. Higher level of antioxidants

Organic fruits and vegetables contain 40% more antioxidants according to research. As an element that the body needs to keep the system healthy and free from disease, having more antioxidant is sure to be beneficial. This is because it reduces the risk of heart diseases, stroke and cancer. So, organic foods play a role in preventing terminal and life-threatening diseases, particularly heart problems since they also contain salicylic acid that keeps arteries from hardening.

# 4. Promotes a healthy family

An article on Cord Blood Test Results showed that a newborn baby's cord blood contains traces of more than 200 harmful chemicals and 21 pesticides. So it is no wonder that conventional food practices have been closely associated with birth defects, ADHD, autism, childhood leukemia, learning disorders and nervous system disorders in children. Why put yourself and your future children at risk by eating non-organic foods?

#### 5. Safer to eat

The use of chemicals and pesticides has been linked to a wide range of diseases, such as leukemia, non-Hodgkin's lymphoma, infertility, cancer of the breast and prostate, Parkinson's disease, and immune and endocrine disorders. Herbicides and fertilizers, on the other hand, can lead to immune disorders, heart diseases hypertension, cancers and other numerous diseases. So taking all of them out of the equation makes the food you eat a lot safer. Most importantly, it is nothing like genetically engineered foods or meat sources that have been given appetite enhancers and synthetic hormones.

In the United States, organic meat certification help ensure that farm animals meet the U.S. Department of Agriculture organic protocol. This enhances safety, as regulations require that animals are fed with foods that are certified organic and do not contain animal byproducts. No antibiotics or growth hormones must be used on them as well. Also, animal production must not involve genetic engineering or irradiation.

#### 6. Protects the environment

Organic farming uses manure instead of fertilizers, crop rotation in place of single crop, weeding for herbicides, and nitrogen-fixing plants instead of nitrogen fertilizers. Without the chemicals, growing organic foods protect the environment from pollution and contamination of nearby bodies of water. Organic farming also conserve water and soil. And, compared to conventional soils, organic soils contain more micro-organisms that store carbon in the ground, helping maintain global climate. So, when you eat organic foods and support their growth, you are, in a way, doing your share in environmental conservation.

## 7. Promotes improved animal reproduction

Research showed that animals that feed on organic foods reproduce more compared to their nonorganic food-eating counterparts. Apparently, animals also suffer infertility due to a large consumption of food items grown with chemicals, similar to humans. This results in lower levels of reproduction.



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#### 8. Supports the local economy

When you buy organic foods, you support local farmers and their organic farms. When the rest of the community does the same thing, there will be more farms and more jobs will be created. These, in turn, support the community's local economy.

#### 9. It is cheaper

Buying organic food may be expensive initially, but you will save money in the long run. Remember that whole foods prevent major and minor diseases, lowering health care costs because you are unlikely to get sick and be confined in a hospital. Moreover, you won't miss work and your income will remain intact.

Once your body is accustomed to eating organic food, your taste buds and your body will develop a certain aversion to junk food, which would result in you not investing on them and be able to maintain a good and healthy weight.

Organic foods are also of high quality, which means you get exactly what you paid for. And if you still think it is too expensive for your grocery budget, you can always grow your own organic vegetable garden and then barter with other farmers. You can also try to barter goods or services in exchange for organic food.

#### **List of Cons of Organic Food**

# 1. More expensive

It is true that you will be able to save more money with organic foods because it prevents a lot of diseases that could send you to the hospital where your finances is highly likely to be used up. But when the concern is about the cost of initial purchase, naturally grown foods turn out to be not as cheap as proponents would have you believe. Because organic farmers do not use chemicals or artificial methods to grow crops or livestock, production is much lower. Add to this the extra manual labor, and the costs of organic farming are surely elevated. The only way farmers will make a profit is to sell their products at a higher price.

#### 2. Doesn't last longer

Because natural foods do not contain preservatives, they have shorter storage life and tend to spoil faster than conventional foods. If you have to buy them more than once or twice a week, you would have to double your grocery budget for food. In the end, you don't get to save money.

# 3. Not widely available

It takes twice as long to produce organic crops than the conventional kind. This means organic foods are not always available in stores, and especially because only a few local farms are adapting organic farming. Some communities, however, are luckier than others when it comes to supply of naturally grown foods.



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#### 4. Takes a lot of work

Organic farming may have benefits, but before anything can be harvested, farmers have to go through a lot of work and face plenty of challenges. Using manure as fertilizer, for example, is difficult to apply, and even more difficult to control the mineral content. Weeding, on the other hand, is more labor intensive than using herbicides, and when nitrogen-fixing plants are used as part of crop rotation, the area available for growing crops is reduced significantly.

Crop rotation is also one of the techniques that organic farmers use, which is beneficial since it reduces plant disease and minimize damage to soil composition. Unfortunately, this results in lower production and an inefficient method of growing different types of crops.

#### 5. Doesn't live up to the hype

Organic foods are said to be more nutritious than the conventional kind. Unfortunately, scientific studies don't back up this particular claim. There may be certain nutrients that show significant difference but only a few, which can be a letdown, considering that proponents of organic foods use high concentration of nutrients for promotion.

In terms of the bacterial contamination, the difference is not statistically significant either. What is even surprising is that the prevalence of E.coli is higher in organic produce than its conventional counterparts, 7% and 6% respectively. Organic crops also have a 5% greater risk of being contaminated. This may have something to do with the use of manure as fertilizer. So clearly, organic foods don't live up to the hype.

### Conclusion

Organic food certainly has many advantages, but it's not all that perfect. Whether you are a consumer or farmer, it will bring pros and cons to your plate. Organic tomatoes anyone?

(fonte: https://connectusfund.org/14-meaningful-advantages-and-disadvantages-of-organic-food)