

Advantages and Nutritional Value of Organic Food on Human Health

Dr. R. Gopalakrishnan

Assistant Professor of Economics, Government Arts College,
C. Mutalur, Chidambaram, Cuddalore, Tamil Nadu, India

How to cite this paper: Dr. R. Gopalakrishnan "Advantages and Nutritional Value of Organic Food on Human Health" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-3 | Issue-4, June 2019, pp.242-245, URL: <https://www.ijtsrd.com/papers/ijtsrd23661.pdf>



IJTSRD23661

Copyright © 2019 by author(s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



American academy of pediatrics reviewed the literature on organic food in 2011, they found that "current evidence does not support any meaningful full nutritional benefits or deficits from eating organic compared with conventionally growing foods, and there are no well-powered human studies that directly demonstrate health benefits or disease protection as a result of consuming an organic diet". Studies also have not demonstrated any detrimental disease-promoting effects from an organic diet. Although organic foods regularly command a significant price premium, well-designed farming studies demonstrate that cost can be competitive and yields comparable to those conventional farming techniques.

Organic Food is Better for Animal Reproduction

Out of 14 animal studies, ten showed that animal fare better when fed organic food. They showed no difference, and one showed an improvement with conventional food. It could be noted that female rabbit fed on organic food have the twice the level of ovum production; chickens fed on organic food have 28% higher rate of egg production. Rabbits that were fed conventional food saw decline fertility over three generations, compare to no decline on organically fed rabbits. Meanwhile, many human couples find it hard to have a baby...

Organic food helps fight to cancer; stroke and heart problems in a recent study, Scottish scientists found that

ABSTRACT

This paper deals with the nutritional value of organic food and advantages of organic food on human health. This paper makes special reference on health benefit of organic food and environmental benefit of organic food production. This paper concludes with some interesting findings.

KEYWORDS: Nutritional value of organic food, Organic food on human health

INTRODUCTION

Organic food produced by methods that comply with the standards of organic farming. Organic farming features practices that cycle resources, promote ecological balance and conserve bio-diversity. Organization regulating organic products may restrict the use of certain pesticide and fertilizers in farming methods used to produce such products. Organic food typically is not processed using irradiation, industrial solvents or synthetic food additives. Demand for organic food is primarily driven by consumer concern for personal health and environment. From the perspectives of science and consumers there is insufficient evidence in the scientific and medical literature to support claim that organic food is either safer or healthier to eat than conventional food.

There is a little scientific evidence of benefit or harm to human health from of die thigh in organic food, and conducting any sort of rigorous experiment on the subject is very difficult.

organic vegetable soups contain almost six times as much salicylic acid as non organic vegetable soups. Eleven brands of organic soup had 117 nanograms per gram, versus just 20 nanogram in 24 types of non-organic soups. Salicylic acid is the main ingredient in aspirin; it helps fight hardening of the arteries and bowl cancer, and is produced naturally in plants as defense against stress and disease. If plants don't give to resist bugs because of pesticide use, they generate less salicylic acid, and pass less on to us. The same scientists found significantly higher concentrations of salicylic acid in the blood of vegetarian Buddhist Monks, compared with meat eaters.

Organic Food Contains More Nutrients than Conventional Food

According to a recent study by the globe and mail and CTV news of the nutrient quality of fruit and vegetables, compared to 50 years ago, today be regular fruit and vegetables contain dramatically less vitamins and minerals. The average potato has lost 100% of its vitamin a, 57% of its vitamin c and iron, 28% of its calcium, 50% of its riboflavin, and 18% of its thiamin. Out of seven key nutrients studied, only niacin levels increased. Similar results applied to 24 other fruits and vegetables. For broccoli, all seven nutrients fell, including a 63% decreases in calcium and a 34% decrease in iron. Organic farming produces higher yields in drought conditions. In a review of comparative studies of grain and soybean production in the US Midwest, organic

growers produced higher yields in drier climates and during droughts and similar yields in regular conditions. The same results were found in the Rodale experiment. Organic matter makes the soil less compact and moisture retentive, allowing the roots to penetrate more deeply to find water.

Better Taste in Organic Food

Some people strongly believe that organic food tastes better than non-organic food. The prominent reason for this belief is that it is produced using organic means of production. Furthermore, organic food is often sold locally, resulting in availability of fresh produce in the market, which usually does taste better than produce that has been frozen, shipped, and transported across long distances.

