

Healthy Aspect of Organic Foods

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Abstract

Organic foods are increasingly gaining eminence. Organically grown foods differ from ordinary foods in many aspects. This review summarizes the health benefits of organic foods based on existing evidence. Organic movement provides viable, life supporting alternative to modernized methods which are damaging human health, polluting the environment and eroding soils. The majority of scientific studies, reviews, and meta-analyses states that there are compositional differences between organic and conventionally produced food. Organic food consumption reduces the risk of several diseases and prolong human life. Organic food production and consumption results in better human health, animal welfare, lower pesticide exposure, and are more environmentally friendly

Keywords: Organic foods; Health benefits; Pesticide; Environment friendly.

Introduction

The science of nutrition is now transiting to organic age. Organic food consumption has become more popular and accepted nowadays and also the market for organic foods has boomed rapidly. Organic food is believed to be better for health than conventional food. Many research studies also shows that organic food is more nutritious and safe. Since more and more people started demanding for organically grown foods, organic farming orchards

have increased devoting to the supply of this new ever growing market. The therapeutic value of organic diet pattern is also more recognized. Organic foods not only replenish the body with essential nutrients but also helps to eliminate toxic substances. The important factor behind organic success is positive consumer awareness on health and environment issues.

Organic Foods

The word organic means earth friendly or natural method of producing food. Organic foods are produced without the use of chemicals, herbicides, fungicides, petroleum sewage or sludge based fertilizers or pesticides. Organic food is not bio-engineered, genetically modified, nor it is irradiated. Varieties of foods such as fruits, vegetables, grains, dairy products, meat are organically produced. Organically grown foods looks more fresh and do not contain artificial flavours, preservatives, additives or colours. The organic food industry in India is also growing at a rapid rate of 25%-30%. Demand for organic foods is primarily driven by

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consumer concerns for personal health and the environment.¹

Organic Food Production

Management practices used by organic farmers such as growing catch crops, crop rotations help to protect the soil. Organic farming also results in lower nitrate leaching rates and improves soil fertility. Research indicates that organic farming has greater effect on the improvement of the landscape, wildlife conservation, faunal and floral diversity than non organic farming systems. Restricting the use of pesticides also improves water quality and fewer residues are found in food products. The organic food production system enhance the ecological balance of natural system.²

- Natural fertilizers like manure or compost are used to nourish soil and plants.
- Natural predators such as insects, arachnids, and other animals, biological control agents (good bacteria and fungi), mating disruption or traps, and specialized farming practices reduce the incidence of pests and diseases
- Giving animal organic feed and free ranging access.
- Genetically modified organisms that have been changed by injecting it with genetic material from another species were not used in organic products. Organic cows and poultry will not be injected with hormones, stimulants and antibiotics.

Identifying Organically Grown Food

Organic is a labeling term that indicates that the food or other agricultural product has been produced through approved methods. The organic standards describe the specific requirements that must be verified by a USDA-accredited certifying agent before products can be labeled USDA organic. According to the United States Department of Agriculture (USDA), an organic certification program requires all organic food to meet strict government standards.

The USDA categorizes food products into the following sections

100% organic	Must contain 100% organically produced ingredients
Organic	Must contain at least 95% organic ingredients

Made of organic ingredients	Must contain at least 70% organic ingredients
Have some organic ingredients	May contain less than 70% organic ingredients

The USDA certificate assures product labeled meet high standards for safety, quality and purity.

