ORGANIC VALLEY
Family of Farms

organic Q&A

TRUE or FALSE

1. *Natural is the same as organic.*
2. *Pesticides do not harm human health.*
3. *Organic farming restores and enhances healthy soil, producing healthy plants, animals, and humans.*
4. *Organic consumers commitment to organics remains high despite rising cost of food and gas.*
5. *Organic food can feed the world.*
6. *Organic costs less than conventionally produced food.*

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1. Natural is the same as organic. **FALSE**

"Natural" is not the same as organic, and is one of the most misleading label claims.

U.S. Food and Drug Administration has no solid legal definition for "natural" - it is restricted to products containing no artificial or synthetic substances, such as color additives and flavor.

USDA organic seal is a consumer's assurance that the product has been produced in compliance with the strictly enforced rules of the USDA organic system of production and certification:

- Organic farms and production facilities are inspected annually by 3rd party certification agencies.
- Organic food is produced without antibiotics, synthetic pesticides, herbicides, fertilizers, or growth hormones, genetic engineering, radiation, or sewage sludge.
- Organically-raised livestock must be given 100% organic feed and have access to the outdoors or pasture.
- When you see the "USDA Organic" seal on the label, you can trust that the product is at least 95% organic.

2. Pesticides do not harm human health. **FALSE**

Studies such as the examples below show that pesticides can have various damaging effects on human health:

- Males with mothers exposed to pesticides had decreased hormone concentrations, including testosterone and inhibin B, and reduced sexual organ growth.[1]
- Pesticides also impact the bodies of children with increased organophosphate levels. Dietary intake of organophosphate pesticides represents the major source of exposure in children.[2]
- A final urine assessment of children divided into two groups, one eating organic and the other conventional, for three days showed that children eating conventional diets had pesticide levels about six times higher than the organic group. This number exceeds the EPA's level of pesticide safety. The children fed organic diets had a negligible amount of pesticide levels via the same standards.[3]
- Glyphosate-based herbicides kill human placental cells when produced in a lab culturing at one-tenth the concentration recommended for field use. Additional adjuvants in pesticides can enhance availability of the glyphosate-based herbicide and contribute to bioaccumulation.[4]

3. Organic farming restores and enhances healthy soil, producing healthy plants, animals, and humans. **TRUE**

Soil health lies at the root of organic agriculture, which over time results in enhanced nutritional density in the plants grown on it. The four main components of soil quality are farming methods, crop rotation, pesticide use, and watering.

- Crop rotation allows for soil to restore its nitrogen and organic components, enhancing water filtration, and carbon sequestration to help fight global warming.[5]
- Decreased tillage and compost add more organic materials from plants and animals.
- Scientists have found fewer plant deficiency diseases in soil with a higher organic content.[6]
- Biodiversity is preserved, as the land itself is fit to support various life forms.

4. Organic consumers commitment to organics remains high despite rising cost of food and gas. **TRUE**

The number of people who occasionally eat organic jumped from 34% in 2000 to 42% in 2008.[7] Reasons cited emphasize reduced risks of toxic exposures, and increased nutritional density.

- Pasture-based organic cows produce milk with higher levels of omega-3 fatty acids.[8,9,10] By organic standards, cows must have pasture access and farmers must maintain ecological balance via proper pasture management.[11]
- Levels of conjugated linoleic acids (CLA) have also been shown to be higher in cows' milk from pasture-based organic producers.[12,8,10]
- Mothers with a high proportion of organic dairy intake have higher levels of rumenic acid in their breast milk.[13] Rumenic acid is responsible for most of the health benefits of conjugated linoleic acids (CLA) in pasture-based milk and meat.[14]
- Organic pasture-based beef offers an optimal 2:1 ratio of omega-6 to omega-3 fatty acids, whereas primarily grain-fed beef can have an omega 6 to omega 3 ratio of 20:1.[14]
- Organic milk has been shown to have a lower omega 6 to omega 3 fatty acid ratio compared to conventional milk.[9]
- Antioxidant levels are, on average, 33% higher in organic food.[15]
- New evidence is emerging that suggests organic, plant-based foods contain more nutrients than conventional foods. In a recent study, 8 of 11 nutrients were shown to be more prevalent in organic, plant-based foods than in their conventional counterparts.[16]

5. Organic food can feed the world. **TRUE**

- Long-term research conducted at Iowa State reveals that in three years, organic crop yields were equal to conventionally managed crop yields, surpassing them in the fourth year.[16]
- A recent University of Michigan Study documents that merely bringing international yields up to today's organic yield levels could increase the world's food supply by 50%[17]
- Crops grown on organically managed soil show dramatically better performance under conditions of stress such as drought or pest infestations.
- As noted in a recent UN Food and Agriculture Organization report, organic agriculture promotes food security through local production and distribution, reducing dependence on oil, new and untested technologies such as genetic modification, and exportation.[18]
- Prohibition of GMO's in organic farming increases biodiversity, thus protecting against the insecurity of monocrop agriculture.

6. Organic costs less than conventionally produced food. **TRUE**

- Because organic foods grown in healthy soil have been shown to be significantly more nutrient dense, pound for pound, they represent a superior health and nutrition value.
- Most conventionally-produced foods do not represent their "full cost" of production – ie. ecological costs, the demise of family farms, and loss of rural communities.[19]
- In developing countries, farmers cannot afford to purchase expensive inputs such as synthetic inputs and genetically modified seeds, on which conventional agriculture is highly dependent.
- Conventionally-produced foods don't pay for negative costs associated with pesticide use and soil erosion. U.S. public health costs of pesticide use are calculated at approximately $1.1 billion per year, based only on acute poisonings plus associated illnesses and cancer.[20,21] Other human and social costs associated with pesticide use include negative effects on neurologic, respiratory and reproductive systems.[22]
- The estimated annual costs of public and environmental health problems associated with soil erosion exceed $45 billion.[22]

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