Great Taste in Organic Food

Organic food tastes delicious and it makes sense why it does- healthy soil and plants make food that tastes the best. In a number of studies people who have done taste tests almost always choose the wonderful taste of organic food over processed and food tainted by chemicals. Fruits and vegetables tastes much more vibrant and strong if they grown organically which is just another added benefit of the healthy powers of healthy organic foods.

Organic Food is Safer than Conventional Food

Organic farming generates more jobs, produces more profits, and doesn't pollute ground water with nitrogen run-off. It also avoids all the risks associated with GM crops. Farmers in Canada, Kansas and Nebraska who use the pesticide 2, 4-D suffer a higher rate of non-Hodgkin's lymphoma (a cancer). The same applies to dogs which play on lawns that have been sprayed. In Sweden, exposure to phenoxy herbicides has been shown to increase the risk of contracting lymphomas six-fold. In US, the death rates from myeloma a cancer are highest in rural farming areas. And so it goes on. Migrant farm workers suffer an abnormally high rate of multiple myeloma, stomach, prostate and testicular cancer.

There is a strong association between breast cancer and exposure to chemical pesticides. Altrazine, a common ingredient in pesticides, causes breast cancer in rat, chromosomal breakdown in the ovaries of hamsters 20, and hind limb deformities in frogs. A finish study showed that women whose breasts stored the highest level of a lindane-like residue were ten times more likely to have breast cancer than women with lower levels. (Lindane is pesticide). The health benefits of organic food are more based on perception than real facts. However, the sweeping public opinion that organic food is healthier than conventional food is quite strong, and is the main reason for about 30% of growth in the organic food industry over the past 5-6 years. Much of this inflated support of organic food as a healthier alternative comes from environmental groups who don't want pesticides and fertilizers to do anymore damage to the environment, so promoting organic foods, which don't use those types of chemicals, seems like a good way to get results they want. The producers of organic food are also strong contributor to the idea that organic food is superior to other types.

Pesticide Contamination in Human Health

Pesticide residues in food are regulated by the food quality protection act (FQPA), but the tolerance levels assigned for certain pesticides, through determined "allowable", still pose potential health risks. The only way to avoid pesticide

residues is to switch to organic foods. Some food tends to have lower pesticide residues either because fewer pesticides are used in their production or because they have thicker skins and, when peeled, contain smaller amounts of pesticides than more thin-skinned products.

Children are particularly susceptible to the effects of pesticide exposure because they have developing organ systems that are more vulnerable and less able to detoxify toxic chemicals. Pesticide exposure also occurs through food, and switching to an organic diet is an important step in reducing this exposure. Research has shown that switching children to an organic diet drastically reduces their exposure to organophosphates, a class of pesticides that includes the common and toxic malathion and chlorpyrifos. Two studies (2006 and 2003) compared the urine concentrations of organophosphorus pesticides and their metabolites in children eating conventional vs. organic diets. The results indicate that for certain types of pesticide, such as organophosphates, diet is the primary route of exposure and switching to an organic diet decreases exposure substantially. The most important organic food products to purchase for children are not only those that contain high residues in conventional form, but those that they consume in great quantity. For example, if children drink a lot of juice, purchasing organic juice is particularly important to reduce their pesticide exposure. While dietary contamination is a source for pesticide exposure and organic agriculture is critical to reducing this, it is paramount that we also consider all sources of pesticide exposure for children

Immune System Preserving

In recent decades, one of the biggest projects for the farmers and food growers has been genetic modification. Making tomatoes six times larger might sound like a possible option for solving some world hunger issues, but there is another side to it. Genetic modification is still in its early stages, so the long term effects of it on human health aren't understood as well as we would like. In animal testing genetically modified food showed a major reduction in immune system strength, an increase in birth mortality, as well as in certain sexual dysfunctions, cancers, and sensitivity to allergens. Although there are some good things about genetically modified food, organic food advocates point to the lack of concrete details about the long-term effects.

Antibiotic Resistance

People are very sensitive to issues of their health, and they often take precautions to make sure they remain healthy, like getting various vaccines and taking antibiotics as soon as a new strain of bacteria makes them ill. However, non-organic food sources, particularly livestock and feed houses, also use antibiotics to feed their animals. This extra dose of antibiotics may actually be weakening human immune system by basically overdosing on antibiotics, thereby reshaping our immune system so many times that it will eventually be unable to defend itself. Organic food growers and dairy farmers do not use antibiotics in their processes.