Benefits of Organic Food

Research Studies Supporting Nutritional Benefits of Organic Food:

The nutritional content of crops may be influenced by the method of production. Organic food is higher in total antioxidant capacity, total polyphenols, flavonoids, quercetin and other nutrients all of which are nutritionally significant. A 2014 meta-analysis of 343 studies on phytochemical composition found that organically grown crops had lower cadmium and pesticide residues, and 17% higher concentrations of polyphenols than conventionally grown crops.³ After reviewing several studies comparing the nutritional value of organically grown and conventionally grown fruits, vegetables, and grains, researcher Worthington concluded there were significantly more of several nutrients in organic crops. They contained 27% more vitamin C, 21.1% more iron, 29.3% more magnesium, and 13.6% more phosphorus. A 2008 report jointly produced by The Organic Center and professors from the University of Florida Department of Horticulture and Washington State University provides evidence that organic foods contain, on average, 25% higher concentration of 11 nutrients than their conventional counterparts. According to a 2014 study published in the *British Journal of Nutrition*, the higher antioxidant levels in organic products might actually enhance its organoleptic qualities, its aroma, taste, and even the sensation in the mouth. Thus organic foods taste better than conventional food.

Research on organic milk has reported higher levels of antioxidants and beneficial fatty acids such as conjugated linoleic acid (CLA) and omega-three fatty acids. A 2016 study in the *British Journal of Nutrition* also found that organic milk have less saturated fat than non-organic. Also, organically produced meat is leaner with healthier fat. A 2016 systematic review and meta-analysis found that organic meat had comparable or slightly lower levels of saturated fat and monounsaturated fat as conventional meat, but higher levels of both overall and n-3 polyunsaturated fatty acids.

Organophosphate is a class of pesticides that

includes the common and toxic malathion and chlorpyrifos. A study published in 2015 compared the urine concentrations of organophosphorus pesticides and their metabolites in children eating conventional vs. organic diets. The results found that for certain types of pesticides, such as organophosphates, diet are the primary route of exposure and switching to an organic diet decreases exposure substantially.

Advantages of organic food: Retains at least 50% more natural nutrients like vitamins and minerals than artificially grown food.

1. Not hazardous for health as they contain no chemicals. Lesser chances of getting allergies.
2. Tastes more natural and delicious as no sweeteners, coloring, flavors and preservatives are added.
3. Organic food protects from cancer and other diseases.
4. Environment: Organic agriculture helps to keep our oceans, lakes, rivers and water supplies clean. In general the environment clean. Organic foods promote healthier and more sustainable use of natural resources. Modern farming methods, including excessive use of chemicals, have led to a decline in soil fertility and an increase in salinity and blue-green algae in waterways over many years. Organic farmers try to minimize damage to the environment by using physical weed control, and animal and green manure. Organic farming practices are designed to benefit the environment by reducing pollution and conserving water and soil quality.⁴

Foods may be organic or not but be sure to use these tips:

Select a variety of foods from a variety of sources: Better combination of nutrients and reduce exposure to a single pesticide.

Buy seasonal fruits and vegetables: To get the fresh product, buy food from your local farmers market.

Read food labels carefully: Just because a product says it's organic or contains organic ingredients doesn't necessarily mean it's a healthier alternative. Some organic products may still be high in sugar, salt, fat or calories.

Wash and scrub fresh fruits and vegetables thoroughly under running water: Washing helps remove dirt, bacteria and traces of chemicals from the surface of fruits and vegetables, but not all pesticide residues can be removed by washing.

Discarding outer leaves of leafy vegetables can reduce contaminants: Peeling fruits and vegetables can remove contaminants but may also reduce nutrient

Conclusion

All population including vulnerable groups such as pregnant women, young children, the elderly and people suffering from various diseases may promote their health from choosing organically produced foods. Organic movement will uphold healthy life.

References

1. "Should you go organic?". Harvard Health Publishing, Harvard Medical School. 5 July 2017. Retrieved 25 February 2019.
2. USDA Sustainable Agriculture Research and Education (SARE), 2015.
3. Barański M, Srednicka-Tober D, Volakakis N, et al. Higher antioxidant and lower cadmium concentrations and lower incidence of pesticide residues in organically grown crops: a systematic literature review and meta-analyses. *Br J Nutr.* 2014 Sep 14;112(5):794–11.
4. Mie A, Andersen HR, Gunnarsson S, et al. Human health implications of organic food and organic agriculture: A comprehensive review *Environ Health.* 2017;16:111.