Greater Antioxidant Value

Antioxidants are important nutrients found in fresh fruits and vegetables and have been shown to impart multiple health benefits including the prevention of many cancers. Some studies show that organic foods may have more antioxidants compared to commercial varieties. A 2012 study in the "Journal of the Science of Food and Agriculture"

discovered higher antioxidants, including vitamin C, in organic broccoli compared to conventional.

Reduced Pesticide Exposure

Many consumers choose organic produce because they desire to lower their exposure to the pesticides found on commercial produce. Certified organic produce is free from pesticide residues. A 2008 study published in "Environmental Health perspectives" revealed a majority of organophosphorus (OP) pesticide exposure in humans comes from dietary intake. When commercial produce was reduced significantly.

Reduced Antibiotic Exposure

With the increasing use of antibiotics among dairy farms and feed lots, antibiotic resistance is becoming a concern for many Americans. Organically raised animals are not given antibiotic additives; therefore, organic dairy and meats products do not contain these residues. Consistent exposure to low doses of antibiotic residues can also disrupt the normal flora of the human gut, reducing the number of healthful bacteria and leaving humans more vulnerable to harmful bacteria and illness.

High Standards in Organic Food

Organic foods have to meet extremely high standards to qualify to be called organic. This is why most foods are not organic, because companies don't want to go through the strict processes required of them to be declared organic. The certification processes that foods have to go through is designed to make sure the public is clear that the food was grown in the proper way as well as processed and handled in the ways in which the certification standard recommend. The production of organic food actually reduces the risks of health problems to the general public. Many of the damaging chemicals and pesticides we began using decades ago to protect our food and make it last longer were approved before there was good research showing any problems with it. Since then, a lot of these same chemicals have been linked to cancer and other very serious medical problems. While organically the concerns were just about cancer causing chemicals, now these chemicals have been traced to other terrible medical problems like Alzheimer's and birth defects.

Organic Partnership with Wildlife

Organic farms also focus on the entire ecosystem with regards to their farming activities and they understand that we are not the only ones on this planet benefitting from what the ground provides. Organic farmers understand that animals and insects are a normal part of farming. They use specific crops in their farms to serve the needs of wildlife, and they also manage wetlands, ponds, and other animal preserves within their farming activities.

Support for the Farming Community

Organic farms and people committing to buy organic foods are virtually the only support left for the small family, local farmer. Most produce and animal products are produced by a very small number of huge plants and manufacturing locations that hardly even resemble farms and most small rural farmers are being eliminated because they cannot support themselves financially. While their products are of much higher quality and standards, the focus on mass produced, cheaper produce has almost eliminated the small time farmer. Purchasing organic produce helps to support the smaller farmers who rely on farming for their incomes,

to support the local economy, and to employ local farm workers. Supporting organic farming is support for small business and job creation in your local community.

Water and organic food

Because organic farmers do not use the harmful chemicals within their farming, they are not polluting the ground and the water supply. This also supports the soil conservation efforts. Because there are no chemicals used in the production of organic foods, there is no potential for harmful chemical runoff and damaging chemicals to impact our water supply. This is healthier for everyone because while our drinking water is generally pasteurized before it goes into the water supply, it does not catch everything, and some of that water is put back into the atmosphere and then rained back down on us. Eliminating the prevalence of these chemicals will make our entire environment even healthier.

Innovation in Organic Food Production

Organic farmers are on the cutting edge of science as they are focused on finding ways to produce quality foods without the use of the chemicals that are harmful to our health, and the health of the planet. These farmers have used innovative techniques to replace the chemicals that can be so damaging, and do their research using their own funding at their own farms.

Strengthening Species of Food

A major problem in environmental science is that we are gradually losing entire species of food. While most people are entirely unaware that this is occurring, it is of great concern in the farming community. Organic farmers take great pride in trying to make sure this problem doesn't continue by breeding many species to keep them in existence. These farmers are cataloguing every species and retaining seeds for future use and so that they can be reproduced in the event that one of them becomes extinct.

Variety in Food Production

Every type of food has a healthier alternative now that organic food has been around for a while and because the harmful facts of non-organically produced food have come to light. While there is more education and funding needed to make sure everyone is aware of what they are putting in their bodies and to help farmers continue to be innovative and create products at lower costs, one can get almost anything one wants in an organic form. The innovative farmers and scientists who work in the organic food industry have worked to create an alternative virtually every food you can imagine, one that is healthier and produced the right way.

Protect the Environment

Organic food facts are especially striking if you consider the environment. Conventional farming methods erode soil and use dangerous pesticides that may take centuries before they're gone. Think of the DDT, thought to be harmless but appeared to be extremely bad for your health. Even though this pesticide has been forbidden for many years now, it's still found in virtually all waters, human beings and animals in the world.

Environmental Advantages of Organic Food Production

Conventional food producers claim that there is not enough scientific evidence for organic food production being better

for the environment. This may be true but the facts speak for themselves.

Organic food production eliminates soil and water contamination since organic production strictly avoids the use of all synthetic chemicals, it does not pose any risk of soil and underground water contamination like conventional farming which uses tons of artificial fertilizers and pesticides.

Organic food production helps preserve local wild life. By avoiding toxic chemicals, using of mixed planting as a natural pest control measure, and maintaining field margins and hedges, organic farming provides a retreat to local wild life rather than taking it away its natural habitat like conventional agriculture.

Organic food production helps to conserve biodiversity. Avoidance of chemicals and use of alternative, all natural farming methods has been shown to help conserve biodiversity as it encourages a natural balance within the ecosystem and helps prevent domination of particular species over the others.

Organic food production helps the fight against global warming. Most organically produced food is distributed locally, as a result, less energy is used for transportation which automatically reduces carbon dioxide emission which are believed to be the main cause of global warming.

Organic food production reduces erosion. Organic crop production methods do not foresee elimination of all vegetation except for crops. As a result, more soil is covered with vegetation preventing the wind to carry away the topmost fertile soil layers.

Despite the lack of scientific studies and existence of a few which even deny the environmental benefit of organic food production, there is no doubt about which food production method causes the greatest harm to the environment. The fact alone that organic farming methods strictly forbid the use of all synthetic chemicals is enough to reject allegations about organic food production not being any more environmentally friendly than the conventional farming practices. The effect of pesticides and artificial fertilizers have been scientifically proven seriously damaging to both environment and human health. Pesticides do not only kill pests but beneficial mammals and birds. But their effect on the environment does not end here. Pesticides and fertilizers penetrate deep into the soil reaching the groundwater which is the main source of drinking water in many parts of the world including a large part of the UK.

Organic food production is by some accused to use more land to produce equal amount of food. This may be true but unlike conventional agriculture, organic farming is significantly less disturbing for the environment because it often supports the local wild life rather than stripping it of its natural habitat.

Infact, many organic farmers' encourage wildlife species such as birds, bats and other predatory animals to live on their farm land and assist them in pest control.

Conclusion

Organic food provides a variety of advantages and nutritional value for human health. 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 less when they eat only organic foods. In addition: organic produce contains fewer pesticides. Pesticides are chemicals such as fungicides, herbicides, insecticides. These chemicals are widely used in conventional agriculture and residues remain in and on the food we eat. Organic food is often fresher. Fresh food tastes better. Organic food is usually fresher 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 conserve water, reduce soil erosion, increase soil fertility, and use less energy. Farming without pesticides is also better for nearby organisms and small animals as well as humans who live close to or work on farms.

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 the living organism 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. 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.

References

- [1]. Gills-Eric Seralini, Emiie Clair, Robin Mesnage, Steeve Gress, Nicolas Defarge, Manuela Malatesta, Didier Hennequin, Joel Spiroux de Vendomois. Longterm toxicity of roundup herbicide and a roundup-tolerant genetically modified maize. Food and chemical toxicology. August 2, 2012. doi.org/10.1016/j.fct.2012.08.005.
- [2]. Steve Meyerowitz. Are organic foods more nutritious? (Last accessed 2019-04-8)
- [3]. Charlotte Gerber. How do pesticides kill bugs? (Last accessed 2019-04-8)
- [4]. Union of Concerned Scientists. CAFO's Uncovered.2008. (Last accessed 2019-04-8)
- [5]. Heidi Stevenson. Virulent E. coli: A gift from agribusiness. June 18, 2013.(Last accessed 2019-04-8)